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Learn something new in every issue

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## DITCH YOUR CHARGER

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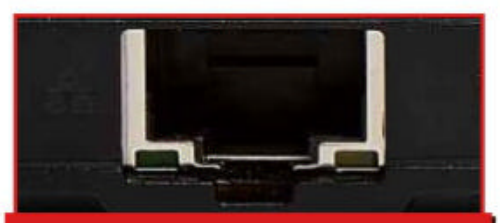
☑ Smarter audio ☑ Better video ☑ Faster data

eSATA



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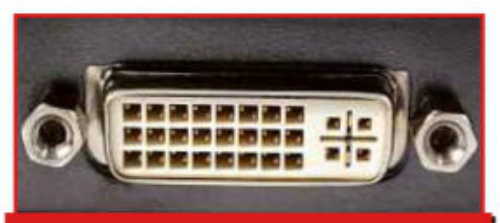

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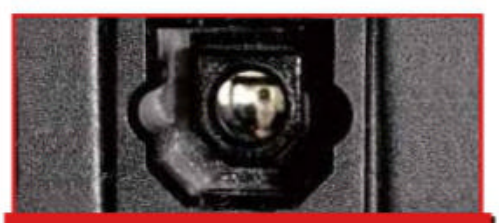

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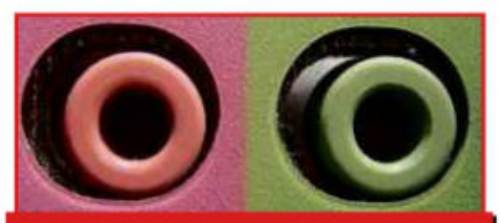

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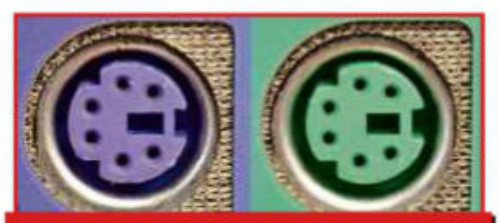
HDMI



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# HACK YOUR BLUETOOTH

7 secret ways you should use it page 62

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# WELCOME

# From the Editor

We're not meant to get excited about ports. The tech industry wants us to develop unhealthy obsessions with phones, smartwatches, gaming consoles and foldable doo-dahs, but I have a hunch that many of you are more interested in those mysterious holes dotted along the back and side of your computer.

That said, up to USB-C, computer ports were asymmetrical beasts resembling grimacing mouths or eyes that refuse to blink. They were ugly and intimidating. But USB-C's reversible design is a thing of beauty. It's just dawned on me that I actually get *pleasure* from connecting it to my laptop.

But, ahem, enough of my Freudian nonsense. Will Stapley is far more pragmatic in his excellent Cover Feature, explaining what every port is used for – splitting them into audio, video and data – and the best ways to use them, going beyond the obvious. For true port connoisseurs, the photo spread on pages 50-51 will delight and captivate. Does anyone else have a favourite?

**Daniel Booth**
**editor@computeractive.co.uk**

## THIS ISSUE IN NUMBERS

**50GB**
Maximum size of Outook's email database – *p64*

**333 million**
Number of transistors per square millimetre in IBM's new 2nm processors – *p49*

**7 mins, 40 seconds**
How long Virgin Media customers have to wait on the phone to speak to someone – *p8*

## 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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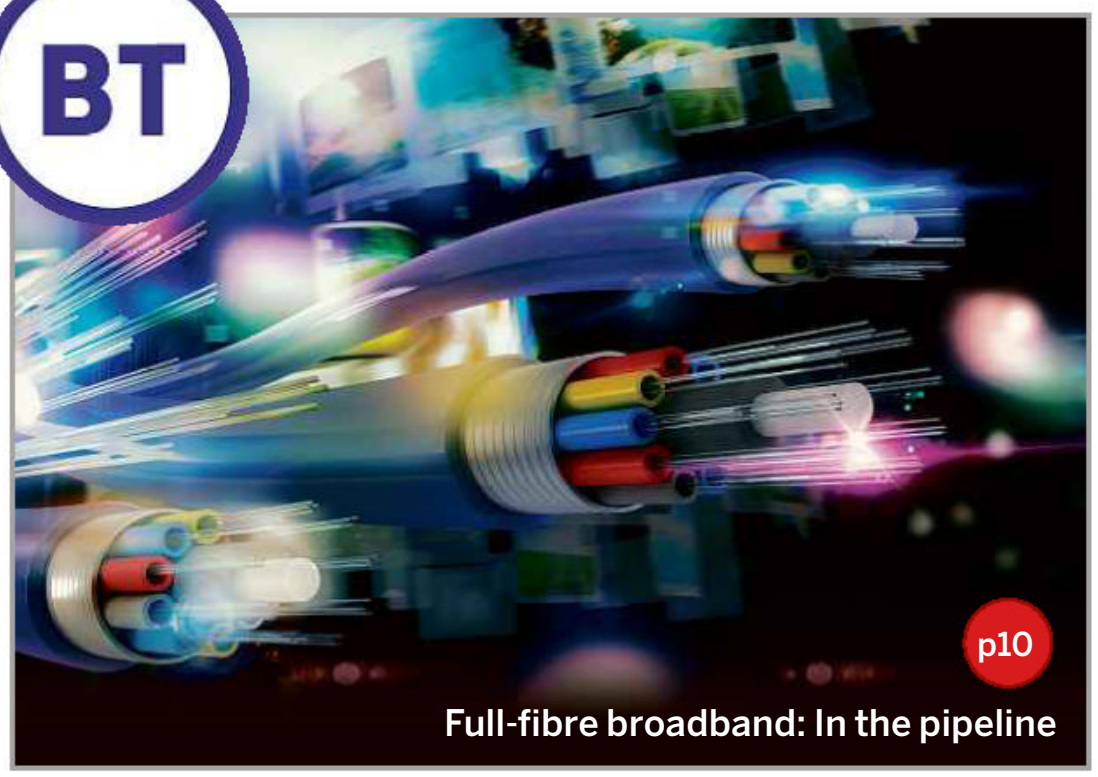

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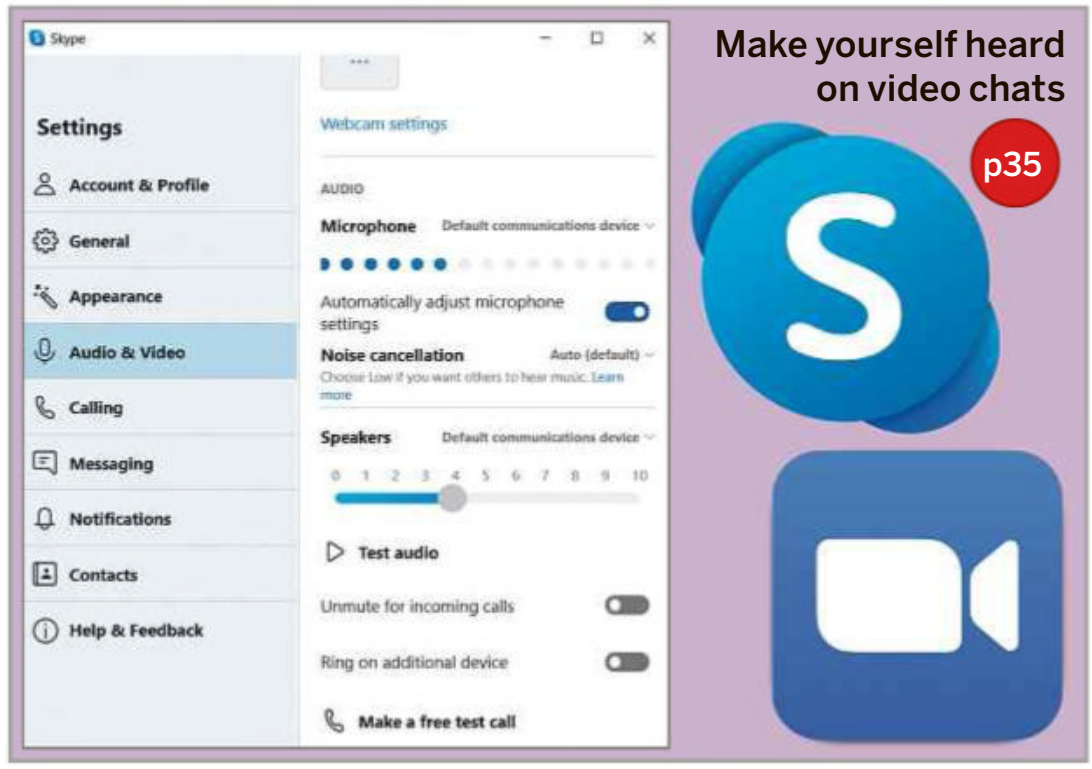



Make yourself heard on video chats

p35

# MASTER YOUR PC PORTS

Learn brilliant new ways to use all of them
☑ Smarter audio ☑ Better video ☑ Faster data

COVER FEATURE P50

# Hack Your Bluetooth

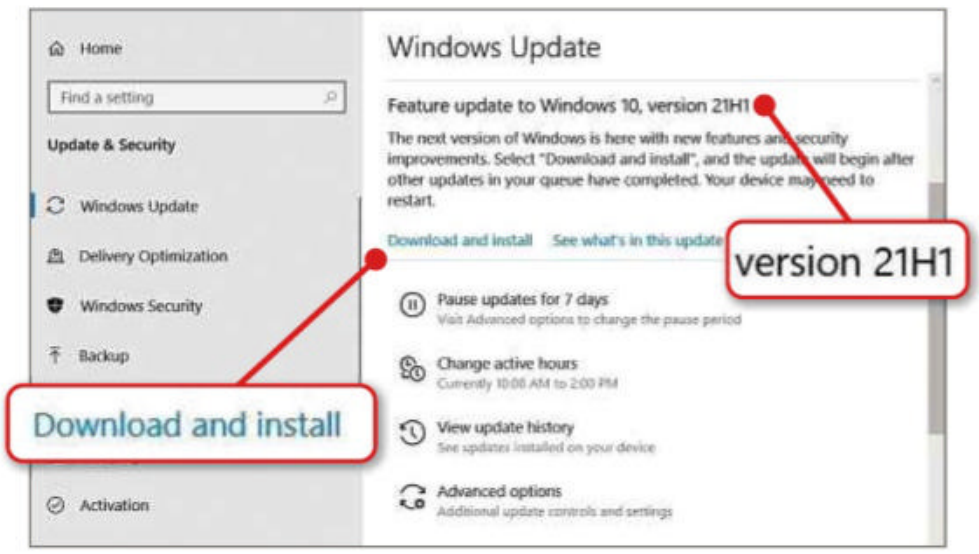
Give Bluetooth more to bite on p62

# Microsoft fixes high-pitched wail in new 21H1 update

Microsoft has fixed a problem with the new Windows 10 Feature update that was causing a high-pitched noise when running certain programs.

The glitch was in the 21H1 Feature Update, which Microsoft released on 18 May. It also affected both Feature updates that were released in 2020, named 2004 and 20H2.

Microsoft acknowledged the bug in its 'Known Issues' page (www.snipca.com/38364), saying it was affecting 5.1 surround-sound audio on computers. If you have an HDMI port, then you'll be able to play 5.1 audio through speakers such as the Razer Leviathan (£165 from Amazon: www.snipca.com/38376).




## WHAT WE THINK

**Feature updates are normally more likely to produce deep rumbling groans than high-pitched beeps, so at least Microsoft is keeping us on our toes. Thankfully, it quickly fixed this bug, and in any case not too many people were affected. More significant is Microsoft's confirmation that Windows 10X will never find its way on to your desktop. It's the right decision. We don't need a stripped-back version of Windows; we just need a system that's easy to use and can be tweaked to individual tastes.**

### Hello camera, goodbye roaming

The 21H1 version of Windows 10 is one of the smallest Feature updates since the operating system was released in 2015. Its only significant new feature relates to Windows Hello, which is Microsoft's biometric system for letting you sign in with your fingerprint or face.

From now, it will by default use an external camera to sign you in (if you have one attached), rather than a built-in camera. You can switch this in Settings if you don't like it.

Microsoft has 'deprecated' (stopped developing) some features in this update – to see these visit www.snipca.com/38365 and look for 21H1 in the column on the right. It includes 'Personalization roaming', which lets you synchronise your wallpaper, slideshow, desktop colours and lock-screen images across different computers. It'll still work for now, but Microsoft will probably remove it in a forthcoming update.

### How to install 21H1

Microsoft hasn't yet started to automatically install the update on computers. Instead, it's making it available to users it describes as "seekers" – in other words, people who want to manually install the update. To do this, you need to open Settings (Windows key+I), then click 'Update & Security' followed by Windows Update on the left.

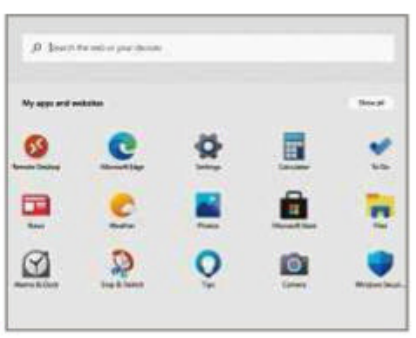
Next, click 'Check for updates' in the middle and wait to see if you're given the option to 'Download and install' the update (see screenshot above). You'll need to be already running either Windows 10 2004 or 20H2.

If you don't see the option to install 21H1, it's probably because Microsoft doesn't consider your computer to be ready for it yet. As usual, it's staggering the update so computers likely to install it without problems will receive it first. It makes the update available to install only when it's "confident you will have a good update experience".

Reports from users online suggest the installation is fast and smooth, which is to be expected given its small size.

## WINDOWS 10X IS OFFICIALLY DEAD

Microsoft has confirmed that it has officially scrapped plans to launch Windows 10X, following rumours online. The system was meant to offer a faster-booting, streamlined version of Windows, with fewer programs and a slimmer Start menu (pictured). However, it has now decided that Windows 10X shouldn't be aimed at a "subset" of users, and its best features will instead be added to the full version of Windows 10. Read more on Microsoft's blog: www.snipca.com/38366.



***You'll like this...***
Apple is adding sign language to iPhone and iPad support (www.snipca.com/38362)

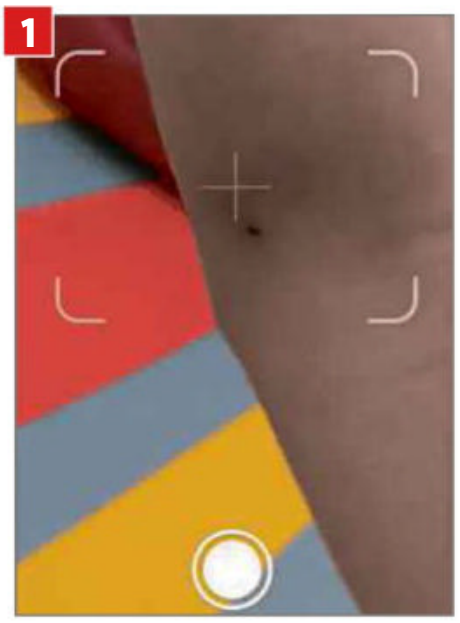
***but not this...***
Sky hasn't been sending out-of-contract alerts to TV customers (www.snipca.com/38363)

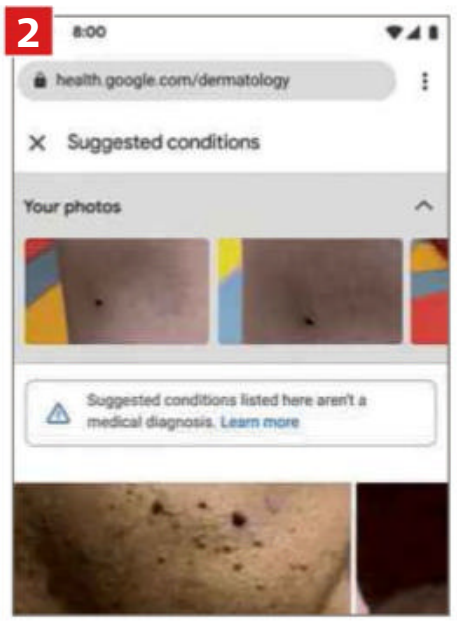
# Google's new AI tool will help identify skin conditions

Google plans to release a tool that tries to identify skin, spot and hair conditions based on photos of your body that you take with your phone's camera.

The 'dermatology assist' tool uses artificial intelligence to compare the image with photos on its database. Google said it can recognise 288 skin conditions, but added that it's not a substitute for medical diagnosis and treatment.

Google explained how it works in its blog (www.snipca.com/38346). When you take a photo 1, Google will analyse it and then show matching images 2 to help you identify what the condition might be. It will also provide information from skin experts and answers to commonly asked questions.




The tool – due to go live later this year – took Google three years to build, and is based on its previous tools for spotting the symptoms of certain cancers and tuberculosis.

It said that each year there are more than 10 billion searches on Google related to skin, nail and hair problems.

## TURN STILL PHOTOS INTO ANIMATIONS

The Google Photos app will soon be able to combine two similar photos taken with your phone's camera into an animated shot. It works by analysing two "nearly identical" shots and filling in the gaps with new frames. Visit Google's blog to see this in action, and for details of more new tools – including a Locked Folder for securing private photos: www.snipca.com/38349.

# Increase your home phone signal with new boosters

You may soon be able to buy a wider range of devices to boost your phone signal indoors under new Ofcom proposals.

In 2018 the regulator authorised the use of 'indoor mobile repeaters' – sometimes called 'signal boosters' – without a licence, provided they met specific technical requirements.

Until then, it was illegal to use a repeater that wasn't approved by a mobile firm because they can interfere with other networks used by people nearby.

However, at the moment only the Cel-Fi products from US firm Nextivity (www.signalboosters.co.uk) meet Ofcom's standards. Its Cel-Fi Prime model (pictured), which is designed for flats and small homes and works with EE and Three only, costs £580. The Cel-Fi Solo model, for larger homes, costs £1,249 and works with EE, O2, Three and Vodafone.

The regulator hopes that making more models available to buy will boost competition and drive prices down. It also plans to make it easier for people to see which products meet the criteria.

Announcing the proposals (www.snipca.com/38355), Ofcom said that a good mobile signal is becoming more important because banks and credit-card companies are increasingly sending two-factor authentication codes to phones in order for people to confirm purchases and transactions

It pointed out that some mobile signals can be affected by thick stone walls and slate roofs, as well as glazing and materials used for insulation. It will now consult with interested parties until the end of July before making a decision.

You can check which networks cover your areas by using Ofcom's postcode checker: www.snipca.com/38353.

## IN BRIEF

### EBAY NOW PAYS INTO BANK ACCOUNTS

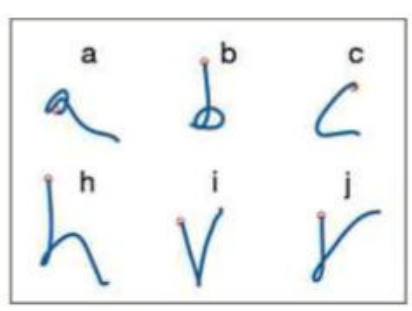
EBay is now paying sellers directly into their bank account rather than PayPal, and taking fees at the point of sale rather than in a monthly invoice. The new system, which began on 31 May, charges sellers 12.8 per cent of the final value fee (including delivery), plus 30p per order. PayPal will no longer take a cut, leaving sellers fractionally better off. Buyers can still use PayPal to purchase items.

### 77 MORE AREAS TO DITCH COPPER PHONE

Openreach has named the next 77 UK exchanges where it will replace the old copper-based analogue phone service with a VoIP network. Download a spreadsheet of locations by visiting www.snipca.com/38315, then look for places in column E marked '29-Apr-22' – which is when the copper service will be switched off. It brings the number of exchanges named to 297, covering 2.9 million homes and businesses.

## TOMORROW'S WORLD

This spidery alphabet was created by a computer decoding the thoughts of a disabled man with a brain implant. He imagined writing on paper, and the computer did the rest. It's the remarkable work of researchers at Brown University in Rhode Island. Watch it being demonstrated at www.snipca.com/38326.



## IN BRIEF

### ROYAL MAIL TESTS DRONES IN SCILLY ISLES

Royal Mail is testing drone deliveries from the UK mainland to the Isles of Scilly, in the first trial of its kind. Parcels will be flown by a drone (pictured) that can carry up to 100kg of mail at a time, which is about the size of a typical delivery round. If successful, drones might be introduced in other remote areas of the UK.

### USE 64BIT ONEDRIVE FOR LARGER FILES

Microsoft has fully launched a 64bit version of OneDrive, which uses more processing power and memory than the 32bit version to transfer large files faster. It was announced in April, but is only now available to everyone. Microsoft said it will "silently update" all 32bit versions to 64bit without users needing to do anything. It will work on 64bit computers only. Read more on Microsoft's blog: www.snipca.com/38235.

### THE WORLD'S GONE MAD!

Homo sapiens have had a good run – 300,000 years or so. But we're now evolving into a new species: the human snail. Such is the view of anthropologists from University College London (www.snipca.com/38236) who studied how people worldwide use their phones and concluded that we're "human snails carrying our homes in our pockets". Sounds like a load of old molluscs to us.

# Virgin customers left hanging on the phone for longer

Virgin customers suffer the longest wait when phoning to speak to an assistant, Ofcom has found.

On average in 2020 Virgin Media customers waited seven minutes and 40 seconds, while Virgin Mobile customers were left hanging for six minutes and 44 seconds.

EE had the shortest average waiting time, with one minute and 15 seconds (see box for all the major broadband providers).

Virgin Media said the pandemic had forced it to change how its call centres worked.

"We're proud of how we rose to this challenge," the company said, adding that it recognises "there's room for improvement". It claimed that increased investments in customer service had created 1,000 more roles in the UK last year.

The results come from the regulator's annual Comparing Customer Service research, which compares how the major providers performed last year. It found that broadband and landline customers waited on average four minutes and nine seconds to speak to someone, while mobile customers waited two minutes and seven seconds.

This was reflected in the customer-satisfaction ratings, with 90 per cent of mobile customers saying they're happy with their service, 10 per cent higher than broadband customers.

Similarly, 26 per cent of broadband customers had a reason to complain about their service compared with just 10 per cent of mobile customers.

Lindsey Fussell, Ofcom's network and communications group director, said most companies had "adapted well" to rising demand during the pandemic.

However, she acknowledged that some have "struggled with customer service problems", and challenged the telecoms industry to become "the gold standard for customer service".

**WAITING TIMES**

- **Virgin Media** 7mins 40s
- **Plusnet** 4mins 52s
- **BT** 3mins 28s
- **Vodafone** 3mins 25s
- **Sky** 3mins 21s
- **TalkTalk** 1min 46s
- **EE** 1min 15s

How long do you have to wait on hold? Let us know: letters@computeractive.co.uk

# Ofcom to remove unsafe eBay items

EBay is letting regulators remove unsafe items being sold on the site without having to consult with it first.

It said officials will be able to take down listings "where they have evidence of a risk to consumer safety" in order to speed up the removal of "illegal or unsafe items".

UK regulators already signed up to eBay's new Regulatory Portal include Ofcom, Westminster City Council Trading Standards and the Office for Product Safety and Standards, with more expected to join soon. More than 50 watchdogs around the world are involved.

For years investigators have complained that eBay doesn't do enough to remove items that pose a danger to the public. Officials have repeatedly found unsafe batteries, toys and electrical appliances being sold on the site.

Lesley Rudd, chief executive of charity Electrical Safety First (www.electricalsafetyfirst.org.uk), welcomed the move, but said online marketplaces like eBay "must be legally recognised as a retailer" so they're required to prevent the sale of substandard products just like high-street shops are.

EBay added that the new scheme is in addition to its own "extensive reporting system and proactive efforts to remove prohibited items and enforce its existing policies". Read more on its site: www.snipca.com/38233.

# Report broadband damage using three-word grid reference

You can now use What3words to report the exact location of damaged broadband cabinets, telephone poles and overhead wires across the UK.

Openreach has teamed up with the website, which divides the whole planet into 57 trillion three-metre squares, giving each a unique three-word code.

For example, Openreach's London headquarters is recorded as 'lock.factor.tall', while Dennis Publishing, home to *Computeractive*, is 'fuels.rods.bolts'.

You can find your own code by visiting https://what3words.com, then typing your address in the box at the top left, pressing Enter, then selecting the correct suggestion (see screenshot).

Writing online, Openreach said What3words will prove especially useful when customers need to report problems in hard-to-reach and rural areas, helping its 35,000 engineers pinpoint the location.

The easiest way to get a code is through the app (www.snipca.com/38250). Once you're in the correct location, just tap your system's icon: a target in Android; an arrow pointing top right in iOS. It works even if you don't have a phone signal.

Peter Stewart, Openreach's UK operations director for service delivery, said: "Many of our poles and overhead wires are in areas with no easily identifiable features nearby, so it can be tricky for people to report exactly which pole has been knocked over or which overhead wire is damaged".

He added that the public can also report damage on Openreach's website (www.snipca.com/38251), through social media (Twitter: https://twitter.com/OpenreachHelp; Facebook www.facebook.com/WeAreOpenreach), or by calling 0800 023 2023 and selecting option 1.

What3words is also being used by 100 UK emergency services, including mountain-rescue teams, to find people needing help. However, it has faced criticism from some rescuers who say it doesn't always give accurate results.

# Govt to send emergency texts for floods and terror attacks

The Government is to start sending emergency text messages to phones to warn people about events that pose a risk to life, such as floods, fires, industrial accidents and terror attacks.

They'll contain information on the incident and the area affected, as well as advice on what to do and a link for more details.

A first trial held in east Suffolk on 25 May, when residents received a test alert, will be followed by another in Reading on 15 June. If successful, the system will be implemented across the UK.

It uses cell broadcasting technology, which sends messages to phones in a specific area without knowing their phone number. The Government said this makes the messages "secure, free to receive, and one-way", and is not a threat to personal privacy. It added that the alerts don't collect any personal data and don't reveal your location.

Cabinet Office minister Penny Mordaunt called the system a "vital tool in helping us to better respond to emergencies", and claimed it will "allow authorities to more quickly and effectively get life-saving messages to people".

She said the Government was working with the administrations in Northern Ireland, Scotland and Wales to give all emergency services access to the system.

Charities will also be consulted to ensure "the needs of the elderly, vulnerable, young people and those with disabilities are fully considered".

You'll be able to opt out of some alerts through your phone's settings, though the most important messages will always get through. During the Covid pandemic, the Government sent texts to remind people to stay at home.

## IN BRIEF

### CURRYS TO LOSE 'PC WORLD' NAME

All Currys stores will lose the PC World and Carphone Warehouse names from October in a major rebranding exercise announced by parent company Dixons Carphone. It means all 300-plus stores will simply be called Currys, while it will appear also on staff uniforms and delivery vans. Alex Baldock, head of Dixons Carphone, called the change "a gearshift, not a facelift".

### AUDACITY WON'T TRACK HOW PEOPLE USE IT

Audacity has scrapped plans to track how people use the audio-editing program – a process called telemetry. Muse Group, which bought Audacity in May, had said it would add telemetry in a forthcoming update, triggering a furious reaction from users worried about privacy. Muse Group responded a few weeks later by apologising for "causing so much alarm", and said it would look at "alternative solutions" (read its full statement at www.snipca.com/38303).

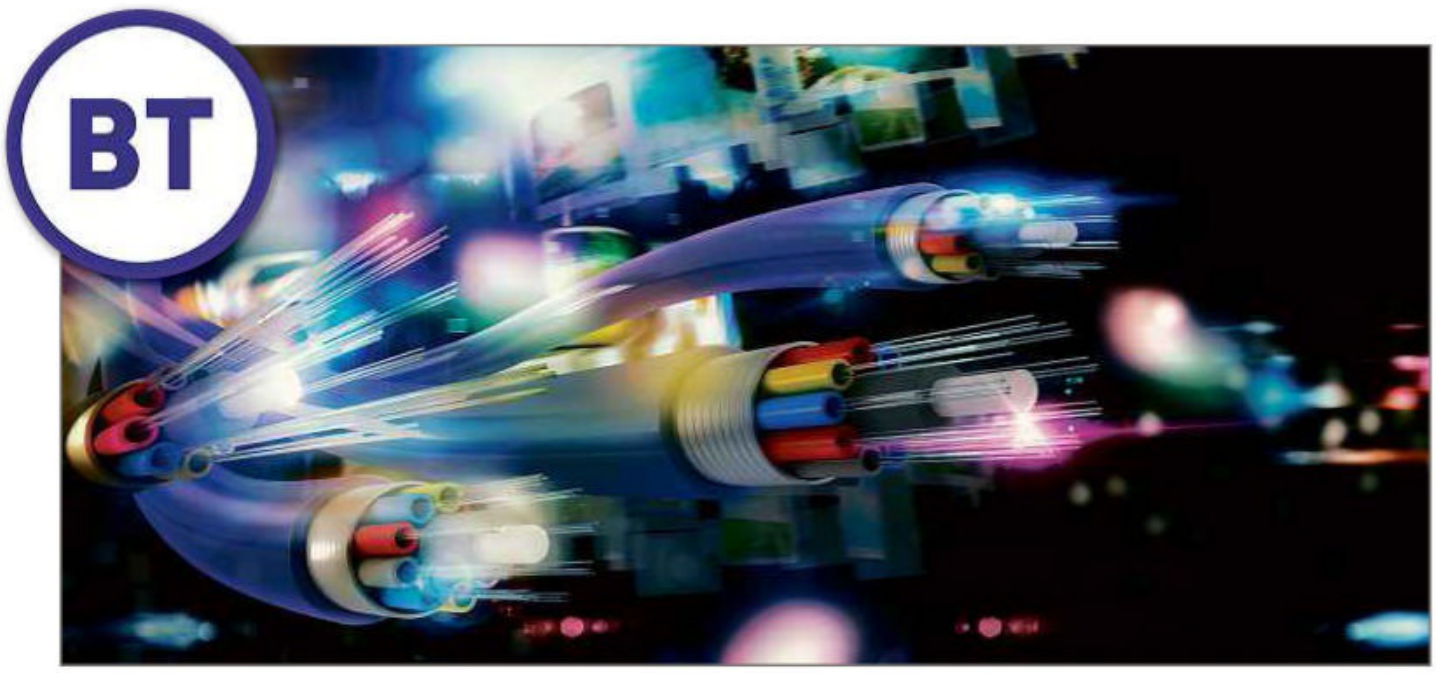
### YOUTUBE TELLS YOUNG TO GET VACCINE

YouTube is encouraging under-35s to get the Covid vaccination when it's their turn. It's spending millions on a joint advertising campaign with the NHS to promote the benefits of the jab. The 'Let's Not Go Back' campaign will feature "light-hearted" messages and videos aimed at the 98 per cent of 18-34-year olds who watch YouTube regularly.

# Question of the Fortnight

## Will you get full-fibre broadband sooner than expected?

BT has set itself tougher new targets following recent rule changes




**THE FACTS**

- BT now aims to deliver full-fibre broadband to 25 million homes by 2026, rather than 20 million by the "mid-to-late-2020s".
- It's spending £15bn on the project and claims it could create 7,000 jobs.
- More than 4.6 million homes and businesses can already get full-fibre broadband through Openreach's network.

There's still plenty of debate – not least on our Letters page - about whether people actually *need* Gigabit broadband. Speeds of 1Gbps (1,000Mbps) appear excessive to many who happily get by on 30-50Mbps, while they must seem like a cruel joke to the 650,000 homes stuck on a single-digit connection.

> "It's a shot in the arm for the UK as we build back better from this pandemic"

But whatever the public demand, Gigabit broadband is coming – and you might be able to get it sooner than you thought. This is because BT has said it now plans to deliver full-fibre connections – that's all the way to your doorstep, not just ending at the street cabinet – to 25 million homes by 2026, creating 7,000 jobs in the process. That's a big jump from its previous target of 20 million homes by the "mid-to-late 2020s", and will cost £15bn, up from £12bn.

It gives three main reasons why the "conditions are right" for this move. First, and probably most important, telecoms regulator Ofcom decided in March not to impose price caps on what BT subsidiary Openreach can charge other providers – like Sky, TalkTalk and Vodafone – to use its cable network.

BT didn't disguise its delight at Ofcom's ruling. Its boss Philip Jansen said it was "the green light we've been waiting for to get on and build like fury", and that the resulting network broadband will be "a shot in the arm for the UK as we build back better from this pandemic".

This news came on the back of Chancellor Rishi Sunak announcing in the budget a scheme to allow firms to tax-deduct up to 130 per cent of the costs of factories and equipment. BT said this would significantly cut its tax bill, creating the right incentives to invest. The final reason was the BT-owned network EE winning a large slice of the auction for the 5G spectrum in April.

On top of this, BT is seeing "encouraging take-up" of full-fibre, having made it available to 1.9 million homes and businesses in the past 12 months, taking the total to 4.6 million. That means it will need to add roughly four million a year to hit the new target of 25 million by 2026.

The providers who use Openreach welcomed the news, having previously criticised BT for dragging its feet. But TalkTalk surely spoke for them all by saying that the announcement "shouldn't hide the fact that the UK lags far behind other European nations in rolling out full fibre".

This was reflected in FTTH Council Europe's recent annual report measuring the number of full-fibre subscribers across the continent. For the second year running it placed the UK third bottom, above only Austria and Belgium, with just 3.7 per cent of households signed up to full-fibre (Iceland and Belarus top the table - see www.snipca.com/38263).

But there's better news from Ofcom on the UK's average speed, which rose from 64Mbps to 80Mbps in the 12 months to November 2020.

To hit its new target, BT will have to focus more on villages and market towns (most big cities are already covered), such as the 27 named in May - including Leven in Fife, Soham in Cambridgeshire and Newbridge in Gwent.

To see the others, download Openreach's list from www.snipca.com/38262 (scroll to the bottom for the link), then look for 'Apr-21' under the Publish Date column. The list also contains the other 760-plus locations named so far. If yours is there, you can start thinking about that Gigabit upgrade now.

# Protect your tech

Scams and threats to avoid, plus new security tools

**WATCH OUT FOR...**

## Fake Amazon, Argos and Asda texts

### What's the threat?

Mobile-phone networks have warned about a second wave of the fast-spreading FluBot malware that uses fake messages from Amazon, Argos and Asda to give hackers full control of your Android phone (iPhones aren't at risk).

Researchers at the National Cyber Security Centre (NCSC) first warned about FluBot in April (www.snipca.com/38257), saying it was infecting phones disguised as a text from delivery firm DHL (pictured) that asked you to install an app to track your parcel.

The new version of the scam, as highlighted by Three (www.snipca.com/38253), tells you to download a parcel-tracking app, but this time says it's coming from Amazon, Argos or Asda.

Delivery scams are common, but they're mostly phishing attempts to steal details like your email address or phone number. FluBot is more serious because it installs malware on your device, letting the hackers steal passwords and other sensitive information, including banking details. It also accesses your contact details in order to send the scam to more people, further spreading the malware.

### How can you stay safe?

Delivery scams are so prevalent that you should always assume any text is fake. To track DHL deliveries visit https://track.dhlparcel.co.uk. If you receive the scam, delete it without clicking the link. If you've clicked the link but haven't downloaded the app, again just delete the message.

More drastic action is needed if you have installed the app. You'll have to perform a factory reset to remove the infection, but make sure you don't enter your password before doing so, or log into any accounts. If you don't know how to do this, follow Google's instructions at www.snipca.com/38256. It provides links to your manufacturer's site, which you might have to visit for specific advice.

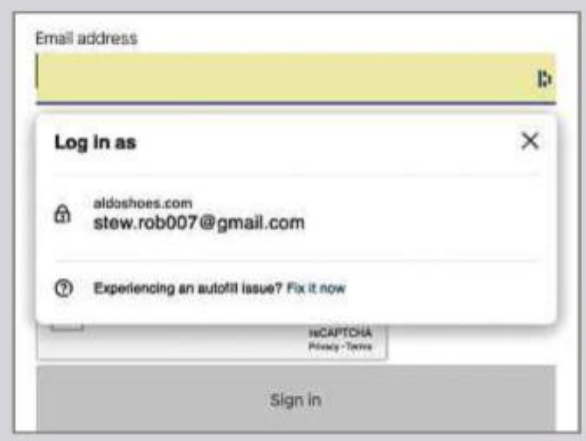
## New tools | Dashlane's Essentials package www.dashlane.com

LastPass ending free syncing across computers and phones was great news for rival password managers, which have come up with eye-catching packages to tempt people to switch.

Dashlane's response is an Essentials plan that offers some features previously found only in its Premium package: unlimited passwords (the Free package limits you to 50), autofill (see screenshot), and Secure Notes for storing private text.

What it *doesn't* do is let you sync passwords on more than two devices – but at $23.88 a year (about £16.80), it's around £7 cheaper than Premium. Compare all the packages, including Family, at www.dashlane.com/plans.

Overall, we still prefer Bitwarden (www.snipca.com/37640 – see Issue 603, page 38), which syncs passwords




across unlimited devices for free, and lets you share with one other person. But the Essentials plan is a good choice if you're an existing Dashlane Premium customer and want something cheaper. If you're interested but not sure, try it month by month without committing to a year – this costs around £1.75 a month. Read more on Dashlane's site: www.snipca.com/38333.

## ScamWatch
**Readers warn readers**

### Not sucked in by Dyson win

I get so many scams supposedly from Royal Mail and DHL that they've become boring now, but one that did surprise me recently claimed to be a message from Currys PC World congratulating me on winning a new Dyson hoover. All I had to do was "participate" in a "Loyalty Program" (whatever that was) and pay £1 to cover delivery cost. Very suspicious! It also wanted my credit-card details. I haven't shopped in Currys for years, and hardly ever enter competitions, so I knew it was a scam. The email was quite convincing though, with the genuine Currys logo.

**David Reece**

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

# Letters

Tell us what's on your mind

## Councillor should've been offered help to use Zoom

I was saddened to hear about Dennis Baxter being disqualified from his role as a local councillor (Star Letter, Issue 606). Having researched the background to the story, I do wonder whether it could have been easily prevented by following similar measures that my parish council undertook.

We had a councillor who was unable to use a PC, though she was very active in the community. Councillors are disqualified if they go six months without attending a meeting, and given the exceptional circumstances of the pandemic I thought it would be unfair for her to leave her role just because she lacked Zoom skills.

We arranged for her to attend virtually in a parish office using a computer. There was somebody present – observing social distancing rules – to help her operate it. This effectively reset the clock of meetings not attended, meaning that six-month period began again, and allowed her to continue. She was very grateful for this assistance. It seems a shame that Dennis Baxter wasn't also shown this courtesy.

**Ian Thomson**

## Councillors should 'move with the times'

I do have some sympathy for Dennis Baxter, but I don't think it's too much to expect local councillors to have the required computer skills to participate in Zoom meetings. Having that role comes with the responsibility to learn modern techniques of communicating with the public and colleagues. Video calls are now a permanent part of everyday interaction, just like phone calls and emails. You can either accept that and participate, or reject it and be alienated from society.

**Simon Kidman**

## Why do we need 2FA when we have complex passwords?

My heart sank when I read that Google is turning on default two-factor authentication (2FA) for all accounts (Issue 606, page 7). Isn't the whole point of creating complex passwords and using a password manager so you can avoid the annoyance of having to type a code sent to your phone just for the privilege of signing into your account? Otherwise, why bother coming up with passwords like 4$!h@HH7^&V and similar gobbledygook? I've mastered a specific way of creating passwords using random characters precisely so I *didn't* have to search for my phone every few minutes to get a code.

**Matthew Watson**

I was worried to read that Google is to turn on two-factor authentication by default, requiring a 'simple prompt' from a phone. Unfortunately, I can't afford a mobile phone as well as a computer. Also in Issue 606 there was an article saying that Ofcom had noticed that the "UK's digital divide had narrowed during lockdown". Nevertheless, it also stated that 1.5 million homes still don't use the internet. This group is most likely to be the over 65s, people in lower income households and the most "financially vulnerable". I tick every box.

Any advice on how to use two-factor authentication for those of us who choose food before phones?

**Hugh Jenkins**

**CA SAYS** **Google's decision to turn on default two-factor authentication was applauded by security experts, but they're likely to have no problem either using or affording a modern phone. Yes, it does offer a robust second layer of protection, but many people – like Matthew – find it inconvenient or downright annoying to keep checking their phone to sign in, or, like Hugh, are unable to. It would be interesting to hear more views on this subject so we can tailor our advice accordingly.**

## Phones are for pleasure; tumble dryers aren't

Liam Hughes's question in Issue 606 ('Why are phones more interesting than tumble dryers?'), while interesting and provocative, is surely no more than tongue in cheek. He must know full well that the reason people queue overnight for phones but not tumble dryers is that the former are devices designed purely for pleasure. They have inbuilt excitement.

