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Here's my idea to improve the Amazon Fire TV Stick: make its remote control beep when you whistle a particular tune. Perhaps then I'd be able to easily locate it every evening rather than spend ages trying to guess where the kids have left it (I once found it in a slipper shoved down a watering can).

Sadly, it's not one of the tips suggested by Robert Irvine in our Cover Feature, though he does come up with some belters, including installing a [VPN](#) and reclaiming storage space. His hacks for the 'Chromecast with Google TV'

(catchy name) and Roku Streaming Stick+ are just as useful. I've taken his advice and installed the Plex app on the former, and fixed the latter's occasional buffering.

These days most of my viewing is done through one of these devices, increasingly on YouTube where video podcasts offer the kind of nuanced, informed opinion often lacking in much of the mainstream media. I'd be keen to know what you watch, and on which device.

Daniel Booth
editor@computeractive.co.uk



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Number of malware-billing scams sent every day at peak - [p11](#)

7 days
When WhatsApp messages will self-destruct after being sent - [p45](#)

24 million
How many satellite images make up Google Earth Timelapse - [p7](#)



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.

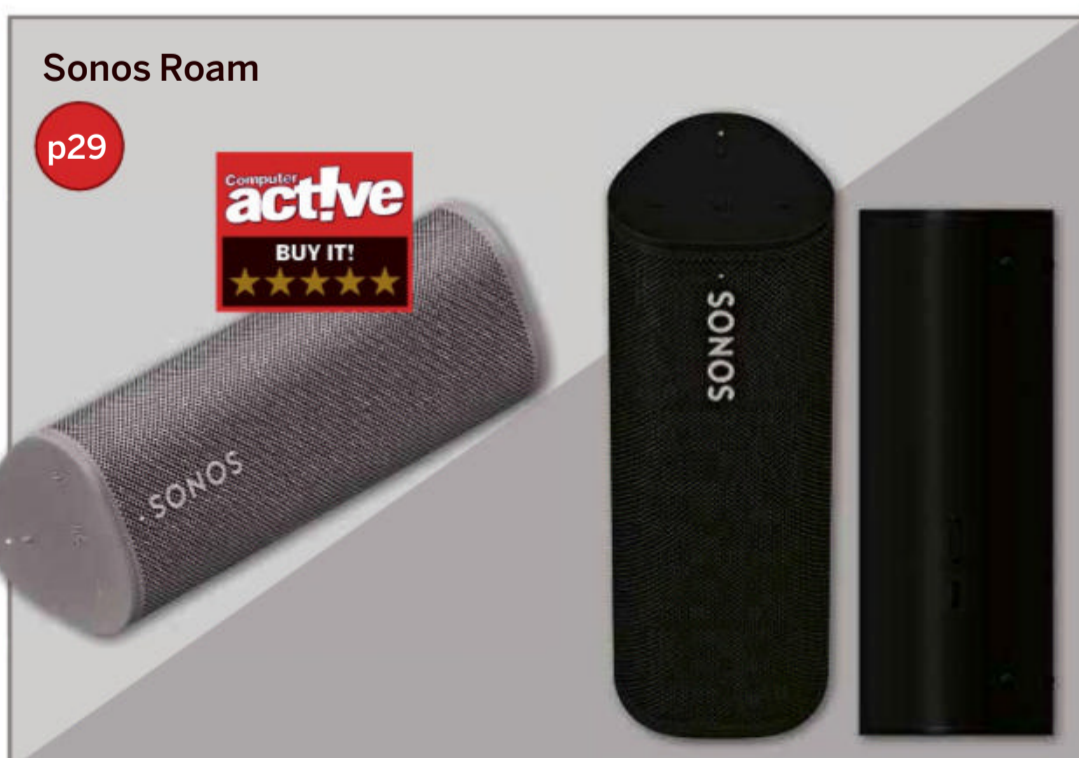
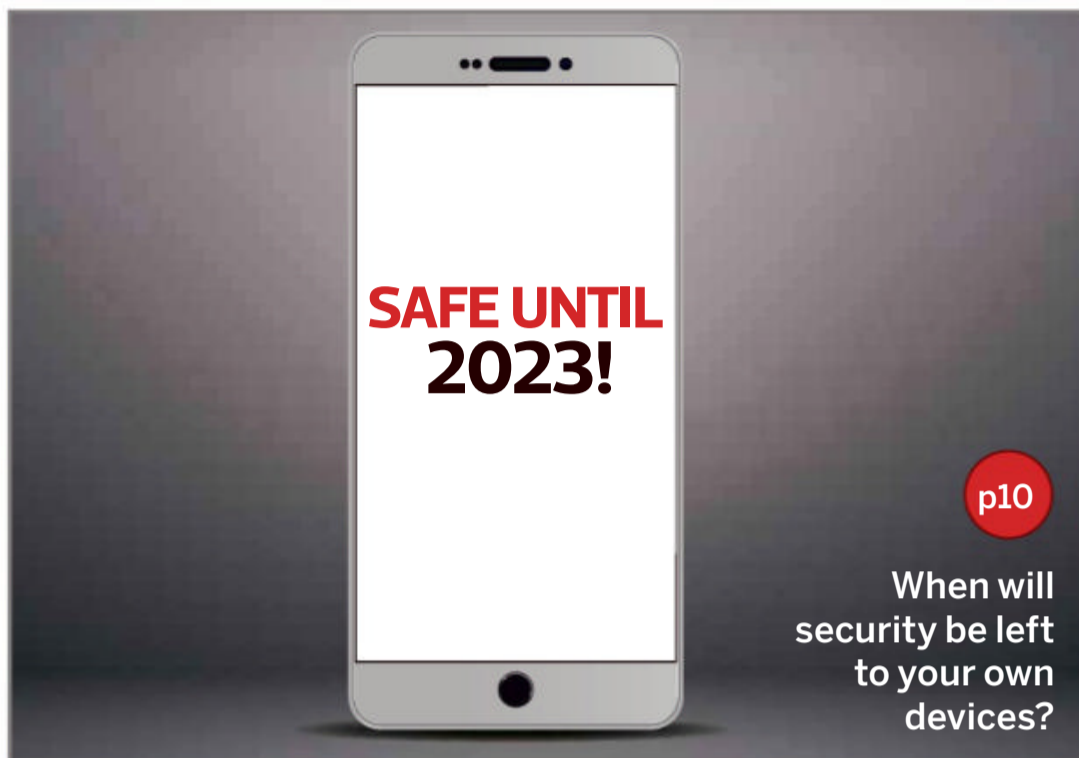
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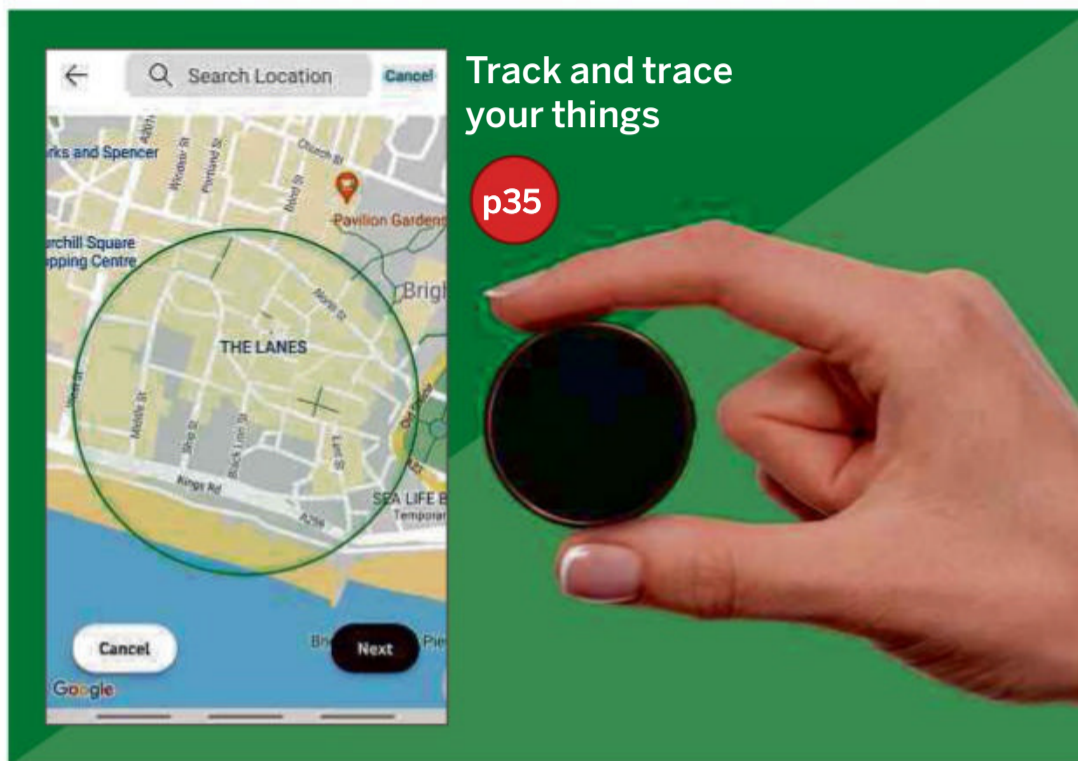
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Robert Irvine plays retro games on his PC



Master Your TV STICKS

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Best things you didn't know you could do with your
Fire TV Stick, Chromecast and Roku



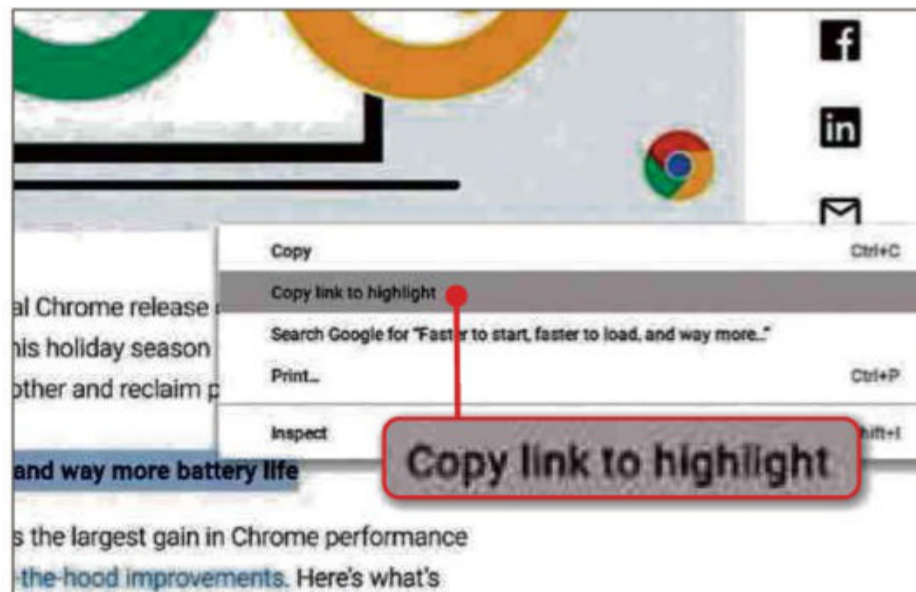
Superb new tools arrive in latest Chrome and Edge

Chrome now lets you send a link to a section of a webpage, while Edge lets you search your web history across multiple computers, as major new versions of both browsers are launched.

The standout feature in Chrome 90, released in mid-April, is the option to right-click text online to generate a link you can then email to someone.

To do this, use your mouse or trackpad to highlight the text you want to send, then right-click it and choose 'Copy link to highlight' (see screenshot above right). This creates a URL ending in the hash symbol (#). When the person you've sent the link to clicks it, they'll be taken to that particular chunk of text, not to the top of the webpage.

To achieve this previously you had to use Google's 'Link to Text Fragment' Chrome extension, which is still



available at www.snipca.com/38028.

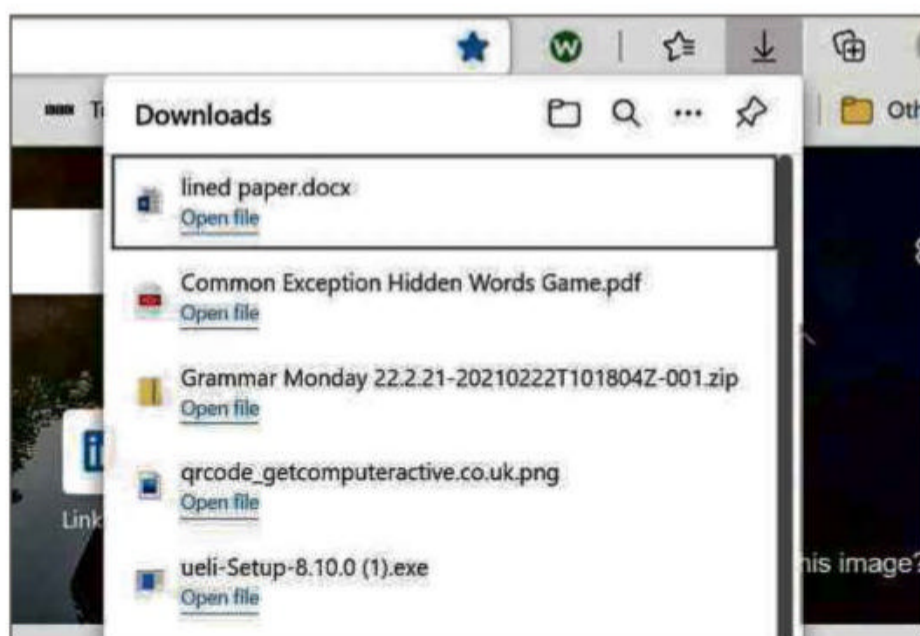
Chrome 90 also has new PDF options, which you can open by clicking the top-right menu button (three vertical dots), including a two-page view and seeing the document's properties. A new toolbar at the top shows key actions (zooming, saving, printing and more) "within a single click". Discover more new features on Google's blog: www.snipca.com/38009.

Search Edge history across computers

Meanwhile, in Edge 90, also released in mid-April, you can now search which websites you've visited across different computers.