Unless you're a tumble-dryer fanatic, or just *really* love the smell of newly dried clothes, your heart isn't going to pound so enthusiastically. Downloading an app to your phone gives you a tingle of anticipation. You don't get any such sensation opening the door of your dryer and shoving in wet clothes.

This, simply, is why people are happy to spend more money than sense upgrading their phones every few years, while they'll want their tumble dryer – and other white goods – to last for many years.

**David Sandringham**

## Spot our laptop's feeble speaker

When I bought my daughter a Lenovo V110 laptop a few years ago I was disappointed by the quality and volume level of the audio. I put this down to the fact that the speaker was underneath and facing downwards, and so bought her a mini soundbar to use with the laptop.

Recently, I was updating her operating system and other software – generally giving the laptop a spring clean. The audio seemed to be getting even worse, so I removed the bottom cover to check whether the speaker had failed. I was amazed to find that such a feeble speaker had been used (in the photo it's at an angle just to the left of the yellow label).

I realise laptops are meant to be portable and are commonly used with headsets or earpieces, but I feel that having to carry around other items defeats the object. Some manufacturers should make more effort to incorporate better and usable audio.

**David Holden**

## Absurd to penalise people for not spotting scams

In Issue 605, Roy Drever suggested that UK banks should test how security-aware their customers are by sending them a spoof email to see if they are taken in by it. He goes on to suggest their bank could then consider blocking them from online banking.

While there must be a number of individuals who don't understand how to react to spoof emails correctly, it's absurd to suggest that a customer who fails a security test should lose access to their online bank account.

Online banking has not only been beneficial for customers – it has also benefited the banks, who have significantly reduced their presence on the high street. Indeed in many rural areas finding a bank branch is almost impossible.

The way to combat online bank fraud isn't by penalising those who make a mistake and respond to spoof emails, it's by banks investing in better security and by trying to provide their customers with more information about the various ways scammers operate.

My bank, Barclays, has been doing that for some time now and I suspect others do too!

**Douglas McCoy**

## Warn readers not to buy fake USB sticks

I read your great article in Issue 606 (page 60) on which USB stick to buy, but would suggest in future you also recommend readers don't buy fake cheap sticks from the likes of eBay. A few years ago I bought five cheap metal sticks from China via eBay, costing around £5 each for 128GB of storage. But when I started to put some films on them, they crashed after around 2GB was added.

I looked deeper into the problem using a free program called H2testw (www.snipca.com/35365), which showed them as fake! Sadly, certain unscrupulous people abroad had managed to fool Windows 10 into thinking the sticks had 128GB. I immediately informed the seller, and within minutes he replied that he would refund me the whole amount and told me to keep the sticks. Please advise your readers to buy from reputable sellers only, and if something is too cheap to be true (256GB for £5), then it's fake.

**Bill Gillett**

**CA SAYS Bill's right that you should never be tempted by prices on Amazon or eBay that look abnormally cheap. Like Bill, we recommend using H2testw to check – we explained how to do this in Issue 569 (page 38).**

## STAR LETTER

# Cafe realised it was a mistake to ask for phone numbers

I wholeheartedly agree with the recent letters asking why so many shops insist on taking your phone number when you sign up for a service. It brought to mind a strange experience I had with a local cafe that also runs a weekly book group. I had been a member of this group in those distant days before Covid, and always enjoyed the relaxed atmosphere in the cafe. When it reopened last summer, I didn't mind scanning the QR code as was required to track potential cases.

At no point did the cafe ever ask for my phone number, and nor would I have given it had they done so. But recently, as I was grabbing a takeaway coffee, the assistant said that the book club would be restarting in late May, once they were allowed indoor seating again. Great, I thought.

However, she then asked for my phone number so she could confirm my interest. I asked why, and she said it was so they could monitor how many people wanted to take part, and to alert them to new events. She didn't have an answer when I asked why she couldn't send this information by email (I don't mind them having my address). I told her that I never give out my number unless it's absolutely necessary. She didn't seem to understand why I was reluctant, and almost seemed to take offence.

This had a happy ending. A few days later the cafe's manager spoke to me and said that so many people had refused to hand over their number that they've dropped the policy. He now admits it was over the top and didn't realise it would trigger such a negative reaction. He learned a lesson and so, hopefully, have we: the more people refuse to give their number, the more stores will realise they're losing customer loyalty.

**Graham Pearson**

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

## Boiling-liquid tech has been simmering for years

I'm not sure how "groundbreaking" it is that Microsoft is using boiling liquid to keep its servers cool ('What's all the Fuss About?', Issue 605, page 49). I worked in 1971 for ISC Chemical at Avonmouth and can remember visiting many electronics companies (Texas Instruments, Siliconix, IBM, and Raytheon come to mind) who were using and experimenting with our fluids called Flutec to cool microchips.

Over the years computer and chip designers have managed to avoid doing this, having found other ways to cool components, despite the exponential growth in computing power. It has taken only 50 years for this technology to reach this realisation!

The liquids have very interesting properties quite apart from being inert dielectric fluids with good heat-carrying capacity. One interesting characteristic is that they can carry oxygen. I recall pictures of mice immersed in and breathing the liquid, and there was talk of using it in ultra-deep diving applications where the diver would breathe the liquid. It all seemed pretty scary and alien to me. There was even work on using it as artificial blood. Still, let's see what happens in the *next* 50 years.

**David Clow**

# Consumeractive

We stand up for your legal rights

## Do I have to put up with repeated repairs?

LEAD CASE

**Q** Last August, I paid £799 for an Acer Aspire 5 laptop (pictured) from Currys PC World. It was faulty from the start, so Acer replaced the SSD. However, when they returned the laptop the case was warped. Acer promised another repair, but they stopped replying to my emails, so I took up the issue with Currys. It replaced the case but then the laptop kept shutting off. Currys promised me a refund, but instead repaired it again, which I believe was in breach of my consumer rights. Is that correct?

Stewart Moore

**A** Stewart's case is complicated by the fact that he used Acer's warranty for the first repair. Warranties from manufacturers aren't covered by the Consumer Rights Act's (CRA) rule limiting retailers to one repair only, so they can attempt repeated fixes. If after a failed repair from a manufacturer you then approach the retailer, it can legitimately argue that it's still entitled to its one shot at a repair.

However, it could have been worse for Stewart. The laptop case only started to warp *after* Acer's first repair, so Currys could have claimed this wasn't an inherent fault and therefore wasn't covered by the CRA. This would've forced Stewart to continue dealing with Acer.

But by agreeing to repair the case, Currys then became liable for ensuring it was carried out with reasonable skill and care. Although it appears the case was successfully replaced, another fault – repeatedly shutting down – has emerged. Currys can't now claim that because this is a different fault it's allowed to attempt another repair. The one-repair rule applies even if the second fault is unrelated to the first, and whether it's inherent or was caused by a first botched repair.

The only conclusion then is that Currys now owes Stewart a refund. We've contacted Currys and hope it will agree with our verdict.

**CASE ONGOING**

## Can I reject an item that's not as described?

**Q** In September 2020 I bought a hand-held heat press from an Amazon Marketplace seller. I've since found that the listing regarding the maximum temperature was incorrectly described. If I'd known this, I wouldn't have bought it. Do I have any rights?

Miranda Apps

**A** Miranda would have had rights had she contacted the seller sooner. If an item's specifications aren't as described, you can return it for a full refund even if more than 30 days have passed since purchase (the normal period for rejecting goods bought online).

But because Miranda waited eight months to raise the case, the seller could argue that she has in effect accepted the heat press, particularly if she has used it during this time. However, she has a better case if she can prove that she has only just discovered the item doesn't match the description online. If she can show this, she might still get a refund, or possibly damages, which would be money off the price she paid. We've asked her to provide more information on how she recently noticed the item wasn't as described.

**CASE ONGOING**

**CASE UPDATE**

## Currys lets reader spend voucher after expiry date

No matter how messy a case gets, sometimes it can be fixed with a single phone call. That's what we found with Annette Hudson's complaint against Currys PC World (see Issue 606), which hadn't delivered on its promise to extend the expiry date of a voucher issued by Domestic & General (D&G).

She had bought an extended warranty with the company when she purchased a fridge freezer. When it stopped working two years ago, D&G gave her a £249.99 voucher to spend at Currys. However for various reasons she has been unable to spend it, and it eventually expired. Currys understood her situation and said it would extend the deadline, but this never happened.

We suspected this was down to Currys forgetting to contact Annette rather than disputing her request, and so it proved. It didn't take long for us to persuade the company it needed to stick to its word. It has now extended the deadline and Annette intends to buy a replacement.

This was a sensible decision by Currys. It could have argued it wasn't responsible for the voucher and that Annette should ask D&G to extend it. But she could've countered by claiming its verbal promise to extend the expiry date was legally binding. Thankfully, we don't need to go down that route.

Contact us so we can investigate your case

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

# Am I too late for a refund from eBay seller?

**Q** **I bought a gas lighter from eBay, which has turned out to be faulty. The seller said I have no rights 30 days after purchase and told me to contact eBay. I want a refund, but don't know how to contact eBay. Can you help?**

**Michael Oxlade**

**A** There are a few things to unravel here. First, the seller is talking rubbish when they say Michael loses his rights 30 days after purchase. The seller may be referring to eBay's Money Back guarantee, which gives you 30 days to make a claim, but this overlooks the Consumer Rights Act that gives you six years (five in Scotland) to seek redress for faulty goods.

However, even though Michael has missed eBay's deadline, he's actually in a strong position. Because the fault emerged within six months of purchase, he doesn't need to prove it's inherent. Instead, it's up to the seller to prove otherwise.

Michael paid using PayPal, so his next move should be to make a claim through the service, which gives buyers protection for 180 days (www.snipca.com/38230).

He should point out that the seller has already broken the law by not following the correct procedure for refunds.

If PayPal rejects his claim, he should contact us again and we'll get in touch with the company.

**CASE CLOSED**

# Shouldn't you warn that Section 75 doesn't cover PayPal?

**Q** **If your credit card is linked to your PayPal account, you automatically lose any protection offered by Section 75 of the Consumer Credit Act (CCA). I've learned this the hard way because PayPal refuses to help me with a faulty purchase that I paid with my credit card.**

**Shouldn't you remind readers about this when you mention PayPal as an option for paying for goods?**

**Mike Burton**

**A** Mike's correct that if your PayPal payment is taken from your credit card, then you lose the Section 75 protection of the CCA, which guarantees your purchases up to £100. It means that if goods don't arrive, aren't as described, are faulty or aren't fit for purpose, and the seller refuses to put things right, the bank issuing the credit card must do so.

Using PayPal means you've introduced a third party into the transaction, breaking the link between the bank and the seller. This is also the case if you use other payment providers such as Sage and Worldpay.

If you're buying goods that are covered by Section 75, it's worth checking whether the seller uses a merchant service run by a bank. These aren't third-party services, and therefore are covered by Section 75.

**CASE CLOSED**

**CREDIT WHERE IT'S DUE**

# 'Faultless' Unispectra replaced TV within 24 hours

Last October, we bought a new 250v/12v TV from Hampshire company Unispectra (www.unispectra.co.uk) for our motorhome. We couldn't set up the TV at the time because Covid restrictions meant we were unable to use our motorhome, and there was no signal where it was parked for the winter. We simply turned the TV on to check it worked, and left the protective screen cover in place.

When we eventually got away recently and turned on the TV, we noticed thin lines down the screen. I phoned Unispectra to explain the problem. A helpful member of staff arranged to send a replacement, which arrived the next day. She also sent a pre-paid returns label for me to return the faulty unit. I regard this as faultless customer service and feel it should be publicised.

David Kemp

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

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# Grow Your Family Tree

Backing up your work with the original sources lends credibility to your research. Follow **Nick Peers'** advice to...

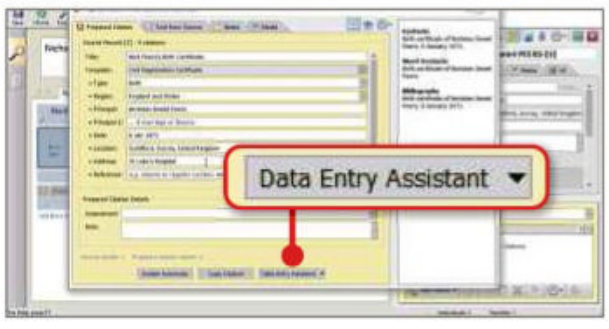
## Add evidence to prove your data

One of the most overlooked aspects of genealogy is providing evidence for the details you add to your tree. Adding sources such as birth certificates and census returns ties in with the Genealogical Proof Standard (read more about this at www.snipca.com/38155), which professional genealogists use to indicate their research can be trusted by others. Here, we'll look at ways to add these sources to your work.

### Use source-driven data entry

As things stand, virtually all family-history programs encourage you to enter facts into your tree first, then attach sources later. The danger of this is that sources become an afterthought instead of being a fundamental part of the process.

A better method is 'source-driven data entry'. This may sound dull, but it forces you to start with the source material, recording everything in it in a consistent manner. You then use this information to generate the facts in your tree, not the other way around. This ensures no valuable information is overlooked and avoids unnecessary duplication.



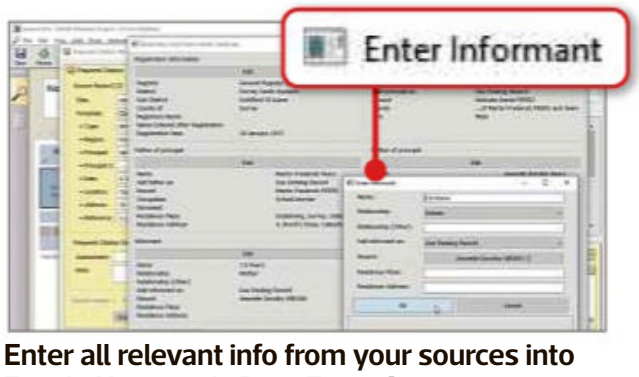

**Fill in all the details from the birth certificate, then click the Data Entry Assistant button**

To use this method, you'll need a program designed to support it – and that means buying the new Family Historian 7 (£59.95 after free 30-day trial, www.family-historian.co.uk, see our review in Issue 602, page 29). It automatically converts the details you enter into the relevant facts, ensuring they're complete, consistent, and linked to your source.

### Link birth certificate to a child

Let's explore the feature using a birth certificate as an example. Start by clicking the Source button on Family Historian's main toolbar and choosing 'Create Source from Template/Prepare Citation...' in the dropdown menu. When prompted, click Yes to add templates that simplify the data-entry process.

When the'Select template for new source record' box opens, select Civil Registration Certificate, then click Create Source. A new 'Prepared Citation' window will appear. Fill in all the details from the birth certificate, then click the Data Entry Assistant button at the bottom (see screenshot below left), followed by Record Birth Data (UK).




**Enter all relevant info from your sources into Family Historian's Data Entry Assistants**

This will open a new template window. Click 'Edit' under Principal to open the 'Enter Principal' window. Your record should already be selected, so click OK. Next, click Edit under Father. Click the 'Name only' dropdown menu and select 'Use existing record', then click the 'Select Record...' button and select the father from the list. Click OK.

Fill in the rest of the form using the father's details as recorded on the birth certificate then click OK. Repeat for the other sections – Mother, Informant (see screenshot above) and Registration Information – to fill in all the information that's recorded on the certificate itself.

Next, click OK to return to the main Prepared Citation window. If you now switch to its 'Text from Source' tab, you'll see Family Historian has created a facsimile of the original certificate using the information you entered (you can also attach a scanned image of the original via the Media tab as further proof). Once that's done, close the Prepare Citation window.

You should see the child's birth date and place have been filled in, complete with a link to the certificate showing this. Select either parent and then click Facts, where you'll see that other information from the source has also been added, such as father's occupation or parents' marital status. These are details that many people overlook when adding facts manually.

## Your **Genealogy** Problems Solved

**I've imported a GEDCOM file from Family Historian into RootsMagic 7, but it doesn't show any primary photos. How do I fix this?**
**Alan Wilton**

You'll need to install the free Export GEDCOM File plug-in for Family Historian (www.snipca.com/38061). It should install automatically once you click the download button and choose to open the file in Family Historian. Next, switch to Family Historian and choose Tools, Plugins, then Export GEDCOM File. Set the 'GEDCOM Export Mode' to '(RMT) Roots Magic Tree' and click the Export button. Import this file into RootsMagic and the primary photos should now appear.

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



**Next issue:** Track down school admissions records

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Impulse

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KOLINK Stronghold
MICROSOFT Windows 10 or 10 Pro

£1249.99

NAVIGATOR

## AMD NAVIGATOR (RYZ8)

AMD Ryzen 5 3600X (O.C 4.3Ghz)
ASUS TUF X570-Plus Gaming
CORSAIR 16GB DDR4 3600Mhz - RGB
INTEL 512GB M.2 nVME 660P
SEAGATE 2TB Sata3 HDD
AMD 5700XT 8GB
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MICROSOFT Windows 10 or 10 Pro

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# Best Free Software

**Will Stapley** recommends new programs that won't cost you anything

**UNINSTALLER**

## BCUninstaller 5.0

www.snipca.com/38373

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

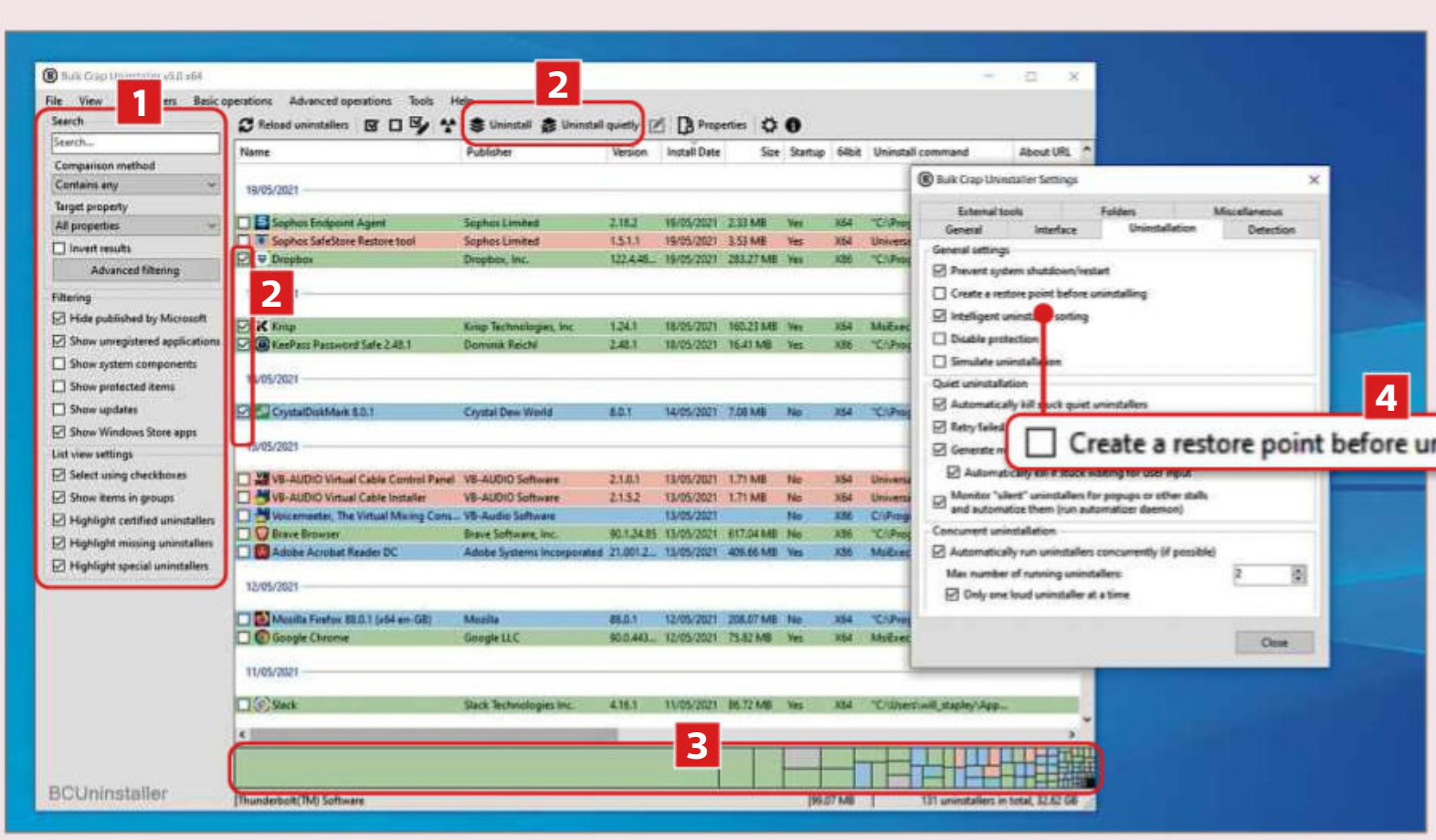
With so much free software available, it's tempting to fill your hard drive with programs. Some you'll use all the time, others are left abandoned – taking up space and slowing down Windows. You can uninstall these using Windows' built-in tool (go to Settings, then select Apps), but if you've got a whole bunch to uninstall this method can take time.

BCUninstaller (click the first link in the Download section at the URL above) is much faster. It scans your hard drive for programs, then displays them in a list you can search and filter (see below). Once you've selected the programs to remove, you can choose how BCUninstaller does this. Select 'Uninstall quietly' and the program will automatically choose for you the appropriate options on any prompts that appear in the process ('Are you sure you want to uninstall...' and so on). In our experience, this works well, but it can occasionally stall if the removal process involves a lot of prompts. If this happens, click Uninstall instead.

Version 5.0 introduces a number of new features, including the creation of a system restore point during each uninstall process, letting you roll back any changes (previously you had to select this option each time). You can also now tell BCUninstaller to put your computer into sleep mode once it's finished uninstalling – tick the 'Put PC to sleep when done' box in the uninstall progress window.

Other updates include the removal of the Donate button in the bottom-right corner and better support for high-resolution screens (the program now looks sharp on our 26in display, which has a resolution of 2560x1440).

Finally, we triggered an error message when we tried to update to version 5.0 from within the program by clicking Help, then 'Check for updates' - if you experience the same problem, download the new version from the link above (there's no need to first uninstall the previous version).




**1** Use these boxes to display the program categories you want to see. You can also search for specific programs using the search box at the top.

**2** Tick the boxes next to any program you want to uninstall, then click Uninstall or 'Uninstall quietly' at the top.

**3** This section illustrates how much hard-drive space each program is taking up. Click any box and the program it represents will be highlighted in the top section.

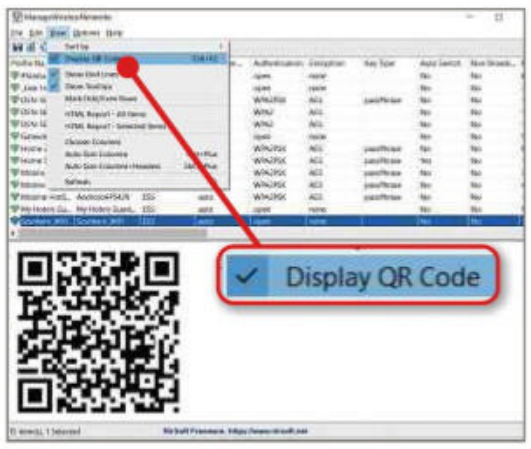
**4** If you don't want BCUninstaller to create a system restore point each time you uninstall programs, go to Tools, Settings, then the Uninstallation tab and untick this box.

NETWORK TOOL

## ManageWirelessNetworks 1.00

www.snipca.com/38378

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




This new tool from NirSoft (scroll to the bottom of the page at the URL above for the download link) lets you view details of the Wi-Fi network your computer is currently connected to, as well as all those it has connected to in the past. Each network includes details such as its profile name, SSID and passcode (look in the Wireless Key column). To edit details for any of the networks, select it then press F2 – this opens the Network Properties screen for that network in Windows.

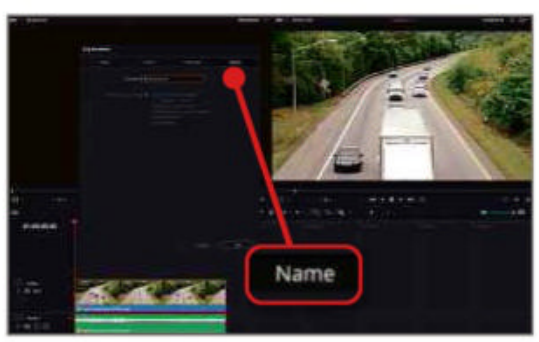
ManageWirelessNetworks can also generate QR codes for each network, which is useful if you want to quickly connect to the same network on your phone. To enable this, click the View tab, followed by Display QR Code (see screenshot).

VIDEO EDITOR

## DaVinci Resolve 17.2

www.snipca.com/38379

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




Davinci Resolve is a powerful free video-editing tool that lets you apply professional-grade filters and effects to your home videos. To install from the URL above, scroll down and click the red Download Now button, then the Windows button below Resolve 17 (the program downloads immediately and you need to register, but whatever details you provide won't be checked).

Version 17.2 makes several improvements, most notably on its startup times – on our computer Resolve took just 15 seconds to start, compared with over a minute with the previous release. You can also now organise your clips more effectively by renaming them (right-click one, select 'Clip Attributes...', then the Name tab – see screenshot), while the Live Save feature is now switched on by default, meaning you won't lose anything if your computer crashes while editing.

# WHAT SHOULD I DOWNLOAD?

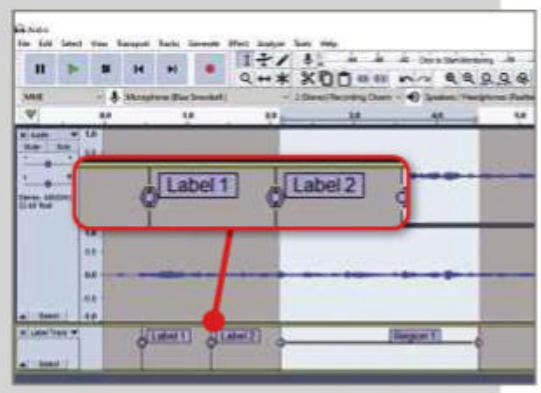
We tell you what software & apps to use

## What can I use to mark points in audio files?

**Q** I used to use Sony MiniDiscs for my dance recordings and found the track-marker facility essential as it allowed me to backtrack to the start of a sequence or a particular point. Can you recommend a Windows tool that can do a similar job?

**Barry Pugh**

**A** Audacity (www.audacityteam.org) is the best tool for this. Open your audio track in the tool, then move the playhead to the point you want to go back to either by pressing Play from the start then Pause when you reach that point, or by clicking the appropriate point in the timeline. Now press Ctrl+B – this adds a 'label', which will appear in a new Label track below the timeline (see screenshot). Give your label a suitable name, then press Enter. You can repeat this process to add as many labels as you like. To start playback from a label, click its name on the timeline (or press Tab to cycle through your labels), then click the Play button. If you want to loop playback from that point, hold down the Shift key while clicking Play.




You can also use Audacity to create regions – in other words, a section bracketed by a start and end point. To label a region, click and drag your mouse over the section you want to play, then press Ctrl+B and give the label a name. When you play a region, Audacity will stop playback when it reaches its end point (as before, you can press Shift+Play to loop playback).

When you've added your labels, click File, Save Project, then Save Project again (this saves both your audio file and the labels within an Audacity project).

You can also export each labelled section as a separate file, letting you play each one individually outside of Audacity. To do this, click File, Export, then 'Export Multiple...'. Choose where to save your files and select a format. Next, make sure 'Split files based on' is set to Labels then click Export.

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

**HOW I USE...**

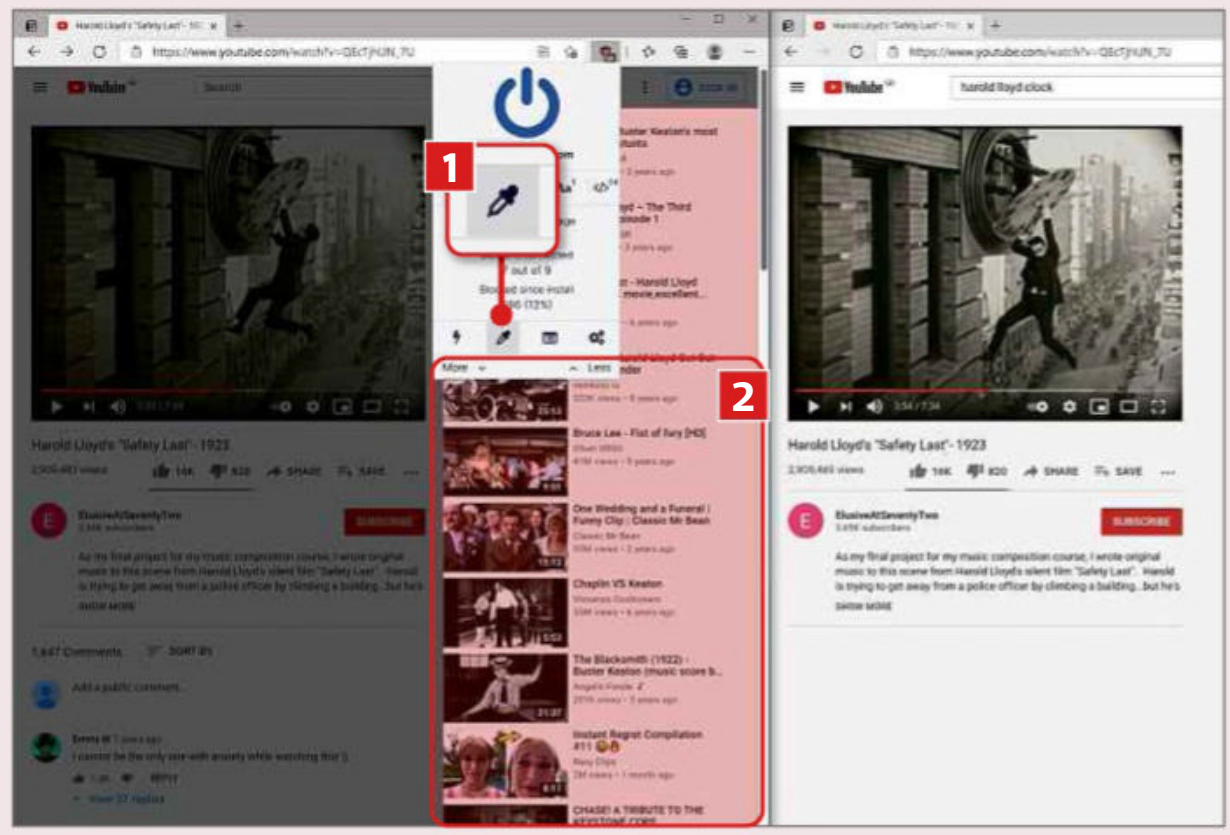
# Ublock Origin

**Will Stapley** reveals how he's redesigning the web, one site at a time

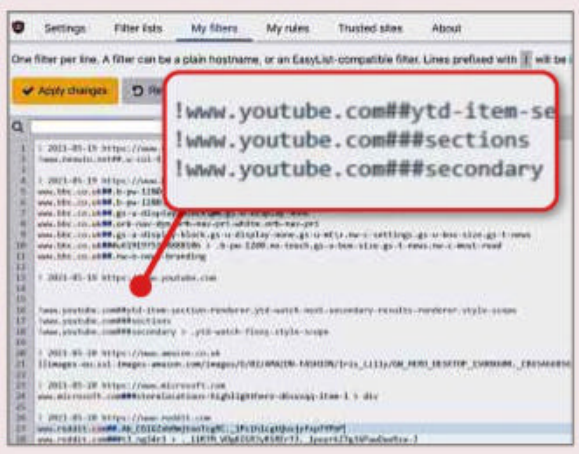
Websites from the late 1990s (like those classic GeoCities sites, which you can revisit at www.snipca.com/38370) might have looked garish, but I'd much rather browse them than some of today's monstrosities. It's not just the bombardment of adverts, but also the insistent way which modern sites try to prevent you from leaving.

YouTube is a prime example. Unless I'm watching a video in full screen, it inflicts upon me a list of 'watch next' suggestions down the right-hand side of the page – often entirely unrelated to what I'm actually watching. It's a distraction I could do without.

To take these sites to task, I use uBlock Origin (UBO) - not to be confused with an inferior extension simply called uBlock. As well as blocking ads and cookies, this amazing open-source browser extension (visit https://ublockorigin.com, scroll to Platforms at the bottom and choose your browser) has a secret tool that lets me create 'filters' to hide unwanted sections of websites.




**Select sections of a web page you don't want to see (left) to create clutter-free sites (right)**




**Temporarily disable a filter by typing an exclamation mark at the start of its line in the 'My filters' tab in settings**

To get rid of the offending video suggestions on YouTube, I opened the UBO extension, selected the Element Picker mode (pipette icon 1 in our screenshot above), then left-clicked my mouse over the 'watch next' thumbnails. UBO then highlighted sections of the page as I hovered over them 2, indicating what will be removed. I then clicked Create in the box that appears at the bottom of the window, and the thumbnails disappeared. I also took the opportunity to get rid of the comments section at the bottom. Best of all, these sections remain hidden if I watch another YouTube video or reload the website.

UBO adds all my blocked sections to the 'My filters' tab on the settings page (click the cog icon to access this). Each is listed under a heading, indicating the date it was added and which site it relates to. I can then temporarily disable filters by placing an exclamation mark at the start of each line (see screenshot left) or remove a filter permanently by deleting the relevant line.

Be warned: once you've started using UBO to blitz unwanted sections from websites, it's hard to stop. I've created filters even on relatively uncluttered sites like BBC News, getting rid of its 'Must see' and 'Most watched' video suggestions, along with some of the toolbars at the top.

## WHAT I'D LIKE TO SEE IN UBLOCK ORIGIN

When I first started using UBO, I spent hours creating filters to remove annoying elements from websites. Then I accidentally uninstalled UBO during a purge of my Chrome extensions and lost all its settings, including my list of filters. I'd like UBO to include an automated backup feature that would ensure this never happens again. As it is, I have to remember to create my own backups by regularly exporting my filters – go to 'My filters' (see above), then click Export.

# Named & Shamed

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

## WARNING: JUNK AHEAD

### Junk offender:
Windows 10

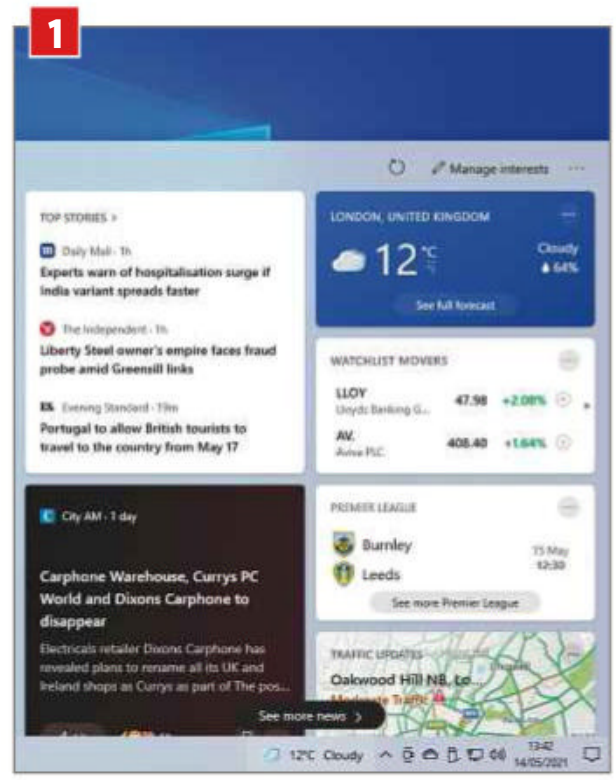
I'm not normally one for bashing Microsoft, but I do sometimes wish the company would ask before loading my PC with stuff I don't want. I was pretty annoyed when I booted my computer recently only to discover that half my taskbar had been randomly taken up by a weather forecast.

Okay, 'half' is a bit of an exaggeration. But the offending article – Microsoft's new 'News and Interests' widget – takes up a decent whack of the right-hand side of the Windows 10 taskbar and seemingly arrives on your PC uninvited and without any apparent way to opt out.

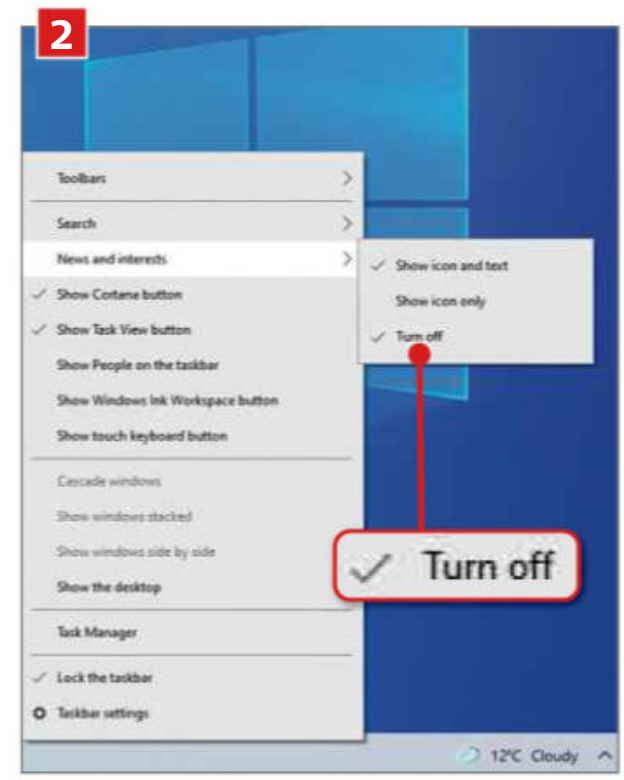
Microsoft is rolling out the widget to customers over the coming months (see www.snipca.com/38286), presumably via a Windows update, though it's hard to work out which one. Confusingly, I have two PCs with exactly the same Windows build number (19042.964) – one has the widget installed, the other doesn't.

Some people may find this new widget useful. Clicking the weather icon brings up a pop-up panel of news stories, stocks and more (see screenshot 1). You can personalise this content by clicking 'Manage interests'. But for me, it's just a waste of space and a potential drain on system resources that I don't need. Most of all, though, I don't appreciate that it was installed and enabled without asking my permission.

It probably doesn't help that the weather data offered by my widget was hopelessly inaccurate, assuring me of sunny skies, rather than the torrential rain that was lashing at my office window at the time. In fact the only good thing about it is that it's reasonably straightforward to disable – simply right-click the taskbar, select 'News and interests,' then click 'Turn off' (see screenshot 2).




**Microsoft is adding a 'News and Interests' panel to taskbars without your permission**




**Tick 'Turn off' to stop seeing news, weather and other info clogging up your desktop**

## WHAT ARE THEY TALKING ABOUT?

### WHAT THEY SAY

**Twitter on its new 'Tip Jar'**
www.snipca.com/38252

**"We $ee you – sharing your PayPal link after your Tweet goes viral, adding your $Cashtag to your profile so people can support your work, dropping your Venmo handle on your birthday or if you just need some extra help."**

### WHAT THEY MEAN

**Yes, we really did use '$' as an 'S' to appear cool and trendy. What absolute nons£ns£.**

## JONATHAN'S VILLAIN OF THE FORTNIGHT

## West Midlands Railway

How's this for an exercise in corporate stupidity? Last month West Midlands Railway sent emails to 2,500 employees promising a bonus for their hard work during the Covid pandemic. Rewarding your staff's dedication with a cash bonus is hardly villainous behaviour, you might think. Except that in this case, there was no bonus. The emails were fakes, intentionally sent by the railway's IT team as a test to assess staff awareness of phishing scams. It's hard to imagine that a company would authorise such a shockingly crass, tone-deaf stunt at the best of times. But during an actual pandemic, when so many staff have genuinely put their own wellbeing on the line for their employers? Simply staggering.

**LAPTOP** | **£1,013** from Box www.snipca.com/38227

# Dynabook Portégé X40-J-11C

## True blue

Toshiba's laptop division turned into Dynabook a couple of years ago, but the X40-J range is the first to introduce a change in the overall design. It retains an attractive if understated dark-blue finish, but there are now thin silver outlines on the power key and trackpad. These match the silver metal hinge, which stretches almost the entire width. Also, while it sticks to a familiar aluminium chassis, the plastic base has a classy pinstripe effect.

> "A solid, quiet laptop that makes light work of everyday tasks"

For a 14in laptop, it's compact, thin and reasonably light at 1.4kg. It performed well in our Windows-based tests, which was something of a surprise because it comes with only 8GB of memory (we'd usually prefer 16GB). We also tested the speed of the SSD in isolation and, while it proved perfectly fine at reading data (ie, opening it) it was a little slow when writing it (ie, saving). This didn't slow it down in everyday tasks, however.