Click Edge's top-right menu button (three horizontal dots), then click History (or press Ctrl+H). Next, click the magnifying glass icon at the top and type your search term.

Microsoft has also added a new Downloads 'flyout' menu to the top of Edge (see screenshot left), showing what you've recently



WHAT WE THINK

Perhaps the most significant new tools are those for PDFs. Google and Microsoft want you to download less software and do more online, so you can perform in your browser tasks you previously did only on your desktop. That's going to become more realistic as Chrome and Edge get more powerful. Nothing represents this change better than PDFs. Yes, for serious work you still need the likes of Adobe, but many people can easily get by never leaving their browser.

downloaded, and anything you're currently downloading. Press Ctrl+J to see it.

For a full list of new tools visit Microsoft's 'What's Next' page: www.snipca.com/38033.

All the tools in Chrome and Edge 90 are being rolled out gradually, so keep checking if you don't see them straight away.

PREVIEW EDGE COMING TO ANDROID

Microsoft has released a preview version of Edge for Android phones and tablets, letting you try tools before they're fully released. It's the 'Canary' edition of the browser, which is the name Microsoft gives to the version of Edge

that's still being tested, and therefore may contain some bugs. You can install it from the Google Play Store at www.snipca.com/37985. The 'Canary' version of Chrome for Android is also available (www.snipca.com/37986).



You'll like this... Samsung is letting you turn old Galaxy phones into smart-home devices (www.snipca.com/38041)



but not this... A Birmingham grandmother lost her funeral savings to an Amazon scammer (www.snipca.com/38031)

Zoom star Jackie Weaver: our meetings must stay online

Jackie Weaver, who became an overnight sensation in February over her handling of a video meeting of Handforth Parish Council (pictured), has called for online council meetings to remain legal now that lockdown is easing.

The Coronavirus Act 2020, which came into force on 4 April 2020, allowed council meetings in England, Wales and Northern Ireland to take place remotely through software such as Zoom, Skype or Microsoft Teams.

But this legislation is due to end on 7 May, one day after the local elections, forcing meetings to take place in person – in England and Northern Ireland at least. The Welsh Government has now made legal provision for local authorities to meet on video, while authorities in Scotland were already allowed to meet remotely before the pandemic.

Mrs Weaver – the chief officer of the Cheshire Association of Local Councils



– said ending virtual meetings is a “dreadful idea”.

She added that councils had given feedback on the benefits of remote meetings, including “the environmental and cost benefits of reduced travel, increased participation from residents, accessibility, and the ability of the community to bear witness to the process”.

However, Luke Hall, minister for regional growth and local government, said that there’s not enough time for the Government to change the law to allow video meetings to continue.

In a letter to local authorities, Mr Hall said councils had “risen magnificently to the challenges of this period”. But he added that “it is not possible to bring forward emergency legislation on this issue at this time”.

The Ministry of Housing, Communities & Local Government is currently asking for evidence on using remote meetings, and is encouraging councillors and members of the public to participate (read more at www.snipca.com/38003).

Watch planetary change using Google Earth’s Timelapse

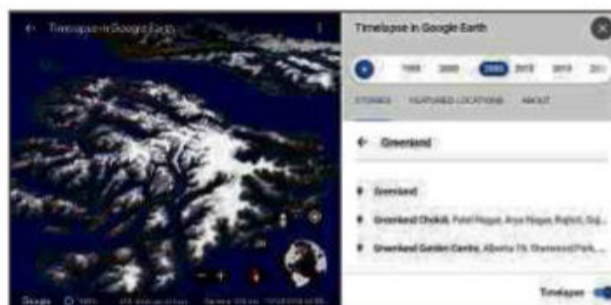
Google Earth now has a time-lapse tool that lets you see in seconds how the planet has changed over the past 37 years.

It’s part of the biggest update to Google Earth since 2017 and has been built using more than 24 million satellite images, representing “quadrillions of pixels”. In total around 20 petabytes of data (20 million GB) was used to make a “video mosaic that’s the equivalent of 530,000 videos in 4K resolution”.

To use it, visit www.snipca.com/38048, then type a location into the search box and press Enter. You can jump

through the years by clicking on the timeline. You can also watch 800 time-lapse videos made by Google that are intended to highlight planetary change, including “urban expansion, mining impacts, river meandering, the growth of megacities, deforestation, and agricultural expansion”. Visit www.snipca.com/37983, then scroll down to see all videos alphabetically, or search at the top using the ‘themes’ and ‘regions’ menus.

Google is promoting the tool as a way for people to feel “the effects of climate



change”, such as “melting ice caps and receding glaciers”.

It admits that the size of the video requires a lot of processing power, but that its environmental impact is minimal because it pays for green projects that “balance” how much energy its data centres use. Last September Google claimed that its carbon footprint was “zero”. Read more on Google’s blog: www.snipca.com/37981.

IN BRIEF

NEW IPAD 1,500 TIMES FASTER THAN FIRST

Apple has launched a new iPad Pro (pictured) that it claims processes graphics 1,500 times faster than the first iPad, released in 2010. It’s powered by an eight-core M1 processor, the same chip that’s in the MacBook Air, MacBook Pro, and Mac Mini. It’s available from £749 (11in) and £999 (12.9in) from www.snipca.com/38032.

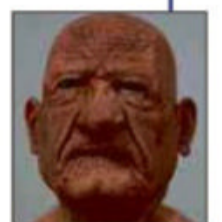


JOIN MASS ACTION TO SUE FACEBOOK

An Irish privacy group has started a mass lawsuit against Facebook to claim compensation for EU users whose phone numbers were leaked in 2019. It’s thought that UK citizens will be able to sign up because the breach happened before Brexit. The numbers of around 533 million people worldwide were leaked. Sign up at www.digitalrights.ie/facebook and check whether your number was leaked at www.havebeenpwned.com.

TOMORROW’S WORLD

This chap may look like he’s sucked one too many lemons, but he’s actually a robot built



by Dr Carl Strathearn from Edinburgh Napier University. Carl’s aim is to make it look so authentic that it eradicates the “terror, unease and unfriendliness” humans normally feel when dealing with humanoid robots. This video suggests he may still have some way to go: www.snipca.com/38010.

IN BRIEF

PC SALES HIGHEST FOR NINE YEARS

The boom in PC sales has continued into 2021, according to figures for the first quarter of the year. Industry analysts Canalis said that 82 million computers were sold between January and March, up from 53 million in the same period last year, an increase of nearly 57 per cent. It's the best first quarter for PC sales since 2012. Lenovo remains the biggest manufacturer, selling nearly a quarter of all computers, followed by HP (23.3 per cent) and Dell (15.7 per cent).

YAHOO ANSWERS CLOSES AFTER 15 YEARS

Yahoo Answers has now closed after more than 15 years. The question-and-answer service stopped receiving new queries on 20 April, and finally shut down on 4 May. Users have until 30 June to download their data, including "your Questions list, Questions, Answers list, Answers, and any images", but not those posted by other users. Visit Yahoo's FAQ for more details: www.snipca.com/37942.

THE WORLD'S GONE MAD!

We're all so addicted to our phones that we now need to be reminded to look up from them while walking. Google has updated its Digital Wellbeing app on Android to show alerts when it detects you've momentarily turned into a smartphone zombie. These 'Heads Up' warnings add that getting an alert "doesn't replace paying attention". You don't say.



Windows 10 getting bigger panel of 'power tools'



Microsoft plans to replace the Administrative Tools section in Windows 10 with a bigger Windows Tools panel containing almost twice the number of features.

The Administrative Tools section, which has been part of Windows since its early editions, provides easy shortcuts to around 20 powerful tools that let you perform administrator tasks

and change how Windows works. You can open it by typing **administrative tools** into the Start menu and clicking Open.

The new panel will keep some of the existing features, including Disk Cleanup (1 in our screenshot above left), Registry Editor (2) and Task Scheduler (3), but will add new tools that were previously located in the Start Menu, such

as Command Prompt (1 in our screenshot above), the Run command box (2) and PowerShell (3).

The first version of this panel, available to Windows Insiders in the preview build 21354, brings the number of tools to just over 40. It's expected to be part of this autumn's Feature update – set to be the biggest since Windows 10 launched in 2015.

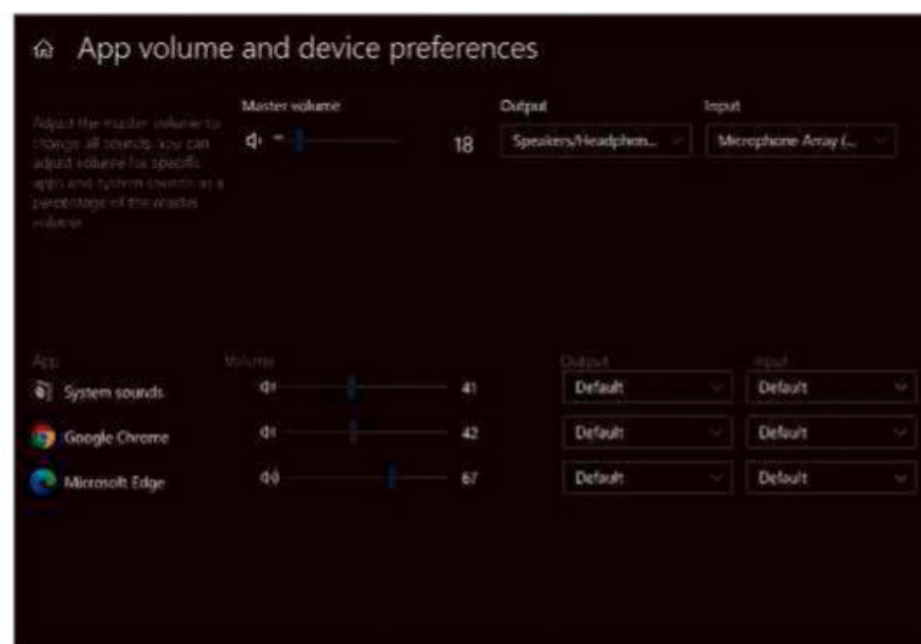
Google and Microsoft to fix YouTube audio

Google and Microsoft are working together to fix audio problems when Windows 10 users play music in YouTube within Chrome.

Developers at Google say they receive hundreds of complaints every day about YouTube audio, most of which are from Windows users. In some cases people say they can't hear the videos at full volume from their PC's speakers.

Google said that two causes of the problems are easily explained and fixed: accidentally muting YouTube, and changing the output device for the audio when users have two monitors with one audio connection.

But it's the third problem – faulty **drivers** – that Google thinks it can work with Microsoft to fix. It said that



problems can be caused by drivers in **HDMI** monitors with independent volume and USB **sound cards**.

Microsoft accepted Google's proposal to test drivers in browsers built using the Chromium **source code**, which includes both Chrome and Edge.

From online discussions between developers, it seems that Microsoft is trying to improve how Chromium works with Windows 10's built-in Sound mixer (pictured), which you can find by searching within Windows. It's not known when the fixes might be applied.

Government to allow taller 5G masts

The Government is to allow taller phone masts across England to speed up the delivery of 5G networks, in new legislation to be voted on in Parliament.

Mobile companies will now be permitted to build new masts of up to 30 metres (98 feet) in most areas, and up to 25 metres (82 feet) in protected areas. Currently, masts aren't allowed to be taller than 25 metres.

The proposals also allow firms to extend existing masts by up to 25 metres in normal areas and 20 metres (65 feet) in protected areas without council permission, and then by up to 30 metres and 25 metres overall with permission from local authorities.

Another measure will allow companies to erect 15-metre

(49-foot) 'monopole' masts simply by notifying local councils rather than applying for full planning permission.

However, the new height limits are shorter than the 50 metres (164 feet) mobile companies wanted, which would have allowed them to build masts taller than Nelson's Column.

Writing in the *Telegraph*, Culture Secretary Oliver Dowden said the proposals strike "a careful balance" by removing "some unnecessary bureaucracy around planning that is preventing rural communities from upgrading their mobile coverage, while making sure we protect our precious countryside".

The rules apply only in England. In March, the Scottish Government announced plans to install 124



masts on public buildings, while in 2019 the Welsh Government relaxed rules so masts up to 25 metres no longer needed full planning permission.

Last year EE, O2, Three and Vodafone collectively asked the Government to loosen the rules in Northern Ireland, saying they were "more restrictive" than the rest of the UK.



Do you think taller 5G masts should be built? Let us know: letters@computeractive.co.uk

New Surface Laptop improves sound and vision in video chats

Microsoft has announced a new Surface Laptop with a better webcam and microphone to improve your video chats.

The Surface Laptop 4 (pictured right) has a high-definition webcam that Microsoft claims helps you to look your best "even in low light", and two far-field microphones for clearer audio.

It comes with a 13.5in (from £999) or 15in touchscreen (from £1,299), and either an AMD or Intel processor. Both sizes have a minimum of 256GB SSD storage and 8GB of RAM, have large glass trackpads, and come with USB-A and the newer USB-C ports.



It also has Wi-Fi 6 and Bluetooth 5, while Microsoft claims it's 70 per cent faster than the Surface Laptop 3 and that maximum battery life is 19 hours. It comes in four colours – Ice Blue, Sandstone, Platinum (pictured) and Matte Black.

Additionally, Microsoft has released several new headphones and headsets

aimed at home workers who have regular video meetings, and the Modern Webcam (pictured above), which has features that automatically adjust light to make you look sharper.

The Surface Laptop 4 is on sale now from the Microsoft Store (www.snipca.com/38019), while the accessories are expected this summer.



IN BRIEF

TURN OFF MIC AND CAMERA IN POWERTOYS

Microsoft has added a Video Conference Mute option to PowerToys, letting you turn off your mic and camera with a keyboard shortcut. Download version 0.36.0 from www.snipca.com/38002 – scroll to the bottom and click 'PowerToysSetup-0.36.0-x64.exe'. Once installed, press Windows key+N to turn both mic and camera on and off; Windows key+Shift+A for just the mic; or Windows+Shift+O (the letter, not zero) for just the camera. The tool is still 'experimental', so it may contain bugs.