Better still, this solid performance isn't accompanied by the constant sound of noisy fans, which kicked in rarely during our tests and remained pretty quiet when they did. This may not provide enough cooling if you're going to put huge demands on the laptop, but for office work and web browsing it's perfectly adequate.

However, it didn't fare so well in our gaming tests, despite using Intel's Xe graphics hardware, which offers decent gaming performance on other laptops. We found that frame rates were around half of what we've seen on similarly priced rivals.

The touchscreen bends back 180 degress (though not 360 degress for a full tablet-type experience) and benefits from an effective anti-glare coating, which cuts out refelections. What you don't get is anything close to the full range of sRGB colours, with only 54 per cent displayed during our tests. As a result it looks drab when placed next to superior screens, though it's fine in isolation, helped by decent levels of contrast and brightness.

The keyboard is backlit, well designed and quiet to type on. Touch typists will have no problem, but we found the keys to be a little light on resistance. However, the spacebar is a little too short – occasionally we missed it while typing – and you might find that the trackpad, which measures 100x58mm, is too small for the way you work.

The 720p webcam comes with a privacy shutter and is built into the top of the screen. Like the screen, its colours lack punch, but the overall quality is impressive and the dual microphones do an excellent job of capturing voices. The speakers are also far better than you might expect from a laptop that isn't specifically designed for entertainment. However, they are built into the front underside of the chassis and we found that our wrists smothered their output when we were typing.

The laptop has two USB-C ports on the left, along with an HDMI output and microSD card slot. There are two USB 3.0 ports on the right edge. There's no Ethernet port but hopefully the built-in Wi-Fi 6 will make up for that.

**SPECIFICATIONS**

Quad-core Intel Core i7-1165G7 processor • 8GB memory • Intel Xe graphics • 14in 1920x1080-pixel IPS touchscreen • 256GB SSD • 720p webcam • Wi-Fi 6 • Bluetooth 5.1 • 1x HDMI port • 2x USB-C ports • 2x USB 3.0 ports • Windows 10 Pro • 17.9x323x220mm (HxWxD) • 1.4kg • One-year warranty www.snipca.com/38227

**VERDICT** A competitively priced laptop that, a drab screen apart, provides quality in all the right places

★★★★★

**ALTERNATIVE**

Lenovo Yoga Slim 7 £799

Using an AMD processor instead of an Intel one makes this a significantly more affordable 14in laptop

**LAPTOP** | **£1,000** from HP www.snipca.com/38234

# HP Omen 15-en0006na

## Perfect performance

The 15-en0006na is the cheapest laptop in HP's Omen range, which is primarily aimed at gamers who also want to browse the web and work with Windows.

While the black laptop case looks smart, it's mostly made of plastic. The screen lid is particularly flexible, which does make us doubt how robust it is, particularly if you're likely to use it on the move. Its aluminium palm rest and keyboard deck add a touch of quality, though. The whole thing is around average size and weight at 22.5x358x240mm and 2.3kg.

> "Its performance level and connectivity make up for a poor screen"

Connectivity is comprehensive, with three USB 3.0, one USB-C, a mini DisplayPort and an HDMI port. It also accommodates a Gigabit Ethernet connector, an SD card reader and a 3.5mm audio jack (all pictured below). Wireless connections include Wi-Fi 6 and Bluetooth 5.0.

The Omen's keys are solid, quiet and precise. Rather than a fully customisable keyboard backlight, the Omen offers a four-zone system that lets you assign different colours to the left, right, centre and WASD keys. It looks impressive and is easy to customise.

You need to undo only eight screws to detach the bottom cover, which gives you easy access to the two RAM modules as well as two M.2 SSD slots and the two fans, should they need a clean.

The 1920x1080-pixel 144Hz matte-finish IPS screen offers decent levels of brightness, but poor colour reproduction (though it's better than the Dynabook Portégé opposite) and adequate contrast.

The internal components, however, make up for the disappointing screen. These include a 2.9GHz AMD Ryzen 7 4800H processor and 8GB of RAM, along with the Nvidia GeForce GTX 1660Ti graphics card, which has its own 6GB of dedicated memory to help games skip along. It also comes with a generous 512GB SSD.

This helped the laptop perform well in our tests, with impressive benchmark results in both our Windows and gaming tests. While you can push the hardware hard and get good results, the fans often kick in to keep things cool, and these create an audible whoosh of air. You can tone this down using installed software, but this leaves the PC feeling hot.

### SPECIFICATIONS

Octa-core AMD Ryzen 7 4800H processor • 8GB RAM • Nvidia GeForce GTX 1660Ti graphics card • 15.6in 144Hz 1920x1080-pixel screen • 512GB SSD • Wi-Fi 6 • Bluetooth 5.0 • 1x USB-C port • 3x USB 3.0 ports • 1x 3.5mm audio jack • 1x HDMI port • 1x Mini DisplayPort • Windows 10 Home • 22.5x358x240mm (HxWxD) • 2.3kg • One-year warranty www.snipca.com/38234

**LEFT EDGE**

**RIGHT EDGE**

### 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 powerful gaming laptop at a decent price that doesn't compromise on components

★★★★★

### ALTERNATIVE

Asus TUF Dash F15 £1,400

If you can stretch your budget a little further, this has similar performance levels and has a better screen and build quality

**MESH ROUTER** | **£270 (3 pack)** from Amazon www.snipca.com/38254

# Netgear Orbi RBK352

## Another fine mesh

The Orbi RBK352 is Netgear's new, low-cost Wi-Fi 6 mesh router. At least, it's low cost compared with the company's previous Wi-Fi 6 mesh offerings. The high-end Orbi RBK852 (www.snipca.com/38245) costs £645 for a two-node kit, while the mid-range RBK752 (reviewed in Issue 603, www.snipca.com/38246) will set you back £437. The RBK352, by contrast, starts at £195 for a kit with two units, or £270 for three, which is the version we've reviewed here.

> "Dual-band Wi-Fi 6 mesh system reaches into every corner"

Inevitably, however, the lower price tag comes with a trade-off. The RBK352 hardware isn't as powerful as Netgear's premium models, and this results in a poorer (though still good) Wi-Fi performance.

For starters, this is a dual-band system, where the more expensive versions are tri-band (the third band is reserved for sending data between the nodes). This model shares that job with the Wi-Fi channels you use to connect your gadgets to, so there will always be less bandwidth available on a busy family network.

As with all Wi-Fi 6 equipment, the RBK352 is backwards-compatible with Wi-Fi 5 laptops, tablets and smartphones, but you can't just add these as extra units to any existing Orbi devices you may have. The Orbi is designed to completely replace your existing router, although if your internet connection requires you to keep your ISP's router in place you can still use the Orbi as an access point by linking it to your existing router.

This works well, particularly if you can use an Ethernet cable to move the main Orbi unit to a better location, away from your phone socket. The primary unit has three Gigabit Ethernet sockets (pictured below left) alongside the WAN port, which connects to your ISP's router.

The system is set up using an app. We tested it on an Android phone and found it was almost foolproof. There's a clunky moment when you need to jump into your phone's Wi-Fi settings to manually connect to the Orbi network, then find your way back into the Orbi app to continue the setup process, but you only need to do this once.

After that you can use the phone app or the web portal (on your PC) to manage your mesh system. The app is well designed with a handy set of features, including tools that make it easy to access your home network over the internet. It integrates with Amazon's Alexa and Google Assistant so you can control the guest network and reboot the router with your voice. It doesn't include Netgear's Armor security package, which for £59.99 a year scans for vulnerabilities, blocks dangerous sites and adds Bitdefender protection.

We tried the Orbi in our usual three-bedroom, two-storey test house, with the primary unit located in a study. The secondary node was placed at the opposite end of the adjacent bedroom, while the third was positioned in the living room below.

Even with the benefit of three nodes, the dual-band RBK352 couldn't rival the tri-band Orbi systems, but it holds up well when compared with similarly priced alternatives. Everywhere in the house, the test laptop (also equipped with Wi-Fi 6) switched seamlessly between nodes to keep the connection fast and stable, and download speeds never fell below 160Mbps.

However, if you're being drawn to the RBK352's relatively low price, an even cheaper solution may do what you need. The Honor Router 3 (see our review, Issue 603, £80 from www.snipca.com/38248) managed speeds of 128Mbps all around our home.

**SPECIFICATIONS**

Dual-band Wi-Fi 6 router • 4x Gigabit Ethernet ports (including 1x WAN) • 178x61x145mm (HxDxW) • 530g • One-year warranty www.snipca.com/38244

**VERDICT** A reasonably priced Wi-Fi 6 mesh system that delivers a strong signal throughout the home, though not as fast as tri-band routers

★★★★★

**ALTERNATIVE** Honor Router 3 £80 This Wi-Fi 6 router is a single device rather than a mesh network, but is much cheaper and should be all a smaller home needs

**PHONE** | **£90** from Nokia www.snipca.com/38279

# Nokia 1.4

## Four score and ten

While manufacturers like Apple and Samsung charge hundreds of pounds for their latest models, it's still possible to get a new smartphone for less than £100. The new Nokia 1.4 is a good example. Of course there are compromises involved at this price, but if you don't want to spend more, it's a perfectly capable smartphone.

The design is eye-catching, with a robust plastic chassis. The bezels around the edge of the screen are reasonably thin, with a neat hole-punch notch at the top-centre of the screen for the front-facing camera.

> "A surprisingly decent screen and performance level for the price"

The two rear-facing cameras are neatly arranged, sitting just above a sensibly placed fingerprint sensor that unlocks the device. There's a 3.5mm headphone jack on the top edge and it uses a microUSB charger rather than the more common USB-C.

The large 6.52in IPS screen has a resolution of 720x1600 pixels, which is pretty generous at this price – especially when you also get 85.5 per cent coverage of the sRGB colour standard, and decent brightness and contrast levels.

The Qualcomm Snapdragon 215 processor is the same chip that was used in last year's Nokia 1.3, though the RAM has been increased to 2GB and the internal storage to 32GB. There's also a slot for a microSD card if you need more space. These upgrades seem to have improved performance levels compared with its predecessor, occasionally running twice as fast.

In everyday use, it keeps the phone feeling relatively slick and responsive. It undoubtedly helps that the phone is running Android 10 Go, which is a tweaked version of Google's mobile OS and is designed for low-end phones. In Go, the core Android apps are trimmed back so they take up less space but still run at a reasonable speed.

Unsurprisingly, it struggled with games. You might be able to run something simple, such as Solitaire, but don't expect it to manage much beyond that. Battery life is reasonable, though, lasting 14 hours 16 minutes in our video-playback test.

The cameras are basic, with an 8-megapixel main camera, a 2-megapixel macro camera and a 5-megapixel selfie camera on the front. They take reasonable pictures, but you shouldn't opt for this phone if you want high-quality snaps.

**SPECIFICATIONS**

Quad-core Qualcomm Snapdragon 215 • 2GB memory • 6.52in 60Hz 1,600x720-pixel resolution IPS screen • 32GB storage • 8-megapixel rear camera • Wi-Fi 4 • Bluetooth 4.2 • Android 10 Go • 166x77x8.7mm (HxWxD) • 178g • Two-year warranty
www.snipca.com/38279

**VERDICT** This is a remarkable phone for the price – it has modest specifications, as you might expect, but it makes the most of what it has

★★★★★

**ALTERNATIVE**

Samsung Galaxy A21s £148 For better performance and the full Android experience, it's worth paying more for Samsung's budget marvel

**CHOOSE THE RIGHT SPECS**

## Built-in graphics

### What do they do?

PCs are designed to be modular, and one of the key components is the graphics hardware. In most desktop PCs this comes on a separate card that connects directly to the motherboard, containing everything that the PC needs to process what should be appearing on screen and sending it to your monitor. However, because graphics cards are expensive and take up a lot of room, they aren't used in laptops and small PCs. Instead, processor manufacturers from around 2010 Intel and AMD started to build graphics hardware directly into the main processor.

### How do they work?

Manufacturers are constantly looking for ways to miniaturise the components on their chips so they can squeeze more on. Adding the graphics hardware to the processor gives you a smaller, thinner laptop. However, it also removes some of the benefits of keeping graphics separate, such as having its own memory and cooling system. Until recently this has hindered performance and given laptops a poor reputation for gaming.

### What are the specs?

The latest 11th-generation Intel processors have changed our view of built-in graphics. These are built around a new design called Iris Xe (logo pictured), which has vastly improved the graphical performance of laptops. If you have Iris Xe graphics, your laptop will be capable of playing the latest games reasonably well.

### Can I change it later?

Graphics hardware is built into the processor but can always be overridden if you want to upgrade it with something better, which can improve the performance of your PC. If you have a laptop, however, you may need to add an external graphics card to upgrade it.

**PC MONITOR** | **£300** from Amazon www.snipca.com/38301

# AOC Q32P2

## The bigger picture

Size isn't everything, but when it comes to monitors, a big screen can come in very useful. It lets you spread out and do more things at the same time, as well as enjoy films, games and other entertainment in a more immersive way. The AOC Q32P2 is 31.5in across the diagonal, so this is a hefty beast, around the same size as a modest living-room TV. However, it comes at a very affordable price: as we write, Amazon is selling it for around the £300 mark.

> "A huge screen that adjusts to your needs, but it's a bit dim"

It also looks the business, clad from head to toe in classy black finish and solidly built. It uses an IPS panel with a resolution of 2560x1440 pixels, a maximum refresh rate of 75Hz, a response time of four milliseconds and FreeSync support for those who use an AMD graphics card. On the rear, you'll see two HDMI ports, a DisplayPort, a headphone jack, and four USB 3.0 ports to connect your peripherals. Unfortunately it lacks a USB-C port, which would have been a useful addition.

It's mounted on a removable stand that has 150mm of height adjustment, 175 degrees of swivel, 20.5 degrees of tilt and can be rotated into portrait mode. This is rare for a monitor this size, and is a welcome touch. To achieve this level of flexibility, the monitor takes up a significant amount of desk space, so don't consider it if your desk is already cramped.

Unfortunately, the screen itself isn't the best we've seen. Viewing angles are fine, so it can accommodate several people for a group video call, but it's disappointingly dull. Our measurement of the peak brightness reached only 248cd/m², which is the kind of level that makes it difficult to see things in brightly lit conditions. It reproduced 87.3 per cent of the sRGB colour standard in our tests, which isn't terrible, but you might want to look elsewhere if displaying more accurate colours is important to you.

**SPECIFICATIONS**

31.5in IPS screen • 2560x1440 pixels • 2x HDMI ports • 1x DisplayPort • 4x USB 3.0 ports • 651x730x275mm (HxWxD) • 9.5kg • Three-year warranty www.snipca.com/38301

**VERDICT** A huge 31.5in monitor for an affordable price, though we found the screen a little too dim, especially in bright conditions

★★★★★

**ALTERNATIVE** Iiyama ProLite XUB2792QSU-B1 £259 A smaller 27in monitor, but it's much brighter and offers more accurate colour reproduction

**WHAT SHOULD I BUY?** We solve your buying dilemmas

# What's the best printer for eBay and Royal Mail labels?

**Q** I enjoyed your feature about label printers in Issue 604 (page 62). As someone who often buys and sells things on eBay, I'm wondering if any of the models you featured would be able to print the eBay or Royal Mail postage labels?

If not, can you recommend the cheapest model that does? I currently print, cut out and stick my online postage labels with tape on to parcels and wouldn't mind paying for greater convenience and less waste.

Hefin Davies

**A** Both eBay and Royal Mail use 6x4in (150x100mm) labels, so you just need a printer capable of printing at that size. In Issue 604 we recommended the Dymo LabelWriter 4XL (£232 from www.snipca.com/37769), which can print these and works with labels produced by the Post Office, eBay and many more services.

If you shop around you might be able to find something more affordable. For example, we spotted the Munbyn Label Printer (£145 from Amazon, www.snipca.com/38304, pictured), which prints 6x4in stickers. There's a video in the Q&A section of the Amazon listing that shows you exactly how to use it.

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

Eternal Spring of the Mind *by Elena Paraskeva*

AFFINITY

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APPLE DESIGN AWARD WINNERS

Editors' Choice ★★★★★ worldwide customer rating

**50% discount until June 30th**

**SMART TAG** | **£29** from John Lewis www.snipca.com/38259

# Apple AirTag

## Lost and found

If you're an iPhone user and tend to lose things, such as your keys or wallet, AirTags can help. They're Bluetooth tracking devices, similar to those made by companies such as Tile (https://uk.tile.com) and Chipolo (https://chipolo.net).

If you've lost an item with an AirTag attached nearby, you can make the tag emit a beep that will help you locate it. If your item is lost further afield, the tag will communicate with nearby iOS mobile devices (including other people's) and your Find My app will show you on a map where your item was last detected.

**SPECIFICATIONS**

IP67 • Bluetooth • Compatible with iOS devices • Some advanced tracking tools only compatible with iPhone 11 and 12 • 31.9x8x31.9mm (HxDxW) • 11g • One-year warranty www.snipca.com/38258

This is where AirTags are better at finding lost items than Tiles and Chipolos. They can communicate with any passing iPhone, whether its owner uses AirTags or not. Because iPhones are so common, you are more likely to track down your lost item. Worldwide, this puts an army of about a billion iPhones at your disposal, whereas Tile has just 26 million users.

Each AirTag is a small disc – 31.9mm in diameter and 8mm thick, with glossy white plastic on one side and polished metal on the other. They take a CR2032 battery that lasts up to a year, and can survive being immersed in water up to one metre deep for 30 minutes.

However, at £29 each (or £99 for a pack of four), it's much more expensive than its rivals – on Amazon a Tile Mate costs £20, or £45 for four (www.snipca.com/38260).

**VERDICT** These are are a little pricier than rivals but they work brilliantly – so if you have an iPhone, you'll never lose your keys again

★★★★★

**ALTERNATIVE** Tile Mate 2 £20 Tile's trackers are cheaper and have an app that works with Android and iOS devices

**PHONE** | **£629** from Amazon www.snipca.com/38258

# OnePlus 9

## Fast, but may make you furious

OnePlus made its name with affordable mid-range smartphones that had many of the features of pricier flagship phones from Apple and Samsung. At £629, this latest model is slightly more expensive than its previous models, edging OnePlus closer to those rivals it has previously undercut.

As you might expect then, the phone is equipped with an impressive selection of high-end components, including the latest Qualcomm Snapdragon 888 processor. It comes with only 8GB of memory and 128GB of storage, though, which is increasingly common on cheaper phones.

**SPECIFICATIONS**

Octa-core Qualcomm Snapdragon 888 • 8GB RAM • 6.5in 2400x1080-pixel AMOLED screen • 48-megapixel main rear camera • 50-megapixel wide camera • 16-megapixel front camera • Android 11 • 163x74x8.7mm (HxDxW) • 197g • One-year warranty www.snipca.com/38258

The processor does a lot of heavy lifting here, and when we ran our performance and gaming tests the OnePlus 9 proved to be as fast as any phone we've reviewed to date, except for the iPhone 12.

Its 6.55in AMOLED screen has a resolution of 2400x1080 pixels and a maximum refresh rate of 120Hz. Moreover, it's incredibly bright (peaking at a sunlight-friendly 744cd/m$^2$), while contrast is perfect. Its colour accuracy was excellent in our tests, too, recreating 96.6 per cent of the sRGB standard.

However, it has significant flaws. For the price we'd expect IP-rated waterproofing and a build that's more sophisticated than the plastic case here. Its camera is also mediocre, producing photos with colours that were not quite right, while portrait shots were uninspiring.

If this phone had followed the classic OnePlus pattern of undercutting its rivals, we might have forgiven its flaws, but at this price we'd expect a phone that's closer to perfection.

**VERDICT** We expect OnePlus phones to offer more features for less money, but this latest model has a higher price without adding enough extras

★★★★★

**ALTERNATIVE** Samsung Galaxy S20 FE £465 This brilliant phone was similarly priced at launch, but is now available with discounts

**FITNESS WATCH** | **£45** from Amazon www.snipca.com/38332

# Honor Band 6

## Wide open face

Despite costing less than £50, the Honor Band 6 has the styling of a more expensive smartwatch, with a wider, squarer face than most of its rivals. The screen's dimensions of 0.8x1.6in make using its touch controls a little less fiddly than slimmer rivals.

However, there's still a physical menu button, which is more reliable when rain and sweat are involved. The screen is a colourful AMOLED panel with a resolution of 194x368 pixels, but it isn't all that bright, which can make it tricky to read in sunshine.

It tracks steps, heart rate and exercise, as most fitness watches do, but adds the less common options of tracking stress (through heart rate), sleep and blood oxygen (SpO2) level. It's relatively basic next to a smartwatch, but can still display notifications and be used to control music apps.

It also promises a 14-day battery life, which matched our findings while testing the device. This is a decent length of time between charges.

You may think it offers good value for money, but there's one major drawback – the only Android phones its GPS tracking works with are those made by Honor and Huawei. It works fine with iPhones. This is a serious annoyance for Android-owning fitness enthusiasts. You can still record your exercise route using GPS on a non-Honor Android phone, but you have to launch it from the phone, rather than the watch itself, which is exactly the kind of workaround that this kind of watch is supposed to make easier. Once operating, however, we found the GPS to correctly measure distance travelled, though it didn't accurately report the pace on our test runs until after we had finished.

The general fitness features work well, however. The sleep tracking, for example, tracks your deep, light and REM sleep, and plots it in a graph.

Where Honor stands apart from its rivals is its helpfulness in explaining what each metric means, what the average should be, and what you can do to improve things.

**SPECIFICATIONS**

1.47in 194x368 pixels AMOLED touchscreen • Only fully compatible with Honor, Huawei and Apple smartphones • 102x152x102mm (HxDxW) • 105g • Two-year warranty www.snipca.com/38332

**VERDICT** An affordable fitness watch with a larger, easier-to-use screen than most rivals, but it has significant flaws with Android phones that aren't made by Honor or Huawei

★★★★★

**ALTERNATIVE**

Huawei Band 4 Pro £47 An older fitness watch with a smaller face, similar price and fewer functions, but its GPS tracking works well with any Android phone

**DO I REALLY NEED...**

# A 'tri-fold' smartphone?

### What is it?

A foldable Samsung device with two hinges that split it into three screens (pictured).

### What does it do?

In its folded state, you can use it as a smartphone, to make calls, browse the web and run apps. When the screen is unfolded it becomes a larger device, measuring 7.2in across the diagonal, approaching the size of a small tablet. The larger screen is better for watching video, browsing websites and running any other apps that might benefit from having more screen space.

### What's the catch?

It's still only a prototype, with no promise that it will ever be available to buy. This probably won't be your next smartphone, but something similar might arrive in the next few years.

### So can I do without it?

Yes, but it could be a game changer, essentially offering a small tablet experience that can be folded to fit in a pocket or handbag.

**NEXT ISSUE**

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**Webcam group test**
Which 1080p webcam provides the best picture for video calls?

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# Buy It

Find out what other products we liked. Buy our new 2020 **Back Issue CD**: £15 from **www.snipca.com/38164**

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

### LAPTOP

**Lenovo** Yoga Slim 7
**£799** from www.snipca.com/37348
**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 £949 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. £1,800 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

**Samsung** Galaxy Tab S6 Lite
**£299** from www.snipca.com/35795
**Tested** Issue 582

Competing with Apple's cheapest 10.2in iPad, this slim aluminium tablet comes with an S Pen stylus and a generous 64GB of storage at a reasonable price. It's less powerful, but a great buy if you prefer Android.

**ALTERNATIVE Amazon Fire HD 8** Now with USB-C and 32GB of storage, this plastic-cased tablet is more limited, with no stylus option, but good for the money. £90 from www.snipca.com/35336

### 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

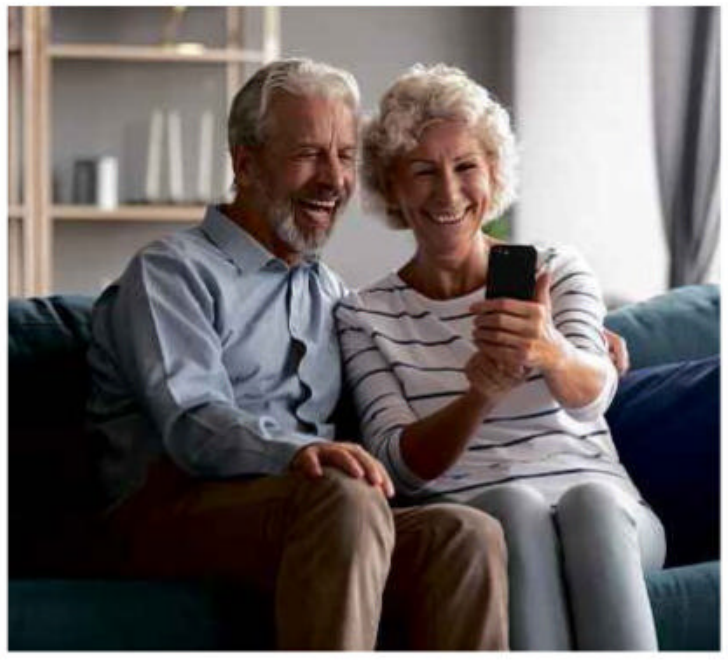
**Realme** X50 5G
**£264** from www.snipca.com/36037
**Tested** Issue 590

Amazing value for a big 5G phone with three rear cameras (including ultra-wide and macro), a pretty quick Snapdragon 765G processor and a decent IPS screen. There's a fingerprint reader, but no wireless charging or waterproofing.

**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 iPhone or Android Smartphone

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



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

### Find out more...

Modern mobile phones – smartphones as they're called – can do so much more than just make phone calls.

From browsing the web wherever you are, checking train times, acting as a sat-nav... And best of all they can make it so easy to keep in touch with family and friends – in so many ways, from sharing photos to making video calls.

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

### Do the manufacturers do it on purpose?

Sometimes it can seem like the manufacturers deliberately make them complicated – and how you do things is often hidden away. It might be easy once you know, but until you've been shown the easy way, it can drive you mad.

In fact only yesterday I was talking to someone whose Mum had got a new all-singing-all-dancing phone – but she couldn't work out how to answer a phone call on it! She's not daft – it's just that it's different from what she'd used before and the phone didn't come with a manual telling her what to do.

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

That's why we've published two books: *iPhones one Step at a Time* and *Android Smartphones One Step at a Time.*

### Plain English... and that's not all

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

### What's covered?

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

- The basics of controlling it – swiping, tapping, opening apps & so on.
- Send emails from your phone.
- Most phones have a good camera so you can take photos: here's how to use it properly (and for videos).
- Browse the web at home or out and about.
- Video phone calls – a great way to keep up with family who live a long way away
- Share photos with friends around the world – quickly and easily.
- See updates, photos and video clips from friends and family – as soon as they "post" them.
- Instant messaging and how to use it.
- Make it easier to read the screen.
- How to use it as a sat-nav... in the car or even on foot.
- Choosing and downloading apps.
- And obviously, you can make phone calls and send and receive text messages. ("Voicemail" is covered, too)

All explained nice and simply. (Find out more in the free information pack – read on...)

### What one reader had to say:

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

*I think this book should be sold with every smart phone. I have learnt so much from it, the info you get with the phone is non-existent.*

*Smart phones are quite complex, and your books speak in plain English."*

### Only half the story

That's only half the story but I don't have room to explain here. I've put together full information on the books – who they're for, what they cover and so on.

What's more the books also come with a free gift – no room to explain that here either.

### Don't buy now, do this instead

The books aren't available in the shops or on Amazon – only direct from the publisher. Send off now to get a completely free, no-obligation information pack. It'll explain what the books cover, who they're suitable for and so on – showing you just how it could help you.

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# Buy It

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

### EBOOK READER

**Amazon** Kindle (2019)
**£70** 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

### PHOTO EDITING

**Serif** Affinity Photo
**£24** from www.snipca.com/23739
**Tested** Issue 498

Designed for both full-time professional image retouchers and the rest of us keen amateurs, this is a beautifully designed and comprehensive program for both Windows and Mac users, although so far it performs better on Macs.

**ALTERNATIVE Xara Photo & Graphic Designer** For all-round design and drawing plus photo filters, this affordable app has a lot to offer. £45 from www.snipca.com/26514

### PC MONITOR

PRICE DROP

**BenQ** GL2780
**£135** 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. £190 from www.snipca.com/37096

### ROUTER

**D-Link** DIR-1960
**£104** from www.snipca.com/32849
**Tested** Issue 564

Giving us download and upload speeds of 460Mbps and 375Mbps respectively, this is phenomenal value. Even two floors away we got 329Mbps and 284Mbps. It has four Ethernet ports for wired devices and a USB 3.0 socket to share storage via your network.

**ALTERNATIVE Synology RT2600ac** Comprehensive sharing features, controls and plenty of add-on apps complement excellent long-range performance. £212 from www.snipca.com/30710

### PRINTER

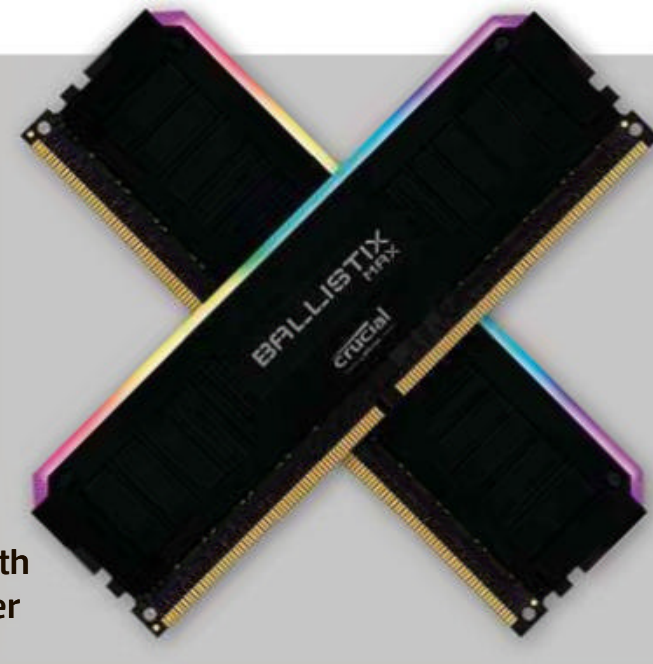
**Canon** Pixma TS8350
**£150** from www.snipca.com/38079
**Tested** Issue 606

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 2 Crucial Ballistix MAX 16GB memory kits




Crucial's Ballistix gaming memory is designed for high-performance overclocking and is ideal for gamers and performance enthusiasts looking to push beyond standard limits.

In this competition we're giving away two packs of 16GB memory – each pack contains two 8GB memory modules. They're DDR4 modules, with a clock speed of 4400MHz, so deliver exceptional gaming performance.

Each module has a high-quality matte black extruded aluminum heat spreader, providing maximum heat dissipation, while an on-DIMM sensor lets you monitor the temperature in real time. You can control the LEDs using software.

We're giving away black kits, though the modules also come in white and red.

To enter this competition, email your home address to **cacomp@dennis.co.uk** with 'Crucial' in the subject line by midnight 15 June.

You can buy these **16GB kits** from Amazon priced £214.98: www.snipca.com/38138. It's also available in a 32GB pack, comprising two 16GB modules, for £373.19: http://www.snipca.com/38139. For more details on Crucial's products visit https://uk.crucial.com and follow @CrucialMemory on Twitter.

## 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. £255 from www.snipca.com/27309

## SOLID-STATE DRIVE

**Samsung** 970 Evo Plus 500GB
**£74** 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. £58 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. £90 from www.snipca.com/36602

Computer active

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**46** Make Windows Better
**47** Make Office Better
**48** In The Club: Transcribe meetings

# HOW TO...

## Improve how you sound in video calls

**by Will Stapley**

**What you need** Zoom or Skype; Blue Snowball Ice microphone (optional)
**Time taken** 45 minutes

We all know how frustrating it can be when the person you're video calling is using a substandard microphone, making it almost impossible to understand what they're saying. But what if that person is *you*?

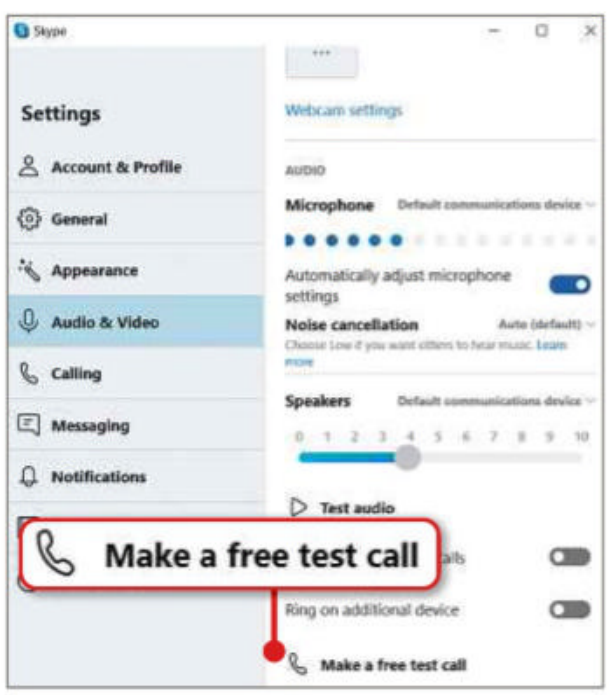
Over the next three pages, we'll show you how to test your microphone and explain the steps you can take to improve its sound quality in Skype, Zoom and other video-chat tools. We'll also recommend our favourite standalone mics and headsets should your current mic fail the test. And even if your mic is working well, you can use our advice to help your call recipients improve *their* audio.

### 1 Test your microphone

Before changing any audio settings, it's a good idea to test how well your microphone is currently performing. Most video-chat tools let you carry out a test call, whereby you can hear how you sound to people you're calling.

In Skype, click the menu button (three dots, top centre), select Settings, then the 'Audio & Video' option in the menu on the left. Next, scroll down the right-hand side of the window and click 'Make a free test call' (see screenshot right). You'll then be connected to Skype's test service, which will prompt you to speak a message, then listen back to it.

Zoom offers a similar service. Sign into your account, then click the Settings button (cog icon, top right) and select Audio. On the right-hand side, click Test Mic then start talking. When you stop, Zoom will play the recording back to you.




**Skype lets you make a test call to see how your microphone is performing**

Alternatively, you can just use the Voice Recorder built into Windows (search for it in the Start menu). Click the microphone button, make your recording, then press the stop button. To hear it back, double-click the top entry in the list of recordings on the left.

### 2 Adjust Skype and Zoom settings

If your test reveals that you sound too quiet or too loud, you can change the microphone's volume level within most video-chat tools. Skype automatically adjusts the volume as you speak, so as you get closer to the

microphone it will reduce the level, and vice versa. It doesn't always get it right, however, often reducing the volume unnecessarily.

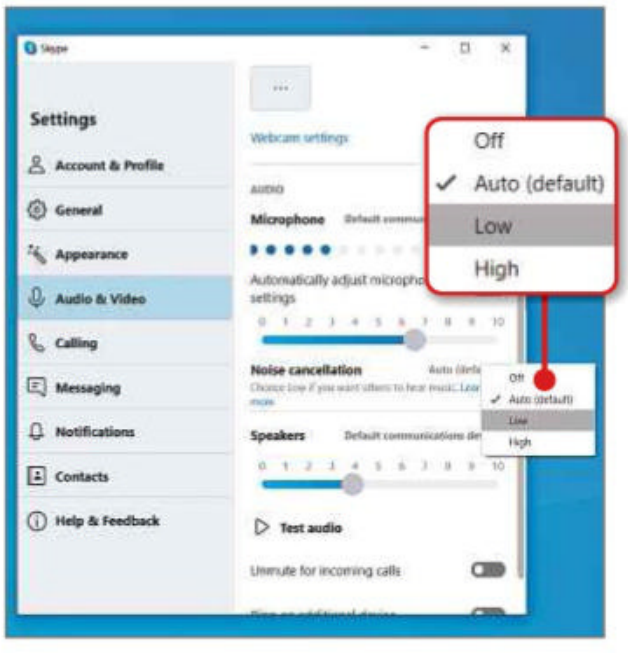
To take back control of this, return to the Audio section of the Skype settings window and click the 'Automatically adjust microphone settings' button so that it turns grey. A slider will now appear that lets you adjust the volume of your mic. You can then repeat the test call to find the ideal level or simply use the microphone-level bar, which shows in real time how your voice is being picked up (we recommend adjusting the level so that this bar stays at around the halfway point while you speak).

Skype will also attempt to block out background noise during your calls, but this can distort your voice (particularly if there's a lot of intermittent background noise). To fix this, click 'Auto (default)' (to the right of the 'Noise cancellation' label), then select Low for minimal noise cancellation or Off to disable it entirely (see screenshot below).

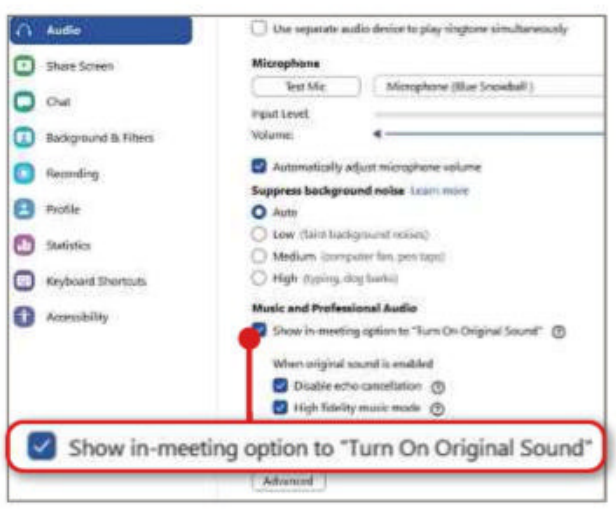
To adjust your microphone levels in Zoom, go to the Audio section of settings as explained earlier, then untick 'Automatically adjust microphone volume' and move the volume slider accordingly. As with Skype, your microphone levels will be shown in the bar above the slider as you speak.

You can also adjust how Zoom deals with background noise. The default setting (Auto) blocks out most noises nearby, but as with Skype can sometimes cause distortion. If so, try selecting Medium or Low.

Zoom even lets you temporarily turn off all audio processing (background noise reduction and more) when you're in the middle of a call, but to do this you first need to tick the 'Show in-meeting option...' box in the Audio settings (see screenshot above). When you do this, three further options will appear, letting you choose whether to also turn off echo cancellation, enable the high-fidelity music mode (useful if you want to play a musical instrument over the call) and switch to stereo audio (you'll need a stereo microphone to take advantage of this). When you're next in a video call, you can enable this feature by clicking the 'Turn on Original Audio' button in the top-left corner of the Zoom window.




**Reduce or turn off Skype's noise-cancellation feature if it's causing distortion**

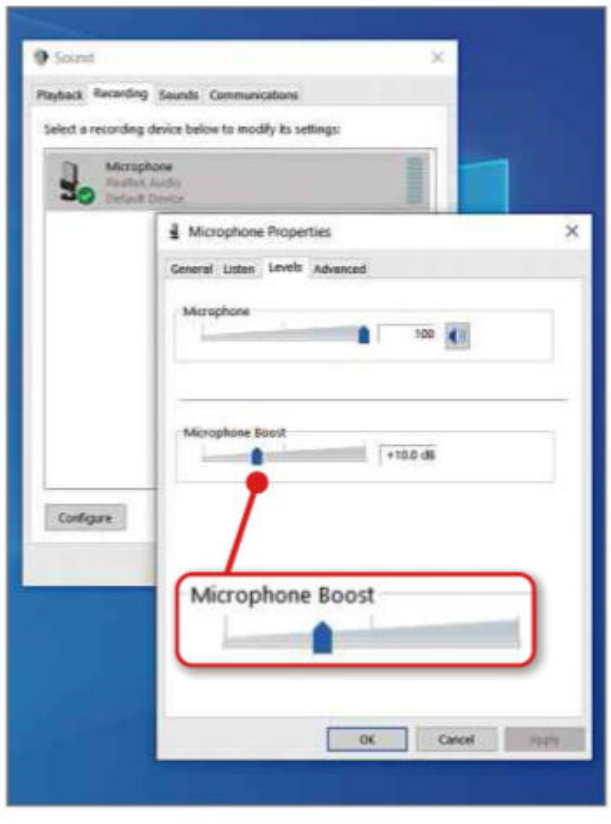



**Enable this option to quickly turn off Zoom's background noise suppression during a call**

## 3 Tweak Windows' settings

You can also adjust your mic's levels in Windows. Right-click the speaker icon in your system tray, then click Sounds. Next, select the Recording tab and double-click your microphone. In the Microphone Properties window that appears, select the Levels tab, then adjust the slider – your video-calling tool may override this setting, but it's useful if you want to control how sensitive your microphone is when recording a voice memo in Windows' Voice Recorder app.