ADD BOOK COVERS TO KINDLE LOCK SCREEN

You can now show the cover of the book you're reading on the lockscreen on your Kindle device (pictured). Called 'Display Cover', the feature is available on the 'without-advert' versions of select devices, including Kindle (8th Gen and above) and Kindle Paperwhite (7th Gen and above). Check your device and get instructions at www.snipca.com/38018.



GOOGLE AXING 'PLAY MOVIES & TV' APP

Google will remove its 'Play Movies & TV' app from Roku sticks, as well as LG, Samsung and Vizio smart TVs, on 15 June. Any content you've bought will remain available in the YouTube smart-TV app. The 'Play Movies & TV' app is being replaced by the Google TV app, which is already available on Android phones and tablets. Read more at www.snipca.com/38021.

Question of the Fortnight

When will your device stop getting security updates?

You'll soon know upfront how long it'll stay safe for

Many people overlook the importance of security updates when buying a device, keen instead to focus on the exciting new tools it has. It's human nature to prioritise the present (what can my device do now?) over the future (when will it stop being safe to use?). Tech manufacturers realise this, which is why they've never felt the need to shout about how long a device will last.

But that's all going to change. The Government is planning a new law to force makers of "smart devices" to tell customers before they buy how long their products will be updated.

This hardly ever happens at the moment. In 2019, researchers from University College London found that none of the 270 devices they examined gave this information at point of sale or in the manual.

“This law would brutally highlight just how short-lived most phones are”

Ministers hope this information will help prevent users “from unwittingly leaving themselves open to cyber-threats by using an older device whose security could be outdated”.

It's part of the Government's 'Secure by Design' legislation, which will also ban manufacturers using easily guessable default passwords, like 'admin', in a device's **factory settings**, and compel



them to make it easier for customers to report security flaws.

Digital Infrastructure Minister Matt Warman said that these reforms, if backed by tech bodies around the world, will “torpedo the efforts of online criminals and boost our mission to build back safer from the pandemic”.

Not all products will be covered though. The emphasis is on smart devices, a vague category that typically includes phones and home products that connect to the internet – such as doorbells and smart speakers – but not computers.

This is because many smart devices receive updates directly from the manufacturer, while computer makers (Dell, Lenovo, HP etc) rely on

Microsoft. The key exceptions are Android phones and tablets not made by Google, such as Samsung's Galaxy range, which are tied to Google's update schedule.

Ministers had been planning a law like this for some time, but what's significant is the recent addition of smartphones (Apple, Google and Samsung are mentioned in the first sentence of the Government's press release: www.snipca.com/38060).

Including phones is crucial because around a third of people kept their last phone for four years, despite some brands offering security updates for just two years.

However, manufacturers are likely to kick up a fuss about it. Their marketing departments will struggle to turn a phone's shelf life into a punchy slogan ('Safe until 2023!' won't carry much weight when applied to a phone being sold in 2021). It would brutally highlight just how short-lived most phones are.

As a result, the law may

THE FACTS

- The Government is forcing tech manufacturers to state for how long devices will receive security updates
- Research showed that of 270 devices examined, not one revealed how long it would get updates for
- Around a third of people keep phones for four years despite them receiving updates for only two years

encourage manufacturers to compete on longevity as well as price and features. Consumers are certainly eager to use their devices for longer, increasingly treating them more like they would white goods such as washing machines and fridges that they expect to last for many years (see 'Question of the Fortnight', Issue 599).

But are tech companies really ready to abandon a business model geared towards flogging us an updated device every year? Perhaps the regulations will backfire, as manufacturers raise prices to compensate.

You can bet that loophole lawyers are already looking at how companies can observe the law as minimally as possible, though campaigners will be working just as hard to keep firms honest.

That battle will determine whether you'll soon be seeing genuinely useful 'end of life' information, or deliberately ambiguous 'promises' that mean nothing.

Protect **your tech**

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

Fake antivirus bills by email

What's the threat?

Scammers are trying to steal your money by emailing you fake invoices for antivirus software.

The emails claim to come from Norton LifeLock, Microsoft or McAfee and say that you'll be charged between \$350 to \$399 (around £254 to £290) for a three-year subscription unless you phone to cancel. In one example from Norton LifeLock, the email tries to scare you into action by saying you have "24 hours from the date of the transaction to open a dispute" (see screenshot).

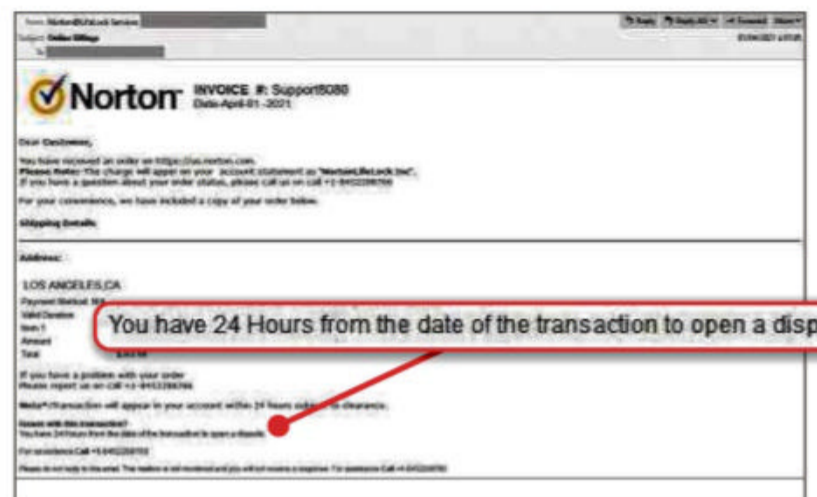
The scam was discovered by French security firm Vade Secure, which said it started slowly in March but quickly grew into 200,000 emails being sent in a single day. Researchers at the website BleepingComputer phoned the number to see what would happen. They told the scammers that they had received a bill for Norton, but that they actually use Microsoft Defender on their computer.

The scammers quickly changed tack by pretending to be Microsoft employees, not Norton.

To cancel the subscription, the fraudsters asked the researchers to visit 1800support.weebly.com, which impersonates a Geek Squad advice site run by US retailer BestBuy (it's pictured at www.snipca.com/37923). From there, the scammers explained how to download AnyDesk software to give them access to BleepingComputer's PC, and eventually went on to ask for their personal details.

How can you stay safe?

Never assume that an email from your antivirus company is genuine. Always contact the firm to check the authenticity of the bill, using contact details from its website not those listed in the email.



These scams seem to be targeting US customers at the moment, but they're likely to spread across the Atlantic, when they could broaden to include other popular antivirus programs such as Kaspersky and Bitdefender.

Bear in mind too that antivirus scams also appear as adverts online, such as this one claiming to be an alert from 'Windows Defender Browser Protection': www.snipca.com/37922.

New tools | Block FLoC with DuckDuckGo www.snipca.com/37926



Tech companies love to use acronyms to disguise the severity of tools that track you. The latest is Google's FLoC, which stands for 'Federated Learning of Cohorts'. This deliberately incomprehensible term is Chrome's new system for tracking users, which divides them into anonymous groups ('cohorts') based on demographic information (age, location, gender) and behaviour online.

Google says this is more secure than cookies made by websites that collect data based on your individual behaviour. It plans to ban these cookies by 2023.

However, the problem is that FLoC is

turned on by default in Chrome (you may already have been included without even realising). In response, privacy-focused search engine DuckDuckGo has updated its Chrome extension to block FLoC.

You don't have to do anything if you already have the extension – it'll update automatically. If not, add it from the link above by clicking 'Add to Chrome' (see screenshot). It will start blocking FLoC, as well as other online trackers, from the moment it's installed.

Visit DuckDuckGo's blog (www.snipca.com/37925) to read more about its objection to FLoC.

ScamWatch

Readers warn readers



Car tax email from Belgium

I received an email claiming that my vehicle was "no longer taxed" and it came from 'Driver Government Gateway – Pay your tax vehicle Gov.uk', with a suspicious-looking Belgian email address (fqlxluxe@telenet.be). The email was written in bad English: "We have generated a new invoice, and we suggest you to use a credit card instead of a debit, to avoid any other consequences that might appear in case again won't be enough funds inside". It told me that DVLA had been "notified electronically" that payment had failed, and asked me to click a link to pay the tax.

Chris Roberts



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

Letters

Tell us what's on your mind

Not using the internet doesn't mean you're lonely

✉ I don't understand this obsession with the 'lonely millions' who aren't online. I think it underestimates how content some people are about not using the internet. I take my 78-year-old mother as an example. Her social life is busier now than it's ever been. She's a member of several clubs in the community and manages to do all this by phone, not online.

She scoffed recently when I asked whether not using the internet means she feels lonely. She made the reasonable point that meeting people in the flesh – which admittedly has been difficult recently – is better for mental health than emailing or Zooming.

Stephen Cochrane

Don't assume older people can't use computers

✉ I feel that I must respond to Martin Armstrong's letter in Issue 602 regarding older people's lack of confidence in using email. He says that "many older people lived the first 60 to 70 years of their lives without opening an email". I am in my late 70s and, like many of my age, I was introduced to computers in the 1980s when they became a ubiquitous part of office life. Indeed, a number of my contemporaries were involved in computing from the 1960s. I set up networks, installed and tested office software, and first connected to the internet at home in 1997.

I do accept that those 'of a certain age' who never used computers during their working life may find using them challenging, but please Martin don't assume that the majority of us older folk are technically naive.

Just two further examples. Sir Clive Sinclair, who made one of the first affordable home computers, is 80 years old, while Sir Tim Berners-Lee, inventor of the World Wide Web, is in his late 60s.

David Sansom

Victims shouldn't be blamed for falling for scams...

✉ I'm not quite sure what Karen Baxter of UK Finance is getting at when she says victims of online fraud should "take more responsibility" (News, Issue 604, page 8). She probably shakes



her head when she reads about people believing 'too good to be true' offers online, and I don't blame her. I do that too. It's crazy that so many people fall for these scams. But asking victims to take more responsibility sounds awfully like blaming them for being defrauded.

One question I'd like to ask her is what happens to a victim who *doesn't* take responsibility? Should their case not be investigated by the police? Should their bank not refund them? Another question is how on earth could victims possibly prove whether or not they took responsibility? And what does it even mean anyway? I can't escape the conclusion that she was just seeking cheap headlines

unsupported by any substance.

Robert Colehil

...But banks should block 'gullible people'

✉ Without meaning to sound arrogant, I'm astonished by the large number of gullible people who pass on their financial details or push large sums of money to accounts that they haven't verified.

It isn't fair that banks should have to compensate these people. If it would be unacceptable to put clients through a scam-awareness interview, then banks should from time to time send customers a spoof email purporting to be from a respectable organisation that might tempt the recipient into clicking links in the message. The links would in fact report the client to their bank as being in the gullible category. The bank would then have to decide whether to send a severe warning to their customer or block them from online banking.

Just as we have to pass a proficiency test before we are allowed to drive on public roads, it follows that banks should put customers through some kind of internet competence test before giving them online access.

Roy Drever

Do you mean computer, laptop or PC?

✉ Here's a senior question. If an article in *Computeractive* refers to a PC, would the advice or information mentioned also be relevant to a laptop with Windows 10?

Hugh Donnelly

CA SAYS That's a great question. So much technical advice, particularly online, uses the terms PC and computer interchangeably, or fails to spell out how the guidance might alter if you're using a laptop.


We know how perplexing such careless language can be, so we try to be as precise as possible. As a matter of style, we tend to use 'computer' when referring to a machine that could be either a desktop PC or laptop. When specifically we mean a laptop or desktop PC, we tend to use those terms.



So generally, if we say 'Windows 10 computer', we mean 'Windows 10 PC or laptop'.

We do our best to stick to this throughout every issue, but inevitably we'll sometimes be guilty of confusion, so please ask us to clarify if necessary. Also, feel free to ask any other questions about the terms we use. We'll be happy to answer them.

Windows PCs are like cars without tyres

 Thank you for answering my question about DVR-Scan (www.snipca.com/37639) in Issue 602 (page 19). With your help I've now got this program working. I always enjoy reading the Best Free Software section and use many of these tools myself, but it got me wondering.

Not that long ago you could buy a PC that had all the tools you could generally want, provided by Microsoft and built to a high quality. These days, Microsoft has removed a lot of tools, even for everyday functions, and those that *are* included typically aren't very good.

This is disappointing for a personal user, but with the increased awareness of cyber-security it's also a nightmare in a business environment, where IT departments need to have Microsoft support and every program has to be vetted and accounted for.


In some cases, even with paid-for software, you can be blocked from using a program simply because it hasn't been made by Microsoft, or is not officially supported by them. The problem with this is that the default alternative is either below par or missing entirely.

It seems that buying a Windows computer these days is like buying a car without any tyres. It'll go, but doesn't feel right and sooner or later you'll have to pick up some additions which you thought should have been available to start with.

Meanwhile huge effort has been put into improving the appearance of the dashboard, even if you temporarily lose the steering wheel in the process.

Geoff Burgess


Don't dismiss the security of passphrases

 Thanks for the great Workshop in Issue 603 (page 38) on using Bitwarden (<https://bitwarden.com>) to manage your passwords. However, in



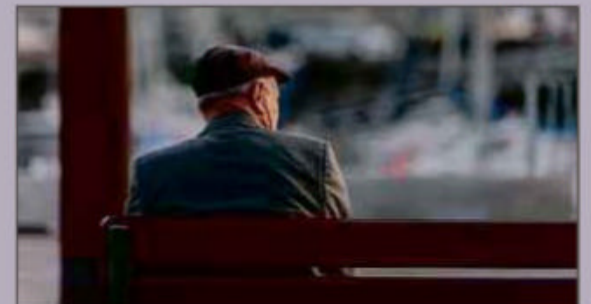
STAR LETTER

People in power 'don't care' about lonely millions not online

 I've got bad news for Hugh Jenkins, who in Issue 604 asked us not to forget the "lonely millions" who aren't connected to the web. Before I deliver this news, I should say that I wholeheartedly agree with him. There are simply too many people living restricted lives because they're not fully participating online. He makes some excellent points.