Depending on your microphone, you may also see a Microphone Boost slider (see screenshot below). If people complain they can't hear you in a call, this can increase your volume level, but can also add distortion, so we don't recommend setting it too high.




**Some microphones let you boost their volume, but doing so may cause distortion**

## How I improved my microphone

I like my Dell XPS 13 laptop. It's small, light and fast. However, its video-chat hardware is something of a letdown. The quality of the webcam is fine, but it's positioned at the bottom of the screen, so unless I put the laptop on a stand the poor unfortunates I call often end up getting a view up my nostrils. Even more disappointing is the laptop's built-in microphone, which adds a nasty mechanical hiss to my dulcet tones and even occasionally chops off the ends of words (the audacity!). I hadn't realised just how bad it was until a friend pointed out that he was struggling to hear me on a call.

Reducing the microphone's volume in Zoom helped reduce the hissing, but also made it harder for people to hear me. I therefore decided to ditch my Dell mic for something better. Not keen on wearing a headset for video calls, I settled on a Blue Snowball Ice microphone (see opposite page), and it's dramatically improved the audio. Compare them yourself at www.snipca.com/38350. First person to email **editor@computeractive.co.uk** naming the book I'm reading from wins a *Computeractive* mug.

Will Stapley

How do you improve your video calls? Let us know: letters@computeractive.co.uk

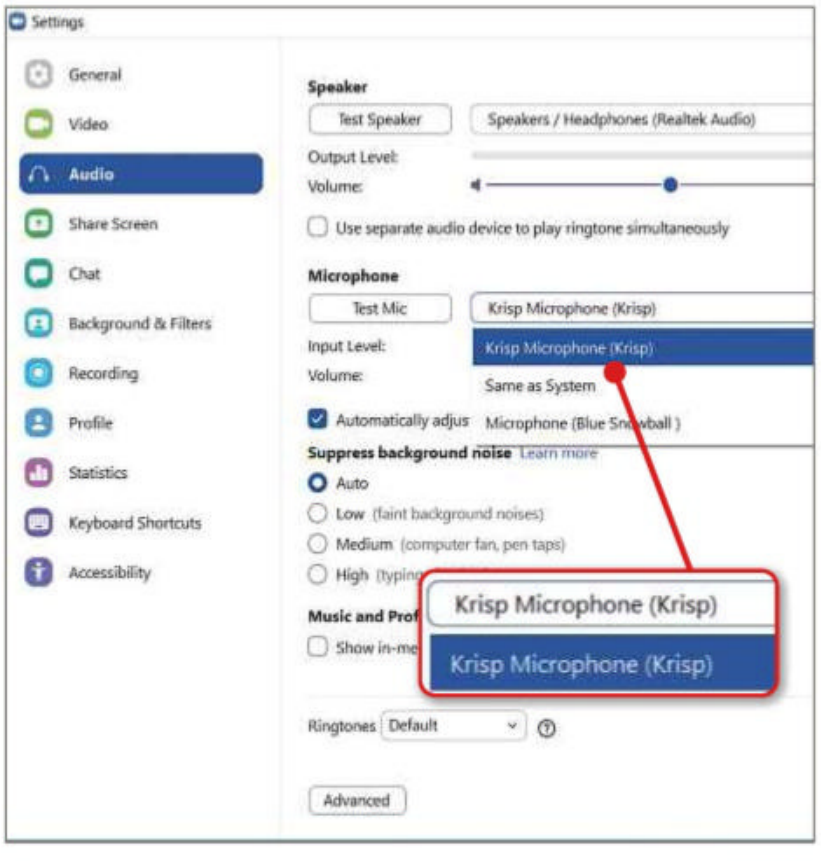
## 4 Use a virtual microphone

If your mic is picking up background noise during video calls, try installing Krisp. This tool takes your audio, cleans the background noise from it, then outputs it through a virtual microphone (Windows treats this like any other microphone, so you can use it in your video calls).

The free version gives you 120 minutes of audio-cleaning per week. Once you've created your free account at https://krisp.ai, click the purple Download button, open the file that downloads and follow the installation instructions. When the Krisp window appears in the bottom-right corner of your system tray, click Get Started, Start Setup, then make sure your preferred microphone and speakers are selected.

To use Krisp in your video-chat tool, you need to set that program to use it as its microphone. In Skype, go to the 'Audio & Video' section of the settings window, scroll to the Audio section, then click the option next to Microphone and select 'Krisp Microphone (Krisp)'.

In Zoom, go to the Audio section, click the dropdown menu next to Test Mic then select the Krisp Microphone option (see screenshot below). We found Krisp worked well at removing constant noises (such as fans and air-conditioning units), but struggled to eliminate sudden loud noises like a phone ringing.




**To use audio-cleaning tool Krisp, set your video-chat program to use its virtual microphone**

## THE BEST HEADSETS FOR VIDEO CALLS

Not everyone wants a bulky microphone like the Blue Snowball Ice (see below) sat on their desk. Here are our top three recommendations for those who prefer headsets

### Jabra Evolve2 65
**£146**
www.snipca.com/38340
This Bluetooth headset keeps going for 35 hours of calls on a single charge, and with comfortable memory-foam cushions on the earpieces it's perfect for long video chats. Its mic mutes when you flip it up, and the headset displays a red light when you're on a call so people know not to disturb you.

### Sennheiser/ EPOS Adapt 135
**£46**
www.snipca.com/38341
If you don't like the idea of having to charge your headset, consider this single-earpiece Sennheiser set, which connects via USB-C or 3.5mm audio. We found the microphone captured high-quality audio and did impressively well at blocking out nearby noise.

### Jabra Talk 25
**£29**
www.snipca.com/38342
One of the cheapest Bluetooth earpieces, the Talk 25 performs well and, thanks to its omni-directional microphone, it picks up only your voice, not those of people in the background. Unlike most wireless earpieces, it has a hook to go over your ear to prevent it falling out mid-call.

## 5 Buy a separate microphone

No matter how much you tweak the settings in Skype and Zoom, sometimes your microphone simply isn't up to the job – a common problem with cheap microphones built into laptops. If this sounds familiar, it's time to buy a separate mic.

Our favourite mic for video calls is the Blue Snowball Ice (£55 from www.snipca.com/38344, pictured right). At 12x21x25mm, it's fairly bulky but pleasingly quirky.

Setting it up takes a seconds. It comes with a small tripod that screws directly into the bottom of the microphone, with the three legs spreading out to form a stand. The socket on the underside is a standard-sized tripod mount, so if you have a larger tripod (such as one for a camera), you can use that instead.

**The Blue Snowball Ice mic connects to your PC via USB cable and doesn't require a separate power supply**

Alternatively, you might consider something like the InnoGear Microphone Stand Set (£15 from www.snipca.com/38343). Once you've attached it to the tripod, you can tilt the microphone to angle it towards your face.

The Blue Snowball Ice has a miniUSB port, which attaches to a USB-A port on your computer via the included cable. The mic gets all the power it requires via USB, so there's no need for a separate power supply (a red LED on the top lights up when it's connected to your PC).

There's no software to install. Once you've plugged the microphone into your computer, Windows will automatically install a driver and set it as your default microphone. We found the mic worked well when we placed it up to around one metre away from us, but it's when you get close to it (around 10cm) that it really shines, picking up and sending clear, rich audio.

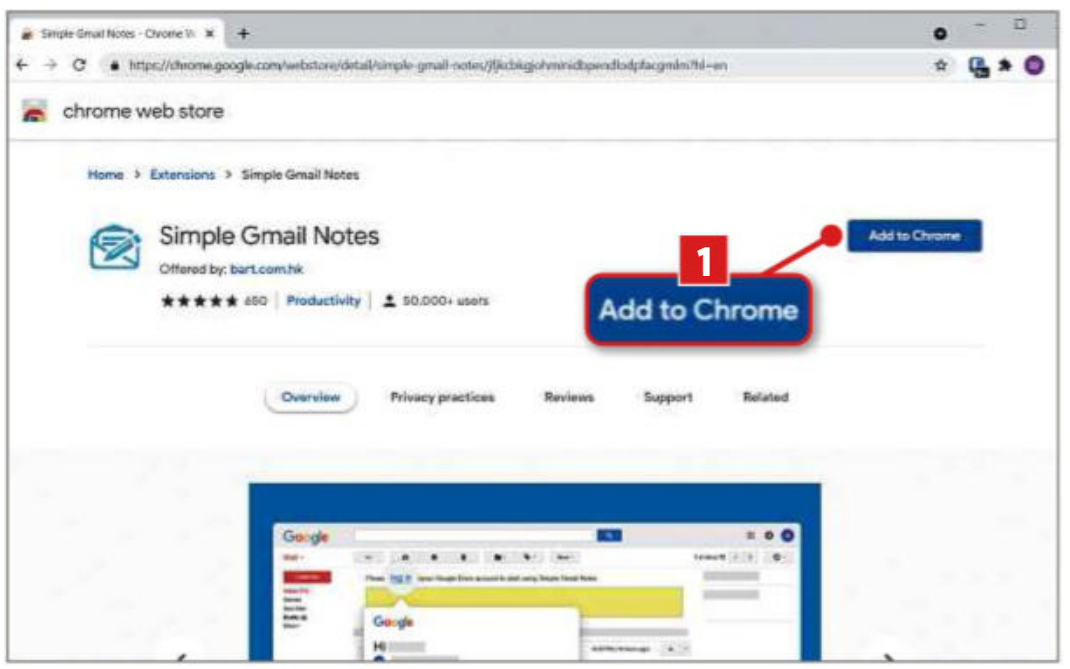
**Next issue:** Boost your computer's audio with a speaker

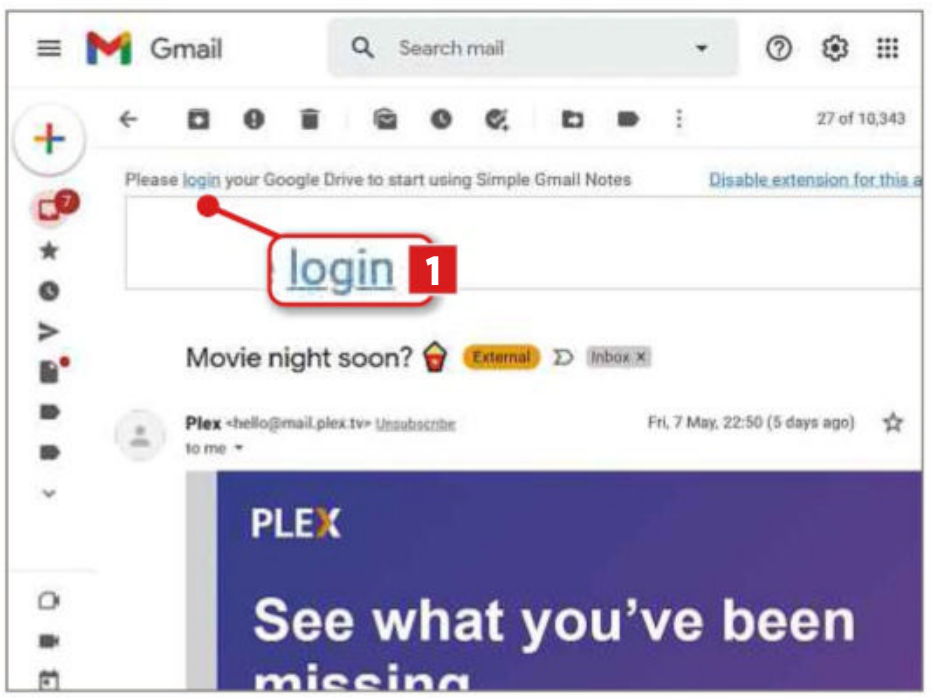
# Add notes to your emails

**What you need:** Gmail account; Simple Gmail Notes; Windows 7, 8.1 or 10
**Time required:** 15 minutes

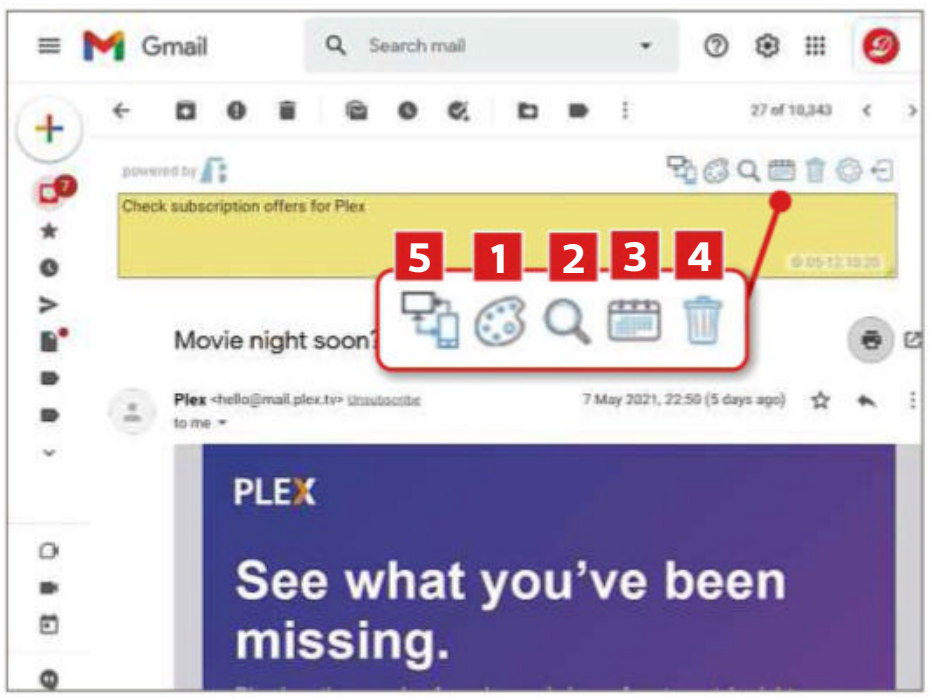
How often do you receive an important email, then completely forget to respond to it or act upon it? Here, we'll show you how to quickly apply notes to your emails in Gmail that can act as a prompt to action using a free extension called Simple Gmail Notes (SGN). Your notes will only be visible to you, and you'll be able to view them no matter where you log into your Gmail account. We've also got a bonus tip at the end explaining how to add notes in Outlook.com.

**STEP 1** The SGN extension works on all major browsers. To install it on a Chromium-based browser such as Chrome, Edge or Brave, go to www.snipca.com/38242 and click 'Add to...' 1 (if a blue bar with a button labelled 'Allow extensions from other stores' appears at the top of Edge, click this, then Allow), then 'Add extension'. To install the extension for Firefox, go to www.snipca.com/38243. Once this is installed, log into your Gmail account at www.gmail.com.

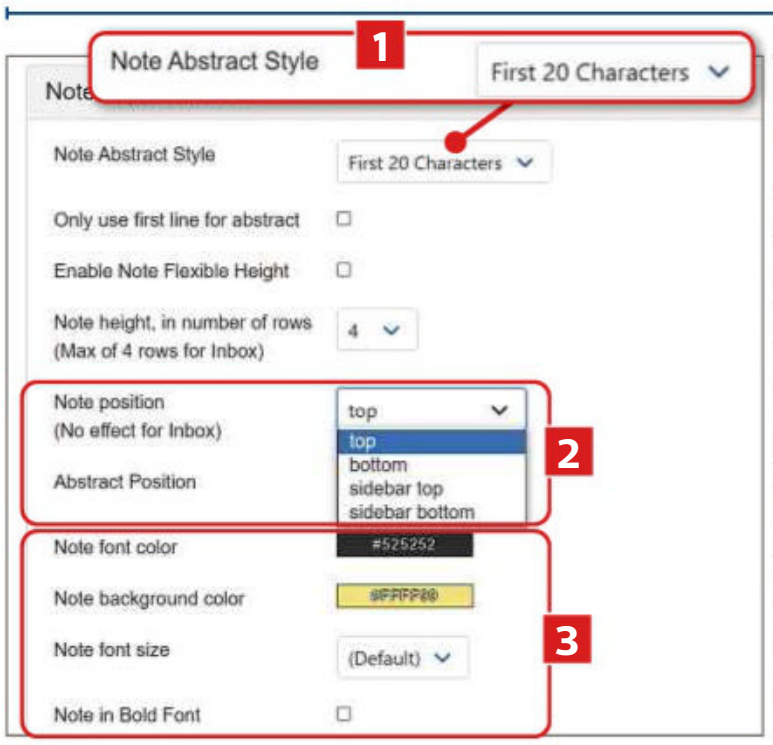


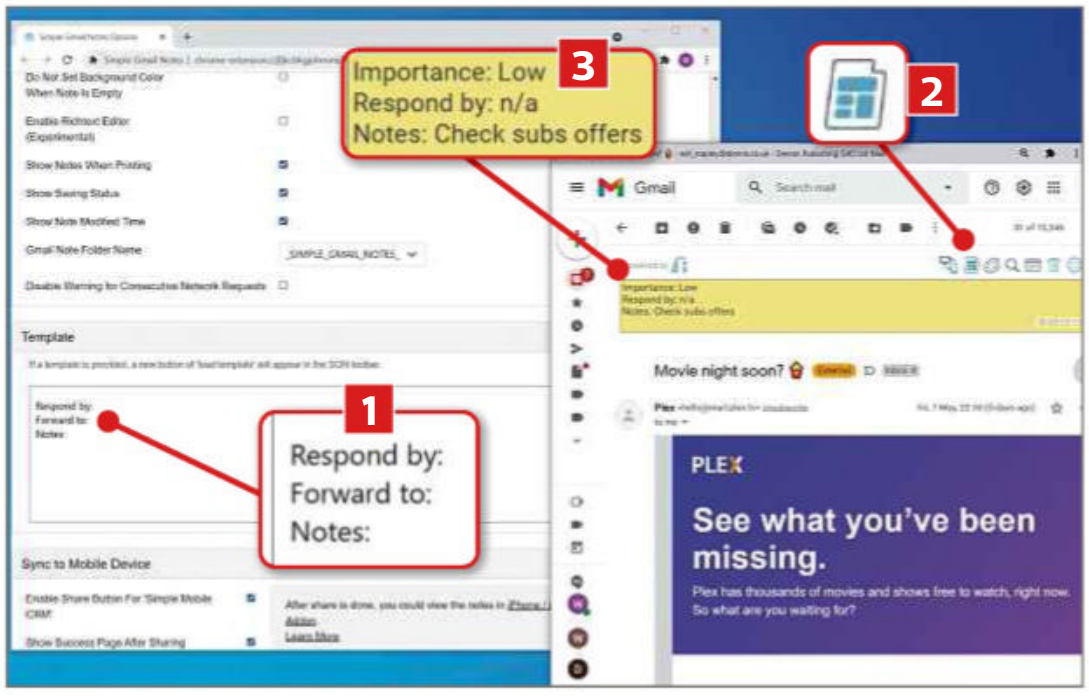

**STEP 2** Open any email and you'll see a new section at the top. Click the Login link 1, enter your Gmail address and password, then click Allow. The section at the top of the Gmail window will now turn yellow, indicating that you're signed into SGN. To create a note on the email you're currently viewing, type your text into the yellow box. There's no Save button – your notes are saved automatically. You can now repeat this process on other emails. When browsing your inbox, those with notes will display the first few characters of the note to the left of the subject line. To view a note in full, simply open the relevant email.




**STEP 3** When creating a note, you can change its background colour by clicking the palette icon 1. You can also search for other notes (magnifying-glass icon 2), create an entry for the email in Google Calendar (calendar icon 3) – useful for setting reminders to reply to an email, and delete the note (bin icon 4). Gmail doesn't let you use extensions on mobile devices, so you won't be able to see your notes when viewing your inbox on your phone or tablet. However, you can view them in a separate SGN app – click the phone icon 5, then follow the instructions.

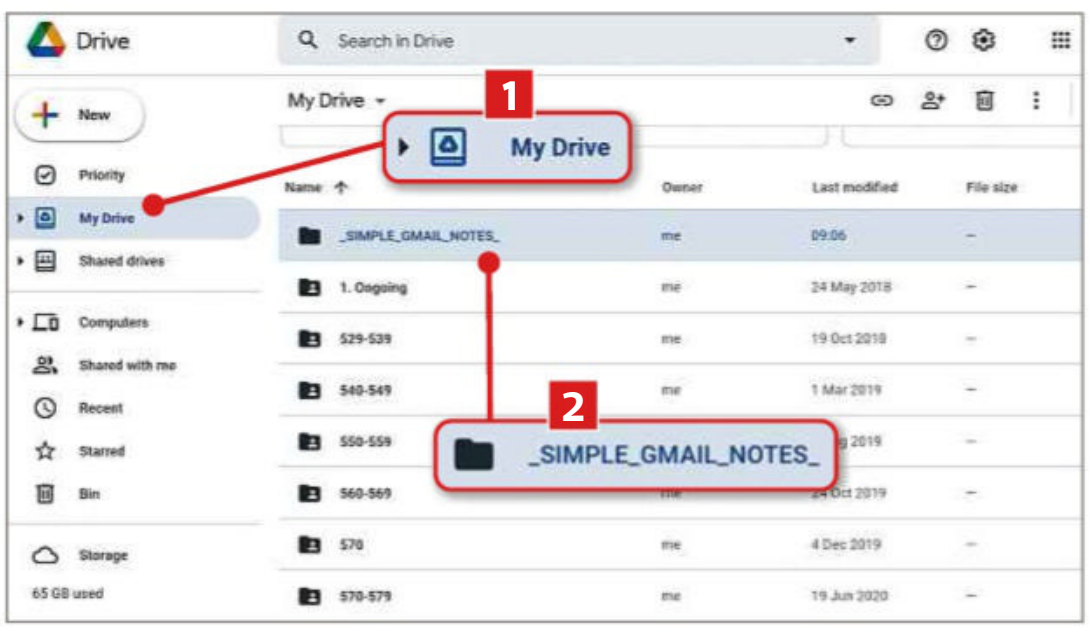


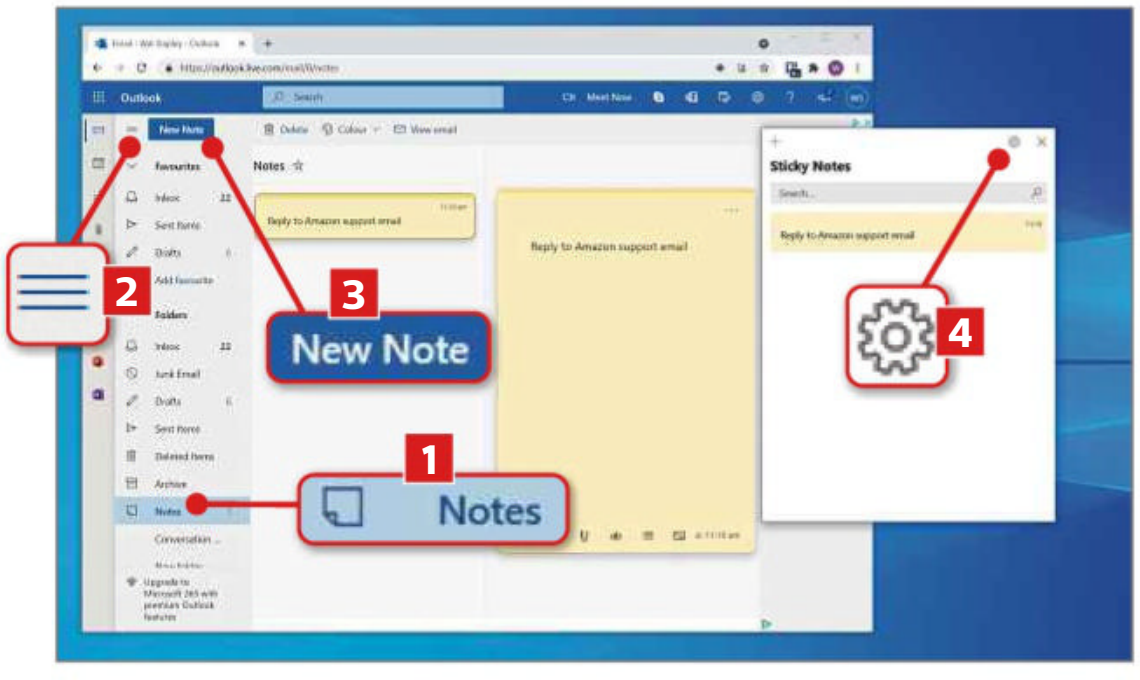

**STEP 4** To further tweak how the SGN extension works, click settings (cog icon to the right of the note box). The first few options adjust how note previews appear in your inbox – the Note Abstract Style box 1, for example, lets you set how many characters of each note are displayed. Further down, you can adjust where the note box appears within each email ('Note position' box 2) and the size, style and colour of the text 3.




**STEP 5** You can also create a template for your notes (such as a series of headings with specific information). In the settings window, scroll to the Template section, then type whatever you want in your template 1. Click the Save button at the bottom. When you next open an email, you'll see a new Template button 2 in the toolbar to the right of the notes box (second from the left) - click this and your template text will appear in your note 3.

**STEP 6** The SGN extension saves all your notes to your Google Drive account. You can view them within Google Drive by logging into your account at www.google.com/drive, selecting My Drive 1 in the menu on the left, then opening the '_SIMPLE_GMAIL_NOTES_' folder 2. Each note is saved as a separate Google Docs file – click one to open it, or select it then press Delete to remove it (doing this means the note will also disappear from your inbox).




**STEP 7** There isn't an equivalent extension for adding notes to individual emails in Outlook.com (Microsoft's online version of Outlook). However, you can create general notes in Outlook.com, then sync them with your PC. To do this, log into your email account at www.outlook.com, then click Notes 1 in the menu on the left-hand side. If you can't see this, click the menu button (three horizontal lines, top left 2). Next, click New Note 3 to create your note. To view your notes on your PC, open Sticky Notes (search for it in the Start menu), click the cog icon (top right 4), then sign into the same account you use for Outlook.com. All your Outlook.com notes will now sync with the app (and vice versa).

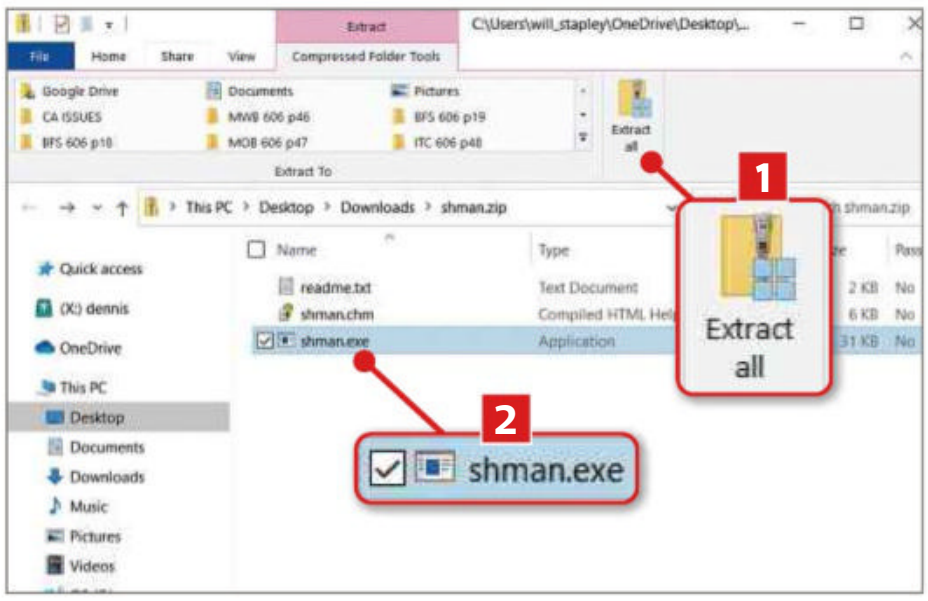
# Workshop 2

# Repair your broken Windows shortcuts

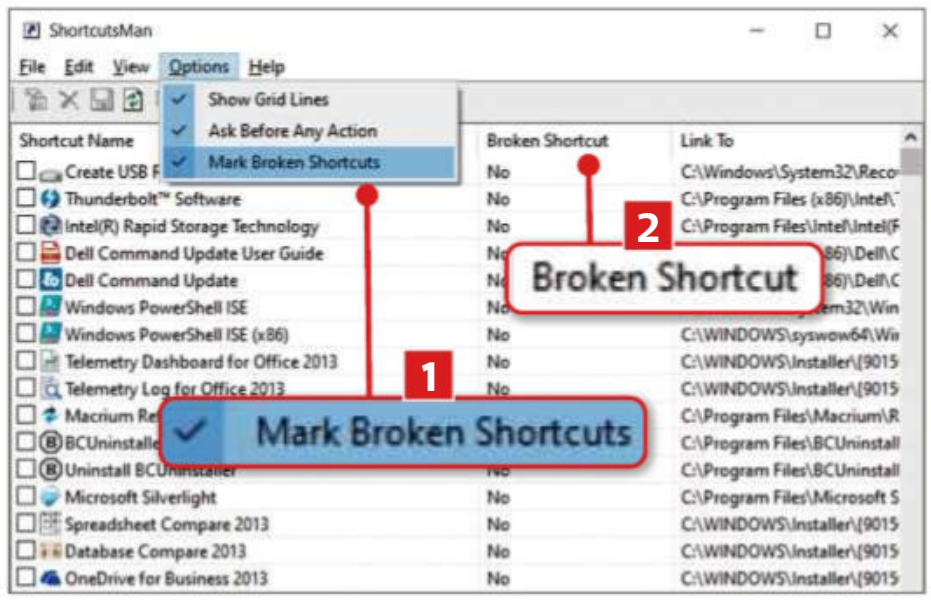
**What you need:** ShortcutsMan; Everything; Windows 7, 8.1 or 10
**Time required:** 30 minutes

Many of the icons on your desktop will probably be shortcuts, which are links to files or programs elsewhere on your hard drive (you can spot a shortcut icon by the small arrow in the bottom-left corner). Over time, these shortcuts can break, such as when the file they point to is moved or renamed. When you click a damaged shortcut Windows will display an error message. In this Workshop, we'll show you how to identify broken shortcuts, then delete those you no longer need and fix those you want to keep.

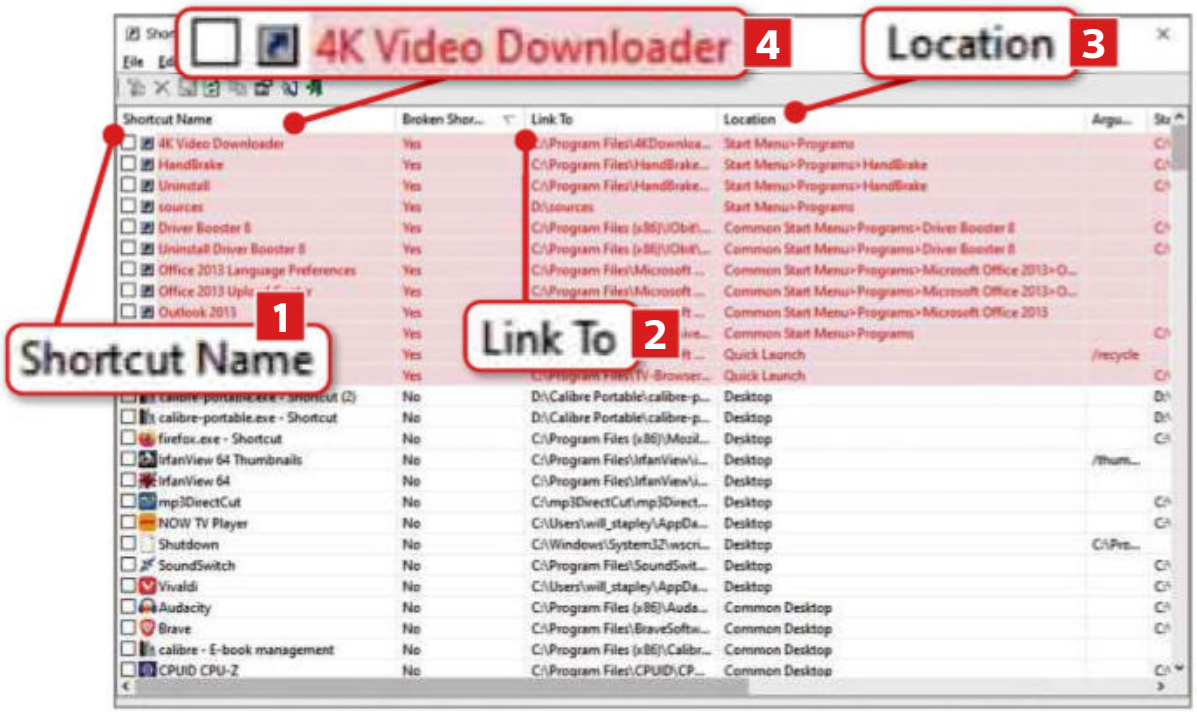
**STEP 1** You may already have a specific broken shortcut that you want to fix, but it's worth finding out if there are any others that need attention. For this, download NirSoft's ShortcutsMan (www.snipca.com/38237 - scroll to the bottom of the page for the download links). Run the ZIP file that downloads, click 'Extract all' 1 in the File Explorer window that opens, then follow the instructions and choose where to save the files. Once complete, a second File Explorer window will open - double-click 'shman.exe' 2 to run ShortcutsMan.

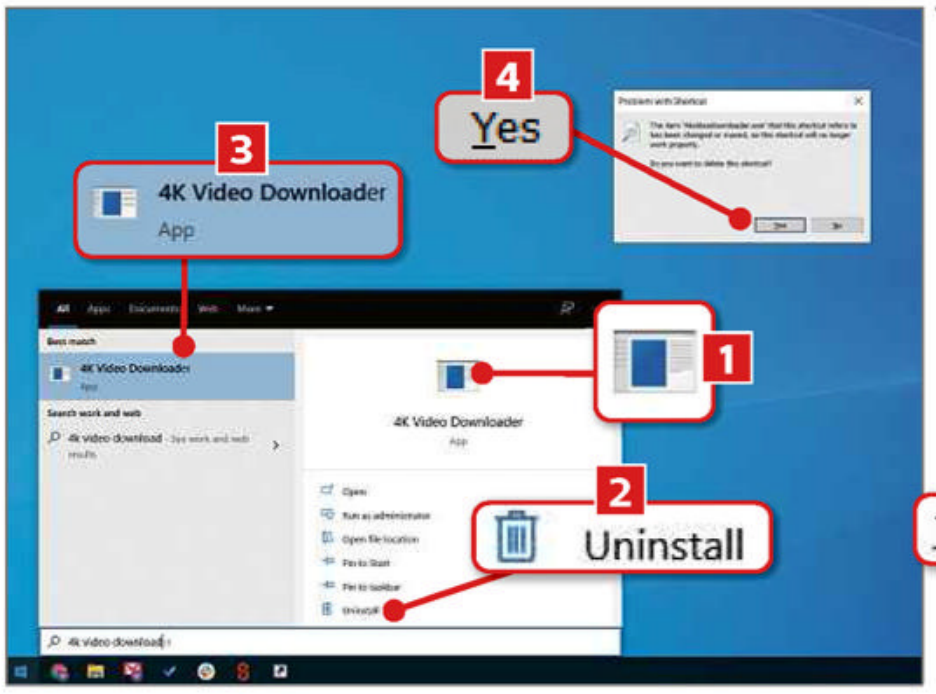



**STEP 2** When the tool opens, you'll see a long list of all the shortcuts on your hard drive. To make it easier to identify those that are broken, open the Options menu, then select Mark Broken Shortcuts so that a tick appears next to it 1. Next, click the Broken Shortcut column header 2 twice – this re-orders the list so that all broken shortcuts are at the top (they'll be highlighted in red).

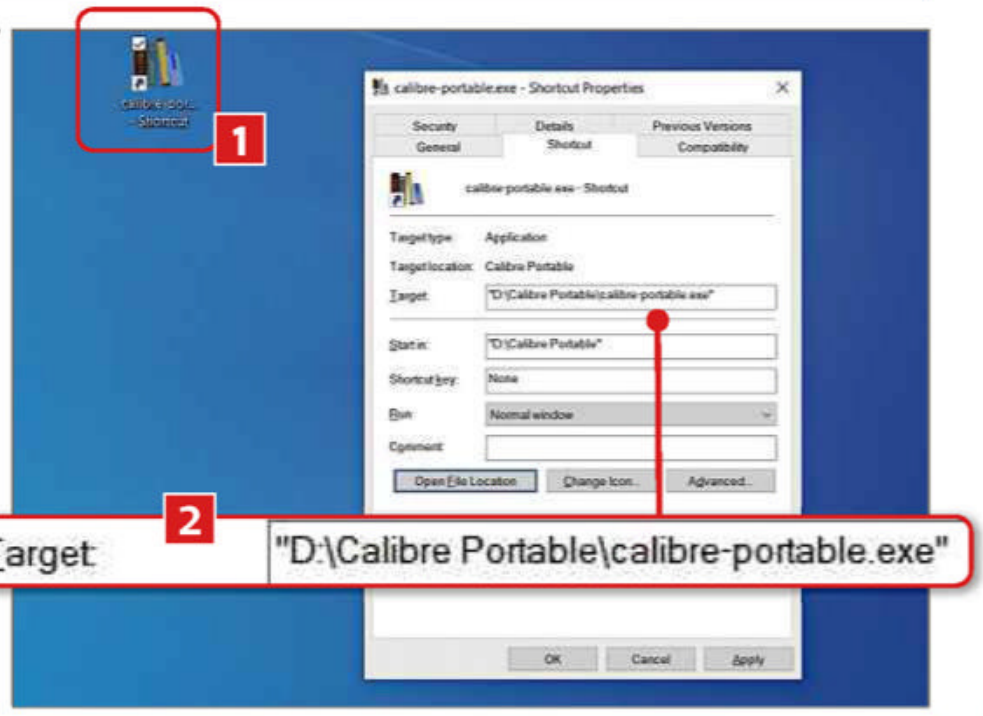



**STEP 3** The name of the program or file each shortcut links to is listed in the Shortcut Name column 1, while the Link To column 2 shows the folder that the shortcut points to. It's also worth looking at the Location column 3, which tells you where the shortcut is located (those listed as being in the Common Start Menu appear in the Start menu for *all* user accounts, not just the one you're currently using). First, we'll deal with the 4K Video Downloader shortcut 4, which is a remnant from a tool that we've previously uninstalled.

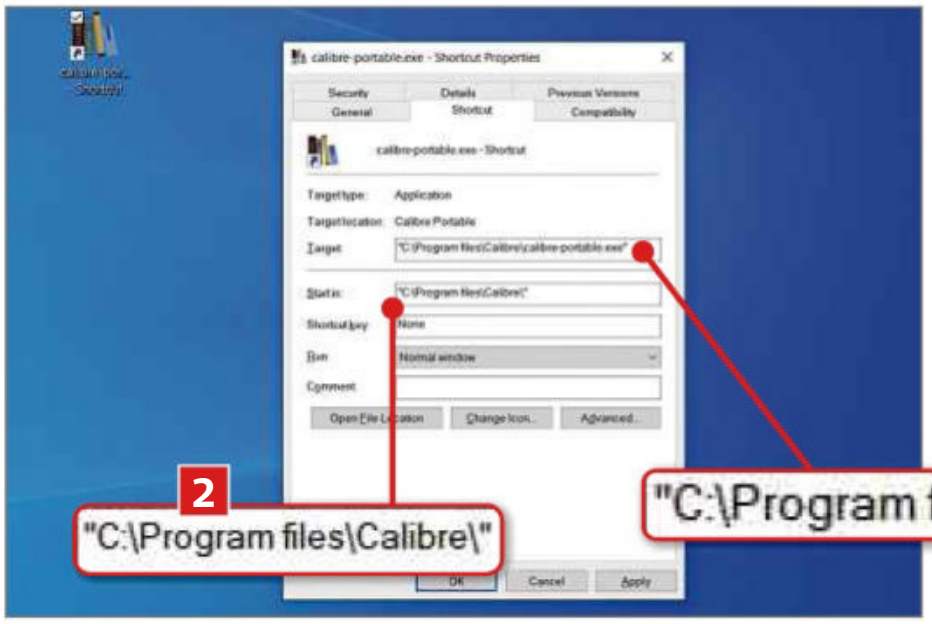





**STEP 4** The Location column says this broken shortcut is in the Windows Start menu, and typing 4k video downloader in the Start menu confirms this. Like most broken shortcuts, it has a generic Windows shortcut icon 1 instead of the icon of the program itself. Clicking 'Uninstall' 2 takes us to the 'Uninstall or change a program' section of Control Panel, but the program isn't listed because we've already uninstalled it. Instead, to remove this shortcut we have to run it 3. Windows will now display an error message, prompting you to delete the shortcut. Click 'Yes' 4 and the shortcut will disappear from your Start menu.

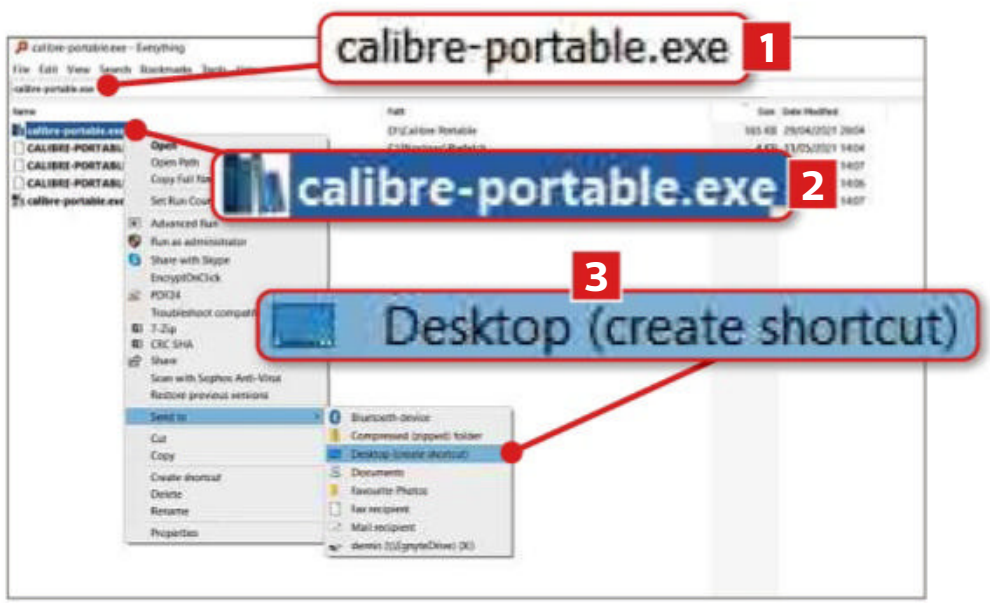



**STEP 5** Windows 10 has a feature called Distributed Link Tracking that attempts to update shortcuts when the files they link to are moved or renamed. However, it doesn't always work. On our PC, we have a broken shortcut for the portable version of the ebook software Calibre 1. To find out more about the shortcut, right-click it, then select Properties. The file the shortcut is trying to open will be listed in the Target box 2. In our example, it's looking for Calibre in a partition on our hard drive that no longer exists.




**STEP 6** If you already know the location of the file the shortcut should be pointing to, you can update the shortcut yourself. To do this, delete the text in the Target box, then type the program's full file path (including its file name) – if the file path or file name includes spaces, enclose the entire text in double quote marks 1 (press Shift+2). Next, enter the same text in the 'Start in' box, minus the file name 2. Click OK to update the shortcut.

**STEP 7** If the shortcut still doesn't work, or you don't know the new location of the file it links to, it's time to do a bit of investigative work. Install the free search tool Everything (www.voidtools.com), which is faster and more accurate than Windows' search tool. Once installed, run Everything then type the file name linked to the broken shortcut in the previous step (calibre-portable.exe 1 in our example). Everything will now scan your hard drive for the file and, if it finds it, will list it in the results pane 2. Double-click this entry to make sure it launches your program, then return to the Everything window, right-click the file entry, select 'Send to', then 'Desktop (create shortcut)' 3. The new shortcut will now appear on your desktop (you can delete the broken shortcut).



# Readers' Tips

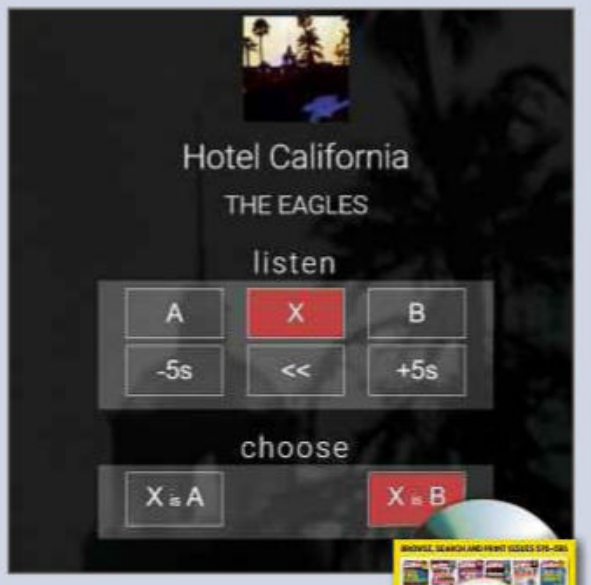
## TIP OF THE FORTNIGHT

## Check if you can hear lossless audio

My hearing has slowly deteriorated with age, so I've often wondered whether my ears can still tell the difference between lossless audio and normal. I checked using a clever site that plays you tracks from Spotify.

Visit www.snipca.com/38062 and click Do The Test. Read the instructions, then click the 'I'm busy, do 5 trials' button. On the next screen click the X in the middle. Now click the A and B buttons and listen carefully to work out which sounds the same as X (only one of them does). When you've decided, click 'X is A' or 'X is B' at the bottom (see screenshot), then 'next'. You'll now hear the same track a further four times, so make your decision on each. Repeat this for four more tracks, so in total you'll be tested 25 times. You'll then see your results. When I first took the test I was convinced I couldn't tell the difference, and so it proved. The site said that it was unlikely I could tell the difference between lossless and non-lossless. It didn't really bother me – just one less thing to worry about as you get older!

**Simon Crystal**




**Simon wins a copy of our 2020 Back Issue CD**

**Buy it on Amazon www.snipca.com/38164**

### ROUTER

## Use a cider (or beer!) can to boost your Wi-Fi

I made a Wi-Fi booster out of a cider can just like Robert Irvine did in Issue 604 (page 74), though he chose a beer can. Being careful not to cut off my fingertips, I placed it around the wireless security camera in my kitchen (pictured above).

My router is in the living room over 20 feet away. Before, I had to leave two doors open to send a signal from router to camera. But now that I've added the cider can the signal is a lot stronger and faster even with the door closed. Thanks, Robert!

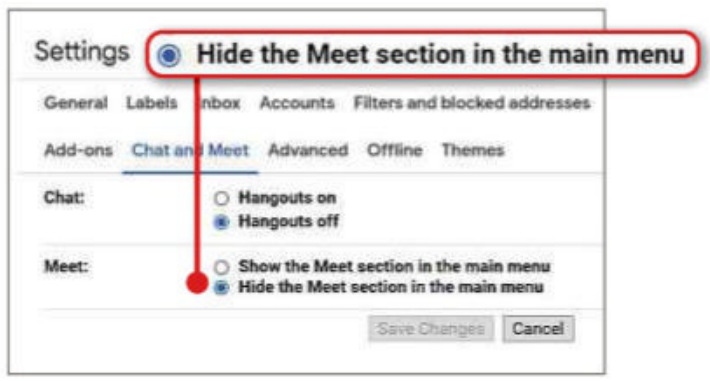
**Brian Brown**

### EMAIL

## Hide Google Meet in Gmail

A few months ago Google added a Google Meet button as an option in the left-hand menu of my Gmail account. It sat there doing nothing except taking up space and making it hard for me to see and click the folders I needed to access every day.

After some toil, tears and sweat (thankfully no blood), I discovered how to remove it. Click the Settings cog at the top right of Gmail's main page, then 'See all settings'. Now click the 'Chat and Meet' tab at the top and select 'Hide the Meet section in the main menu' (see screenshot above). Finally, click Save Changes. You'll no longer be plagued by this pointless option – well, it was pointless for me anyway!




**Raymond Eves**

## Why I stopped using...

### Google Chrome

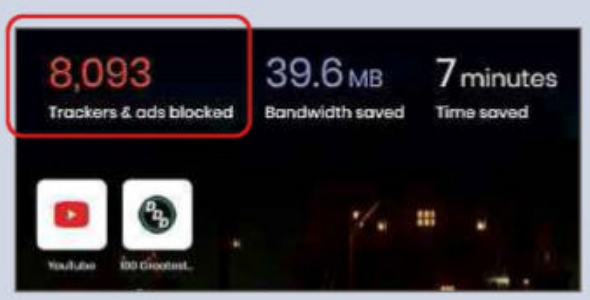
I was getting ready to listen to a Beethoven symphony on YouTube in Chrome when once again my anticipation was punctured by an advert. But rather than close it, I looked again. It was an ad for the browser Brave, urging me to switch because it doesn't show ads on YouTube. How's that for irony?

### And what I use instead...

I've been using **Brave** for three weeks now, and I've not heard a single advert while listening to music on YouTube. That compares to about five an hour on Chrome.

I still use Chrome for other types of browsing, partly out of habit and partly because I've got years of bookmarks stored on it. But these days I always have Brave open in the background playing YouTube. Over time I suspect I'll gravitate towards Brave. I'm probably not brave enough (sorry) to switch everything right now, but I'll certainly be using it more and more.

Also, every time I open a new tab Brave tells me how many ads and trackers it has blocked (see screenshot).




It's a simple download from https://brave.com.

**Terry Gibbon**

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

AUDIO

## Control TV speakers from your headphones

In Letters, Issue 604, Chris Innes raised a question about why his TV's speakers disconnected as soon as the headphones were plugged in.

In 2019 we purchased a Sharp LC-40UI7552K TV, and later bought a Bluetooth transmitter (around £5 from eBay) to try listening to it with wireless headphones. I came across an unusual functionality of this TV – the internal speakers did not turn off when I plugged in the transmitter, allowing me to have both options at the same time. I could control the TV speaker's volume separately from the headphones, and by turning the TV volume right down I could listen using headphones only.

I don't know if this is a function of the TV or whether the transmitter has been designed to keep the speakers playing, but this set-up does the job admirably.

**Brian Windsor**

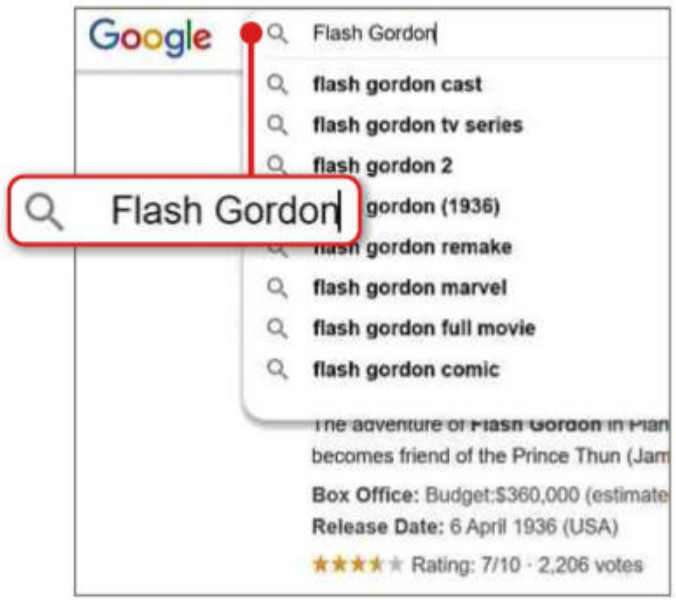
SHORTCUTS

## Press forward slash to leap back to Google search box

Few things in computing give me as much pleasure as learning and then memorising a keyboard shortcut. It proves to me that you can teach an old dog (69 years old, to be exact) new tricks. My latest favourite is pressing / (the forward-slash symbol) to return to the Google search box.

If you've searched for something on Google, you've always had to use your mouse to get back to the search box to type something else. Now you just need to press / and your flashing cursor will shoot back to that box (see screenshot below), no mouse required. After a few days I was doing this instinctively.

**Gerald Curtis**




## Reader recommends...

### Lenovo Yoga Smart Tab

**£177** (32GB) **£199** (64GB) from Amazon www.snipca.com/38173

When looking for a new Android tablet to replace an old Nexus 7, I found this Lenovo model that's aimed squarely at entertainment use.

'Yoga' is a strange name, and the tablet is a strange shape, but for very good reasons. The base is shaped like a tube that looks like it might hold AA batteries, but actually houses two small, round JBL speakers. The sound is hugely superior to normal flat tablets that have squashed, tiny and tinny speakers.

The tube at the bottom is also a very useful hand-hold, stopping the tablet slipping through your fingers. The back has a sturdy multi-position kickstand which doubles as a wall hanger.

The 10.1in IPS screen is very crisp, there are two cameras, and Google Assistant is on board. Inside is a huge 7000mAh battery that promises to run for 10 hours of video. I haven't managed to run it down in one go yet. I keep asking myself why I waited so long to upgrade that old Nexus 7.

**Phil Hughes**

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

AUDIO

## Pause recording between tracks using Audacity

I read your Workshop in Issue 604 (page 38) about using Audacity to split recordings of LPs into individual songs. I've done this myself using the headphone jack socket of an LP deck.

I have an older PC with a 3.5mm audio input socket, so I plugged one end of a 3.5mm aux cable into it, and the other end into the LP deck's socket. I attached a pair of headphones to a headphone splitter so I could hear what I was recording.

Now fire up Audacity (www.audacityteam.org). One thing to watch carefully is the recording volume. As long as the waveform is between the upper and lower limits, your recording won't be distorted. If you think the volume is too low, select the whole track using Audacity, then click the Effect menu and select Amplify. This will automatically increase the selection to the maximum possible volume without distortion. Now you can go to File, then 'Export as wav' or whichever file type you require.

The advantage to this method is that you can hear what you're recording, and then stop Audacity exactly when the track finishes, rather than making a huge file you have to split into tracks.

**Bill Power**

TV

## Buy an eight-way LNB for multiple Freesat setups

Following your interesting How To feature on Freesat in Issue 604 (page 35), I thought I'd share my own Freesat setup. We've just moved from Kent to a mid-Wales village, which has limited Freeview (just 15 channels). Fortunately, the previous owner had installed Sky, so I ordered an eight-way low-noise block (LNB) – such as this pictured £29.99 model: www.snipca.com/38114 – to replace the original four-way unit, and proceeded to hook up a Humax HDR box with two outputs and a Samsung smart TV with two outputs. I followed that with a Manhattan TV box in the kitchen, another doubling up with a Samsung TV/PC monitor, and finally a seventh one in the garage to watch while on the exercise bike. That leaves a spare eighth one, for another day!

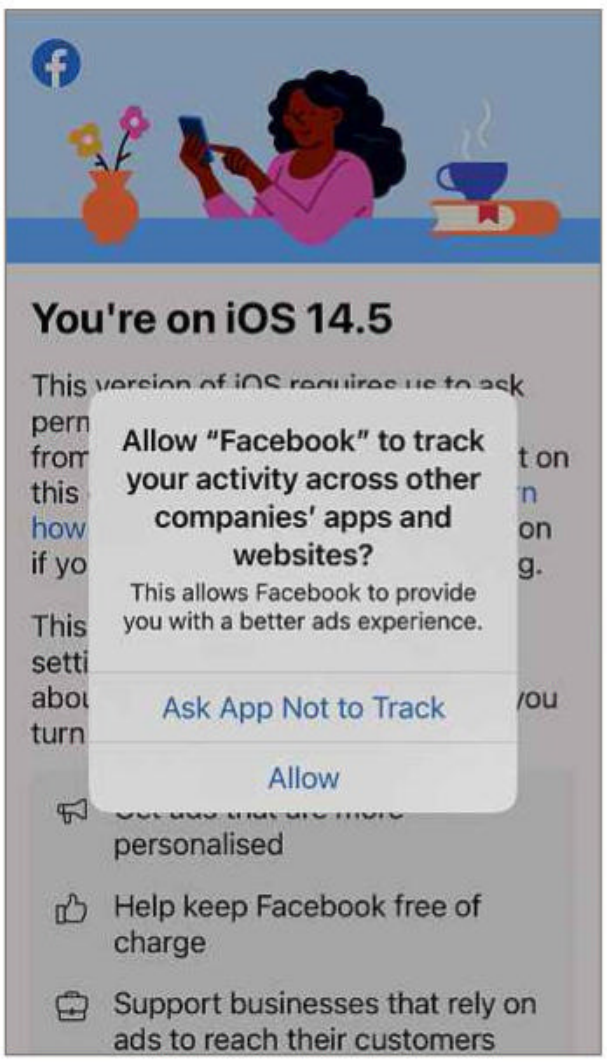
**Colin Pengelly**

# Phone and Tablet Tips

iOS

## Block or allow app tracking

The next full version of Apple's iOS isn't due until later this year but the operating system's recent 14.5 update has added a surprisingly wide selection of new features, including a handy new way to control your privacy. It's called App Tracking Transparency and has been causing a certain amount of consternation among big tech companies because it stops apps like Facebook from tracking users' activity across the internet.




To use App Tracking Transparency, you'll first need to make sure you've updated your device to the latest version of iOS (currently 14.5.1). Tap Settings, General, then Software Update to check which version you're using – if you haven't got the latest update yet, tap 'Download and Install' and follow the instructions to complete the process.

Next, tap Settings, Privacy, then Tracking. You'll see a new 'Allow Apps to Request to Track' option here. By default, this is disabled, which means that tracking is already blocked for all apps. If you're happy with that, you can leave this setting as it is. For more control over which apps are blocked, tap the slider next to 'Allow Apps to Request to Track'.

Now, whenever you open an app that wants to track you, you'll see a new notification to 'Allow App to track your activity across other companies' apps and websites' (see screenshot left). To block the app, tap 'Ask App Not to Track', otherwise tap Allow.

Return to Settings, Privacy, then Tracking to see a list of apps you've allowed or blocked. To allow an app you've previously blocked, tap the slider next to it in the list.

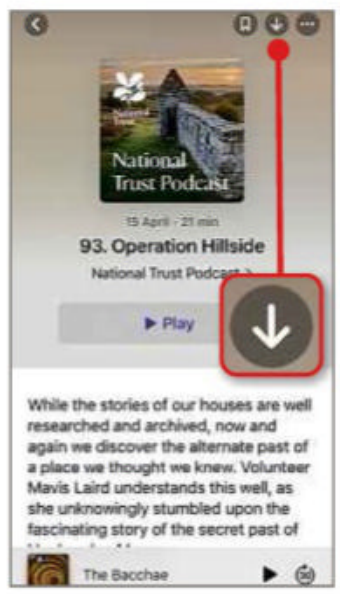
It's worth noting that blocking apps from tracking you won't block adverts altogether – it means you'll see generic adverts, rather than ads targeted to your online behaviour.

iOS

## Follow and save shows in Apple's new Podcasts app

The new iOS 14.5 update also makes some big changes to the way Apple's Podcasts app looks and works. After installing the latest iOS update (see previous tip), launch the Podcasts app and you'll notice the layout is different. Tap the Podcasts tab, for example, then tap a show and you'll notice there's no longer an option to subscribe to it. Instead, you can tap the plus sign (+) in the top-right corner to 'follow' the show. Doing so adds all existing and future episodes of the show to your library, though it doesn't download them to your device unless you tap an individual episode, then tap the down arrow in the top-right corner (see screenshot below).

If you don't want to add an entire show to your library, you can use the Save option to add individual episodes. Tap the Podcasts tab, then tap a show and scroll through the episodes until you find the one you want. Tap it, then tap the bookmark icon in the top right to save it for later. Episodes you've saved can be found by tapping the Library tab, then Saved.



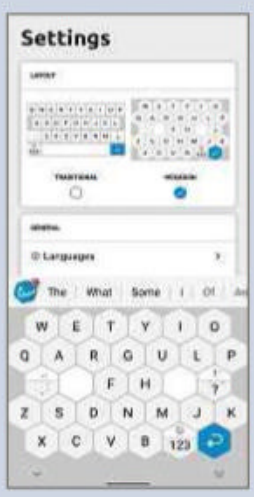

## BEST NEW APPS What you should install this fortnight

### Typewise

**Free***

**Android** www.snipca.com/38210
**iOS** www.snipca.com/38211

Typewise has released a new version of its highly customisable keyboard for Android and iOS. The update introduces a fresh interface, improved autocorrection and an option to protect your privacy by switching to offline mode. Unlocking all of the Pro version's advanced features, will cost you £5.99 per year.




### DrawPortal

**Free***

**Android** www.snipca.com/38209

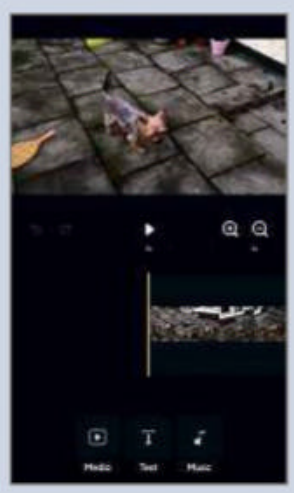
DrawPortal is a fun new way to connect with people online. It's a drawing app that lets you sketch with other users over the internet – perfect for enjoying time with far-flung grandchildren. There's even a simplified Baby Mode for younger users. DrawPortal is free to use but in-app purchases unlock additional features.

### Splice

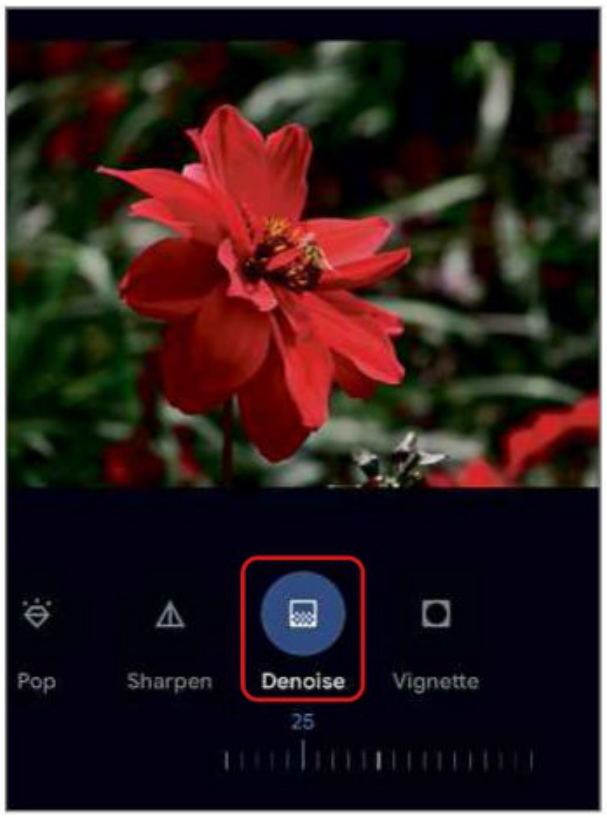
**Free**

**Android** www.snipca.com/38221

Until recently, this award-winning video-editing app was exclusive to iOS, but has now been released for Android. At launch, the Android version seems slightly more basic, but updates are promised. It's very easy to use and lets you trim clips, add music, adjust speed and is (for the time being, at least) free with no adverts.



*Contains in-app purchases




ANDROID

## Use Google Photos' new tools to enhance your shots

Google has updated its Photos app with two new tools for improving your images: Sharpen and Denoise. To find them, launch the app, open a photo you'd like to improve, then tap Adjust in the editing options below and scroll to the right. The Sharpen tool can be used to improve shots that look soft or blurry. Tap it, then use the slider that appears below to set the intensity of sharpening you require. Tap 'Done' when you've finished. The Denoise tool (see screenshot above) can reduce graininess, noise and other distortions in your shots. As with Sharpen, tapping Denoise brings up a slider that you can use to adjust the strength of the effect. Once you've got it how you want it, tap Done.

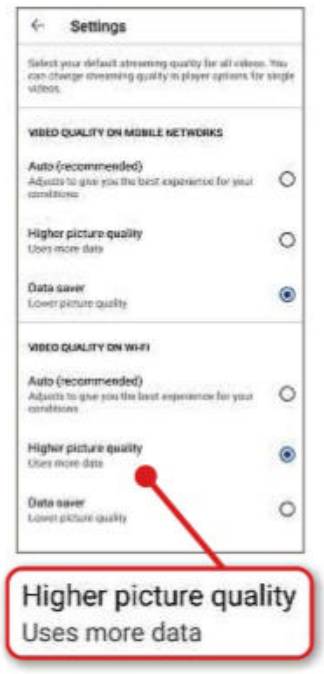
To take advantage of these new features, make sure you've updated your Photos app to the latest version via the Google Play app.

ANDROID & iOS

## Set your default video quality in YouTube

For some time now, the YouTube mobile app has defaulted to Auto mode when it comes to video-playback quality. Auto mode attempts to intelligently select the appropriate resolution and bitrate, depending on the type of connection you're using. It's possible to select a higher or lower resolution while playing a video by tapping the menu button (three dots), then tapping Quality and selecting the resolution you require. But, thanks to a recent update, YouTube now offers a new way to customise your playback quality settings.

On the YouTube main screen, tap your account icon in the top-right corner, then select Settings. Now tap 'Video quality preferences'. The next screen is divided into two sections – in the top section you can choose quality settings for when you're streaming over mobile data, and in the bottom for when you're viewing over a Wi-Fi connection. In both cases, you'll see three options – Auto, 'Higher picture quality' and 'Data saver'. Auto is selected by default here, but you might choose to change the mobile option to 'Data saver' and the Wi-Fi option to 'Higher picture quality' (see screenshot left). That way, you'll always get higher resolutions by default when you're at home but YouTube will play lower-quality versions of videos while you're out and about, to avoid eating into your mobile-data allowance.




## BEST APPS FOR... Tying knots

### Knots 3D

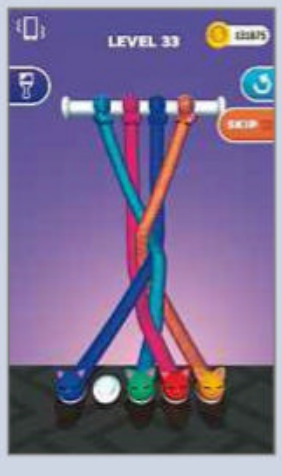
**£5.49 (Android), £5.99 (iOS)**
**Android** www.snipca.com/38212
**iOS** www.snipca.com/38213
At just over a fiver, this app might seem relatively expensive, but it provides an exhaustive reference, with more than 150 different knots detailed and displayed in 3D, all of which can be rotated, zoomed, slowed down and viewed from every angle to help you learn how to master them.
**Best For** A more comprehensive selection

### What Knot To Do

**Free**
**iOS** www.snipca.com/38214
This wittily named app is a bit more back-to-basics compared with Knots 3D above, with straightforward step-by-step guides to tying more than 70 knots. Usefully, however, the app arranges knots by activity – fishing, sailing, camping and so on – as well as by name.
**Best For** Identifying knots for specific activities

### Tangle Master 3D

**Free***
**Android** www.snipca.com/38215
**iOS** www.snipca.com/38216
This app takes the humble knot and turns it into a fun puzzle game, where you're tasked with untying various tangled ropes in the correct order, over the course of hundreds of increasingly challenging levels. The game itself is free, though there are adverts and in-app purchases to unlock extra lives.
**Best For** Knot-based puzzles



*Contains in-app purchases

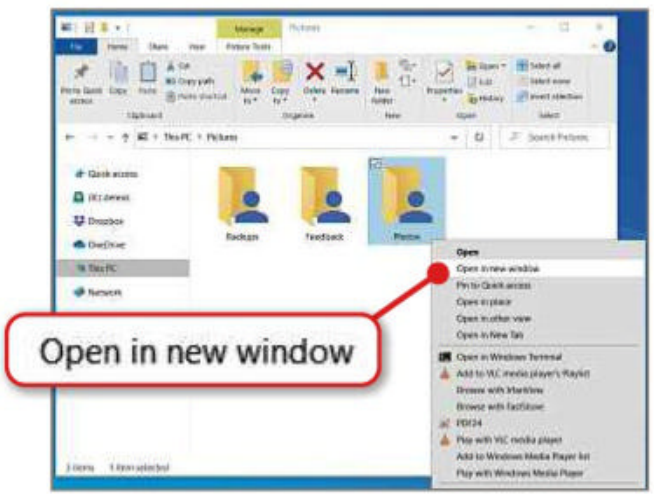
# Make Windows Better

## Expert tips for every version

WINDOWS 7, 8.1 & 10

### Open folders in new windows

When you double-click a folder in File Explorer (which you can open by pressing the Windows key+E), the contents of that folder will appear in the same File Explorer window. Sometimes, however, you'll want to open it in a new window, such as when you want to compare the contents of two folders or drag and drop files between them.



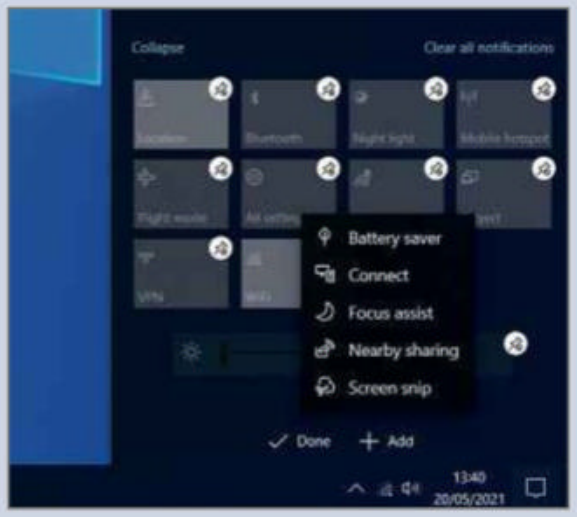

To do this, hold the Ctrl key when double-clicking a folder. The folder will then open in a separate File Explorer window, allowing you to place it and the original File Explorer window side by side. Windows 7 doesn't have the same shortcut, but you can open a new File Explorer window by pressing Ctrl+N – the new window will be set to the same folder as the original File Explorer window (this also works on Windows 8.1 and 10). Finally, if you prefer using your mouse, you can simply right-click a folder, then select 'Open in new window' (see screenshot above).

WINDOWS 10

### Customise Action Centre buttons

Windows 10's Action Centre lets you review recent notifications and turn on settings including Wi-Fi, Bluetooth and Windows' mobile hotspot tool. There are two ways to open the Action Centre. One is to click its icon (a square speech bubble) on the right of your taskbar – if you can't see this icon, right-click an empty section of the taskbar, select 'Taskbar settings', then scroll down the 'Notification area' section, click 'Turn system icons on or off' and click the slider next to 'action centre'. Alternatively, you can open it using the Windows key+A keyboard shortcut.

You can also customise the options in the bottom half of the Action Centre. To do this, right-click one of the buttons and select 'Edit quick actions'. To remove a button for a setting you don't need, click the circular pin icon at the top-right of the button. To add new buttons (and get back ones you've previously removed), click the Add button at the bottom, then select from the list (see screenshot). When you've added your chosen buttons, click Done.




You can also use the buttons to access the relevant section in the Windows Settings app – right-click a button, then click the 'Open...' or 'Go to Settings' option.

WINDOWS 10

### Access taskbar programs quicker

When you've got multiple windows open for the same program (such as a collection of Edge windows), navigating between them isn't always easy. One option is to use Alt+Tab, but you'll need to locate the Edge window you want among all your other open windows. A better way is to hold Ctrl, then left-click the program's icon on the taskbar. This will display each of your open windows for that program in turn, even if they were previously minimised.

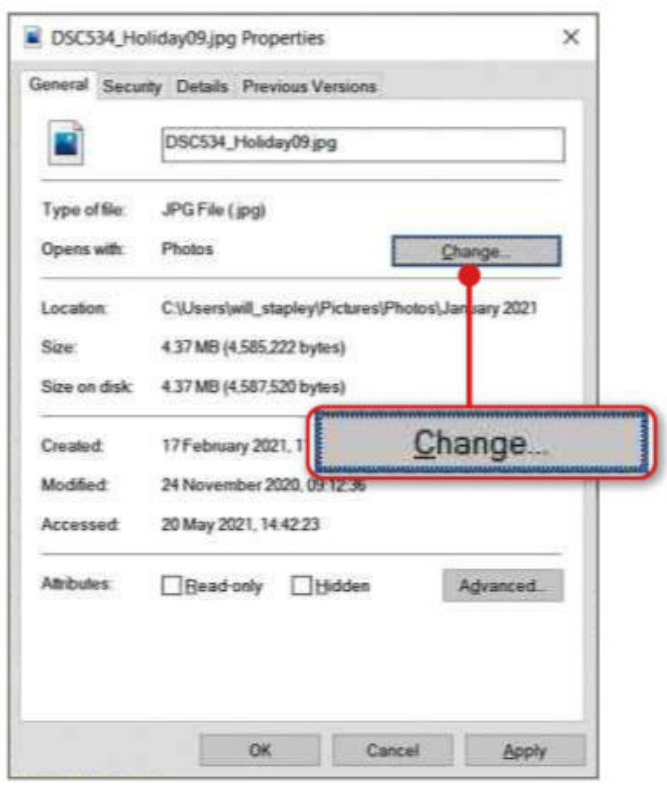
You can also use the taskbar to quickly minimise all the open windows for a specific program. Hold Shift, right-click the program's icon, then select 'Minimise all windows' (see screenshot below left).

WINDOWS 7, 8.1 & 10

### Easily set default programs

Windows 8.1 and 10 let you set the default programs for specific files in the Settings app (press the Windows key+I). Next, go to Apps, 'Default apps' and click 'Choose default applications by file type'. In Windows 7, you'll find similar options by clicking the Start button, then Default Programs.

If that sounds like too much of a faff, there's an easier way. Press the Windows Key+E to open File Explorer, then right-click the file that you want to change the default app for and select Properties. Make sure the General tab is selected in the Properties window that opens. You'll see the current default program listed for this file type next to 'Opens with:' at the top of the window.




To change it, click 'Change...' (see screenshot above), then select a program from the list. If the program you want to use isn't shown, scroll to the bottom of this list and select 'More apps', 'Look for another app on this PC', then navigate to the EXE file for your chosen program. Select it and click Open.

To save your changes, click OK in the Properties window.

MICROSOFT EXCEL & LIBREOFFICE CALC

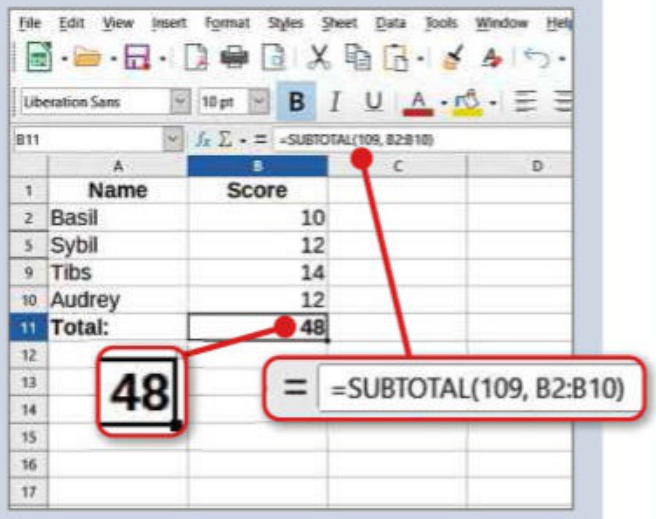
# Calculate visible rows only

Both Excel and Calc let you temporarily hide specific rows simply by selecting the relevant rows, right-clicking that selection within the rows column, then clicking Hide (Excel) or Hide Rows (Calc). However, if you want to calculate the sum of only visible cells in a single column using the standard SUM formula, you'll find both programs include visible *and* hidden cells.

The solution is to use the SUBTOTAL formula. Unlike SUM, this requires you to insert a function number before the range of values you want to calculate (this lets you control *how* the values are calculated).

To calculate the sum total of visible cells only, you need to use the function number 109. In our example, cells B2 to B10 all contain numbers, but within that region we've hidden rows 3,4,6,7 and 8. When we type the formula `=SUBTOTAL(109, B2:B10)` into cell B11 (see screenshot), it ignores the three hidden cells within the range B2 to B10, returning a sum total based on the visible cells only.

To reveal your hidden rows, select the rows either side of them, right-click the selection in the rows column and select Unhide (Excel) or Show Rows (Calc).




MICROSOFT EXCEL

## Add tick boxes to Excel...

Tick boxes in documents are very handy for recording attendance at a meeting, marking items that are out on loan and for many other lists, but you may struggle when trying to use them in spreadsheets.

In Excel, you first need to enable the Developer tab. Right-click anywhere within the top toolbar (such as over the File menu), then select 'Customize the Ribbon'. In the window that opens, locate the Developer option with the 'Main tabs' pane on the right and tick the box next to it (see screenshot below), followed by OK.

You'll now see the Developer menu in the toolbar. Click this, select Insert, then click the tick-box icon within the Form Controls section. Next, click and drag to place the tick box on your spreadsheet (don't worry about its precise location just yet). When you've done this, select the tick box's label and edit it or just delete it. Next, resize the border so that it's only slightly larger than the tick box, then drag the box so that it sits over the relevant cell (use your arrow keys to make precise adjustments). Finally, click elsewhere on the spreadsheet to save the tick box. You can now select the cell containing your new tick box, then copy (press Ctrl+C) and paste (Ctrl+V) it into other cells. Click any of the boxes to add or remove the tick.

LIBREOFFICE CALC

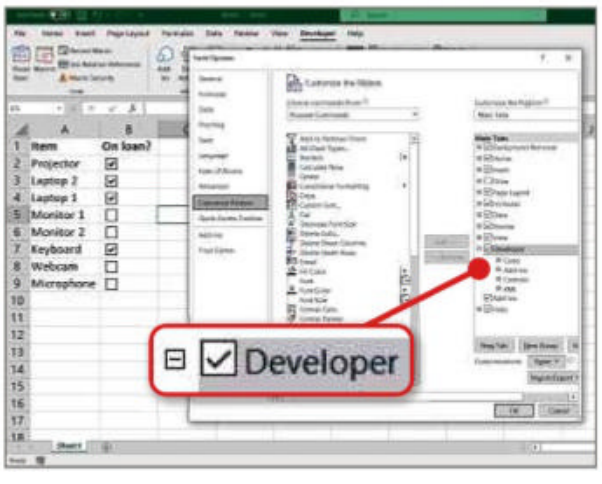
## ...and to Calc

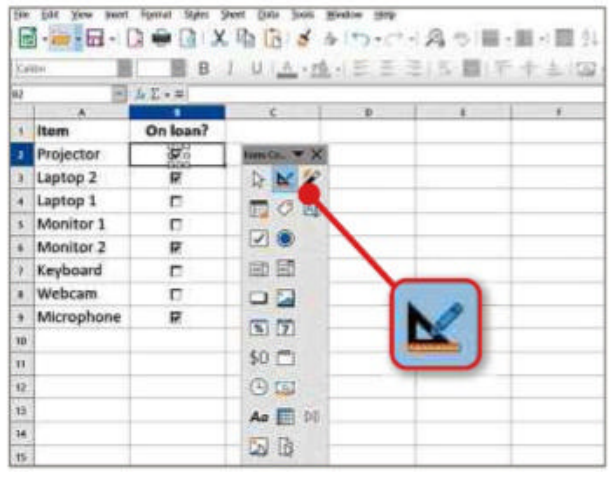
You can also insert tick boxes into Calc spreadsheets. Open your spreadsheet, then click View, Toolbars, then Form Controls. In the Form Controls toolbar that appears, select the Design Mode button (a set-square icon, see screenshot below), then the Check Box button just below it. As with Excel, use your mouse to place the tick box on to your spreadsheet. Right-click the box, click 'Control Properties...', then select the General tab. You can now edit or delete the label for the tick box. Close the Properties window, then resize the border around the box and move it into position (use your arrow keys while holding down the Alt key to make precise adjustments). Once you've done this, you can copy and paste the cell with the tick box to other cells in your spreadsheet. Finally, return to the Form Controls toolbar window and click the Design Mode button. You'll now be able to add and remove ticks from each box.

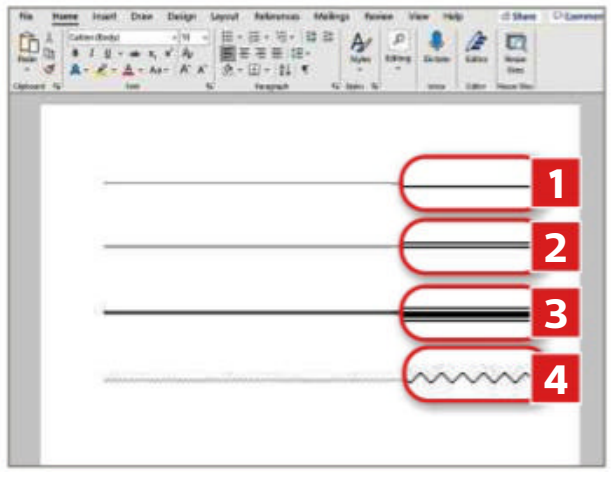
MICROSOFT WORD

## Insert dotted lines

When you're writing a long document, you may want to separate certain sections using full-width lines. Word has some handy shortcuts that let you do this. First, navigate to the point in your document where you want to insert the dotted line and press Enter to start a new line. What you type next depends on the type of line you want. For a standard line 1, type `---` (three minus signs) and press Enter. For a double line 2, type `===`. For more impact, type `###` to produce a thick black line between two thinner lines 3. Finally, type `~~~` (three tildes, usually typed by pressing Shift+#) for a jagged line 4.