But the bad news can't be avoided any longer. It's simply that those in power – in Government, the media, cultural institutions and so on – don't care about the disconnected millions. They've made a simple calculation, which is that most of these people are old, probably over 80, and therefore not worth considering when building systems that make the modern world work.

These decision-makers probably don't even realise they've come to this conclusion. But on a subconscious level I bet they simply assume that this older non-techy generation will eventually be replaced by one that has no problem with the digital age – and in fact expects everything to be done online.



Just look at your news story about internet usage, also in Issue 604 (page 9). It says that 3.3 million people still don't use the internet regularly. That's roughly the population of Durham, Essex and Suffolk! It's hardly an insignificant number. But I bet the people running the country never meet any of them.

Like Hugh, I think more should be done to connect the lonely millions. But it's not going to happen. Instead, month by month, more of the old physical world will go online. Those who are alienated don't have a powerful enough voice to change things, and are mostly ignored by the media because they're old and don't count. Call that cynical, but you can't call it false.

Graham Dunne



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

Step 2 you dismiss using passphrases. There has been a lot of debate on passphrases versus passwords, with many people making the point that most users can't remember passwords sufficiently complex to make them safe. Therefore it's a moot point that a passphrase can be cracked a bit more easily than a complex password. A passphrase is memorable; a complex password isn't.

Your Workshop highlighted this. Instead of opening your Bitwarden vault with a super-strong master password, you suggested using a four digit

PIN. Should you really be hiding all your uncrackable passwords in a vault that can be opened with a PIN? My personal solution, which I think is pretty safe, is to use a memorable passphrase to unlock my vault, inside which all my passwords are made of 15 random characters.

To test how secure this is, I visited My1login's password-strength tester (www.snipca.com/37937, pictured left). My easily memorised passphrase will take 689 billion years to crack, while each 15-character password would take trillions of years. So technically my passphrase is less secure than my passwords, but as things stand the universe will not last long enough for anyone to crack either of them. A four-digit numerical PIN takes half a second.

Phil Griffin



We stand up for your legal rights

Is mystery PayPal fee a 'continuous payment authority'?

Q Maurice Griffiths' case in Issue 603 about PayPal taking £4.99 per month out of his bank account caught my eye. There may be another explanation, unrelated to his having a PayPal account. PayPal provides merchant services to businesses, which allows them to accept debit and credit card payments. Even if you don't have a PayPal account, transactions show up on your bank account as a PayPal charge. Could this possibly be the reason?

Rob Mackean

A Rob may be on to something here. Certainly, the amount being taken each month isn't the £9-a-year 'inactivity fee' it's charging people for not using their account (this was introduced last December: www.snipca.com/37614). It does sound more like what's called a continuous payment authority, which is a type of recurring payment for a service or subscription, using a person's debit- or credit-card details. They are slightly different to

direct debits because they give companies more freedom about when and how they take money from you.

As the Financial Conduct Authority explains (www.snipca.com/37950), you have the right to cancel a payment at any time. The problem is that you may not know who's actually taking your money. If Maurice doesn't know who this is, he should instead ask PayPal to find out, and then decide whether to ask it to cancel the payment.

Maurice needs to let his bank know he's disputing the charges because he may be able to recoup some of the money if he's been defrauded. If neither PayPal or his bank will help, he should ask the Financial Ombudsman (www.financial-ombudsman.org.uk) to investigate.

CASE ONGOING



Can I return tablet bought as a gift?

Q I received a Samsung tablet for my birthday in April, but I already have one. It's a lovely gift and nothing's wrong with it: I just don't need it. Do I have a 14-day cooling off period in which to return it to Currys for a refund?

Jim Rainsford

A It depends whether the tablet was bought online or in-store. The 14-day deadline Jim mentions is part of the Consumer Contract Regulations for goods bought at a distance, such as online, over the phone, or from a catalogue. The aim is to allow the consumer to examine the goods as they can in a shop.

But if the tablet was bought in-store then you don't have the right to reject an item (though you can of course return faulty products). However, some retailers have policies that let you reject items in return for vouchers to spend in the store. This is the only time retailers are allowed to offer a voucher instead of a cash refund.

Jim's in luck because Currys does have such a policy, and it's been extended to 21 days because of the Covid lockdowns. To make a successful claim he'll need to ask the gift giver for the receipt or proof of purchase.

CASE CLOSED

CASE UPDATE

Currys refunds reader after trying to pass the buck



When Neal Sims contacted Currys PC World about a broken Arris Freesat box, he was surprised to be told that because he'd owned the device for more than 28 days he had to contact the manufacturer instead (see Issue 601). Thankfully, the retailer has realised it made a mistake and has now refunded him.

As Currys PC World should have known, it was legally responsible for dealing with his complaint, and shouldn't have tried to



pass the buck to Arris. The 28-day deadline doesn't actually exist in law, so we have no idea where that came from. We gently reminded the company of this, and it offered to replace Neal's box. Unfortunately

the new device started suffering the same problems.

Neal then asked us whether he'd need to accept another replacement or even a dreaded repair, but at this point he was entitled to demand a refund. Retailers have only one chance to fix – by repairing or replacing – an inherently faulty product. Because fewer than six months had passed, Currys PC World had to refund Neal in full. It did this straight away, bringing what initially was a confusing case to a neat resolution.

Contact us so we can investigate your case

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

Can I ignore firmware update and get a refund?

Q I bought a Humax Aura set-top box (pictured) directly from Humax in February, but it fails to record, has a buzzing sound, and the signal quality is poor. Humax has admitted there's a problem with these particular devices and it's going to develop a **firmware** update to fix this, but doesn't know when. Can I just ask for a refund instead?

Chris Green



product. Humax had its chance, but the attenuator it sent Chris failed to fix the problem with the signal. It's not allowed to insist on a second repair, and now must refund him in full.

Even if Chris agreed to another repair, Humax would be breaking the law by making him wait for a firmware update.

The Consumer Rights Act says that repairs must be done "within a reasonable time" and must not cause the consumer "significant inconvenience".

Chris told us he'd written a letter to Humax's UK CEO, Graham North, but hadn't heard back. You're more likely to get a response by emailing company directors. To find their address, search at Rocket Reach (www.rocketreach.co) or CEO Online (www.ceoemail.com), which is where we found Graham North's address: graham@humaxdigital.com. We've also contacted Humax and hope to publish an update soon.

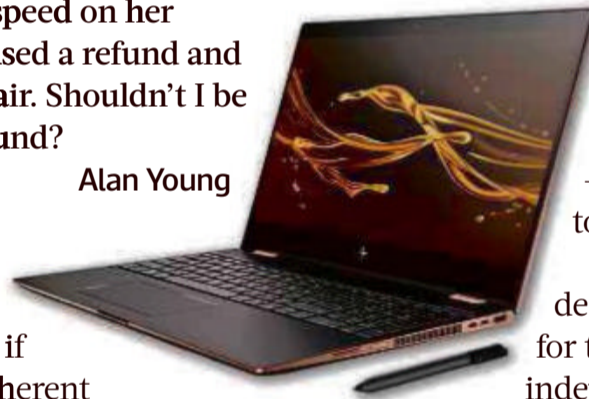
CASE ONGOING

Can HP refuse me a refund for faulty laptop?

Q An HP Spectre 360 laptop (pictured) I bought directly from the company for £1,610 in March 2020 has ongoing issues with Wi-Fi, despite being sent back for repair. The laptop can manage a download speed of only 3Mbps, despite my broadband being capable of 40Mbps. My internet service provider has checked my speeds and there's nothing wrong (my partner

can get the correct speed on her laptop). HP has refused a refund and offered another repair. Shouldn't I be entitled to a full refund?

Alan Young



A Alan will be entitled to a refund if the laptop has an inherent fault, though HP is allowed to deduct some money to reflect the time he's already been using it. It's only within six months of purchase that you can demand *all* your money back.

Alan's difficulty will be proving there's


a fault. HP updated the laptop's **BIOS** as part of the repair, but couldn't find an inherent fault – which means it's allowed to try a second repair.

Alan now needs to decide whether to pay for the laptop to be independently inspected, or to send it back to HP for another repair. If he chooses the former and a fault is found, he can charge HP for the cost of the inspection. We've contacted HP for more information on what the problem might be.

CASE ONGOING

CREDIT WHERE IT'S DUE

PayPal refunded me after I sent evidence

 PayPal has received quite a bit of criticism in recent issues, so I thought it would be interesting to give an example where they've behaved properly. In early January, I bought an air fryer from an eBay seller that turned out to be based in China, even though they claimed to be in the UK.

Nothing had arrived by March, so I contacted the seller. I got one reply written in bad English explaining that delivery from China had been delayed. I asked why it was

coming from China when the listing said UK, but got no further reply.

I then raised a case with PayPal's Resolution Centre. I thought it would help my case by forwarding them the seller's solitary email and product listing saying the air fryers would be sent from the UK. Perhaps this worked because PayPal refunded me in full within 10 days of the case being opened. It makes me

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

wonder whether the reason other readers have been unsuccessful is that they didn't provide enough evidence of malpractice.

Seb Haynes

Contact
PayPal

- **Phone/Chat** www.snipca.com/37956
- **Resolution Centre** www.paypal.com/disputes

Grow Your Family Tree



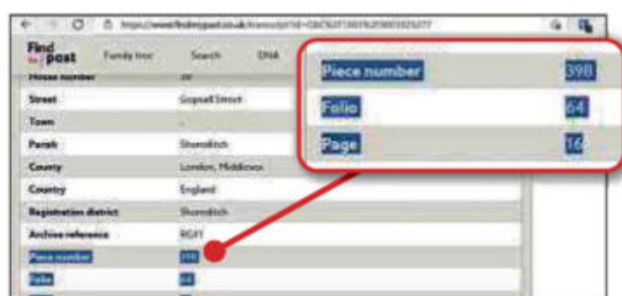
As **Nick Peers** explains, one of the best ways to track down obscure details about ancestors is to...

Find long-lost cousins around the world

Some of the best discoveries you'll make as a family historian come from talking to distant cousins. A veritable treasure trove of photos, mementos and stories lie in wait, but how do you go about finding and making these connections?

One website that can help is Lost Cousins (www.lostcousins.com). Enter details of your ancestors as they appear in selected censuses from the UK, Ireland, US and Canada and it will search for matches with other people who have recorded the same information. This part of the process is free, but if you find a match and wish to contact your 'lost cousin' directly you'll have to buy a 12-month subscription for £10 (or £12.50 for a joint account, such as for a husband and wife).

To start, you'll need to register (this doesn't cost anything) by clicking 'Join Now' in the left-hand menu. Now fill in the form that appears – only fields marked with asterisks are mandatory, including email address, forename, and surname. Once that's done, scroll down and click Register. You'll receive a temporary password by email – go to the Log-in page and use this to log in for the first time, then click My Details and follow the prompts to change the password.



Lost Cousins will tell you which census information you need to fill in

Add your first ancestor

Click 'My Ancestors' under 'My LostCousins' to get started. Read the brief guide, then click 'Add new household'. It's easy to add each ancestor to the website: first, select your census using the dropdown menu, then input the relevant census reference points (in the 1881 census it's the piece number, folio and page – see screenshot above).

After this, enter your ancestor's surname, forename(s) and age as recorded exactly on the census (even if it's incorrect), then list their relationship to you using the dropdown menu (typically 'Blood relative' or 'Direct ancestor').

This is the bare minimum you need to add your ancestor to the database and potentially find matches, but you can add more information if you have it. This may encourage anyone you contact to respond in turn. To do this, click the More button,

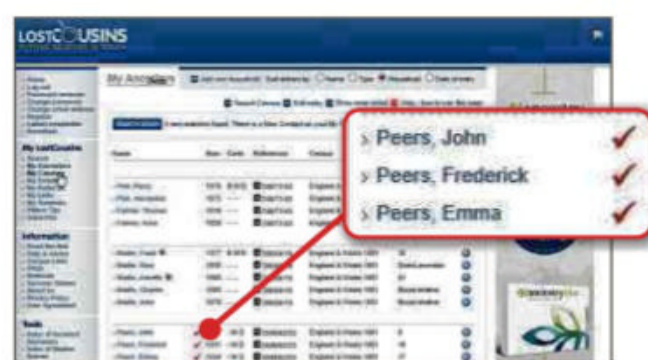
then correct any mistakes on the census (such as misspelled names). You can also provide birth and baptism dates, indicate whether you possess their birth, marriage or death certificates, and add a short note.

Once you've done this, click Add and your ancestor will be added to a new household. To add further members of the same household quickly, click the '+' button next to their name and a new form will appear with the census information and surname pre-filled to help speed up data entry. If you want to add a new household or switch to another census return, click 'Add new household' at the top of the page instead.

Subscribe to contact your matches

Once you've entered a few ancestors, click the Search button above their names to see if there are any matches. If none are found, carry on adding new members. If there is a match, you'll see a red tick next to the relevant name(s) (see screenshot below) and the contact will be added to your 'My Cousins' page.

Click this to view their name or initials, their connection to your ancestor and a 'Make contact' button, which you'll be able to do once you've clicked the Subscribe link to buy a 12-month membership. With a bit of luck, you'll find someone who can reveal new information about your ancestors and maybe even provide a photo or two to add to your tree.



Your matches will be indicated with red ticks

Your Genealogy Problems Solved

I'm trying to upload JPEG files of charts and trees I've exported from Family Historian to Photobox, but they keep coming out blurry. Can you help?

Kate Taylor

By default, Family Historian's export tools save images at the current screen resolution, so they're not suitable for printing in a book. To fix this, set up your

diagram as normal, then choose Diagram, followed by Options. Set the Scaling to 500% and click OK, then save your diagram or chart as normal (click the 'Page' button once to hide any 'page boundaries' when producing charts). You should find the saved image now scales up perfectly.