# In The Club

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

## Transcribe in-person meetings in real time

In Issue 604 (page 48) we explained how even the most advanced transcription tools struggle to accurately detect what's being said in online meetings, such as on Zoom and Skype. Microsoft's new Group Transcribe app (launched in March this year) is different in that it performs real-time transcription during in-person (ie, not video) meetings – something that clubs are finally starting to do again as lockdown restrictions are being eased. It's also useful if you have members who are hard of hearing since they can follow what's being said on their device. In our tests, the app worked impressively well, with almost flawless speech-to-text performance.

To use it, you'll need an iPad or iPhone running iOS 12 or higher (that's the iPhone 5s, 5th generation iPad, iPad Mini 2 or later); there's no word yet as to whether Group Transcribe will be made available for Android devices. Download the app either by searching for group transcribe in the App Store or going to www.snipca.com/38354 in the browser on your iPhone or iPad. Once installed, run the app, skip through the intro screens then enter your name in the Display Name box and choose from the list of languages. Click 'Done' to continue.

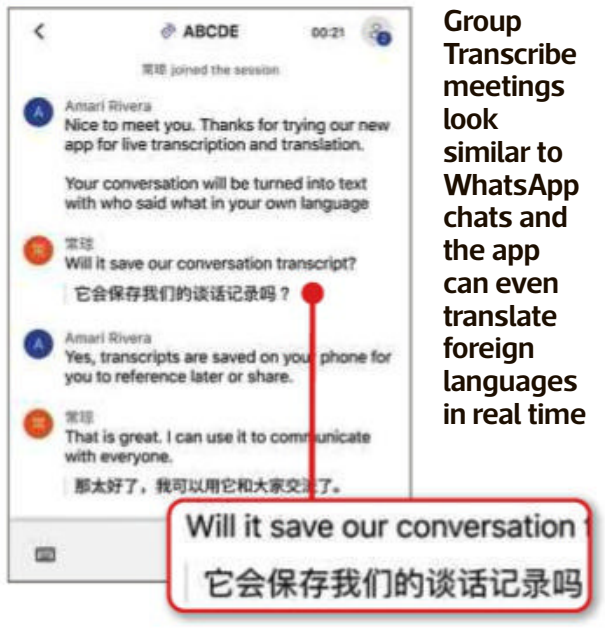
### Start a new meeting

To start a new meeting, tap the Start button (bottom-right corner). The first time you do this, Group Transcribe will ask for permission to use your microphone – click OK and your meeting window will open. As you speak, your words will appear on screen in a slightly greyed-out font. When you pause, Group Transcribe analyses the words, then applies what it believes to be appropriate edits, such as adding capitalisation and punctuation. This takes only a few seconds, after which the text will appear in bold.

### Invite others to join

Although it's possible to share a single device between all members in the meeting, it's not ideal. The transcriptions for all people will appear under a single name, and the app will have trouble recording what's said when two or more people speak simultaneously. Instead, you can invite the other people to join the meeting (they will also need compatible iOS devices) by tapping the silhouette icon in the bottom-right corner. They can then join by scanning the QR code (tap the camera icon in the Group Transcribe window) or entering the five-character code (see screenshot below left) into the Enter Code box.

People can also join the meeting by tapping the Nearby Session button (similar to a Wi-Fi symbol – see screenshot below) in the main Group Transcribe window, which uses Bluetooth to perform a search for nearby meetings. Note that anyone can do this, so if someone else happens to be using Group Transcribe within Bluetooth range of the meeting (around 5-10 metres), they will be able to search for and join your meeting. To disable this feature, tap the Nearby Session button at the top of your meeting window (it will then have a cross through it to indicate it's turned off).




**Group Transcribe meetings look similar to WhatsApp chats and the app can even translate foreign languages in real time**

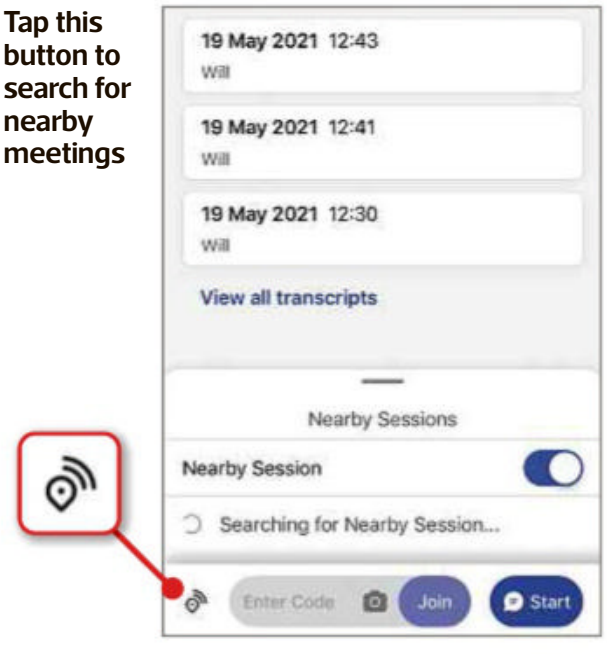
You can invite as many people as you like and will be notified as they join. As people speak, the transcription of what they say will appear in the app on all participants' devices, much like in a WhatsApp chat. If someone has selected a different language to you, Group Transcribe will automatically translate what they say (see screenshot above).

At the top-right of the window you'll see how long your meeting has been running and a silhouette icon with a number, indicating how many people are signed into the meeting (tap this icon to see all participants' names).

### Review and export your transcription

To end your meeting, tap the left-facing arrow (top-left), followed by Yes. To review the transcription, tap the meeting in the main Group Transcribe window. You can then share the transcription by tapping the Export button (icon of a box with an up arrow, top right), then choosing whether to send it to another app (such as the Mail app), copying it to the clipboard or saving it as a file on your device.

**People can join your meeting by scanning the QR code or using the meeting code**




**Tap this button to search for nearby meetings**

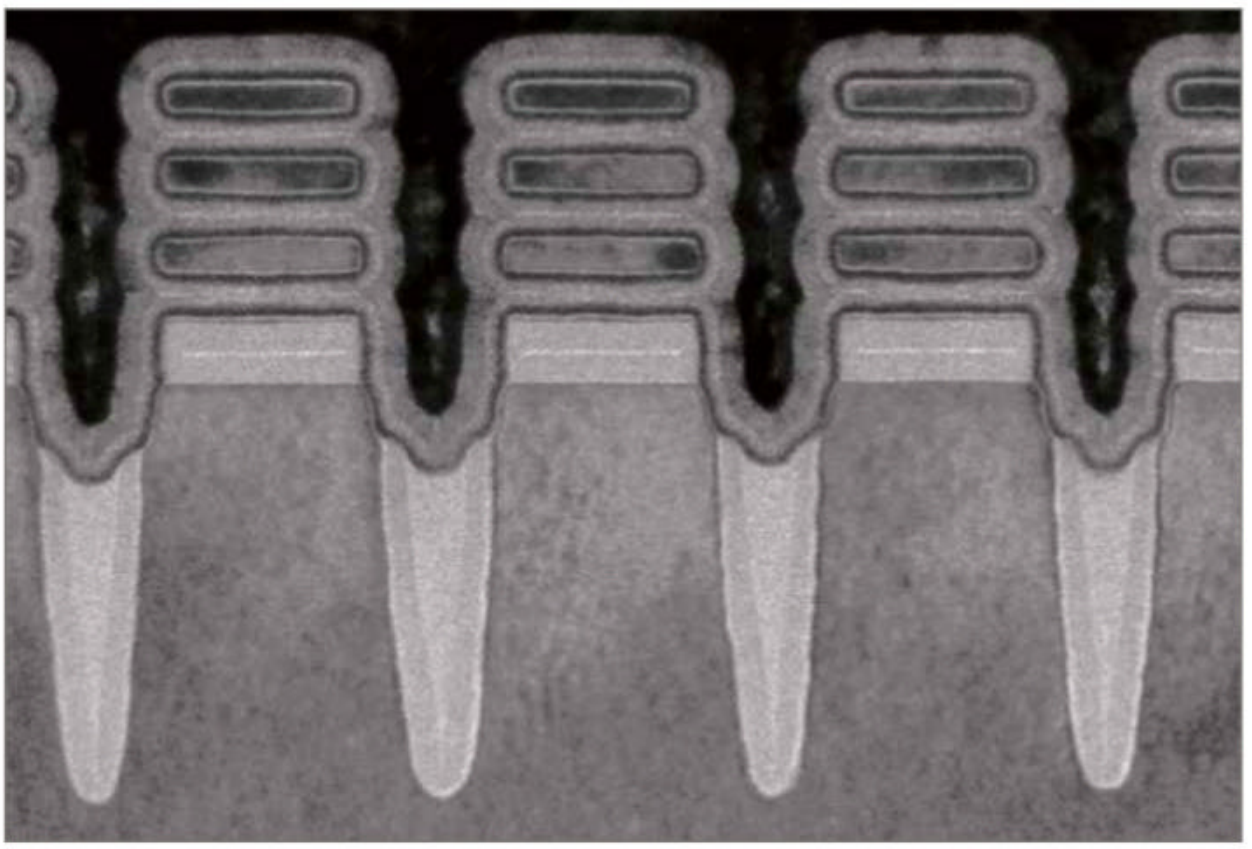


**Next issue:** Collaborate on spreadsheets in real time

# What's All the Fuss About...

# 2nm chips

## Honey, IBM has shrunk the chips (again)



### What are they?

The smallest microchips ever made, created by IBM in its test labs in Albany, New York state. It announced the breakthrough in May, predicting that it will lead to a boost in computing power while using less energy.

### How small are they?

The 'nm' stands for nanometre, which is a billionth (0.000000001) of a metre, so the chips (or semiconductors) are almost unfathomably small. They're narrower than a single strand of human DNA. However, the name '2nm' itself doesn't specifically refer to the size of the chip. Instead, it's a marketing term used to describe the power and performance of chips, with smaller being better.

### Is that them in the main photo?

Yes. We know it looks like an X-ray taken at a dentist for robots, but it's actually a row of 2nm chips. More attractive is the silicon wafer (pictured below) being demonstrated by an IBM researcher. These wafers are used to manufacture chips. This close-up photo is lovely too: www.snipca.com/38247.

### Aesthetics aside, what's so important about this?

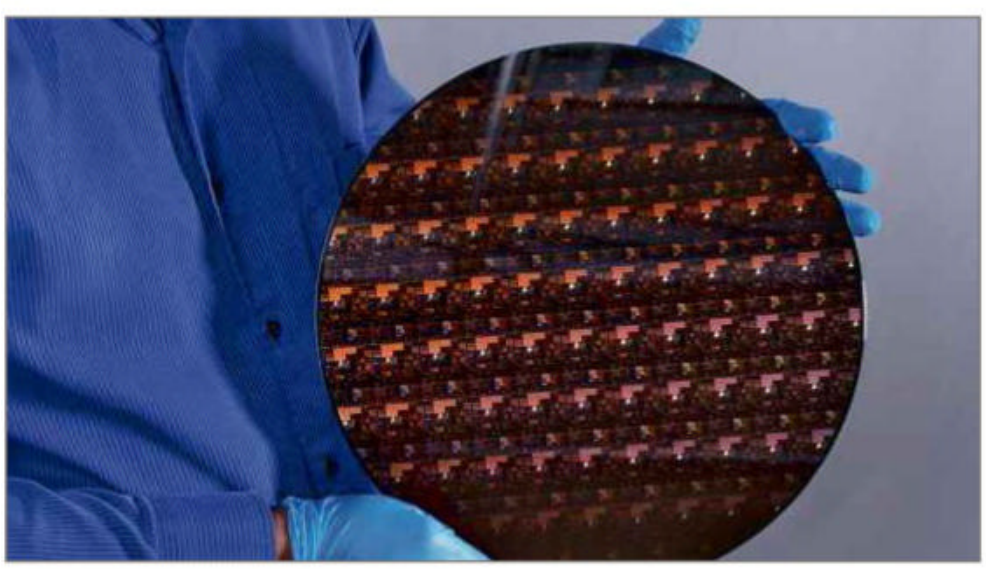
It's significant because it sets a new record for how many transistors can be crammed into the chip. Around 333 million transistors can fit into a square millimetre or – as IBM puts it – 50 billion can fit into "a chip the size of a fingernail", up from 30 billion when it announced 5nm chips in 2017.

### Will this make devices work faster?

Yes, dramatically so, according to IBM. Compared with the 7nm chips currently used in devices, the new ones will boost performance by 45 per cent. It should also quadruple the battery life of smartphones currently powered by 7nm chips (including iPhone 11, Samsung Galaxy S10 and Google Pixel 5), meaning they'll need to be charged just once every four days.

### What about laptops?

IBM didn't mention their battery life, but it did say that 2nm chips would speed up a laptop's functions, making it faster to use software, quicker to access the internet and better at translating languages.



**Wafer for the camera: IBM will use this disc to make 2nm chips**

Other benefits include "slashing" the carbon footprint of data centres, which account for one per cent of global energy use. They might also make self-driving cars appear sooner.

### Why's that?

Because they'll help the AI used in those vehicles to detect objects faster, and react more quickly. It may still be decades before they're driving on our roads, though, because convincing the public that self-driving cars are safe will be much tougher than actually *making* them safe.

### It all sounds exciting, but is this where you tell me that the chips won't be ready for years?

Afraid so. It's just a proof of concept at the moment, which means it's been shown to be feasible. That's a big step for sure, but actually manufacturing the chips is another challenge entirely. To give you an idea, current 7nm chips didn't become widely available until 2019 – four years after IBM announced them. The same timescale is possible for 2nm, but IBM would need to tackle the problem of 'interconnect scaling', which makes it harder to wire together transistors as they get smaller. If all goes well though, by 2025 we could be getting some chips off the *new* block.

# MASTER YOUR PC PORTS

Wireless might be convenient, but – as **Will Stapley** explains – the dizzying array of ports on your desktop PC, laptop, monitor and TV can let you do so much more

## WHAT YOU CAN DO

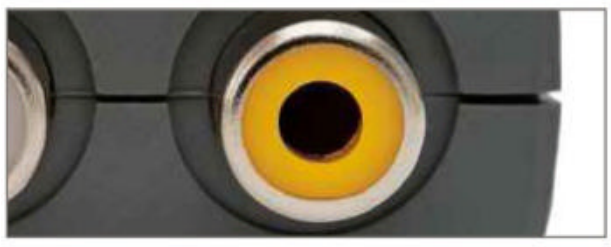
- Connect and configure multiple speakers and headphones
- Attach multiple monitors using 'daisy-chaining'
- Check whether your Ethernet port is slowing your network
- Identify your fastest USB port

Take a look at the back of your PC. Can you name all those weird and wonderful ports? And more importantly, what do they all do? Even those you might be familiar with – such as USB and HDMI – have hidden features that will transform how you use them.

Over the next few pages, we'll identify the most common video, audio and data ports found on PCs, laptops, monitors and TVs, explaining what they do and how you can make the most of them.

Some of you might still be using PCs from the mid-to-late 2000s, albeit ones that have since been upgraded. As you'll see from the gallery of ports below and opposite, we look at modern ports as well as those from yesteryear – and as we'll explain, with the help of a few inexpensive adapters you can still put many of these vintage ports to good use.

## VIDEO PORTS



### Composite

An analogue port is often found on computers built 10 or so years ago. Mostly used to carry video signals from a graphics card to an older CRT TV. Not to be confused with coaxial audio (see page 51).

### DisplayPort

Outputs digital video and audio and similar in appearance to HDMI (see below). It can handle higher resolutions and frame rates than HDMI and supports 'daisy-chaining' (see page 55).

### DVI

Launched in 1999, DVI outputs digital and analogue video (but not audio) and is still found on modern PCs and monitors along with HDMI.

### HDMI

The most popular video port for computers. Like DisplayPort, it can carry high-quality digital audio alongside video and lets you connect your computer to monitors, TVs and projectors.

### VGA

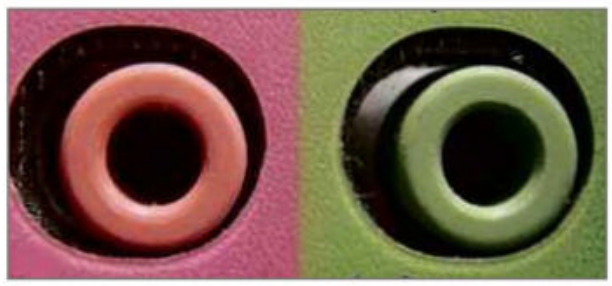
A popular analogue video port found on computers built around eight or more years ago, but still common even now on TV sets and monitors. Like other analogue video ports, it can't output audio.

### S-Video

This is an analogue video port that was commonly found on graphics cards from around 10 years ago. It's capable of producing higher-quality video than composite and can match the resolutions of VGA.

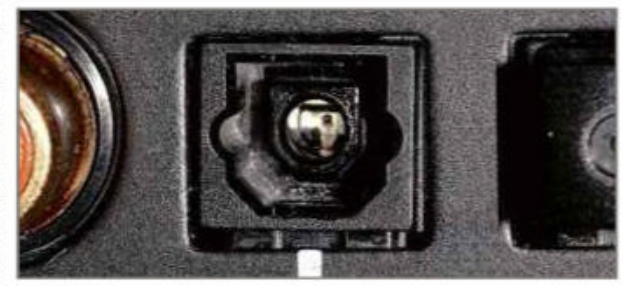
# MASTER YOUR PC PORTS

## AUDIO PORTS



### 3.5mm
An analogue port that lets you transmit audio between your PC and devices such as headphones, speakers and microphones. Some PCs have six or more for connection to surround-sound systems.

### Coaxial
A digital audio port that carries multi-channel audio, such as stereo or 5.1/7.1 surround-sound. It connects to a similar port on speakers using a coaxial cable with an RCA connector.



### Optical
Optical ports are digital and carry multi-channel audio, but transmit data by pulsing a red beam of light. The port is usually behind a small flap, which moves aside when you plug in an optical cable.

## DATA PORTS

### Ethernet
Also known as an RJ45 or LAN port, this connects your computer to a router or other network device. Most computers have either 10/100 (100Mbps) or Gigabit LAN (1,000Mbps) ports.

### eSATA
An external version of SATA used to connect external hard drives and SSDs. Some computers have eSATA/USB combination ports (pictured) – unlike standard eSATA, these ports can power devices.

### ExpressCard
Common in laptops about 15 years ago, these let you slot in cards measuring 54mm or 34mm wide, such as TV tuners and modems for mobile broadband.

### FireWire
Also known as IEEE 1394 and i.LINK, FireWire was developed by Apple in the 1990s but dropped from Macs in 2012. It's still found on older Windows PCs and laptops and works in a similar way to USB.

### Memory card slot
Lets you transfer data to and from memory cards used in devices such as cameras and phones. Laptops often support only SD cards, whereas PCs will usually support a variety of cards.

### PS/2
Connects mice and keyboard to your computer. They usually come in pairs – one purple (keyboard), the other green (mouse). USB keyboards and mice are more common these days.

### Serial
A very old port that started to disappear from computers in the early 2000s. Used to connect modems, mice and other devices. Looks similar to VGA, but serial ports are male (in other words, they have pins, not sockets).

### USB-A
The original USB port and used to connect all manner of devices. It supports up to the USB 3.1 standard (10Mbps). USB is 'hot-swappable', meaning you can attach devices without having to restart your computer.

### USB-C/Thunderbolt
USB-C ports are smaller than USB-A, reversible (so you can plug in connectors either way up) and support the fastest USB 3.2 standard. They are used for Intel's Thunderbolt standard.

# MASTER YOUR AUDIO PORTS

## Listen using your headphones *and* speakers

When you're watching a TV programme with another person, how often do you have a conversation where one of you says "Turn it up!" and the other responds "Isn't it loud enough already?". This may be a question of personal preference, or perhaps one of you is hard of hearing. Switch to watching the programme on a computer and you can both listen at different volume levels.

All you need is a computer with an existing set of speakers (such as those built into a laptop or a PC monitor) and a separate set of headphones plugged into the headphone port (usually coloured green). You then need to tell your headphones to 'listen' to your laptop's audio – in other words, repeat whatever is played through your laptop's built-in speakers.

To do this, right-click the volume icon in your system tray, then select Sounds. In the window that opens, select the Recording tab, then double-click the Stereo Mix option (if you can't see this, right-click an empty section of the window, select Show Disabled Devices, then right-click Stereo Mix and click Enable – see screenshot above right)

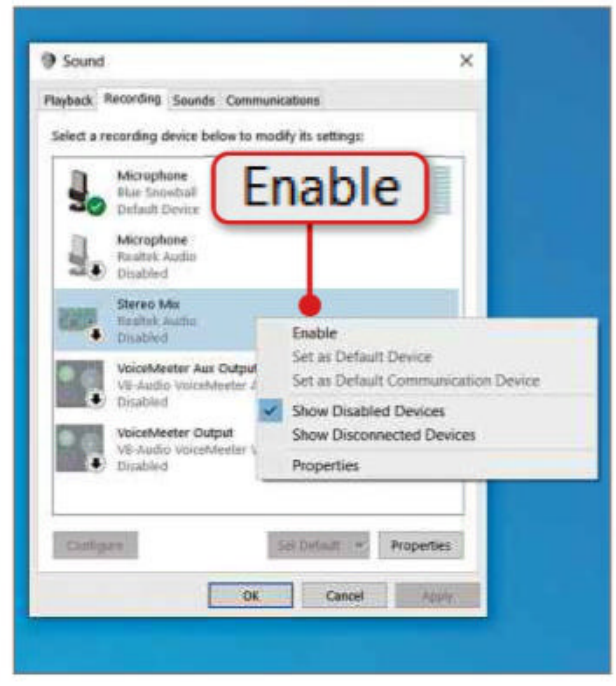
In the window that opens, tick the 'Listen to this device' box (see 1 in the screenshot above far right), then click the dropdown menu under 'Playback through this device' and select your headphones 2.

Click OK, and you'll hear your computer's audio through both your laptop's speakers *and* your headphones. You can then adjust the volume of each by right-clicking the volume icon in the system tray, selecting 'Open volume mixer', then moving the volume slider next to the appropriate entry.

## Turn your computer into a public address system

You can also use Windows' listening feature from the previous tip to turn your computer into a public address system – perfect when you're hosting a club meeting or addressing a family gathering.

First, connect your microphone to your computer via the 3.5mm mic port (usually pink). If you're using a laptop with a built-in microphone, use that instead. Next, attach the speakers to the headphone port. It's best to place them as far away as possible from the laptop to avoid feedback (for longer distances, consider using a set of Bluetooth speakers).




**Enable the Stereo Mix option in the Recording tab of your Sound settings...**

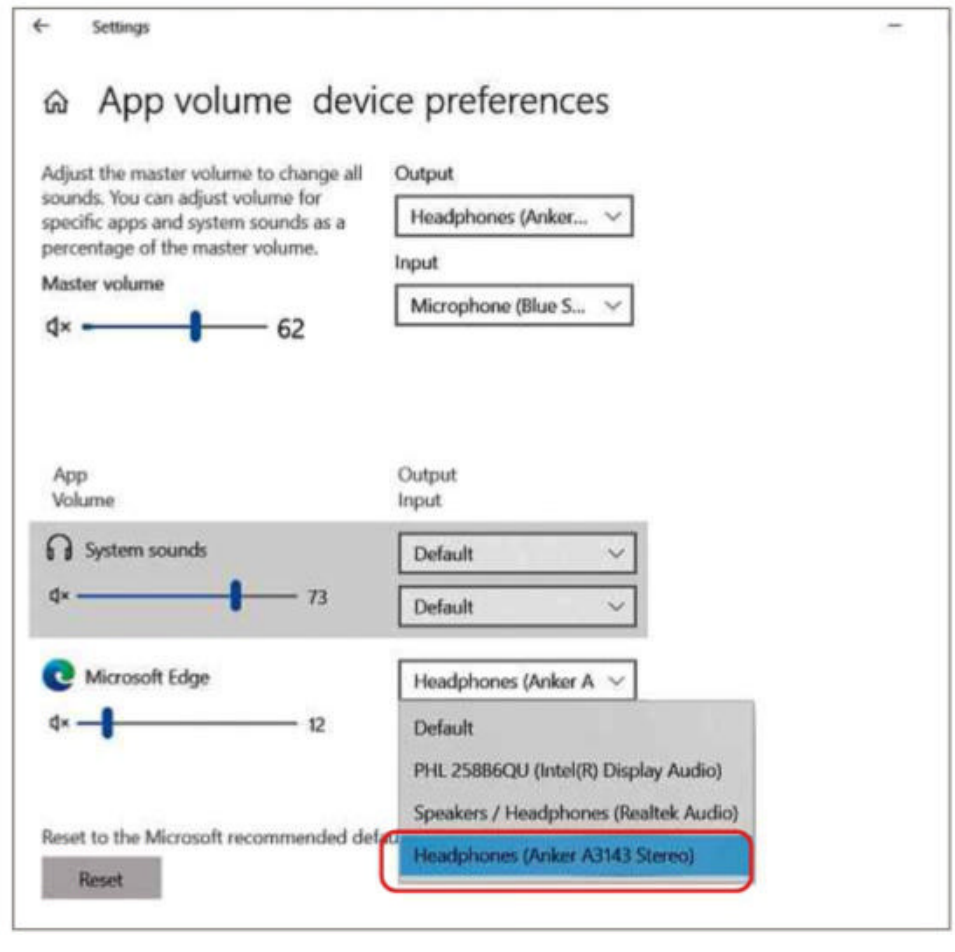
**...then set up your audio output to your laptop's speakers and headphones**

Now return to the Recording tab in the Sounds window (as in the previous tip), but this time double-click the entry for your Microphone. Tick the 'Listen to this device' box, then select your speakers in the 'Playback through this device' box. After you click OK, anything you say into your microphone will be amplified and broadcast by your speakers.

## Tell Windows which speakers to use

When you have your headphones plugged into your computer alongside another set of speakers (such as those on your PC's monitor), you can specify which option you use for certain programs. This means you could listen to YouTube audio through your headphones, while ensuring all other Windows sounds go via your laptop's speakers (useful if you want to hear alerts such as new email notifications, but don't want them blasted through your headphones when you're watching something).

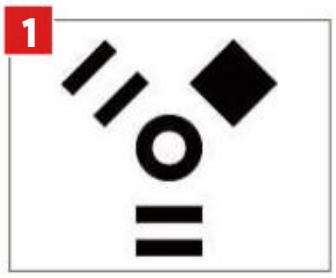
Before you can set this up, you need to open the program whose audio you only want to hear through your headphones (you can switch a program's audio output only when it's running). In our example, we have YouTube running in Edge. Now open Settings (press the Windows key+I), select System, Sound, then scroll down




**You can set some programs to play audio through your headphones only, not your speakers**

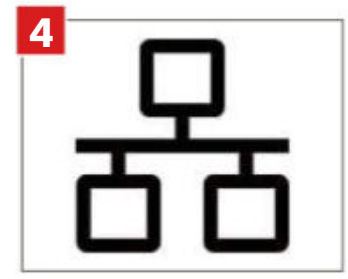
## How well do you know your ports?

Hardware manufacturers produce various weird and wonderful symbols to represent the many different types of ports found on their computers and other devices. Can you name the ports these five symbols relate to? Answers on page 57.

1 

2

3


4 

5

on the right-hand side and click 'App volume device preferences'.

In the window that opens, you'll see all programs that are currently playing audio. Each one will have two dropdown menus. The top box lets you select the output audio device – in our example, we've opted to use our headphones for listening to anything in the Edge browser (see screenshot below left). The bottom menu lets you choose which input device that program should use – such as your laptop's built-in microphone or the mic attached to a headset that you've plugged into your computer.

When you close the program, Windows will remember your audio settings – so should you set Edge to only use your headphones, it will default to these each time you re-open Edge.

### Make your headset work with a single audio port

Using your laptop's built-in speakers for Skype and Zoom calls can soon start to annoy other people in your house. To avoid this, consider buying a headset, which combines a set of headphones with a microphone.

Most headsets (such as Logitech's H151 - £17 from www.snipca.com/38291) attach to your computer via a single 3.5mm jack. This is fine for computers that have a combined headphone and microphone port (common on modern laptops), but older laptops and most desktop PCs have separate ports.

**This adapter connects a single-jack headset to separate headphone and mic ports**

To use single-jack headsets with these, you'll need to buy an adapter that splits the cable into separate headphone and microphone jacks. We recently did this on our laptop using DnGeky's Headphone Splitter (£5 from www.snipca.com/38292, pictured below left). Simply plug the headset jack into the 3.5mm socket on the adapter (see 1 in the photo), then plug the separate mic and headphone jacks 2 into the appropriate ports on your computer.

### Connect surround-sound speakers

Whether you're watching a film on your computer or enjoying a flight simulator, a good 5.1 surround-sound speaker system will immerse you in the action. However, precisely how you connect these type of speakers to your computer isn't always obvious.

If you can, the easiest way is to use a coaxial or optical connection – both are digital, and can therefore carry surround-sound audio over a single cable (see page 51 for what these ports look like). To do this, you'll need to have the same port on both your computer and speakers – and although most surround-sound speakers have both coaxial and optical ports, they're not so common on computers. Instead, you may be able to use 'six-channel audio', which connects pairs of speakers using three separate 3.5mm cables. Most PCs have these audio ports at the rear of the case. They are coloured light-green/grey for the two front speakers, black for the two rear speakers and orange for the centre speaker and subwoofer (pictured above right).

**Some PCs have three dedicated 3.5mm ports, letting you connect them to surround-sound speakers**

As long as your speaker system has the same ports (as with Logitech's Z906 system – £277 from www.snipca.com/38298), you just connect them to the corresponding ports on your computer using three 3.5mm cables (£10 from Amazon www.snipca.com/38296, but usually included with surround-sound speakers).

If your computer has neither six-channel audio nor optical/coaxial ports, you can connect surround-sound speakers using a single 3.5mm cable – connecting the headphone port on your computer to the line-in port on your speakers. However, this won't produce true surround-sound, only stereo audio.

Computer active

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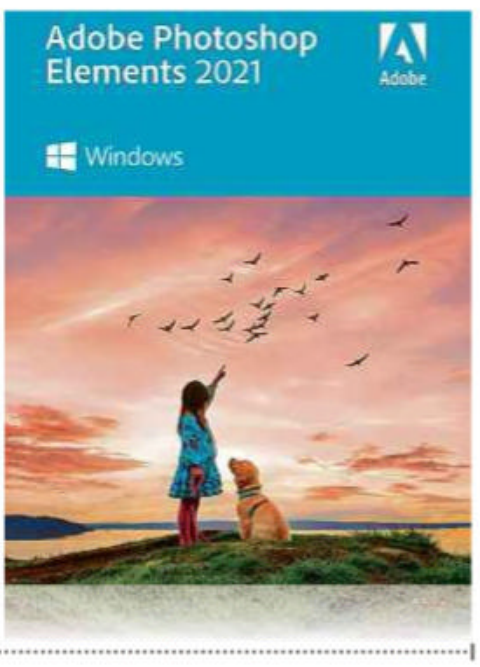



## JUST SO YOU KNOW...

This is a lifetime offer for two computers. It can be used by one person only, and expires at midnight on **15 June 2021**

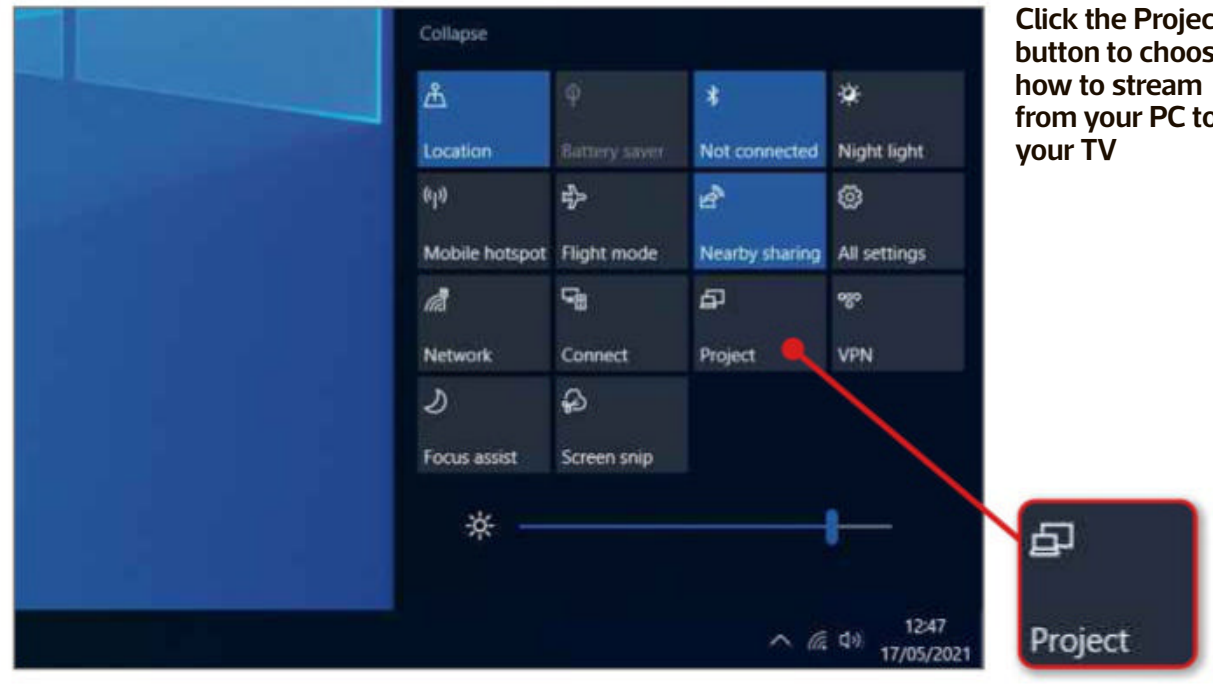
# MASTER YOUR VIDEO PORTS

## Connect your PC to your TV

Devices like Google's Chromecast (£30 from www.snipca.com/38309) and the Roku streaming stick (£xx from www.snipca.com/38351) let you wirelessly cast a specific program/service or your entire desktop to your TV, but if your Wi-Fi is slow you may find the video stream constantly buffers or is poor quality. A more reliable alternative is to connect your TV to one of the video ports on your computer - and as long as you have the correct cable, you won't have to buy anything else to do this.

First, check that both your TV and computer have an HDMI port (almost all TVs have one, as do most PCs and laptops built in the past five years or so). As we mentioned on page 50, HDMI can carry audio and video, so you only need one cable. Once connected, switch your TV to the appropriate HDMI input. If your PC desktop doesn't appear on your TV screen, press the Windows key+A on your computer to open the Action Centre, click Project at the bottom-right (see screenshot above right), then select Duplicate or Extend.

Many TVs also have VGA ports, so you should still be able to connect an older computer that doesn't have HDMI. There are two disadvantages to this option, however. VGA is analogue, so the video quality won't match that of HDMI. Additionally, because VGA cables can't carry audio, you'll either need to use your computer's built-in speakers or connect the cable to a separate speaker system using the headphone port.




**Click the Project button to choose how to stream from your PC to your TV**

## Re-use your old PC monitors

If you have an old monitor gathering dust in your garage, why not breathe new life into it as a second screen for your computer? Don't worry if your monitor doesn't have the right connector for the video port on your computer – you can usually get the two talking to each other with a cheap adapter.

**This HDMI-to-VGA adapter connects the audio output of an HDMI port to a set of speakers**

To connect an HDMI port on your computer to a monitor with a DVI input, you'll need an HDMI-to-DVI adapter (£7 from www.snipca.com/38308). For older monitors with VGA inputs, you'll need an HDMI-to-VGA adapter. This £6 model (from www.snipca.com/38306, pictured below left) also also has a 3.5mm audio output port, which lets you connect a set of speakers to hear audio sent via the HDMI cable. To connect a computer with a DVI port to a VGA monitor, buy a DVI-to-VGA adapter (£7 from www.snipca.com/38307).

When buying an adapter for a VGA monitor, make sure you get one that's listed as being 'active' (look for this in the name or specs), which means it converts the digital DVI or HDMI signal to analogue VGA. Those not listed as active are unlikely to work (the two adapters we've recommended above are both active).

Once you've connected your monitor, you can adjust its settings by right-clicking your Windows desktop, then clicking 'Display settings'. Select your monitor in the graphic at the top of the window, then scroll down to adjust settings such as its resolution, whether you want to duplicate or extend your desktop, and more.

You can also use adapters to convert older video ports to monitors. The LiNKFOR adapter (£19 from www.snipca.com/38310), converts composite and S-Video inputs to HDMI, though you need to buy the composite or S-Video cable separately.

## Daisy-chain multiple monitors

Even if your PC or laptop has only a single video output port, you may still be able to connect multiple monitors to it using a process called 'daisy-chaining', whereby each monitor connects to another using DisplayPort cables. To do so, your computer will need a DisplayPort video-output port that meets the DisplayPort 1.2 standard (most do, but it's worth checking your computer or graphics card's manual or website). Your monitors will also need both DisplayPort In and DisplayPort Out ports (such as on Dell's 27-inch U2719D – £329 from www.snipca.com/38305, pictured below).

Assuming your hardware meets these requirements, connect your first monitor to the DisplayPort output port on your computer. Next, use another DisplayPort cable to link the DisplayPort Out port on the first monitor to the DisplayPort In port on the second monitor. Depending on your monitors, you may need to enable daisy-chaining in their menus – look for a setting called 'DisplayPort 1.2' (or similar). You can then repeat this process to add more monitors - precisely how many depends on how powerful your computer's graphics card is, but most can support up to three.

**Link DisplayPort monitors using their DisplayPort In (1) and DisplayPort Out ports (2)**

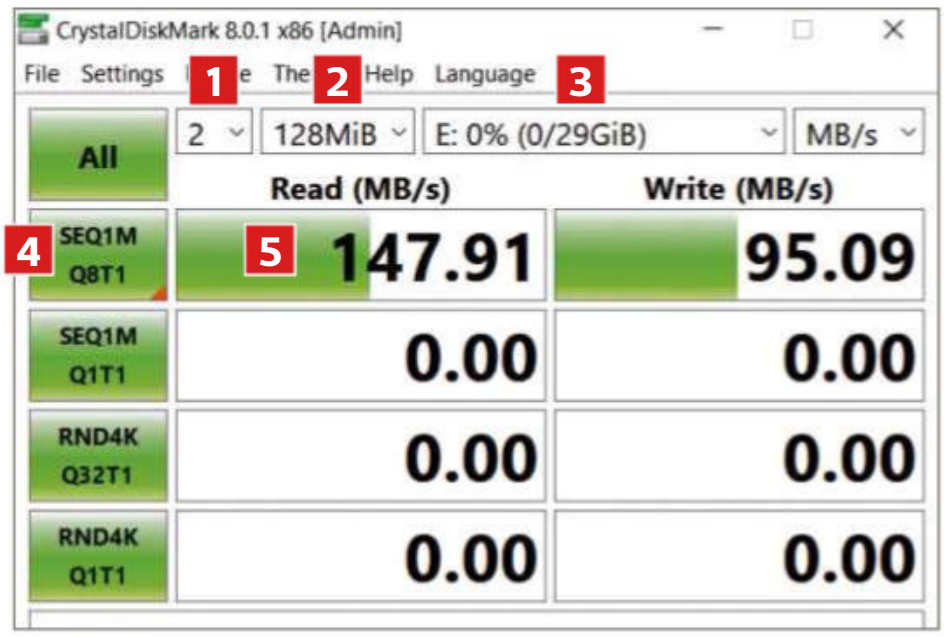
# MASTER YOUR DATA PORTS

## Identify your fastest USB port

USB ports on computers made in the past five or so years tend to be the USB 3.1 standard, meaning USB sticks that support the same standard can transfer data at around 150–250MB/s. However, older computers sometimes have a mix of USB 3.1 and USB 2.0 ports – the latter will drop speeds to around 15–20MB/s.