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

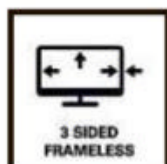
AOC



Q34E2A

High resolution and bold colours

with a wider view
& greater productivity



eu.aoc.com

Available at

amazon



laptopsdirect >



ebuyer.com



Best Free Software

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

CLIPBOARD MANAGER

CopyQ 4.0

www.snipca.com/38001

What you need: Windows 7, 8.1 or 10



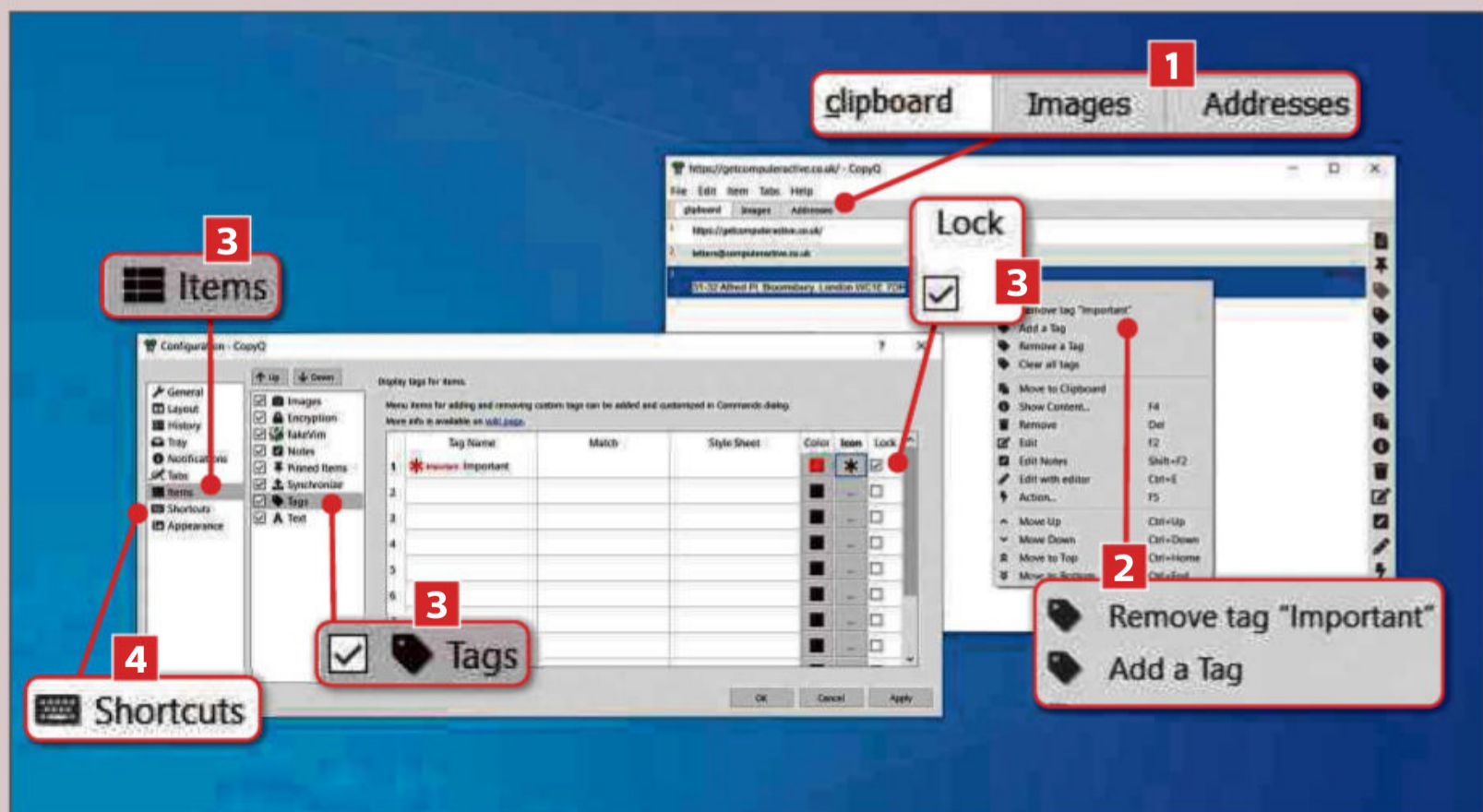
In Issue 604 (page 20), we explained how to use Ditto (www.snipca.com/38000) to store your clipboard history. While it's not quite as easy to use, CopyQ is a similar tool and has some useful extra features (to download CopyQ, go to the link above, scroll down then click 'copyq-v4.0.0-setup.exe' file).

As with Ditto, CopyQ integrates seamlessly with the Windows clipboard, so when you select some text and press Ctrl+C (or right-click an image and select Copy), that item is added to your CopyQ clipboard history. To access your history, simply click the CopyQ system-tray icon – you can also set up a keyboard shortcut to open it (see 4 below).

To use an item from your clipboard history, double-click it. The item will then be loaded to your Windows clipboard, letting you paste it into another window using the standard Ctrl+V shortcut. You can also search your entire clipboard

history by pressing Ctrl+F, then entering a search term. This latest version of CopyQ improves the search tool so that typing **computeractive magazine** will return all entries that contain both of those words, regardless of the order in which they appear.

You only have to use CopyQ for a couple of days to amass a large selection of clipboard items. One of the tool's most useful features lets you organise them all using **tags** (see 3 below). Version 4.0 has a new tool that lets you set specific tags as being locked. Once you've done this, you won't be able to delete clipboard items containing that tag until you've unlocked it (useful if you want to ensure you don't accidentally delete specific addresses, for example). You can also arrange your clipboard entries into tabs, giving you quicker access to frequently used items such as email and postal addresses.



1 To create a new tab, press Ctrl+T, then give it a name. You can then drag items into the tab from the main clipboard history (you can add an item to multiple tabs if you want).

2 You can add tags to clipboard items by right-clicking them, then selecting from your existing tags or creating a new one.

3 To set a tag as locked, press Ctrl+P, select Items, Tags, then tick the Lock box next to the relevant tag. You can also adjust other tag settings, such as colour and type of icon.

4 To set a shortcut to open CopyQ, press Ctrl+P, select Shortcuts, then click the '+' button next to 'Show/hide main window' and enter your chosen keyboard shortcut.



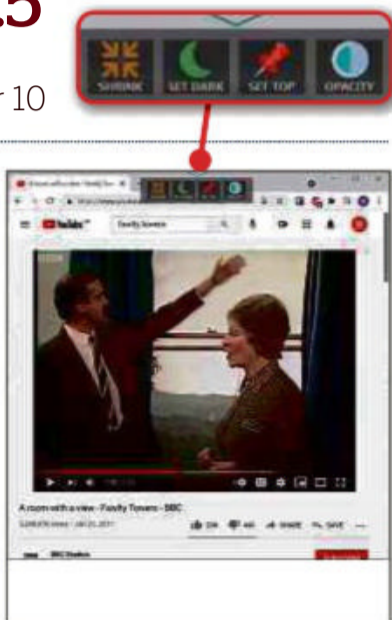
DESKTOP TOOL

WindowTop 5.2.5

www.snipca.com/38012

What you need: Windows 7, 8.1 or 10

WindowTop (click the 'WindowTop v5.2.5 Setup.exe' link to download) is a small tool that lets you better organise the open windows on your desktop. You can shrink them to thumbnails then move these around your desktop, set specific windows to always be on top of all others, and apply a transparent effect to them. To access these options, hover over the title bar of a window, then hover over the green arrow (see screenshot). Version 5 introduces a new, cleaner design, along with a Settings window that lets you create keyboard shortcuts and choose which options appear in the WindowTop toolbar. WindowTop offers a 30-day trial of the Pro version (£4.30 for a three-PC licence), which adds extra features, including a **picture-in-picture** mode that lets you watch videos in windows you have shrunk.



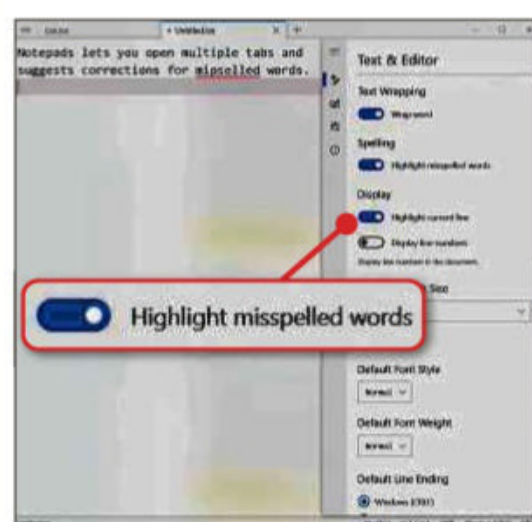
TEXT EDITOR

Notepads 1.4.5

www.snipca.com/38014

What you need: Windows 10

Since its launch in 1983, Notepad has received only minimal updates from Microsoft – in fact, the version in Windows 10 is almost identical to that of Windows 3.1. While we're never fans of change for the sake of it, there is one thing Notepad is missing – tabs. For this, try the **open-source** Notepads tool. Click the '+' button in the title bar to open a new tab, then press Ctrl+Shift to quickly switch between them. Press F1 and you can adjust settings, including the font style, an option to



show line numbers and altering the appearance of the Notepads window. Recent updates include a tool that lets you right-click misspelled words for suggested alternatives. Press F1, then enable 'Highlight misspelled words' (see screenshot) to enable this.

WHAT SHOULD I DOWNLOAD?

We tell you what software & apps to use

What can I use to turn speech into text?

Q

Can you please advise on software that will type the spoken word into a document, rather than me having to type it out?

Stephen Paynter

A

There are several speech-to-text tools you can try – just be forewarned that none are perfect, and errors will creep in no matter how clearly you dictate. One of the most accurate is Dragon Naturally Speaking, which learns to recognise your voice and improves its accuracy over time. However, at £179 for the Home edition (www.snipca.com/38013), it's also very expensive.

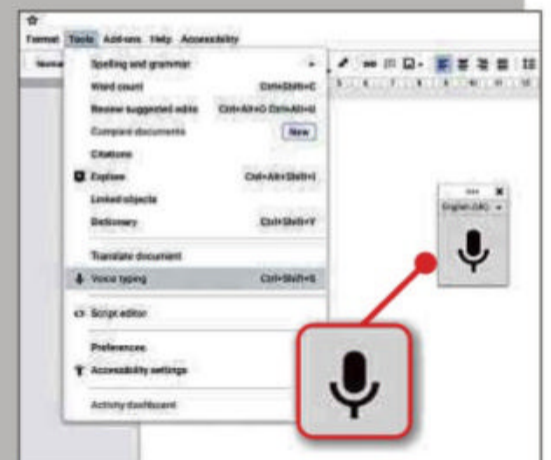
For a free alternative, try Windows' built-in tool, which you can activate by pressing Windows key+H (the first time you do this you'll be prompted to turn on Speech Recognition in Settings). You'll then hear a beep to indicate that

Windows is ready for you to start talking. As you talk, Windows will convert your words into text inside whichever window you currently have open (such as a Word document, Notepad or browser).

You can insert punctuation by saying words such as 'comma' or 'full stop', although in our experience these commands often get misunderstood.

If you're using Google Docs, it's worth trying Google's own voice-recognition tool, which we've found to be more accurate. To activate it, click the Tools menu, select 'Voice typing' (or press Ctrl+Shift+S), then click the Microphone button that appears (see screenshot).

When dictating on your phone, we recommend Google Keep (iOS and Android, www.google.com/keep). Tap the microphone icon at the bottom, then start talking. As well as converting your words into text, Keep also stores the original recording. Our only gripe is that it stops listening if you pause for more than a couple of seconds.



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

HOW I USE...

GlassWire



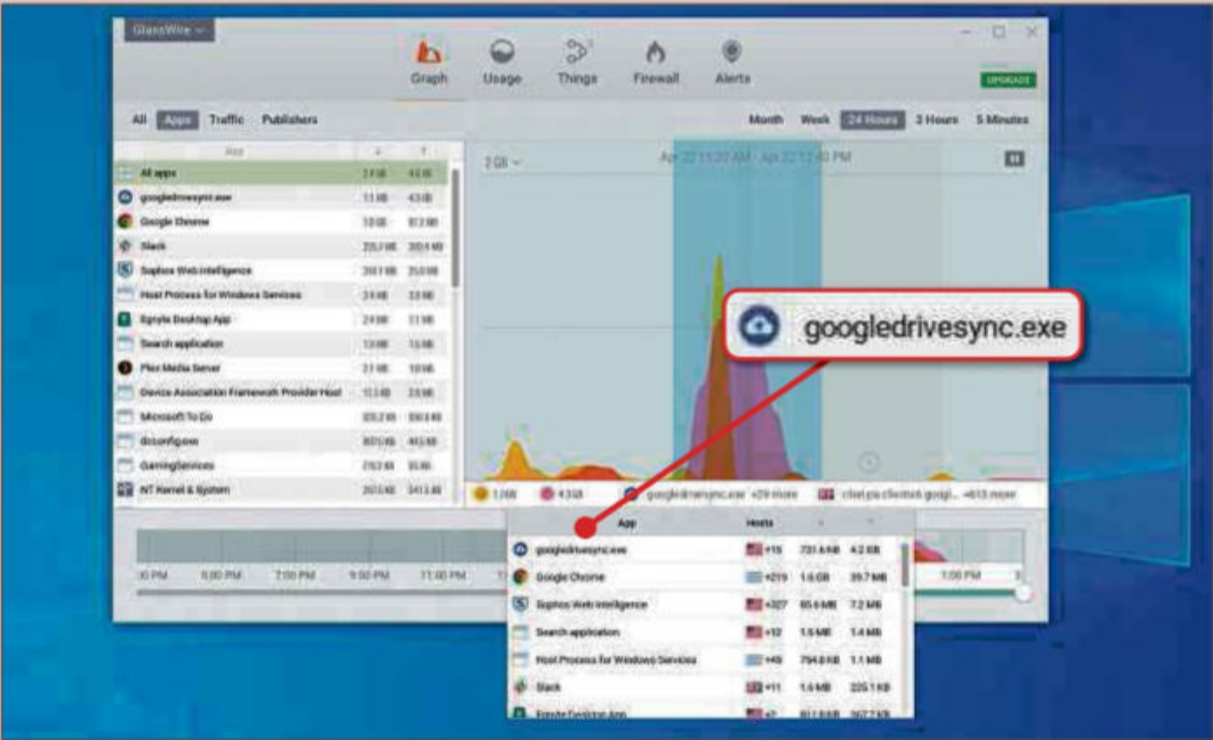
Will Stapley explains how nothing uses his internet connection without him knowing about it

As part of my job, I install and test an absurd amount of software. The useful and trustworthy stuff makes it through to the pages of *Computeractive*, but I also have to wade through less reputable programs. One of my pet hates is those that sneakily send data on how I use the program back to the developer – a process known as ‘phoning home’ – without first asking me.

To spot these, I use GlassWire (www.glasswire.com). I’ve set it to run in the background as soon as Windows boots (click the GlassWire menu button top left, ‘Settings...’, then tick ‘Run on startup’), so it alerts me as soon as a program ‘phones home’.

If I miss the alert, which appears in a pop-up window above the system tray, I’ll see it when I select the Alerts tab in GlassWire. Each entry lists the program involved, along with the date and time it used my internet connection, and precisely which server it connected to (see screenshot right).

I also use GlassWire to monitor for any recent surges in internet activity (this could indicate that malware has taken hold of my PC). To do this I click the Graph tab, then set the time interval in the top-left corner to 24 Hours. The yellow sections indicate downloads, orange represents uploads. Should I spot any spikes, I use the slider at the bottom to focus on that section of the graph, then review the



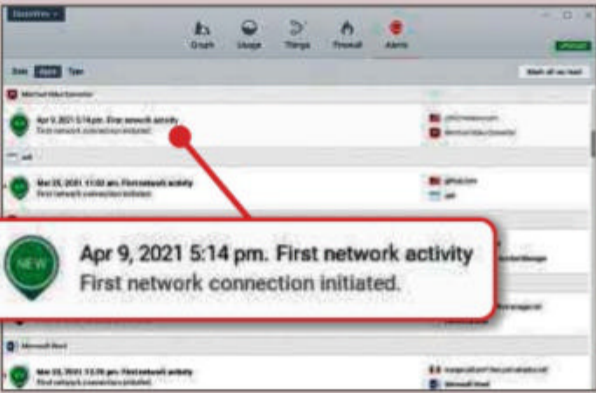
GlassWire reveals spikes in internet activity and what caused them

table on the left to see which program is the culprit. In our example (see screenshot above) Google’s ‘Backup and Sync’ tool was the cause of the spike in uploads – my fault for creating a stupidly

large audio file, which it then uploaded to my Google Drive account.

If I don’t recognise a program, I click it to reveal more information, including the folder it’s located in (this often reveals the name of the program). If I’m still unsure, I click the VirusTotal button, which checks a database of antivirus tools to see if any have marked it as unsafe (if the VirusTotal button is greyed out, go to the Settings window, select the VirusTotal tab, click Unlock, then tick ‘Enable manual file analysis...’).

Finally, it’s worth noting that when you install GlassWire, you get a seven-day trial of the tool’s **firewall** (along with tools that identify which devices are connected to your Wi-Fi). Unless you’re thinking of subscribing (pricing starts at £23 per year for the Basic version), I recommend you avoid using the firewall because as soon as the free trial ends, any rules you’ve created will disappear.



The ‘Alerts’ tab lets you review which programs have accessed the internet for the first time

WHAT I’D LIKE TO SEE IN GLASSWIRE

I’d like to be able to view logs further back than GlassWire’s limit of a month. This would let me spot any programs that have slowly started to hog more of

my internet connection over the past year. Even just the ability to download monthly logs as **CSV** files would be useful, letting me create my own reports in Excel.

Named & Shamed

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



WARNING: JUNK AHEAD

Junk offender: Free MP3 Cutter Joiner

I don't know about you, but I have a few old CDs that, for one reason or another, are a real pain to rip to my digital music collection – either because all the songs run together as one, long single track, or because they include a 'hidden' track that usually gets tagged on to the end of the last track.

Either way, I've been looking for a tool to chop up MP3 files like these into individual songs. Free MP3 Cutter Joiner (www.dvdvideomedia.com) seemed the perfect choice. And it would have been perfect, too – had I been looking for a tool packed with unwanted software that fed me constant adverts and took all my data.

Free MP3 Cutter Joiner's installer contains something called RelevantKnowledge, which I've encountered before. It claims to be part of some kind of online market-research community designed to "help influence the future of the internet". In reality, it's an insidious PUP that clutters your PC by continuously dishing up ads



Choose 'I Decline' when installing Free MP3 Cutter Joiner – or better still avoid it completely

and hassles you with surveys and other junk, all the while gathering your private browsing data and other activity. Put simply, RelevantKnowledge is something you wouldn't knowingly allow within a million miles of your hard drive.

It's also galling that Free MP3 Cutter Joiner attempts to trick you into installing RelevantKnowledge by presenting you with a setup screen that's intended to look just like a standard set of software

licence terms. It's all too easy to select 'I Accept', thinking you're accepting the T&Cs for the program you actually want to install.

You actually need to make sure you choose 'I Decline' (see screenshot) before proceeding. Or, better still, steer clear of Free MP3 Cutter Joiner altogether and instead use a free, online equivalent, such as AudioTrimmer's 'Online Audio & MP3 Cutter' (<https://audiotrimmer.com>).

WHAT ARE THEY TALKING ABOUT?

WHAT THEY SAY
eBay

www.snipca.com/37978

"The new unified listing experience offers an intuitive and cohesive design across all platforms, simplifying the listing flow and enhancing seller benefits."

WHAT THEY MEAN

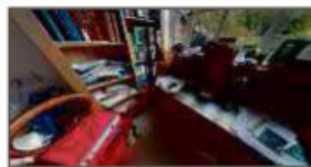
We've made it easier to list your items. That's it. However, we have to use plenty of long words and marketing jargon to make it sound cleverer than it really is. You wouldn't read stuff like this on Gumtree!



JONATHAN'S VILLAIN OF THE FORTNIGHT Fowlers estate agent

If you've ever had a bad experience with an estate agent, then spare a thought for the owners of a Devon home, who recently had their financial details and large amounts of other personal data exposed online.

Incredibly, the sensitive information in question was not stolen in some kind of online data breach, but was exposed via a virtual 3D tour of the property, posted by West Sussex-



based estate agent

Fowlers on Rightmove.

Viewers of the tour could zoom into images – most notably in the study room,

where sensitive documents including cheques, insurance policies and invoices could all be clearly read (we've pictured it in low resolution, so nothing's legible).

Thankfully, the breach was spotted by a security expert and the offending images have now been taken offline.



LAPTOP | £950 from Honor www.snipca.com/37911

Honor MagicBook Pro (Intel)

Another portion of chips

The latest incarnation of Honor's 16in MagicBook Pro replaces the AMD processor it was launched with six months ago with a 10th-generation Intel chip. Elsewhere, it maintains the same generous specifications and solid metal chassis we're familiar with from the previous version.

“An exceptional 16in screen and longer battery life make this a solid contender”

This model uses an Intel Core i5-10210U processor, supported by 16GB of RAM and a 512GB SSD. Honor is offering this version for £950, but keep an eye on its website (www.snipca.com/37911) because we've already seen the price fall several times, and Honor regularly offers bundles including smart watches and mice. The AMD version is also still available for £850.

Sensibly, Honor doesn't rely on Intel's integrated UHD graphics (which aren't a patch on the Iris Xe graphics in its newer 11th-generation processors). Instead, this laptop comes with Nvidia's 2GB GeForce MX350 graphics card to provide gaming power.

With the screen's 1920x1080-pixel resolution and High settings, it ran older games at a decent frame rate. However, new, more graphically demanding games proved too much, dropping to an unplayable frame rate or failing to run at all. Still, it's better at gaming than the AMD model, which uses AMD's internal RX Vega 6 graphics. The Intel chip's graphical power works well with the 16in screen, which is exceptional for the price. It's an IPS panel that covers 99 per cent of sRGB colours, with impressive brightness and contrast.

In our tests the battery was capable of a

working day away from a power socket, lasting 10 hours 29 minutes in our video-playback test. It's heavy to carry around if you were thinking of travelling with it, though, weighing 1.7kg.

It comes with a single USB-C port, but also a USB-C charger, so if you need to power the laptop, you lose access to the port. There are also three USB 3.0 ports and an HDMI port.

There's no luxurious glass surface on the touchpad, but it's large, responsive, and gave us no cause for complaint. The keys don't offer much travel, but they're comfortable to type on. The main problem is the spacebar, which offers barely any movement. This is annoying when you're typing quickly.

The laptop also uses the standard pop-up Honor webcam location, hidden in a space between the F6 and F7 keys on the keyboard. This is great for privacy because you can close it off, but awful for camera angles because it points right up

SPECIFICATIONS

Quad-core Intel Core i5-10210U processor • 16GB memory • 2GB Nvidia GeForce MX350 graphics • 16.1in 1920x1080-pixel IPS display • 512GB M.2 SSD • 1-megapixel webcam • Wi-Fi 5 • Bluetooth 5.1 • 1x HDMI port • 1x USB-C port • 3x USB 3.0 ports • Windows 10 Home • 16.9x369x234mm (HxWxD) • 1.7kg • One-year warranty www.snipca.com/37911



your nose.

Honor makes a better job of the audio system. The mic picks up voices clearly and the speakers are just good enough for listening to music, with clear vocals and reasonable stereo from the grilles either side of the keyboard. It doesn't provide too much bass or depth, however.

It's worth bearing in mind that in our benchmark tests the cheaper AMD version of this laptop ran Windows programs faster than this Intel model, so it's worth considering instead if this is more important to you. However, if you want to run games or get a longer battery life, this Intel version is worth the extra cost.

VERDICT A stunning laptop for the money – especially if you manage to get a deal on Honor's site – but it's heavy and a little basic

★★★★★

ALTERNATIVE

LG Gram 16 £1,500 LG's take on a 16in laptop has a significantly more powerful processor, but a hefty price tag



LAPTOP | £1,600 from Currys www.snipca.com/37946

LG Gram17

Lighten your load

If you want an even bigger screen than the 16in Honor MagicBook Pro opposite, check out this 17in alternative from LG. We reviewed its 16in little brother in Issue 603 (£1,499 from www.snipca.com/37653) and the increase in screen size nudges the price up another £100. This isn't the only plus point about the laptop because, despite its size, it weighs only 1.35kg, which is incredibly light for a 17in laptop.

“An incredibly light 17in laptop with a chip that boosts battery life and performance”

It's worth noting that this model is the second-generation Gram 17, so you need to make sure you're buying the right specification. The key upgrade is the processor, which has moved up to the latest 11th-generation Intel technology with Iris Xe graphics. This helps boost both the graphics performance and the battery life.

The model we tested comes with an Intel Core i7-1165G7 processor, 16GB of RAM and either a 512GB or 1TB SSD – the latter was only £50 more expensive when we checked prices.

It performed reasonably well in our Windows benchmark tests, but it won't worry the fastest laptops around. The integrated Xe graphics mean you should be able to enjoy basic gaming, though. Best of all is battery life, which lasted 13 hours 24 minutes in our video-playback test. This is a surprisingly good score and – in combination with its light weight



– makes it a great option for working when you're out and about.

The IPS screen has a slightly uncommon 16:10 aspect ratio (2560x1600 pixels), which makes it taller than you'd normally see in a laptop screen. The screen quality is superb, with impressive bright levels and good colour accuracy. It has slim bezels around the screen's edge, which help make the whole thing about as compact as a 17in laptop gets.

The Gram 17 has large keys with narrow spaces between each, but offers a comfortable feel as you type, though it can't quite match some of the best keyboards we've tried recently on various Apple and Dell laptops. There's a number pad squeezed in on the right, and the touchpad is adequate even though it has a slightly spongy feel.

The laptop charges via USB-C, via either of the two ports. There are two more USB 3.0 ports, a microSD card slot, a 3.5mm headset jack and a full sized HDMI video output (all pictured below).

SPECIFICATIONS

Intel Core i7-1165G7 processor • 16GB of RAM • Intel Iris Xe graphics • 17in 2560x1600-pixel screen • 1TB SSD • Wi-Fi 6 • Bluetooth 5.0 • 2x USB-C ports • 2x USB 3.0 ports • 1x 3.5mm audio jack • 1x SIM/microSD card slot • Windows 10 Home • 17.4x381x263mm (HxWxD) • 1.35kg • One-year warranty www.snipca.com/37946

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 At 1.35kg this is a surprisingly light 17in laptop, and an impressive performer, particularly if you plan to make the most of its long battery life

★★★★★

ALTERNATIVE

Samsung Galaxy Book Ion £1,299 An even lighter laptop, weighing 1.19kg, but it has a smaller 15.6in screen



LEFT EDGE



RIGHT EDGE



LAPTOP | £1,215 from Amazon www.snipca.com/37952

Razer Book 13

Playing a different game

The Singapore-US firm Razer has earned a reputation for the build quality and stylish design of its gaming laptops, so its Book 13 represents something of a departure. It's Razer's first laptop targeted explicitly at Windows users rather than gamers, and is a 13.4in ultra-light laptop encased in aluminium, which has the likes of Apple's MacBook Pro 13 and Dell's XPS 13 firmly in its sights.

“A sleek, portable laptop that works hard and keeps going”

The design is sleek and – at 296x199x15mm and 1.4kg – it's an ideal size and weight for carrying around. Despite these slender proportions, Razer has managed to squeeze in two **USB-C** ports – one on each side – as well as a **USB 3.0** port, an **HDMI** output and a **microSD card** slot (all pictured below). The Intel AX 201 **Wi-Fi 6** card handles Wi-Fi and Bluetooth 5.1 connectivity.

There are several processor and screen options, but our review unit came with an 11th-generation quad-core Intel Core i7-1165G7 chip with a Full HD touchscreen. With 16GB of **RAM** backing it up, its performance is broadly similar to other laptops we've tested recently with these specifications. This model has a slight advantage thanks to its superior **vapour chamber** cooling system, which allows the processor to run in boost mode for longer than would otherwise be the case. The fan speed can also be controlled manually – a spillover from Razer's gaming background.