One way to check which ports are USB 3.1 is to look for the letters 'SS' (stands for SuperSpeed) to the left of the USB symbol next to the port (as in the photo below). Not all computers follow this labelling system, however, and even USB 3.1 ports may perform at different speeds. To identify your fastest USB port (particularly useful when transferring large files), you need to run a few speed tests.

You'll need a USB 3.1 stick (such as SanDisk's 32GB Ultra Luxe - £7.50 from www.snipca.com/38316). Next, download and install the free CrystalDiskMark (CDM) tool from www.snipca.com/38317 (click the green Installer button under Standard Edition). Insert your USB stick into a port on your computer, then run CDM. Set the first box (1 in our screenshot above right) to 2 (this runs the test twice); the second box 2 to 128MiB (this uses a 128MB file to test the speed); and select your USB stick in the third box 3. Finally, click the 'SEQ1M Q8T1' test 4 to run a sequential data-transfer test, which reveals the USB port's fastest transfer speed.



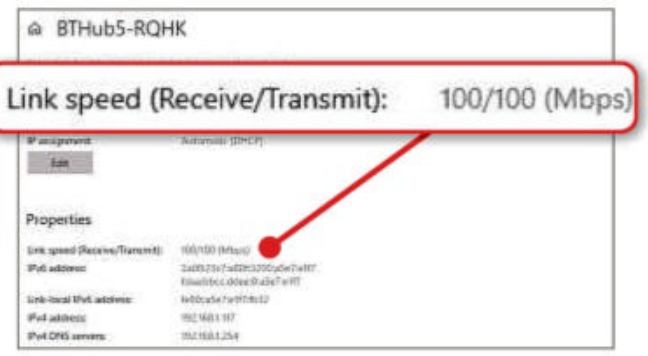

Test the speed of your USB ports using CrystalDiskMark

When the test completes, make a note of the Read score 5, then close CDM, move your USB stick to a different USB port and repeat the test. Once you've tested all your ports, you'll be able to see which is fastest.

The 'SS' next to the port on the right indicates that it's USB 3.1 standard

## Find out if your Ethernet port is slowing your network

Where possible, we recommend using your computer's Ethernet port when connecting it to your router because this provides faster, more reliable speeds than with Wi-Fi. However, this will also depend on the speed of your computer's network adapter. Most PCs have Gigabit LAN, which has a maximum speed of 1,000Mbps (1Gbps). Older computers, however, may have the slower 10/100 network adapter (sometimes called Fast Ethernet), which has a maximum speed of 100Mbps - significantly slower than the 720Mbps of 802.11ac Wi-Fi.




A link speed of 100/100 means your computer can transfer files only up to 100Mbps

To check what speed your network adapter is, connect your computer to your router using an Ethernet cable, then click Start, type network status and press Enter. Click the Properties button at the top of the window, then scroll down to the entry labelled 'Link speed'. If it says '1000/1000', it means your computer has a Gigabit LAN network adapter. In contrast, a link speed of '100/100' (see screenshot left), means your connection is limited to a maximum of just 100Mbps.

While it's likely this is due to your computer having a 10/100 network adapter, you can't be certain. It may instead be that your router has the slower 10/100 ports. To check this, run a Google search on the name of your network adapter (you'll find this under Description in the Network Status window). The search results should include the manufacturer's website, which will indicate whether it's a 10/100 or Gigabit LAN adapter.

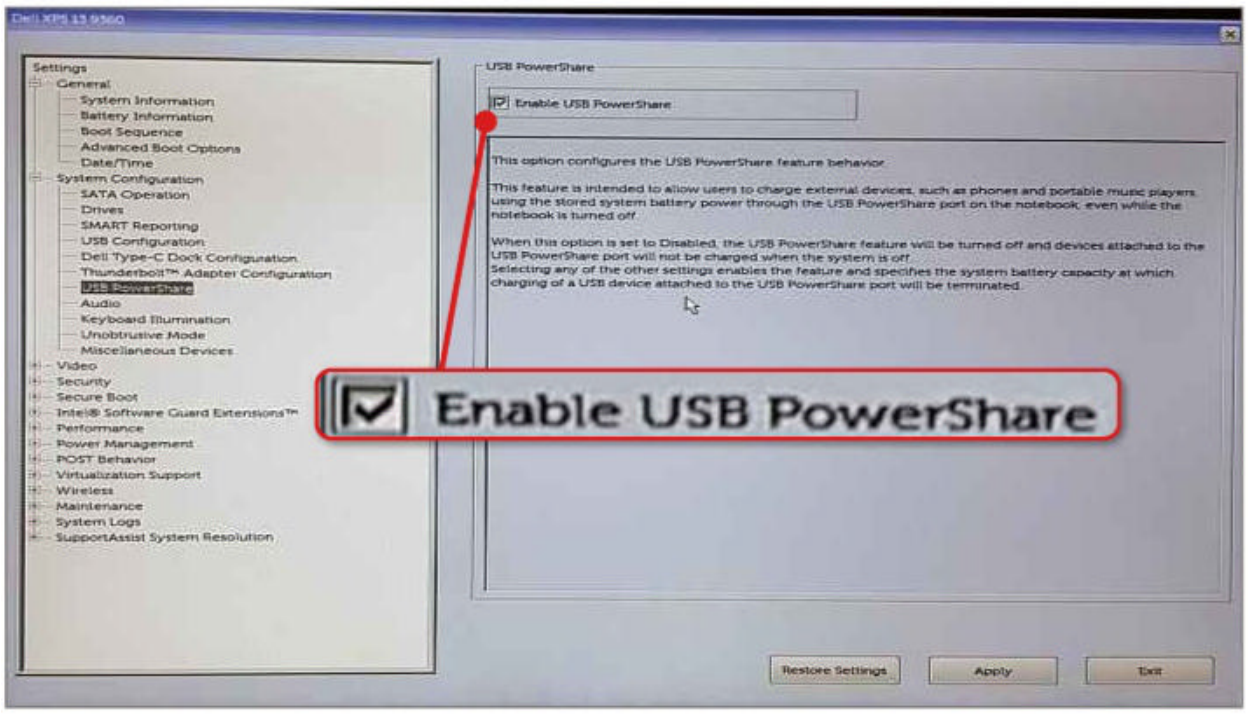
Should it turn out to be the former, you can either switch back to Wi-Fi or upgrade to a Gigabit LAN adapter (such as this model from Anker - £16 from www.snipca.com/38321). If it's the latter, it's likely your router has 10/100 ports (if you got your router from your ISP, contact them directly because you may be eligible for a free upgrade).

## Fix your broken ports

When a port fails to work – or only works intermittently – a loose connection is often the culprit. Fixing this on a laptop isn't straightforward because you need to remove the chassis - which can be fiddly and may invalidate the warranty. Things are much easier with a PC, though. First turn off your PC and touch a nearby radiator to earth yourself. Next, open the case, then follow the cables from the faulty port to the motherboard and ensure both ends are securely connected. For ports on PCI cards (as is common with FireWire and eSATA cards), push firmly down on the card and make sure the screw on the backplate is securely tightened.

It's also worth checking your ports in Device Manager (type deviceman in the Start menu). A faulty port will have an exclamation mark next to it, which you can normally fix by updating the driver. To do this, right-click the port, then select 'Update driver' – Windows will then look for a suitable driver (or you can tell it to use one you've downloaded).

A down arrow next to a port means it has been disabled – to fix this, right-click the port and select 'Enable device'.




**Some Dell laptops have a USB PowerShare option that charges plugged-in USB devices even when your laptop is switched off**

## Charge your phone when your laptop is switched off

When your phone's running out of battery, you can usually charge it via a USB port on your laptop. However, you will need to switch on your laptop, and leave it on while the phone is charging. Unless, that is, your laptop supports 'always-on' USB ports, which charge devices even when the laptop is switched off.

To check whether you have this option, you need to open your laptop's BIOS. Restart your laptop, then press whichever key flashes up on screen shortly after turning it on (this will usually be the F1, F12 or Delete key), and select Load BIOS (or similar) from the options that appear.

If you don't see this option, your laptop probably uses UEFI (the modern version of BIOS). To launch the UEFI, boot into Windows, click Start, type change advanced, select 'Change advanced start-up options' from the results, then click Restart. In the recovery window that appears, select Troubleshoot, 'Advanced options', 'UEFI Firmware Settings' then Restart.

Once in your laptop's BIOS or UEFI, look for an option relating to USB power and make sure that it's enabled. On Dell laptops, it's called USB PowerShare and is found in the System Configuration menu (see screenshot above). On Lenovo laptops you need to enable the USB Always On feature, while on HP models it's called USB Charging. Save the changes, then power down your laptop. You should now be able to charge your phone via the USB ports – on some laptops, this will only work if the laptop is in Sleep mode rather than powered off completely.

## Make use of your old ExpressCard slot

You may not find it on modern laptops, but the ExpressCard expansion slot was commonplace on machines built before 2015 (we have one on our 2012 Dell E6410 laptop). Instead of letting it go to waste, use it to add a pair of USB 3.0 ports with this CSL adapter (£13 from www.snipca.com/38318, pictured below). Simply slot it into your ExpressCard slot, then use the two USB ports like any other. Unlike most ExpressCard devices, this CSL model sits flush with your laptop's case, so you can't accidentally knock it.

**This CSL ExpressCard adapter gives your laptop two extra USB ports**

Before buying, make sure your ExpressCard slot is 54mm wide (this CSL adapter won't fit 34mm slots).

**This older Microsoft mouse connects to a serial port – if you can still find one**

## Don't throw away your old keyboard and mouse

A keyboard and mouse you've used for years can be hard to part with, especially if the only reason you're upgrading is because your new PC doesn't have the required PS/2 ports.

Happily though, with a PS/2-to-USB adapter (£7 from www.snipca.com/38319) you can carry on using your old keyboard and mouse. Simply connect the keyboard (purple) and mouse (green) PS/2 cables to the adapter, then plug the adapter into a USB port on your computer and you'll be back using your favourite keyboard and mouse in seconds.

It's not the only adapter that lets you revive your older devices. UGreen's USB Serial Cable (£9.90 from www.snipca.com/38320) lets you connect serial-port devices dating back to the classic Microsoft Serial Mouse (from 1993, pictured above) – if you still have one that works, of course. ca

## Name those port symbols

**Answers to quiz on page 53**

1 FireWire 2 DisplayPort 3 Serial
4 Ethernet/LAN 5 Thunderbolt

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# Ditch your old charger

**Is the slow, wired power adapter that came with your device holding you back? Or has it gone missing? Either way, Jonathan Parkyn reveals the best replacement chargers for your tech**

Our portable devices would be pretty useless without a charger. Even the longest-lasting batteries run out eventually, requiring us to connect our phones, tablets, laptops and other products to a power source.

But what if the charger that came with your device is lost or damaged? Or what if, as is the case with many Apple products these days, it didn't actually come with a charger in the first place?

Even if you still have your device's original charger and it works well, it could be worth replacing. You may be able to charge your devices faster or wirelessly, or even charge multiple devices at the same time. And as we all start to get out and about again, having a portable power source to charge your devices while you're away will become indispensable. Here, we explain your options.

## Charge your devices faster

In simple terms, charging works by transferring energy from a power supply to your device's battery at a specific rate, measured in Watts (W). More Watts means faster charging speeds. Smartphones are often supplied with a basic charger that outputs only 5W, but if yours supports faster charging, it can be connected to power sources that output energy at much higher rates. This can halve charging times, letting you reach an 80-per-cent charge in just 20 minutes.

There are several fast-charging standards you should be aware of. Android devices from before around 2017 support Qualcomm's Quick Charge, which has charging rates of up to 27W. Many newer phones and tablets favour USB Power Delivery (USB PD for short – see page 52), which supports up to 100W. Some manufacturers use their own standards to achieve even faster rates.

Speeds vary from device to device. Many modern smartphones, including iPhones released since 2017 and Google Pixel phones, support 18-20W, though some recent devices, including models from Samsung, OnePlus and Oppo, have started supporting 30W and beyond. Newer tablets usually support faster charging speeds as well.

Before you buy anything, you'll need to establish what charging standards and rates your device supports, and what rate its current charger provides. The best way to do this is to check the specifications for your device and its charger on the manufacturer's website. Assuming your device supports faster charging rates than your current charger provides, you just need to find a compatible charger that transfers power at the rate you require.

Your device's manufacturer will probably sell fast chargers, though this is often more expensive than necessary. Apple, for example, will sell you its 20W USB-C power adapter for £19 (www.snipca.com/38264), while practically identical non-Apple equivalents on Amazon (complete with folding pins) cost just £13. However, if you are going to buy a third-party charger, stick to respected accessory brands such as Anker, Belkin and RAVPower. We've heard too many horror stories about cheap, sub-standard chargers bursting into flames.

Anker's 20W Nano USB-C Plug (£17 from www.snipca.com/38277, pictured below left) is a good option for most phones thanks to its standard USB-C connection (though you'll need to supply the cable yourself).

**Anker's 20W Nano USB-C Plug is compatible with many phones**

**RAVPower's £32 charger has a fast USB-C (1) and slower USB-A connection (2)**

If you need a bit more muscle, you could opt for the RAVPower 65W USB PD Charger (£32 from www.snipca.com/38266), which is capable of 65W (for devices that support it) via its USB-C connection (1 in our picture below left), as well as a decent 18W charge via a secondary USB-A port 2.

## Charge your devices wirelessly

Switching to a wireless charger can be liberating. Instead of fiddling around with cables and connections every time you want to charge your device, you simply place it on the charger and let it power up your battery via an invisible electromagnetic field. Of course, they're not *completely* wireless – they still connect to a wall socket via a cable, but this can be tucked neatly away and forgotten about.

Not all devices support wireless charging (check your specifications again), though a growing number do. And the good news is that there's only one wireless-charging standard – called Qi (pronounced Chee) – to contend with. It's been adopted by most major manufacturers, including Apple, Google, Samsung, Huawei and others.

Currently, wireless charging can't achieve the top speeds of fast wired chargers, but many products, including Anker's PowerWave Pad (£26 from www.snipca.com/38278, pictured below) can deliver up to a respectable 15W for devices that support that level, and will automatically switch to lower outputs for those that don't. Like many wireless chargers, the PowerWave is based on a pad-like design that looks a bit like a space-age drinks coaster.

Some wireless chargers come as stands, like Belkin's Boost Charge Wireless Charging Stand (£29 from www.snipca.com/38281), a 15W charger that keeps your device propped up as it's powered up. Or if you have more than one wirelessly chargeable device, consider Belkin's Boost Charge Dual Wireless Charging Pad (£40 from www.snipca.com/38269), which can power up two devices at the same time.

It's worth mentioning that not all wireless chargers come with a power adapter – Anker's PowerWave Pad doesn't, for example – so check whether you'll need to buy one separately.

**Anker's PowerWave Pad delivers power at 15W**

## Charge more devices simultaneously

If your household has too many devices and not enough chargers, the solution is a USB power hub – also known as a charging station. These look similar to USB hubs you plug into a PC to give yourself more ports, except there's no data connection – just a power adapter. The benefit is that you can power up multiple devices from a single wall socket without using individual adapters. RAVPower's Desktop USB Charging Station (£24 from www.snipca.com/38282) provides a total of 60W output for up to six devices via USB-A sockets – that's 10W per device.

## Charge your device when you're away from home

So far, all our recommendations have assumed you'll be within reach of a wall socket when your devices need a power boost. But they won't help if you happen to be away from your home or office. That's where powerbanks come in. These are portable battery packs that carry their own power supply so you can keep your devices powered wherever you are.

The Anker PowerCore Essential 20000 costs just £30 from www.snipca.com/38284 (pictured above right) and will easily fit inside your pocket. Its 20,000mAh battery capacity might not be as generous as more expensive models, but it's enough to provide most modern smartphones with around five full charges and there are a couple of USB ports for charging two devices at the same time.

Of course, you'll need to charge the powerbank itself before you head out, so charging speeds may be another factor to consider before you buy. The Anker PowerCore Essential offers two input sockets for charging: USB-C and microUSB (pictured above). Using the former with a 10W charger (not supplied) charges the device to full capacity in around 10 hours. Charging via the microUSB will take almost twice as long.

**Anker's PowerCore Essential 20000 has two inputs – for USB-C and microUSB**

## Charge your laptop

An increasing number of laptops are adopting USB PD for their mains charging input (via a USB-C port), including models in the Dell XPS range. If yours does, then it may be possible to charge it on the go using a powerbank. The powerbank will need a corresponding USB PD output.

Because laptop batteries use more power than their smartphone equivalents, you'll need a high-capacity powerbank like Anker's PowerCore+ 26800 (£80 from www.snipca.com/38300). But even this, with a 26,800mAh-capacity battery pack, has enough power only for a single charge of a Dell XPS 13 laptop.

Lenovo, meanwhile, is experimenting with the idea of wireless charging for laptops. Its two-screen ThinkBook Plus Gen 2 (www.snipca.com/38297), unveiled earlier this year, can be charged wirelessly through a ThinkBook Charging Mat. UK pricing and specs for the charging system have yet to be announced. ca

## Charge via USB in wall sockets

Wall-socket faceplates with integrated USB sockets are an increasingly popular option for charging devices around your home. It's fairly cheap and straightforward to replace existing faceplates with ones that offer USB connections, such as the BG Electrical nbs22u3g (£12 from www.snipca.com/38283, pictured).

Currently, the maximum output from USB ports on most wall-socket faceplates is 15.5W, but watch out for cheaper faceplates with lower rates, as these will charge your devices more slowly. Note that some manufacturers quote their output in voltage (V) and current (A for amps), requiring you to perform a quick spot of maths to calculate the wattage. Basically, V x A = W, so a 5V/3.1A socket will output at 15.5W.

# Hack Your Bluetooth

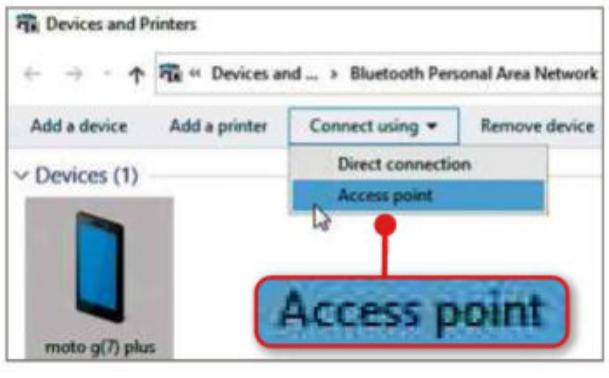
You probably use Bluetooth to share files between devices, but there's so much more you can do with this underrated wireless technology. **Robert Irvine** reveals how to make Bluetooth faster, smarter and safer

## Share your internet connection over Bluetooth

When your broadband goes down and your computer can't get online, one solution is to tether your mobile connection. This usually involves turning your phone into a Wi-Fi hotspot, so you can share the internet across devices, but it's also possible to tether mobile data over Bluetooth. Although this method is slower than Wi-Fi, and restricts you to connecting to only one device at a time, it has the benefit of using less battery power. Just make sure your mobile network won't charge you for tethering.

To share your connection, first pair your phone with your computer, then on an Android device, go to Settings, 'Network & Internet', 'Hotspot & tethering' and switch on 'Bluetooth tethering'. On an iPhone, go to Settings then switch on Personal Hotspot.

Next, on your computer, right-click the Bluetooth icon on the taskbar (click the small up arrow if you can't see this) and choose 'Join a Personal Area Network'.




**Tether your mobile connection over Bluetooth when your internet goes down**

Select your phone in the Devices window, click the 'Connect using' dropdown menu and choose 'Access point' (see screenshot below left). Your computer will now connect to the web over your phone's tethered Bluetooth connection. If it doesn't work, try restarting your browser.

## Quickly pair Bluetooth devices with your computer

Windows 10's Swift Pair feature offers a speedy way to pair your computer with supported peripherals, without you needing to scan for them manually. Compatible devices include Bluetooth-enabled mice, keyboards and headsets made by Microsoft, and Samsung Galaxy earbuds.

To activate it, open the Settings app, click Devices, then 'Bluetooth and other devices' and ensure Bluetooth is switched on. Tick the box next to 'Show notifications to connect using Swift Pair', then switch on pairing mode on your other device. Windows will automatically detect the device and prompt you to connect it, displaying a PIN where applicable, so you can complete the pairing process.

## Lock your computer and phone automatically

One of Windows 10's most useful Bluetooth features is 'Dynamic lock', which protects your privacy by locking your computer automatically when you step away from it. It works by detecting when a paired device, such as your phone or headset, moves out of Bluetooth range (typically 6-9 feet, or 2-3 metres) for more than one minute.

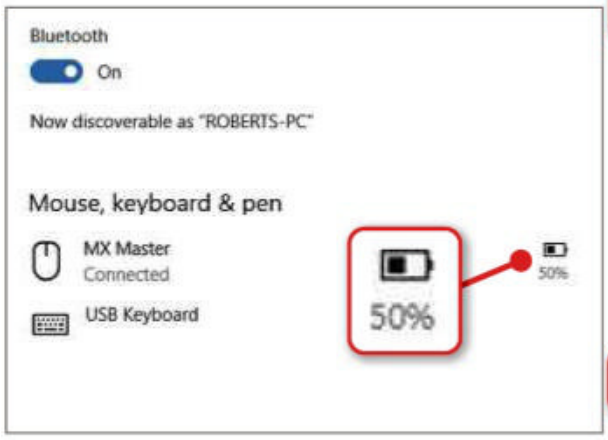
You can turn on 'Dynamic lock' by going to Settings, Accounts, then 'Sign-in options'. Scroll down to 'Dynamic lock' and select 'Allow Windows to lock your device automatically when you're away'.

A similar feature, called Smart Lock, is available on Android phones and tablets. This unlocks your mobile device when a paired Bluetooth device is nearby and locks it when the latter is out of range. To set up Smart Lock, go to Settings, Security, Smart Lock and tap 'Trusted devices'. Select 'Add trusted device', choose the device you want to use and tap 'Yes, Add'. You can add Smart Lock to your iPhone or iPad by installing Google's free app from www.snipca.com/38170.

## Check the battery status of Bluetooth devices

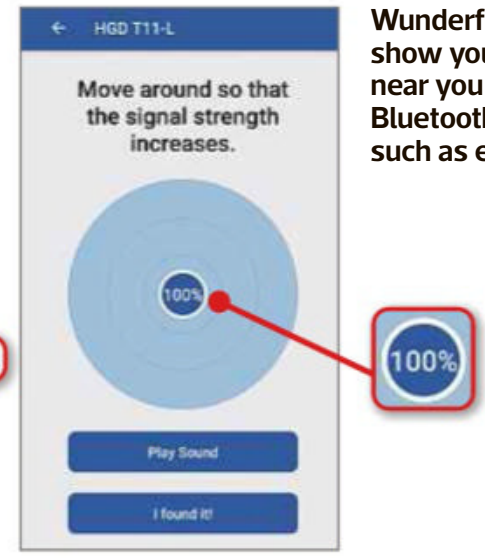
It's easy to see how much battery life you have left on your phone or tablet, but on peripherals such as your mouse, keyboard or stylus pen, you usually can't tell until they stop working properly. Bluetooth provides a handy solution to this problem by letting you check the battery level of compatible devices in Windows, so you know when to recharge them or replace their batteries.

Open the Settings app in Windows 10 and click Devices, followed by 'Bluetooth & other devices'. Select the peripheral whose battery life you want to check and you'll see a percentage on the right (see




Open Windows Settings to check the battery level of your PC's peripherals

You can update the drivers for your Bluetooth devices via Device Manager




Wunderfind will show you how near you are to lost Bluetooth devices such as earbuds

screenshot above). If you don't see this indicator, either your Bluetooth device doesn't support the feature or you need to update its drivers (see next tip).

## Update the drivers for Bluetooth devices

Although hardware limitations may prevent you from upgrading your Bluetooth version (see box below), you can still update device drivers to fix bugs, unlock new features and improve compatibility with other devices.

Open Device Manager in Windows, either by right-clicking the Start menu or by typing device manager in the search box, and click the arrow next to Bluetooth (1 in our screenshot above right) to expand that category. Right-click a Bluetooth device, select 'Update driver' 2, then choose 'Search automatically for drivers' 3. Install the updated driver if Windows finds one.

In the unlikely event of an update causing problems, choose Properties 4, then Driver and click the Roll Back Driver button to uninstall it.

## Find lost Bluetooth devices using your phone

Bluetooth earphones – or 'earbuds' as they're commonly known these days – offer a flexible, wireless way to listen to music and the radio, but they often fall out and go astray (which can prove very expensive if you bought some Apple AirPods for £160).

Thankfully, should you lose an earbud, or another small Bluetooth device such as a fitness tracker, there's a good chance you can find it using the free Bluetooth-scanning app Wunderfind. Install it on your Android phone (www.snipca.com/38177) or iPhone (www.snipca.com/38178) and it will scan for active Bluetooth devices in your vicinity. Move around to increase the signal strength then select the item you're looking for and the app will show a radar containing a 'distance score' (see screenshot above). The closer you get, the higher the score.

The Android app lets you play a sound on the lost device to alert you to its whereabouts, but on iOS this option is only available in the £4.99 Pro version (which also plots nearby Bluetooth devices on a map).

## Protect your Bluetooth devices against hackers

Because Bluetooth makes it easy to connect devices, it puts you at risk from nearby hackers. They can use a technique called 'bluejacking' to send messages, photos or videos to your phone, while 'bluebugging' gives a hacker complete control of your device.

The obvious way to avoid being hacked is to turn off Bluetooth when you're not using it, but this isn't always possible – for example, the NHS Covid-19 app requires Bluetooth to be constantly active. Alternatively, make your PC or mobile device 'undiscoverable' until you need to pair it with something else.

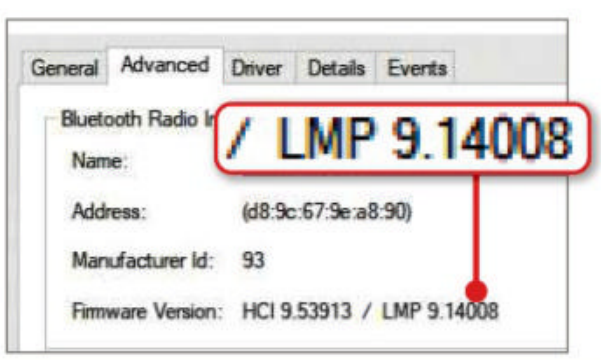
You can do this in Windows 10 by clicking 'More Bluetooth options' on the 'Bluetooth & other devices' screen and unticking the option 'Allow Bluetooth devices to find this PC'. On Android, go to Settings, Location, 'Wi-Fi and Bluetooth scanning' and disable 'Bluetooth scanning'. On an iPhone or iPad, you'll need to turn Bluetooth off altogether.

Other precautions include not pairing devices in public places and never accepting pairing requests from unrecognised sources. ca

## Should you upgrade to Bluetooth 5.2?

Bluetooth technology is constantly improving. The most recent version – or 'standard' – is Bluetooth 5.2, which was released at the beginning of 2020 and introduced a feature called LE (Low Energy) Audio. This lets Bluetooth devices stream audio to multiple users simultaneously, so you can, for example, have several Bluetooth headsets wirelessly connected to a single speaker.

LE Audio uses less power and bandwidth than previous Bluetooth standards, conserving battery life, and will also support (high-end) hearing aids (read more about these at www.snipca.com/38240).




Details of the first devices with Bluetooth 5.2 are currently emerging, including new earbuds from Google, Sony and Honor, and Intel's NUC 11 Essential Desktop PC (www.snipca.com/38183). However, it's worth waiting for the standard to appear on more hardware before you rush to upgrade, because you won't enjoy the benefits if you have Bluetooth 5.2 on only one device.

You can check which version of Bluetooth is on your computer by right-clicking your Bluetooth adapter (it might be named Qualcomm, Intel or Realtek) in Device Manager and choosing Properties, followed by Advanced. Look for the LMP (Link Manager Protocol) number next to 'Firmware version'. If this is '9.xxx' (see screenshot), your computer has Bluetooth 5. If the number is '8.xxx', it has Bluetooth 4.2 and you'll need a new Bluetooth adapter to upgrade your version.

See Microsoft's support article at www.snipca.com/38184 for more information about these specifications.

# Problems Solved

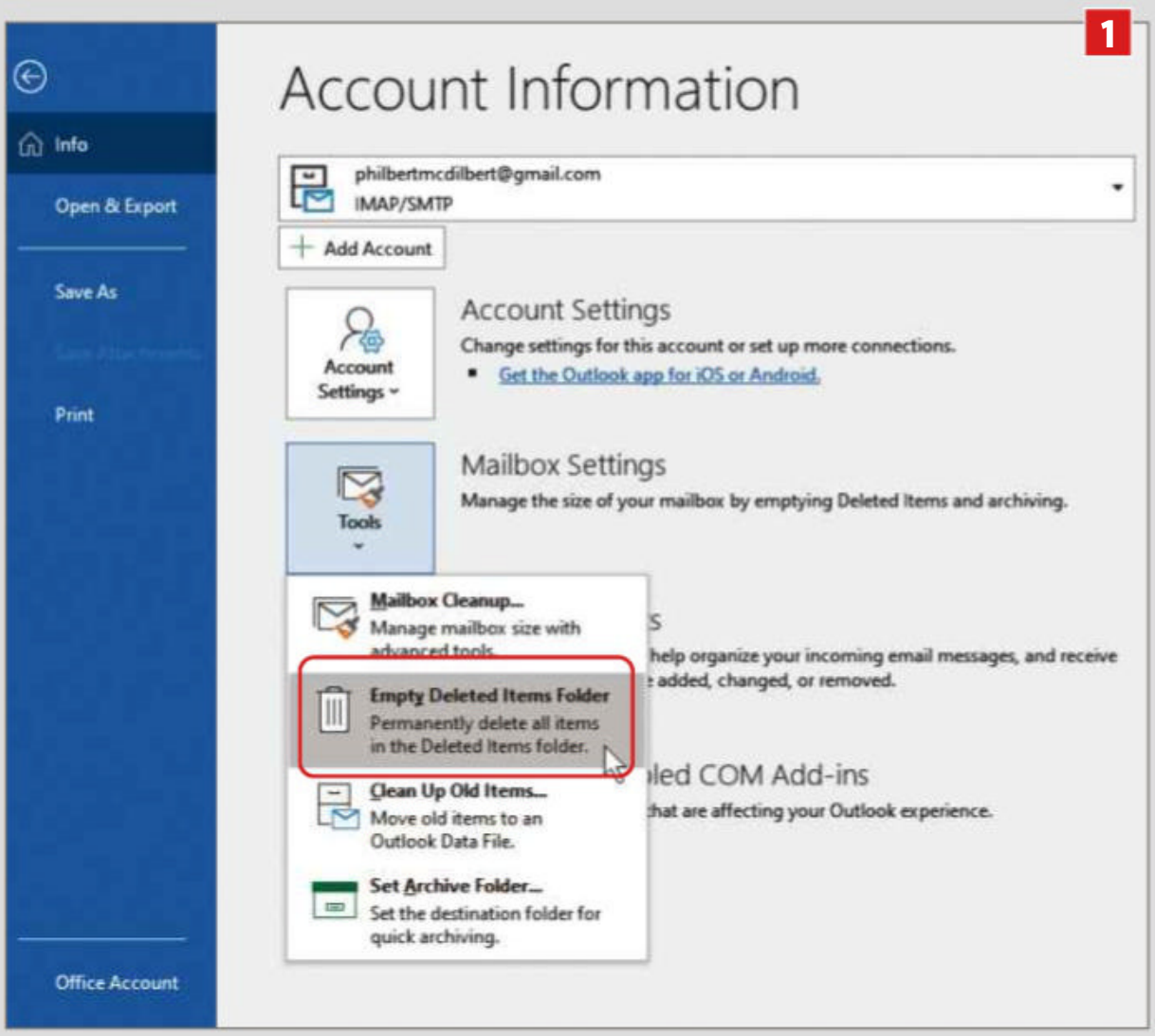
Our experts solve all your tech problems

## PROBLEM OF THE FORTNIGHT

# Why is Outlook 'not responding'?

**Q** I've been using Office 2016 for quite a few years without problem, but recently, Outlook 2016 has started to hang with a 'not responding' error message every so often – perhaps when creating an appointment or email, or just filing an email. I can force Outlook to close and reload it but this problem is really annoying. I've tried repairing Office, uninstalled and reinstalled the whole suite, replaced Office 2016 with Office 365, and checked my drives for errors. Everything seems in order but nothing helps. The only thing I haven't tried is a clean install, but I am loath to do it as there are a lot of programs that would need to be reinstalled. Any ideas?

Michael Chappell




**To cut the number of files in Outlook's email database, select the Empty Deleted Items Folder**

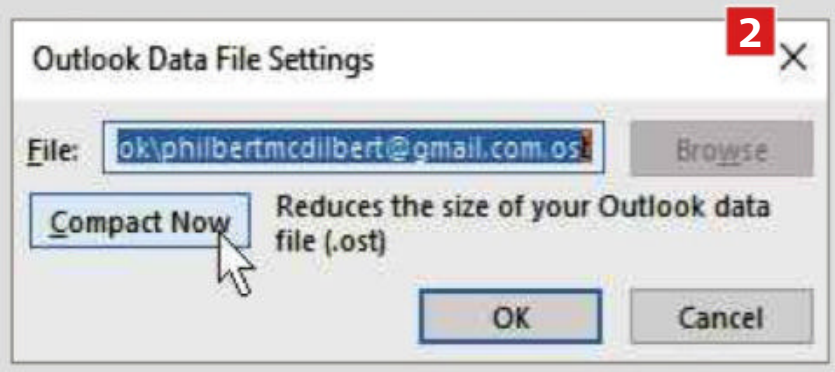
**A** You've clearly tried lots of options, but one thing you didn't mention – and it's a factor that can bring Outlook to its knees, and often suddenly – is the size of the email database. For this, Outlook 2016 defines a default maximum size of 50GB.

To be clear, that allows for a vast number of emails and attachments, and few people are likely to hit the 50GB ceiling quickly, if ever. Nonetheless, the bigger the database file grows, the slower Outlook will run. Should the file tip over the 50GB mark, which Outlook allows to happen without warning, then it can slow to a total crawl.

Fortunately, the program has built-in tools to help. First, spend a little time deleting old or otherwise unwanted emails. You can do this manually, with the Delete (Del) key, or by clicking File followed by Tools, and then making use of the options there. Clicking 'Empty Deleted Items Folder' will do just that (see screenshot 1), while choosing Mailbox Cleanup will open a menu that will allow you to set search criteria, so you can look for old emails, or perhaps those above a certain size. In the results list, you can then delete individual items by clicking to select them and then hitting the Delete key, or you can erase the lot by first selecting all matches by pressing Control (Ctrl)+A and then pressing Delete.

However, while essential for the next step, all this won't actually reduce the size of your Outlook database file. To do that, you need to compact the database – a hidden but crucial technique that instructs Outlook to reduce the size of the file by removing all the empty spaces created by the methods described above.

To do this, first click File followed by Account Settings and then Account Settings again. Next, click to select the Data Files tab and then click to select the relevant database file (you might have more than one, if you maintain multiple inboxes). Finally, click the Settings button followed by the Compact Now button 2. Note that if your mailbox is large – and our guess is that it is likely to be – then it could take many minutes or even hours for this process to complete.




**Click 'Compact Now' in Outlook Data File Settings to reduce the size of your Outlook data file**

# What's causing my email text to shrink in Outlook.com?

**Q** I have an Asus X555L laptop (pictured). Occasionally, when I'm writing an email in Outlook.com the text shrinks to a much smaller font, which can be impossible to read. I have to cancel the email, close the browser and restart from the beginning. If I manage to finish and send the email, the recipient has no problem because at their end it arrives in the correct size. I must be touching one of the bottom-left keys, near the wrist rest, but which?

Christine Moss

**A** We think this is probably down to the zoom control in the browser. We don't know which browser you're using, but in this respect almost all work in the same way. That's to say, holding down Control (Ctrl) while twiddling the mouse wheel, or pressing Ctrl and then plus ('+') or minus ('-') will zoom in or out.

However, none of these shortcuts are particularly easy to execute by accident. Instead, we think that this might be down to the pinch-to-zoom feature of your laptop's touchpad. These are very common, and mimic the same gestures that are familiar to any smartphone or tablet user. Unlike the keyboard/mouse shortcuts, touchpad gestures are all too easy to activate unintentionally – so we think this might be what's happening.

For example, if you have a habit of keeping one wrist resting below the keyboard while using the touchpad to click options or scroll, you could well have the heel of your hand on the touchpad. Then, making a move with a finger on your other hand could be interpreted by the touchpad as a pinch-to-zoom gesture.

If you're right-handed then our theory is further supported by the fact that your particular laptop model has an off-centre touchpad (see screenshot above right). This sits to the left-hand side of the wrist rest, meaning your left hand may naturally come to rest on the edge of it while you move the mouse with a right-hand finger.

**The Asus X555L's off-centre touchpad may cause problems for some users**

The fix, then, is either to be aware of this fact and be careful with your wrist placement, or to disable the pinch-to-zoom feature. To do the latter, first click Start followed by the Settings cog, and then click Devices followed by Touchpad. Finally, on the right, below the 'Scroll and zoom' heading, click to clear the tick from the 'Pinch to zoom' box.

# Why do my PDFs print small?

**Q** When I try to print PDFs they appear on the page as very small images on the A4 sheet – almost as little as a postage stamp. I use Adobe Reader. Have I ticked the wrong box somewhere? Or has a Windows 10 update caused a problem? Love the magazine, by the way. Truly, I learn something new with every issue, and I have been a lifelong subscriber.

Alan Barlow

**Under 'Page Size & Handling' select 'Fit' so that your PDF print-outs fill the page**

**A** Thanks for your kind words, Alan. There are a few things that can cause this hiccup, though most revolve around how a PDF was prepared – the most likely being the intended paper size for the printout.

These attributes are set by the creator of the PDF, the paid-for tool Adobe Acrobat, and can't be changed in the free Reader app. However, you can set the size by clicking File followed by Properties and then choosing the Description tab. In the Advanced section, the figure next to Page Size is the set output size. The dimensions might be small because the documents were only ever intended for viewing on a smartphone screen, for example.

To overcome this, when you choose Reader's Print option, in the 'Page Size & Handling' section, choose the 'Fit' option (as 'Shrink oversized pages' is probably your current default – see screenshot above), and, if ticked, click to clear the 'Choose paper source by PDF page size' box. You should notice that the thumbnail preview on the right-hand side of the Print box now expands to fit the chosen paper size, so now you're good to click Print.

# Problems **Solved**

## Should I use my old graphics card?

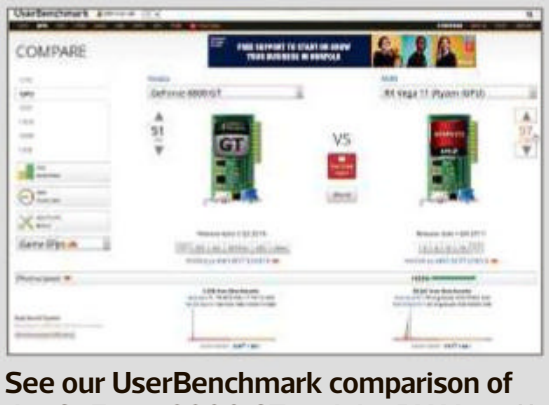
**Q** I bought a Palicomp PC with a Ryzen 5 3400G processor (pictured below), 8GB RAM and Windows 10 Pro. There's no separate graphics card. Graphics performance with the integrated Vega graphics seems very good, but would I derive any benefit by fitting the Nvidia GeForce 8800 GT 512MB card from my previous self-built PC?

**Mike Pope**

**A** Comparing the performance of any two graphics cards can be incredibly complex. Here, though, we can say with high confidence that the RX Vega 11 graphics hardware that's integrated into your Ryzen processor should outperform your old GeForce 8800 GT on every front.

The 8800 GT GPU is the best part of 14 years old, while the Ryzen 5 3400G was released just a couple of years ago. Even though integrated into the central processor, the graphics hardware is simply superior.

For a detailed breakdown of the benefits of your RX Vega 11 graphics, see the comparison page we set up for you on the popular UserBenchmark website, at www.snipca.com/38130 (see screenshot below).