Having said that it isn't a gaming laptop, it won't leave casual gamers completely in the lurch. It has Intel's latest integrated Iris Xe graphics, so can definitely hold its own. In our tests, less demanding games ran at decent **frame rates**, though it soon started to struggle when we tried to play some of the latest titles.

The 16:10 **aspect ratio**, 1920x1200-pixel resolution **IPS** screen is covered with a sheet of **Gorilla Glass 6**, which gives it a glossy finish. It's limited to a 60Hz **refresh rate**, but registered high brightness levels and excellent colour coverage in our tests, and the touchscreen is very responsive. The bezels around it are pleasingly slim – 4mm at the sides and bottom, 6mm at the top – but still manage to accommodate a Windows Hello-enabled webcam at the top.

The battery stayed alive for 10 hours 48 minutes in our standard video-playback test. It's not quite in MacBook Pro territory (14 hours 40 minutes), but it's still impressive. The Dell XPS 13 managed 11 hours 57 minutes in the same test.

SPECIFICATIONS

Intel Core i7-1165G7 processor • 16GB memory • Intel Iris Xe graphics • 13.4in 1920x1200-pixel IPS screen • 256GB SSD • Wi-Fi 6 • Bluetooth 5.1 • 2x USB-C ports • 1x USB-3 ports • HDMI port • microSD card slot • Windows 10 Home • 15x296x199mm (HxWxD) • 1.4kg • One-year warranty www.snipca.com/37952

The keyboard is the only nod to Razer's gamer community via its signature per-key **RGB** backlight system. This lets you set the colour for individual keys or change the colour scheme for the whole keyboard. Aesthetics aside, the mechanics of the keyboard are spot on, feeling solid and precise. The glass touchpad is spacious and smooth with a clean, definitive clicking action.

The **THX**-certified stereo speakers that direct upwards from either side of the keyboard don't let the side down either. Perhaps a little more bass would have been nice, but there is volume aplenty and the sound is refined and detailed.

Upgrade options are limited, as they always are with smaller, aluminium-cased laptops. Whip the back off and the only things you can swap are the 256GB **NVMe** Samsung **M.2 SSD** and the battery. For the price, Razer should have added a 512GB SSD or at least the option to upgrade at the point of purchase. The SSD is pretty quick though, performing well in our drive speed tests.

VERDICT Razer's first effort at a laptop for regular Windows users is a great success, with stylish looks and impressive performance

★★★★★

ALTERNATIVE

Dell XPS 13 £1,050 A more flexible screen at a slightly more affordable price, though its connectivity is limited with only two USB-C ports



PHONE | £250 from Amazon www.snipca.com/37996

Xiaomi Redmi Note 10 Pro

All bright in the night

Chinese manufacturer Xiaomi has two ranges of phone: Mi and Redmi. Redmi is its cheaper line of models, and the Redmi Note 10 Pro is a typical example – a brilliant Android smartphone at a very affordable price.

For £250 you get a phone with an impressive specification: a Qualcomm Snapdragon 732G processor paired with 6GB RAM, and a 120Hz AMOLED screen. It also has a 108-megapixel main camera and comes with 64GB of storage. For just £20 extra you can upgrade the storage to 128GB.

“A superb camera, durable battery and a high-res screen”

The front is dominated by the 6.56in screen, ringed by a thin bezel running all the way around. While the bottom border is slightly wider, the difference is barely noticeable. A pinhole camera sits in the middle of the screen at the top. The glass rear gives it a classy feel and gently curves towards the sides. There's a headphone jack on the top edge, and a USB-C charging port at the bottom.

The 6.56in panel uses AMOLED technology (most phones of this price go with cheaper IPS technology) and it has an optional refresh rate of 120Hz. This makes for smoother operation, but drains the battery faster than the default 60Hz setting.

The screen has a resolution of 2400x1080 pixels, and is one of the best we've seen on any phone, let alone one at this price. In our tests, its colour accuracy and contrast were excellent. There are brighter screens out there, but this one is

SPECIFICATIONS

Octa-core Qualcomm Snapdragon 732G • 6GB memory • 6.56in 120Hz 2400x1080-pixel resolution AMOLED screen • 64 or 128GB storage • 108-megapixel rear camera • Wi-Fi 5 • Bluetooth 5.1 • Android 11 • 164x76.5x8.1mm (HxWxD) • 193g • One-year warranty www.mi.com



still vivid enough to be visible even on the sunniest of days.

Performance is impressive for the price, thanks to its processor/RAM combination, and in our tests we found it faster than similarly priced rivals. Battery life was a little lower than average, but it still managed 17 hours 35 minutes in our video-playback test, which will easily get you through the day.

A 108-megapixel camera is virtually unheard of at this price, and is rare even on significantly more expensive phones. It takes great pictures in good light and does reasonably well in lower-light conditions, too, operating well during dusk in our tests. The main camera is supported by three other sensors: an 8-megapixel ultrawide lens, a 5-megapixel macro camera and a 2-megapixel depth sensor.

VERDICT A superb smartphone for a very attractive price – the only thing we miss is the ability to connect to a 5G phone network

★★★★★

ALTERNATIVE

Google Pixel 4a £349
If you can afford an extra £100, Google's latest phone includes 5G and runs Android to perfection



CHOOSE THE RIGHT SPECS

IP rating



What does it do?

A device's IP (Ingress Protocol) rating is a measure of how good it is at stopping things from the outside getting in. We usually think of it as the level of waterproofing, but it actually consists of two ratings, one for water (or any other liquid) and another for solids, such as dust.



How does it work?

The rating is represented as two digits, such as IP65. The first number ('6' in this case) refers to the protection against solids, while the second number ('5') is the protection against liquids. The solids rating ranges from 0 to 6, while the liquids goes from 0 to 8. Don't confuse it with a device's IP address (Internet Protocol), which is used to find a device on a network. IP addresses have four sets of numbers, separated by full stops, such as 128.134.56.300.

What are the specs?

Waterproofing is arguably the more important number as your devices are more likely to be exposed to sweat, rain and being dropped in the toilet than spending a lot of time in dust. The key water ratings are 2 (can withstand being splashed), 4 (resistant to heavy rain, as long as it can slide off the device), 6 (can withstand a short submersion in water), 7 (can withstand 30 minutes under water up to 1 metre) and 8 (fully waterproof up to 3 metres). For most people, solid resistance doesn't become important until we get to 5 (may let in limited amounts of dust but it won't harm the device) and 6 (completely dust resistant).

You'll often see devices that are IP65, which is effectively weatherproof and can be safely used outside. However, you shouldn't risk swimming with anything rated less than IP68.

Can I change it later?

No.

PHONE | £130 from Amazon www.snipca.com/37980

Motorola Moto G10

Stuck in first gear

Motorola has launched another new range of smartphones and the cheapest is the Moto G10, which started at £130 and is already seeing retailers shaving a few pounds off the price tag.

It's impossible to make a smartphone this affordable without compromises. At a glance, the only dead giveaway that it might be cheaper than rivals is the plastic back and the relatively thick bezel around the edge of the screen, which is 2mm wide on the top and sides, and double that at the bottom. The screen itself measures 6.5in across the diagonal and uses an **IPS** panel. It has a resolution of only 1600x720 pixels but produced good colour accuracy in our tests.

The trade-offs begin to show in the overall performance, however. The phone is built around a 1.8GHz octa-**core** Snapdragon 460 processor, backed by 4GB of **RAM**. Out of the box it feels sluggish and unresponsive – the keyboard is slow to pop up after you tap a text field, apps take longer than usual to load, and

movement on the camera's preview screen is choppy. Basically, if you want a smooth-running interface you'll have to spend more on a phone with a faster processor. Thankfully, battery life is solid, lasting 21 hours 14 minutes in our video-playback test.

The G10 has four cameras on the back. The main lens captures 48-megapixel images and is enhanced with an 8-megapixel wide option. The other two lenses are 2-megapixel cameras for measuring depth (which helps keep portrait shots in focus) and producing close-up **macro** photos.

In well-lit conditions, the phone is capable of decent, detailed shots. It defaults to 12-megapixel photos by taking full 48-megapixel shots then only keeping the pixels that its software deems to be the best – though you can also take full-resolution images if you prefer. Photos taken using its default settings were excellent in good light, but it struggled with low-lit shots.



SPECIFICATIONS

Octa-core Qualcomm Snapdragon 460 • 4GB of RAM • 6.5in 1600x720-pixel IPS screen • 48-megapixel main rear camera • 8-megapixel wide camera • 2-megapixel macro camera • 2-megapixels depth camera • 3.5mm audio jack • MicroSD card slot • 9.2x165x76mm (HxDxW) • 200g • One-year warranty www.snipca.com/37980

VERDICT For the price the Moto G10 looks fine, and has a decent screen and battery life. However, it feels slow to use, even before you've filled it with apps and photos

★★★★★

ALTERNATIVE Realme X50 5G £269 It may be twice the price, but this Realme phone has a faster processor and is much smoother to use



TOP EDGE

BOTTOM EDGE

WHAT SHOULD I BUY?

We solve your buying dilemmas

What's the best choice for printing on to CDs?

Q My Canon MG8250 printer has given up the ghost. I don't need a negative scanner, but do want to print on to CDs. What do you recommend as a replacement? I have a budget of up to £200.

Jim Scott

A Our favourite multifunction printer at the moment is the Epson Expression XP-6105 (pictured), which at the time of writing was available from Argos for £90



(www.snipca.com/37995). It can print on to CDs, as you require (see all specs at www.snipca.com/37997). Note that this is the white version of the black XP-6100 and, apart from the colour, the two are

identical. If you can't find one, it's worth looking for the other.

Printers are in short supply at the moment, but don't worry if you can't find the one you want. Check stock on sites like Amazon, Currys PC World and John Lewis every couple of days until the one you want turns up. Make sure you don't pay over the odds, though – Amazon resellers often try to hike the price of tech during periods of scarcity.

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



£499.99

Impulse

AMD IMPULSE (RYZ7)

AMD Ryzen 5 2600 - 6 Cores (O.C 4Ghz)

ASUS PRIME B450M-A

CORSAIR 8GB DDR4 3000Mhz

INTEL 512GB M.2 nVME 660P

AMD RX 560 2GB

GAMEMAX Expedition

MICROSOFT Windows 10 or 10 Pro



£599.99

mercury

INTEL i5 MERCURY (COF9)

INTEL Core i5 9600K (O.C 5Ghz)

ASUS PRIME Z390-P

CORSAIR 16GB DDR4 3000Mhz

INTEL 1TB M.2 nVME 660P

INTEL UHD 630 Integrated Graphics

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

CORSAIR iCUE 220T RGB White

MICROSOFT Windows 10 or 10 Pro

palicomp

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

Reviews

EARBUDS | £80 from Huawei www.snipca.com/37971

Huawei FreeBuds 4i

Unwired for sound

Huawei's wireless FreeBuds 4i are designed to take on the increasing range of **active noise-cancelling** earbuds available for under £100. Available in a choice of three colours (red, black or white), these are the cheapest noise-cancelling earbuds we've reviewed to date.

The buds are **IPX4**-rated, which means they can withstand being splashed with water, so are fine outdoors or at the gym, but shouldn't be immersed in a swimming pool.

While their sound output isn't the most detailed, it's good enough that you can make out individual voices in ensemble pieces. However, they don't offer the kind of punchier bass you'd find in more expensive earbuds, such as Apple's AirPods.

SPECIFICATIONS

10mm dynamic drivers • Bluetooth 5.2 • USB-C cable • 3 sizes of ear tips • Wireless charging case • Each earbud: 37.5x21x23.9mm (HxDxW) • Each earbud: 5.5g • One-year warranty www.snipca.com/37971

The FreeBuds 4i proved reasonably effective at dampening low-end noise (such as the rumble of traffic) and are better than we expected at this price. They also perform well during calls. When we tried them our call recipients reported back that they could clearly hear us and there was very little background noise.

The total battery life of both the earbuds and the charging case is stated at 22 hours of audio playback at 50 per cent volume with noise-cancelling turned off. The buds on their own last longer than this might suggest, with Huawei claiming around 7 hours 30 minutes with noise-cancelling on and ten hours with it off, which is better than most rivals. That claim proved accurate during testing, where we used the earbuds with the noise-cancelling enabled for a significant portion of a working day and still had battery life left at the end.



VERDICT Bass reproduction leaves a bit to be desired, but it's hard to argue with the value for money offered by Huawei's latest earbuds

★★★★★

ALTERNATIVE

Panasonic RZ-S500WE-K
£99 These Panasonic wireless earbuds are more effective at noise cancelling, but are also more expensive



FITNESS WATCH | £179 from Amazon www.snipca.com/37974

Garmin Venu Sq

Watch your health

The latest in Garmin's range of GPS watches has all the usual fitness tools that can track sports activities including running, cycling, swimming and golf. It also monitors your heart rate, stress levels, blood-oxygen saturation and respiration. Its only glaring omission is an **altimeter**, which means it can't keep tabs when you're climbing staircases or other inclines. That's a shame, because it's a feature we've come to value in other fitness watches.

It has a good-sized 1.3in touchscreen, which only leaps into life if you activate it

SPECIFICATIONS

Corning Gorilla Glass 3 watch face • 1.3in 240x240-pixel touchscreen • Waterproof to 5 atmospheres • Bluetooth • Compatible with Android and iOS devices • 40.6x11.5x37.0mm (HxDxW) • 37.6g • Two-year warranty www.snipca.com/37974

by raising your wrist. This keeps the battery alive for up to six days between charges, though this will vary depending on how much you use the watch.

The design is lightweight (37.6g including the strap) and slimline (11.5mm thick). This makes it a great option for those with smaller wrists and means you'll soon forget you're wearing it, even when you wear it at night to record your sleep patterns.

We found the Venu Sq performed reliably when tracking our movement. During hill walks of between three and five miles in length, it recorded distances within 0.02 miles of the much pricier Garmin Fenix 6 Pro worn on our other wrist, and it accurately traced the routes that we'd taken.