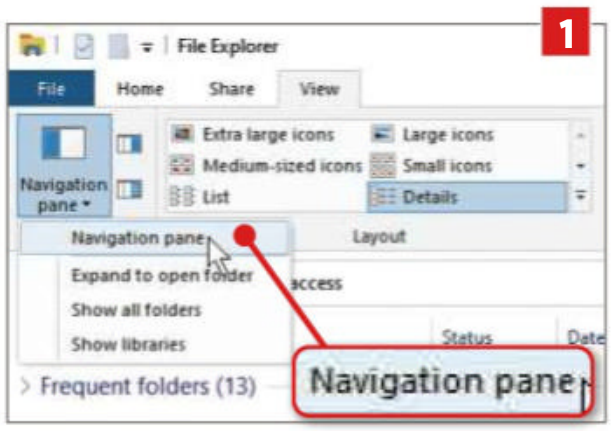



**See our UserBenchmark comparison of the GeForce 8800 GT and the RX Vega 11**

## What's happened to my File Explorer?

**Q** I'm hoping you can help this elderly reader with what is no doubt a simple problem. When I launch Windows 10 File Explorer, the panel that includes links to This PC, Desktop, OneDrive and so forth is no longer present. Instead, all I get are headings for 'Frequent folders' and 'Recent files'. I think it may have changed after an update. My drive letters are also missing.

**John Lambie**



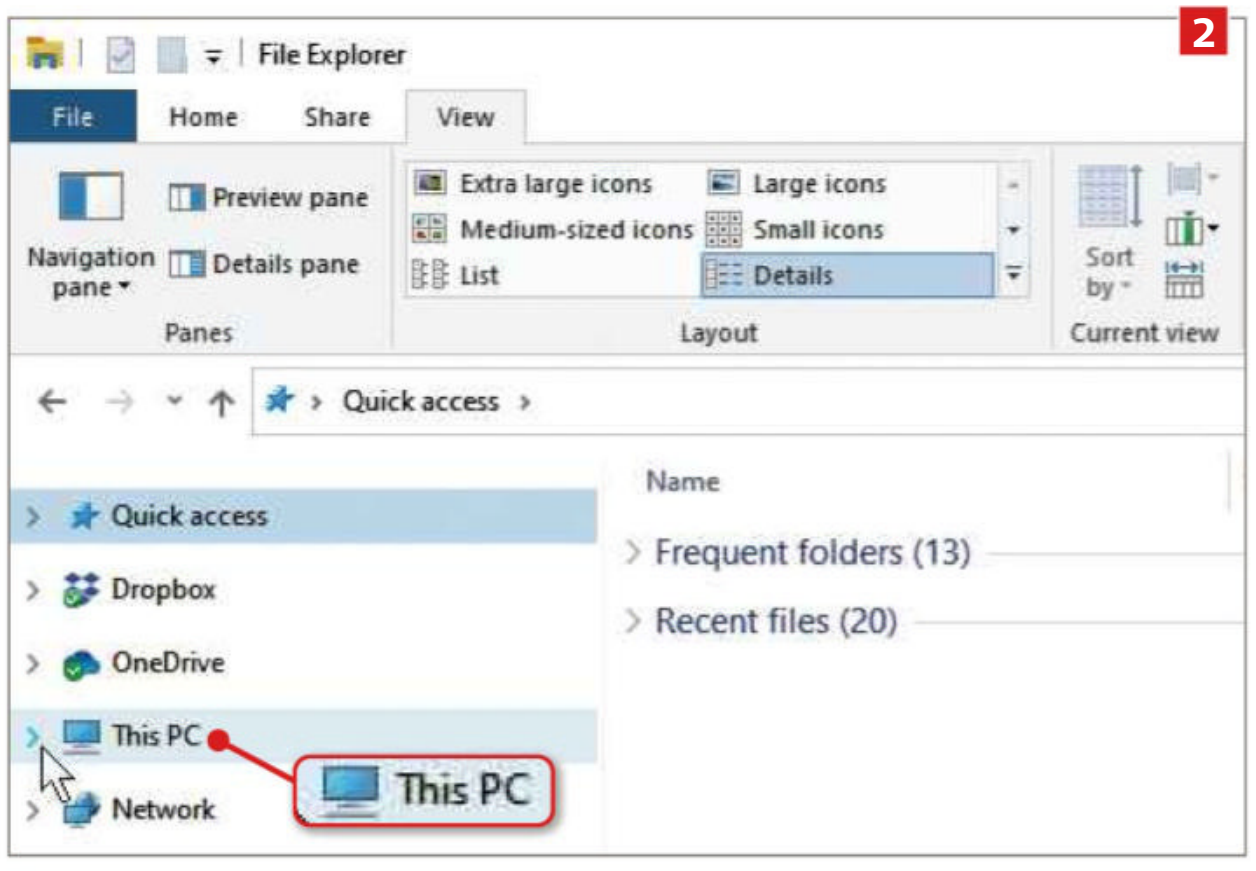

**Select 'Navigation pane' to restore features such as This PC and Desktop to File Explorer**

**A** You helpfully sent us a screenshot so we could see that what's missing is an area Microsoft calls the 'Navigation pane', which ordinarily appears on the left-hand side of File Explorer.

This is easily disabled by accident, so we think it's unlikely that an update caused it to disappear – but then again, with Microsoft's updates, anything is possible.

Fortunately, it's easy to resurrect it when you know how. All that's needed is a click on the 'Navigation pane' icon at the top-left of the File Explorer window, followed by a second click to tick the 'Navigation pane' option in the dropdown menu that opens (see screenshot 1).

Note that while this will restore the Navigation pane, your drive letters might still be hidden. They're organised under the This PC category. So, to see them, just click the little right-pointing chevron to the left of the This PC heading to expand the view 2.




**Select 'This PC' to restore your drive letters to File Explorer**

**Q: Will my old printer work with Windows 10?**

**A: Issue 586, page 65 – find it on our 2020 Back Issue CD**

**Buy it from www.snipca.com/37026**

# Can I set consistent volume levels on videos?

**Q** Is there a way to set the volume between videos? I've noticed when watching videos that the volume between any two can jump from fine to deafening and then back again. It would be nice to set and forget a comfortable level.

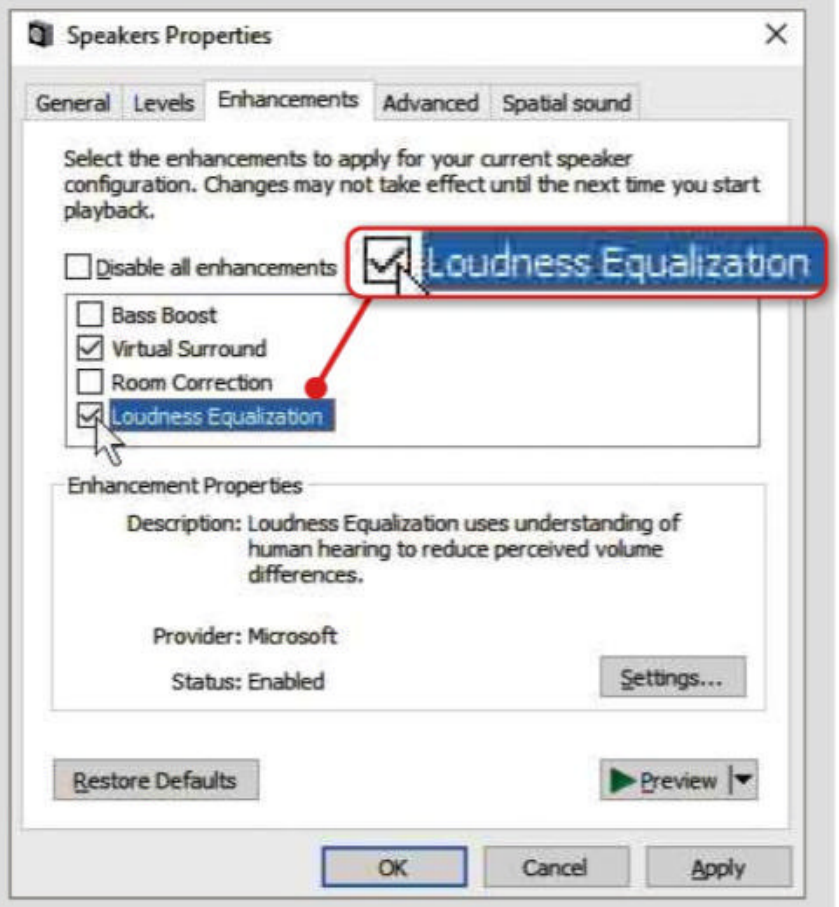
**Darren Forward**

**A** The volume, or loudness, of any content – video or otherwise – has multiple inputs and outputs. For starters, each and every creator will set his or her own recording levels. Similarly, the countless content-delivery services, such as YouTube and Spotify, each have their own preset volume levels. Then, there's whatever volume settings are set on the device you're watching or listening on. All this adds up to a whole lot of volume variation.

There's no simple, single fix. YouTube, for example, automatically applies some volume 'normalisation', but there's no user control over it – and it's obviously useless if you're using a different video service, or are simply watching movies you've downloaded from various sources, say.

However, Windows 10 does have one hidden setting that can help. To find it, first click Start followed by the Settings cog, and then System followed by Sound. Next, on the right, under Related Settings, click the Sound Control Panel option. Now select Playback, then click to select the green-ticked default speakers before clicking the Properties button. Finally, in the Speakers Properties menu click the Enhancements tab and then click to tick the 'Loudness Equalization' box (see screenshot above right). Click Apply.

Now play a video to hear how well the effect works for you. If you find the normalisation corrections happen too quickly or feel they take too long, then return to the Enhancements tab of the Speakers Properties menu and, under Enhancement Properties, click Settings. Now use click and drag on the Release Time slider to go to Long for longer volume-level transitions or, for faster normalisation, move toward Short.




**Tick the 'Loudness Equalization' box**

# How do I get off this bus in Firefox?

**Q** If I open Firefox or a new Firefox window I see my chosen homepage. However, if my laptop restarts without me closing each open Firefox tab, an extra tab opens, relating to the Stagecoach bus company. I have checked that the Firefox Options screen and the 'Homepage and new windows' option is set to www.google.co.uk – as I want. Do you have any suggestions as to how I can stop the Stagecoach tab appearing?

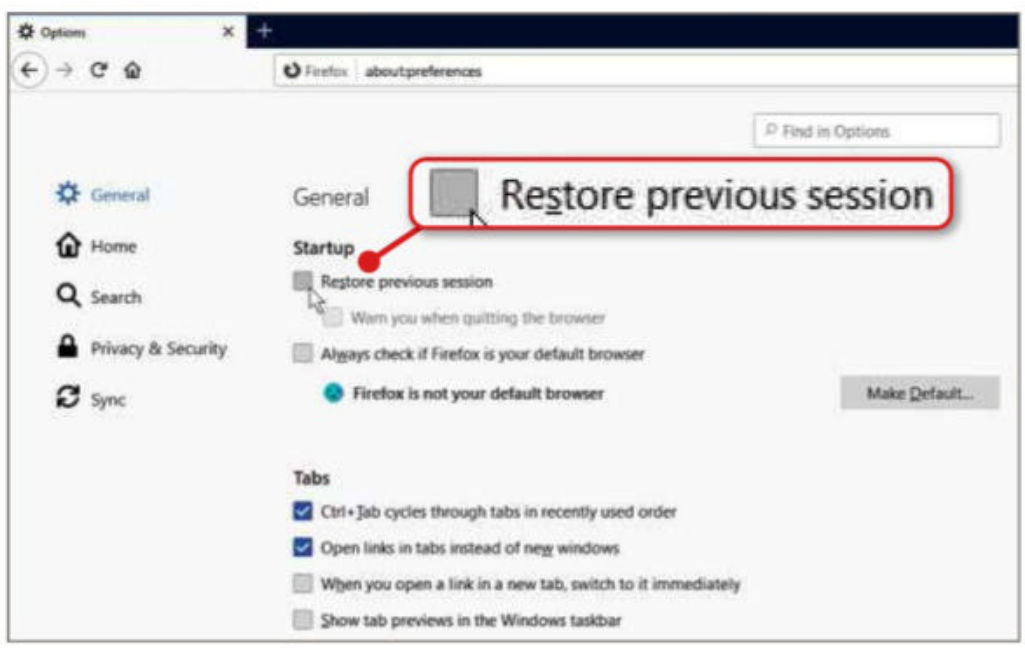
**Samuel Woolley**

**A** This is curious, and we're not sure what's causing it. Ordinarily we might suspect malware, but the particular page link (which you supplied to us) is from an email-verification link that you clicked in the past. So we think this is just some small glitch with your particular Firefox setup. There are a few things to try.

First, on the Options page, click General. Under Startup, check to see if 'Restore previous session' is ticked. If so, click to clear it (see screenshot above). Now try restarting Firefox.

If this doesn't help – or the option wasn't ticked – then try clearing Firefox's startup cache. To do this, first click in the address bar at the top, then type about:support and press Enter. Now click the 'Clear startup cache' button followed by Restart.

If all else fails, return to this same page and instead click the Refresh Firefox button followed by Restart Firefox: this removes add-ons and restores all Firefox's defaults. It's a bit of a nuclear option, obviously, but it should certainly fix the problem.



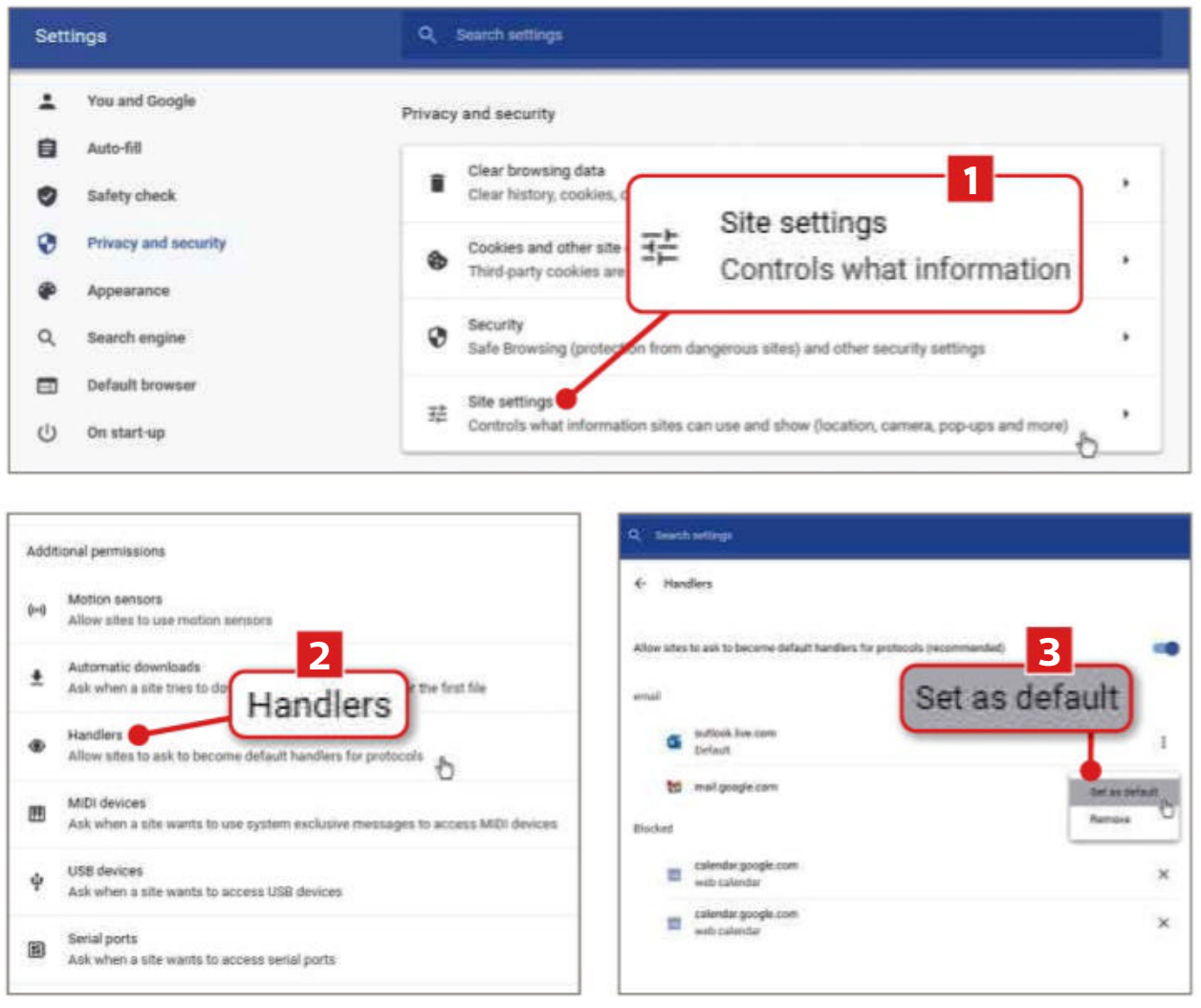

**Untick the 'Restore previous session' box in Firefox**

# Problems **Solved**

## How do I stop new emails opening in Outlook.com?

**Q** I sometimes use Outlook.com as an alternative to my normal Gmail email address, mainly when I want to avoid giving my main email address to an organisation. Recently, an alert appeared at the top of my Outlook.com home page saying that my browser (Chrome) supports Outlook.com as the default handler, and would I like to try it? Foolishly in hindsight, I agreed. Now, whenever I click email links they open in Outlook.com, which I don't want. How do I get email links to open in Gmail, like they used to?

Bruce Knowles




In Chrome's settings, select 'Site settings' (1), Handlers (2) and mail.google.com as default (3)

**A** We've all made little decisions that we later regret, but that doesn't mean they're necessarily foolish. Besides, Outlook.com's invitation is worded in such a way that it sounds like a trial, rather than an instant switch.

Fortunately, it is easy to reverse – but the particular option is buried in Chrome's settings. First, open the Chrome menu (click the three dots, top right), then choose Settings. Next, on the left, click 'Privacy and security' and then, in the right-hand pane, click 'Site settings' 1. Next, also in the right-hand pane, click to expand 'Additional permissions' and then, below that, click Handlers 2.

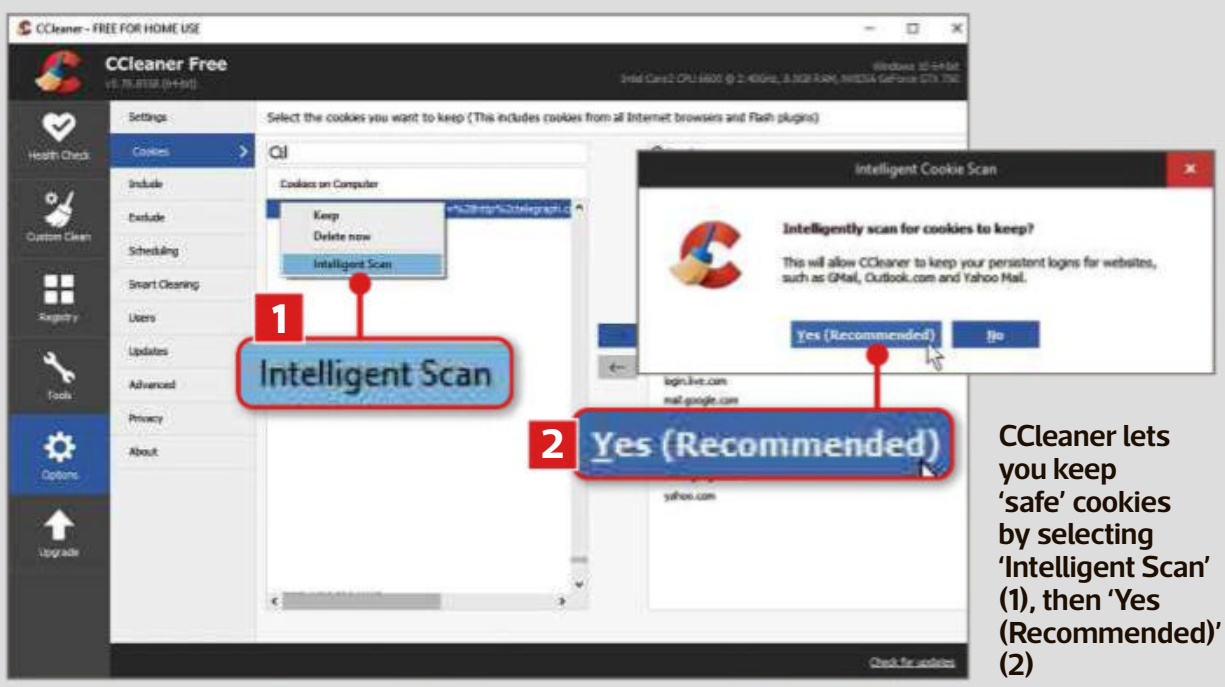
Finally, under the 'email' heading, click the menu icon (three dots) next to mail.google.com and then choose 'Set as default' 3. That will fix your problem.

If you wish, you can also delete the outlook.live.com handler entry. Click its menu button and then choose Remove.

## Is cookie removal a good idea?

**Q** I have a question leading on from your answer to Barry Warrell in Issue 604's Problems Solved pages, relating to the difference between cookies and spyware. I know you're not fans of CCleaner, but it's always served me well and I continue to use it regularly, partly because it removes cookies from my computer. Does not the removal of these cookies get round the possible problems they can cause or am I missing something?

Adrian Kenyon




CCleaner lets you keep 'safe' cookies by selecting 'Intelligent Scan' (1), then 'Yes (Recommended)' (2)

**A** Removal of unnecessary cookies absolutely minimises the ability of crafty websites to infer information about what you've done online.

So, while we won't pass further comment here on CCleaner, its cookie-removal tool is useful.

You may already know this but, for the benefit of other readers, CCleaner also has an option to preserve 'safe' cookies. To use this, first click Options followed by Cookies and then right-click in the 'Cookies on Computer' column. Now choose Intelligent Scan 1, and then click 'Yes (Recommended)' 2 to confirm.

## WHAT'S THE DIFFERENCE BETWEEN...

# HDMI and DisplayPort?

**Q** I've had my current computer for about 10 years and am thinking of an upgrade. I want a desktop PC as now that I'm retired I'd like to get into gaming more, and I understand laptops aren't really up to the job. My current display, which I would like to keep, connects via HDMI. However, I noticed that many new PCs have DisplayPort connectors. I don't really know if or how these differ from HDMI. If it came down to a choice between HDMI and DisplayPort, should I go with a machine with DisplayPort and wave goodbye to my faithful old monitor?

**Dennis Mason**

The Gigabyte GeForce GTX 1660 graphics card has one HDMI and three DisplayPort sockets

**A** We should say that there are plenty of laptops specifically designed for gaming, so we wouldn't necessarily limit the search to PCs. However, it's also true that top-end PCs will always outperform laptops, simply because larger machines are able to accommodate more powerful components – along with all the cooling apparatus needed to stop them overheating.

That aside, the differences between HDMI and DisplayPort are many but, often, barely worth worrying about. Note that while the two connectors look very similar, they're not physically compatible. But beyond that, they both do the job of connecting devices to screens digitally.

HDMI has the benefit of wide compatibility with TVs and other domestic audiovisual equipment, while the latest iteration of the DisplayPort standard (2.0) can drive higher-resolution displays – up to 16K resolution compared with HDMI 2.1's (current) maximum of 10K. However, all this is an ongoing game of electronic leapfrog: where DisplayPort goes, HDMI follows, and vice versa.

Regardless, your last question is likely to be moot: any graphics card fitted in gaming desktop PC is sure to have numerous outputs, including both HDMI and DisplayPort. The pictured Gigabyte GeForce GTX 1660 graphics card (www.snipca.com/38143), for example, has one HDMI and three DisplayPort sockets.

Moreover, if you do somehow end up with a PC that has only DisplayPort outputs, an adapter (like this £10 StarTech cable, www.snipca.com/38144) will let you keep your old monitor in service.

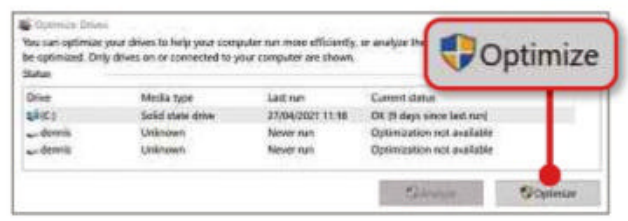
Want to know the difference between technical terms? Email noproblem@computeractive.co.uk

# What's the best way to speed up my SSD?

**Q** I had my laptop's 1TB hard drive replaced with a 1TB SSD, and the RAM upgraded to 16GB. The improvement was significant. However, my laptop is struggling to run the ArtiCAD program I use for work. Normally, I'd perform a defrag, but this isn't recommended for SSDs. Is it safe to use Drive Optimizer? It recognises the SSD drive correctly, but information online seems conflicting. The laptop is a Lenovo G580 with an Intel Core i3, running Windows 10 Home.

**David Silverman**

**A** The tool you mention used to be known as Disk Defragmenter. While it's widely referred to online as 'Drive Optimizer', Microsoft itself doesn't use that name: the company calls it Optimize Drives. It's accessed by clicking Start, typing optimize drives and then clicking 'Defragment and Optimize Drives'. We say all this to save confusion for other readers, but we know we're both talking about the same tool.




You can click 'Optimize' but it won't defragment your SSD

So, yes – it's safe to use Optimize Drives on an SSD, by selecting the drive and then clicking the Optimize button (see screenshot). However, the tool won't perform defragmentation, precisely because that's not a good idea. Rather, on SSDs, it runs what's known as a TRIM command. This marks empty blocks, which are quicker for the SSD to write to because they don't first need erasing.

However, performance improvements are likely to be minimal. Rather, we suspect the bigger problem here is that your laptop's processor is below the minimum recommended by ArtiCAD's developers, at www.snipca.com/38145. The program demands an Intel Core i7 or better, but your machine has only an i3, which is significantly less powerful. We're afraid there's no fix for that.

## Next Issue

ON SALE **Weds** 16 Jun

- Can I monitor hard-drive activity?
- How do I change sounds in Microsoft Teams?
- Can I upgrade my PVR hard drive? ...And many more

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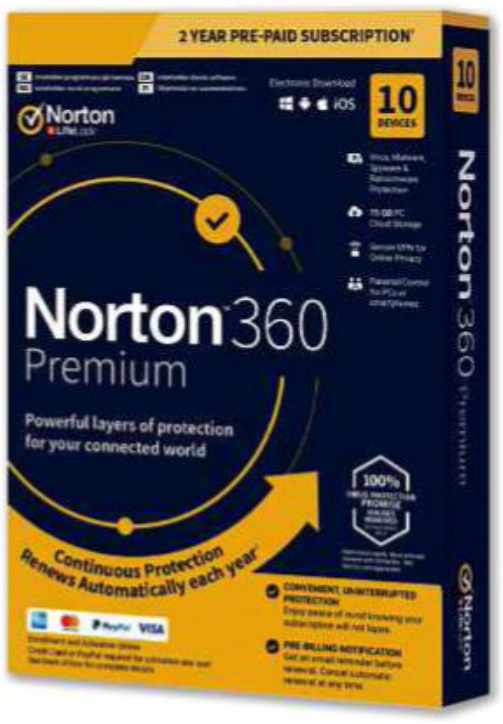


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# Problems **Solved**

# 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

## Shouldn't you have recommended an SSD not more RAM?

**Q** I was surprised that your advice to George Wensley in Problems Solved (Issue 604, page 66) didn't include suggesting that he upgrades the hard drive of his PC with a solid-state drive (SSD). This would speed things up far more than adding RAM, and he could clone his existing installation to the SSD using Macrium Reflect Free (www.macrium.com/reflectfree), with no need to reinstall Windows. Maybe he already has an SSD, but that doesn't seem likely if his PC is running slowly. Also, your advice to Ying-Hui The in the same issue (page 67) could have suggested he try accessing the "persistent miscreants" in Incognito mode. I don't know for sure, but it seems likely to me that Chrome wouldn't save a bookmark to sites accessed in this mode.

**Paul Atkin**

**A** In both cases you're quite right. However, we get many more questions each month than we could ever answer in the magazine, so we have to stay focussed in the space available. So, yes, we could have suggested that George install an SSD (like the Crucial model pictured below) instead of more RAM, but he asked us directly about the memory – so that's the question we answered. Nonetheless, an SSD is indeed a great way to speed up a PC, and we're happy to take a bit of extra space here to pass on your suggestion.

Your second point and idea is a good one, because Chrome would not create shortcuts from sites visited in Incognito mode. However, we have no idea how Ying-Hui uses Chrome on a daily basis, so we focused on the method for deleting the current miscreants, as well as advising how to permanently disable these shortcuts.

**A solid-state drive like this Crucial model will speed up your PC's performance**

## How do I boot from a USB stick?

**Q** I've just tried to follow the 'Turn an old laptop into a Chromebook' How To feature in Issue 594. Unfortunately, I couldn't find an option in my Sony Vaio laptop's BIOS to boot from USB, even though the machine has three USB ports. The boot menu shows Network, Optical Drive, Floppy Disc Drive and Hard Disk Drive as options – but no USB. How do I get around this?

**John MacLeod**

**A** On some Vaio laptops the option to boot from an external device (meaning a USB stick or drive) needs to be enabled. To do this, once in the BIOS (accessed by pressing F2 after switching on, as you evidently already know), use the arrow keys to select the Advanced or Boot tab – the option could be in either, depending on the exact model. Next, select the External Drive Boot (or External Device Boot) option, then press Enter and change it to Enabled. You should now be able to select External Drive (or External Device) in your boot menu. Press Escape (Esc) to exit, choosing Yes to save the changes.

## Why can't I download Degoo?

**Q** I read Issue 605's 'Switch from Google Photos' feature (page 62) and I thought I'd try Degoo. I want to use it on my Windows 10 PC but I couldn't find any way to download it. I tried Google Play, but it will only download to my Android mobile device. Having been caught out in the past by dodgy download sites I'm reluctant to pick one at random.

**Vivian Longland**

**To make use of Degoo on your PC, visit its website and sign up for a free account**

**A** It's not entirely obvious from the Degoo website but the answer is that there's nothing to download for PCs – because the service works entirely within a 'web app' via your web browser. All that's actually required to use Degoo on a Windows 10 PC is to visit https://app.degoo.com (see screenshot above), and sign up. So, type that address in your web browser, tap in your email address, choose a password, click the 'Sign up' button and you're ready to go.

## What's wrong with the Louvre website?

**Q** I was interested in the News story in Issue 604 (page 8), about the Louvre's artworks going online. I tried typing in the published website address (https://collections.louvre), but I just see a page of search results instead. Has the website for some reason been taken down since your story?

**Theresa Hill**

**A** No, but the width of our columns meant that the end of the web address wrapped over on to the next line. Because the address ends in '.fr' – which isn't all that familiar to us UK web users – this vital detail was easy to miss. Therefore, as 'https://collections.louvre' is not a valid web address, your browser reverts to carrying out whatever you typed as a search query. However, the correct full address – and thus the 'fix' for this hiccup – is https://collections.louvre.fr.

# Jargon **Buster**

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

**3G/4G/5G** Technologies that deliver faster mobile broadband.

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

**802.11ac** A standard for wireless networks that allows for much higher transfer speeds than **802.11n**.

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

**AMOLED** Active-Matrix Organic Light-Emitting Diode. An alternative technology to LCD for creating flat-panel displays. Most commonly used in smartphones, tablets and smartwatches.

**Analogue** A signal whose value varies over time, as opposed to a digital signal which is either on or off.

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

**Benchmarking** Comparing software and products with an accepted standard.

**Biometric** Using measurable personal characteristics, such as fingerprints, for identification.

**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.

**Bitrate** A measure of data transfer speed, or of the quality of digital video or audio files.

**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.

**Cast** To send content from your PC to TV.

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

**Clean install** An operating system installation that overwrites all other content on the hard drive.

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

**CRT** Cathode-ray tube. The technology used in older, non-flatscreen TV and computer displays.

**Defrag** To reorganise the data stored on a hard drive so files are stored in one piece and can be accessed quickly.

**DisplayPort** A port for outputting audio and video.

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

**Dual-band router** A Wi-Fi router that operates on two bands: 2.4 and 5GHz. Wireless networks working at 2.4GHz have longer range, but are more prone to interference. Wireless networks working at 5GHz have shorter range, but are less prone to interference and therefore tend to be faster than 2.4GHz networks.

**DVI** Digital Visual Interface. A common type of display connector that can carry a digital signal.

**eSATA** External Sata. A relatively rare type of connection for external hard drives.

**EXE** A program file designed to run in Windows. Has the file extension .exe.

**Factory reset** Restoring a device to the manufacturer's default settings.

**File path** Shows the location of a file within Windows.

**FireWire** An alternative to USB, which is increasingly uncommon, but still found on video cameras and external hard drives.

**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.

**FreeSync** AMD's technology for varying the screen's refresh rate to avoid two frames being shown at the same time.

**GEDCOM** Short for Genealogical Data Communication. A file format used by genealogy programs to share data.

**Gigabit Ethernet** A very fast networking standard that's capable of transferring data at up to 1,000Mbps.

**GPU** Graphics Processor Unit. A chip designed to create 3D graphics, but which can also be used for other computing tasks.

**Graphics card** A component in a computer that produces the image shown on the monitor.

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

**Headphone splitter** An adapter that lets you plug in multiple pairs of headphones so that you and a friend can listen to the same audio simultaneously from one device.

**Hotspot** To use a phone's connection to the mobile-data network as a broadband data source for other devices.

**IPS** A screen technology. Monitors that use it have wider viewing angles and better, more accurate-looking colours than those that don't.

**LAN** Local-area network. A computer network in one place, such as a home or office.

**Lossless** Music file formats that take up more space but provide higher sound quality.

**Macro camera** Lets you take sharp, detailed, close-up photos of small objects.

**Mesh router** Wireless network system that uses multiple, connected routers to stretch Wi-Fi further than a traditional router.

**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.

**Mini DisplayPort** A type of port for connecting a monitor, TV or projector to a computer.

**Modular** Used to describe a device or PC that uses detachable and replaceable parts.

**Noise** Visible dust-like speckles that appear in some camera and TV images. In photos, they are caused by the camera's own sensor. In TV images, they can be caused by the TV's processor or by a flaw in the broadcast signal itself.

**Omnidirectional** A mic that picks up an equal level of sound from all sides or directions, whether the speaker talks from the front, back, left or right side.

**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.

**PCI** Peripheral Component Interconnect. A high-performance expansion slot for desktop PCs, allowing simple installation of PCI components such as sound cards and modems.

**Phishing** A form of internet fraud that tries to trick you into revealing personal details.

**Plug-in** A small program that adds extra features to software or to your web browser.

**PS/2 port** A small, round six-pin connector, for plugging a keyboard and/or mouse into a computer.

**QR code** Quick Response code. A barcode that can be read using smartphones and dedicated QR-reading devices.

**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.

**RCA** Connector used to carry audio and video signals.

**Refresh rate** Measured in Hertz (Hz), the number of times per second that the image on your monitor is redrawn.

**Response time** How fast a coloured pixel turns to white and back again.

**SATA** Serial ATA. An interface for connecting hard drives and optical discs to a computer.

**SD card** Secure Digital card. A popular type of memory card.

**Sequential** Reading large files in a logical sequence.

**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 than conventional hard drives.

**SSID** Service Set Identifier. A name used to identify a wireless network.

**Subwoofer** A special type of speaker designed to reproduce deep bass sounds only. Even on a stereo system, only one subwoofer is required because human ears cannot detect the direction of bass frequencies.

**Surround-sound** Cinema-like sound that uses multiple speakers.

**System restore point** Collection of system files stored by System Restore on a given date and time to which Windows can revert if a problem occurs.

**Tethering** Turning a phone into a modem to give internet access to a computer.

**TV tuner** An expansion card in a PC that receives TV signals.

**Two-factor authentication** A system that uses two different means to identify the user. For example, a code sent to a phone.

**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 3.0** An even faster version of the USB standard used to connect devices to a computer.

**USB-C** A new connector that's reversible, letting you plug it in upside down.

**VGA** Video Graphics Array. An older standard socket for connecting a monitor to a PC.

**VoIP** Voice over IP. The routing of voice conversations over the internet, which is cheaper than the telephone network.

**WAN** Wide Area Network. Exists over a large geographical area.

**Waveform** An image that represents an audio signal or recording.

**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.

**ZIP file** A file that contains compressed documents or files.

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Easy when you

# Know How

Seeking to clean up and cheer up his gloomy ancestors, **Robert Irvine** tries to...

# Restore old photos using AI

Although it's lovely that lockdown has lifted, so we can meet friends and family again, it's also brought back one of my biggest bugbears: I hate having my photo taken. I've long found it impossible to look natural when someone points a camera at me, and either glare into the lens with my chin stuck out like Desperate Dan, or pull a startled, bug-eyed expression, as if someone's just dropped a wet fish down my back.

> Hotpot erased most of the creases from my grandfather, though the remnant of one left him with a scar

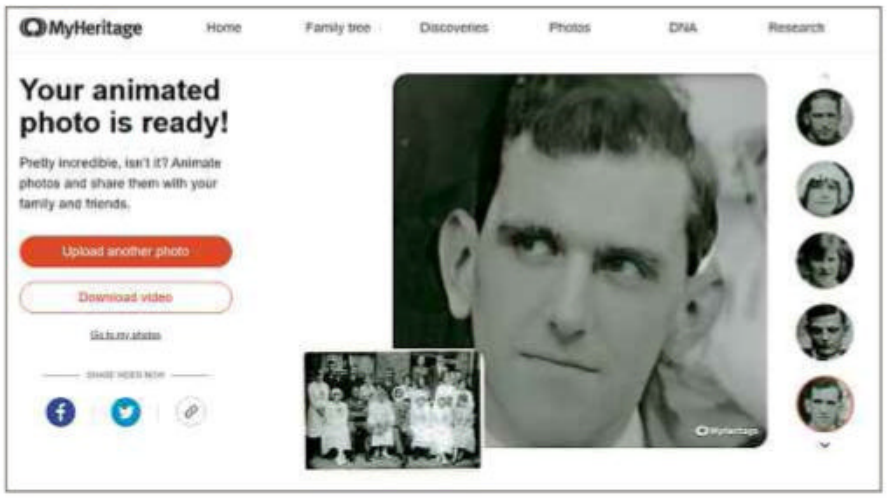
My awkwardness in posed shots is one reason I enjoy perusing old-timey photos, when the length of the exposure process tended to produce scowls rather than smiles in the subjects. I can relate to their grimaces as they waste valuable minutes standing around, when they could be cleaning the chimney or filling the tin bath. My mum is a keen genealogist and often sends me pictures of our sour-faced ancestors, so with her birthday approaching (I won't say which one, or she'll be sour-faced herself), I thought I'd try to bring some vintage family photos to life and share them with her.

**Cheer up your ancestors by colourising vintage black-and-white photos**

Rather than tweak them manually (and laboriously) with an image editor, I turned to online tools that use artificial intelligence (AI) to transform your snaps.

My first stop was Colorize (www.snipca.com/38167), which – as you can guess from its name – uses AI to "colorize" [sic] black-and-white photos. I'm not generally a fan of colourisation, having seen it needlessly applied to classic films such as *Casablanca*, but figured it might be interesting to view people from the past in their natural hues. I uploaded a wedding photo from 1922 to the site and clicked Start. The conversion only took a few seconds, but – unlike with similar tools – there was no before-and-after comparison. Instead, I clicked the Download button, which opened the colourised photo in my browser. The result was impressive, reproducing blues, browns and skin tones, whereas rival services I tried applied a sepia effect. I then right-clicked the picture and chose 'Save image as...' to download it to my PC, without signing up for a Colorize account (you get extra enhancement features if you do).

Next, I visited Hotpot (https://hotpot.ai), which offers free image-editing tools. These include AI Picture Restorer (www.snipca.com/38168) for removing scratches and blemishes from old photos (it also has a colouriser, but Colorize worked better). This tool performed admirably on a Navy headshot of my grandfather, erasing most of the creases (although the remnant of one left him with a facial scar) and sharpening the image. Hotpot is fast and free to use, although it only restores photos with a resolution of up to 1,280 x 1,280 pixels.




**Robert's great uncle Arthur looks pleased to be alive again thanks to Deep Nostalgia**

Finally, I turned to MyHeritage Deep Nostalgia (www.snipca.com/38199), which uses AI to animate old photos and bring long-dead relatives back to life. This tool attracted lots of media attention when it launched in February, and I was intrigued to see if it was as "amazing" or "creepy" as described.

Uploading a picture was easy, but to see the animation I was obliged to sign up with MyHeritage and complete an image CAPTCHA, which is always a faff. Fortunately, the results were "pretty incredible", as the site says, turning static faces into moving, blinking people, who looked unnervingly realistic and quietly pleased to be alive again.

I downloaded the animations as MP4 videos, which were watermarked but good quality and lasted up to 15 seconds. I then combined them with the colourised and restored photos to give my mum a moving blast from the past for her birthday. Sadly, MyHeritage limits you to animating five pictures for free before requiring you to subscribe, otherwise I'd still be raising the dead now.

Need help with restoring – or even animating – your old photographs?
Let us know: noproblem@computeractive.co.uk



**Next issue:** Robert stress-tests his PC to make sure it's stable

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