VERDICT Solid fitness-and-sports tracking features in a watch that's both comfortable and competitively priced

★★★★★

ALTERNATIVE

Fitbit Inspire 2
£90 Break under the £100 mark with an alternative fitness-tracking watch that has many similar features



PORTABLE SMART SPEAKER | £159 from Argos www.snipca.com/38015

Sonos Roam

Move to the music

The Roam is a significant step in a new direction for Sonos, which has resolutely stuck to making high-quality indoor Wi-Fi-connected speaker systems for years. The seal of Pandora's box was broken with last year's Sonos Move, which introduced both Bluetooth and an outdoor-friendly speaker to Sonos's range. Now it's taken another stride into the daylight with this affordable and very portable Bluetooth speaker.

“Has both Wi-Fi and Bluetooth connectivity and great sounds”

Admittedly, £159 is probably at the upper limits of what you'd want to spend on a portable Bluetooth speaker, though we think it has enough features to make it well worth considering. It works with Bluetooth while you're out and about, but connects to your existing Wi-Fi-based Sonos system when you return home. What's more, it works with all the devices and music-streaming services you're ever likely to use. The Roam is also a smart speaker, which can link up to Amazon's Alexa or Google Assistant, though you can't have both working at the same time.

The speaker is extremely compact, measuring 168x62x60mm (HxWxD). It's waterproof to the IP67 standard (meaning you can submerge it in a metre of water for up to 30 minutes – see page 25), can withstand being dropped, and is light enough (430g) to sling in a rucksack. The battery lasts up to 10 hours and charges via USB-C, so can always be topped up with a portable battery pack, if you have one.

SPECIFICATIONS

Amazon Alexa and Google Assistant built in • 2x Class-H digital amplifiers • 1x tweeter • 1x mid-woofer • Far-field microphone array with advanced beamforming and multi-channel echo cancellation • USB-C port • Bluetooth 5.0 • Wi-Fi 5 • IP67 waterproofing • 168x62x60mm (HxWxD) • 430g • 1-year warranty www.snipca.com/38015



Like larger Sonos speakers, it supports the firm's Auto Trueplay EQ tuning, which scans the speaker's surroundings whenever you move it and tweaks the sound to make the most of the space it's inhabiting. This works a treat and means the speaker sounds as impressive tucked on a book shelf as it does out on your patio.

The speaker's microphone is very effective at picking up voice commands for Alexa and Google Assistant, even with music playing at high volume. The only downside to the whole thing is that we found both assistants fiddly to set up, though we got there in the end.

You'll love the way the Roam sounds. For a portable speaker its output is rich and deep. In fact, this is one of the best-sounding speakers of its size that we've listened to.

VERDICT After a few initial niggles setting up the voice assistants, the Sonos Roam turned out to be one the best-sounding Bluetooth speakers around

★★★★★

ALTERNATIVE Tronsmart Element Force £50 Sacrifice the smart assistants and you can get a decent Bluetooth speaker for much less, such as this fully submersible model from Tronsmart



DO I REALLY NEED...

A QD-OLED screen?

What is it?

QD-OLED is a new screen technology from Samsung, which takes the best elements from its own Quantum Dot technology (superb brightness and accurate colour reproduction) and blends it with the best bits of OLED screens (ultra-dark blacks and wide viewing angles).

What does it do?

Quantum Dot technology uses tiny lights of different colours to create the mixed colour in each pixel, while OLED uses a filter to change the colour of a white light. By starting with an OLED pixel that's blue instead of white, and changing the colour by adding red and green light, Samsung says it's now getting the best of both worlds.

What's the catch?

You can't buy one yet. Prototypes are expected to appear this summer but it's likely to appear in top-end TV screens before PC monitors.



So can I do without it?

For now, yes. But we think it won't be long before it's available on affordable monitors, like those that use Quantum Dot technology (pictured above).

NEXT ISSUE

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PC Specialist Vortex Elite R

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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 £1,299 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. £1,700 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
£270 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



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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 £26.99.

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

BenQ GL2780
£160 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

241B7QPIEB 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
£103 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

Epson Expression Premium XP-6105
£90 from www.snipca.com/37995
Tested Issue 554



With many leading all-purpose printers having sold out during lockdown, this white version of the XP-6100 wireless six-ink printer/scanner/copier is a good choice for photos first and text second. It's easy to use and speeds aren't bad, but ink costs can work out high.

ALTERNATIVE Epson EcoTank ET-2711

This inkjet printer/scanner/copier isn't cheap but will save you a lot on ink (1p for two colour pages). Photo quality isn't the best, but scans are good. £180 from www.snipca.com/36183

COMPETITION

Win a Freesat Recordable 4K TV Box (500GB)



Using Freesat's Recordable 4K TV Box, you can record up to four programmes at the same time when connected to a wideband low-noise block downconverter (LNB) satellite dish. With 500GB of storage, you can keep up to approximately 250 hours of video in standard definition. You can even restart live TV where available, so missing the start of a programme doesn't mean missing out.

Once you've set up the box, you'll have over 170 channels (20 in HD) at your fingertips, with no monthly fees. You'll be able to watch programmes

on demand, including 4K shows where possible, from some of the most popular free and paid-for services: BBC iPlayer, ITV Hub, Netflix, BritBox and Amazon Prime Video.

It's simple to set up. It works with your existing satellite dish, so you don't need to replace your current one if it's still working. Simply plug your cables into the back of the box and you're all set. For more information on using Freesat, read our How To in Issue 604 (page 35).

To enter this competition, email your home address to cacomp@dennis.

co.uk with 'Freesat' in the subject line by midnight Tuesday 18 May. Good luck!

You can buy the **500GB Freesat Recordable 4K TV Box** from Freesat's site priced £199.99 (www.snipca.com/37916). For more information on the box, including how it compares with the non-recordable version, visit Freesat's site: www.snipca.com/37889. For updates on Freesat products and programmes available follow [@freesat_tv](https://twitter.com/freesat_tv) 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
£78 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. £65 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. £80 from www.snipca.com/36602

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HOW TO...

How to track anything using GPS

by Will Stapley

What you need: Vodafone Curve location tracker **Time required:** One hour

Whether it's a set of keys, a wallet or an over-adventurous dog, we've all got things that are likely to go missing. You might be able to recover whatever you've lost by retracing your steps (or shouting 'biscuits' loudly enough), but there's no guarantee.

There is a better way: location trackers. You can attach these small devices to your

possessions, then locate them via an app on your phone or tablet. Here, we'll show you how to set up and use Vodafone's recently updated Curve tracker (pictured right), which uses GPS to let you pinpoint its location. It's not your only option, however, so before we explain the Curve in more detail we'll look at how it compares with other trackers.



1

Choose your tracker

The **Tile Mate** (£20 from www.snipca.com/38034, pictured below) is one of the cheapest trackers. It measures 42x42x16mm, with a hole in one corner that lets you attach it to items such as your house keys and uses Bluetooth with a range of 200 feet. When it's in range of your phone, you can use the Tile app to make it emit a beep, letting you quickly locate your item.

The Tile Mate is a cheap Bluetooth tracker with a battery that lasts up to one year



If you lose your keys while you're away from home, the Tile app will show their last recorded location on a map, so you can return to that spot and send a beep request to the Tile.

Of course, if you lose them on a bus or someone has picked them up, the last recorded location won't help much (the Tile will only update its location when connected to a phone via Bluetooth). This is where Tile's community feature comes in. If someone who has the Tile app running on their phone walks near to your Tile, its location will immediately update (tap 'Notify when found' in the app to receive an alert whenever this happens). This is done anonymously and in the background, so the other Tile user won't see your Tile's location or know they've helped you find it. How effective this is depends on the number of Tile users in your area. You can find this out

before buying the Tile Mate by downloading the app (Android www.snipca.com/38042; iOS www.snipca.com/38043) – the number of users in your area will be displayed at the bottom of the app.

It's rated as being 'water resistant', which means it can cope with a bit of light rain, but not being immersed in water. The replaceable battery lasts around one year, making it the kind of tracker you can attach and forget.

The **Tile Pro** (£30 from www.snipca.com/38035) has the same features, but with twice the range and a louder beep alert, which comes in handy if your item is buried down the back of the sofa.

If you want greater precision with the location of your tracker, consider Apple's **AirTag** (£30 from www.snipca.com/38036, pictured top of page 36), which it launched in April. It's a circular



Apple's new AirTag uses technology that lets you pinpoint your items to within 10cm

tracker measuring 31.9mm in diameter. It's similar to Tile's trackers, but as well as Bluetooth it uses a technology called ultra-wideband (UWB) to share its location. UWB lets you pinpoint to within 10 centimetres of your AirTag (compared with around five metres with Bluetooth). You need an iPhone or iPad to use the AirTag (see the link above for a list of compatible models), and the UWB feature is only available with the iPhone 11 and above.

The AirTag can withstand being in water for 30 minutes at depths of up to one metre and comes with a one-year replaceable battery. As with the Tile, the AirTag uses a community-based tracking system – and with over a billion Apple devices worldwide joining the hunt, your chances of finding your lost item are pretty good.

Vodafone's **Curve** (£20 from www.snipca.com/38037) differs from the Tile and AirTag in that it not only uses Bluetooth to share its location, but also GPS, Wi-Fi and the Vodafone mobile network (though you don't need a Vodafone phone to use it). This means you won't have to rely on a network of other users. Even if you drop your keys in a remote area, the Curve can still find them.

The only requirement is that the



The Curve uses a non-standard USB charging cable, which connects using magnets

tracker is within range of Vodafone's mobile network (it uses this to send its location to the Smart app on your phone). Vodafone has 99 per cent coverage in the UK (check coverage in your area at www.snipca.com/38040). As we'll explain in more detail later, the Curve also lets you track in real time, which is perfect for dog walks that often end up as dog hunts.

However, this high-tech tracking comes at a cost. While the Curve is the same price as a Tile Mate, you also have to pay a monthly subscription for the built-in **SIM** card. Additionally, the device lasts a maximum of seven days before needing a recharge (more on pricing and battery life later).

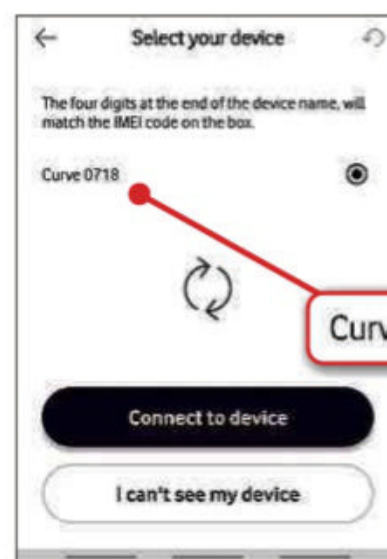
The Curve is bigger than the Tile and AirTag, measuring 16mm thick and with a 24mm diameter (in biscuit terms, that's similar to a Jammie Dodger). It weighs 30g, comes with two interchangeable rubber casings (one of which has a keyring attachment) and has the same level of waterproofing as the AirTag. It charges via USB, but because it's not a standard **USB-C** connection you can't use your phone's charger. Instead the connector attaches to the Curve charging port using small magnets (pictured below left). A full charge takes just over an hour.

2 Set up the Curve

Like most trackers, the Curve is relatively easy to set up. First you need to download the Vodafone Smart app to your phone or tablet (Android www.snipca.com/38038; iOS www.snipca.com/38039). When you run the app for the first time you'll be prompted to set up a Vodafone account. This requires you to enter a few personal details, confirm your account, then enter a PIN that's sent to your phone, but you only have to do this once.

Once logged into the app, tap the '+' button, then select Curve. Next, turn on the Curve by holding down the power button on the side of the device until all three **LEDs** light up. We found the button needed a firm push. The app will then locate your Curve and display a number (see screenshot above right) that matches the last four digits of the **IMEI code** on your Curve's box. Select your Curve, click 'Connect to device', then give it a suitable name (the type of item you're planning to attach it to, for example).

You then need to choose a monthly subscription plan for the SIM card – either £2 per month for two years, or



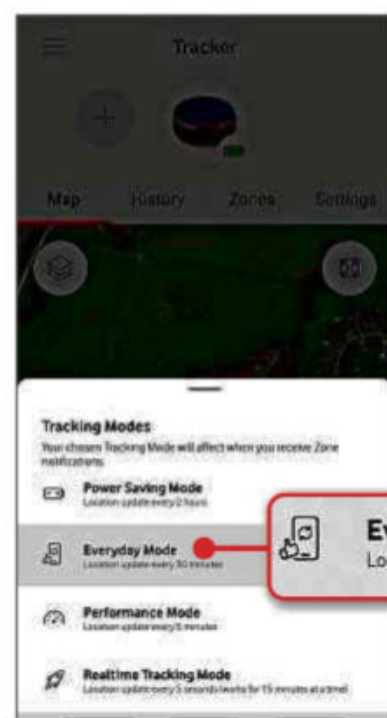
When connecting to your Curve, the app will display the last four digits of its IMEI code

£3 per month for one year. After the minimum term, you move on to a rolling monthly contract. Once you've chosen your subscription, your Curve's location will appear on the app's map.

3 Choose a mode to suit your purposes

The Curve has four tracking modes that you can switch between by tapping the box at the bottom-left of the Map tab within the app. When set to Power Saving Mode, the Curve's battery will last up to seven days, but will update its location only every two hours. For more regular updates, switch to Performance Mode, which updates every five minutes and reduces the battery life to just three days. Our favourite is Everyday Mode (see screenshot below), which updates every 30 minutes and lasts around five days.

You can also set the Curve to update in real time, letting you track its exact location – useful when letting your dog run loose on a walk. To do this, select the Map tab, tap the box in the bottom-left corner, then select Realtime Tracking Mode. The location of your Curve will



The Everyday Mode offers the best balance between providing regular location updates and saving battery life

then update every five seconds, letting you see precisely whose gardens your dog is marauding through. Because it uses a lot more battery power, this mode automatically turns off after 15 minutes.

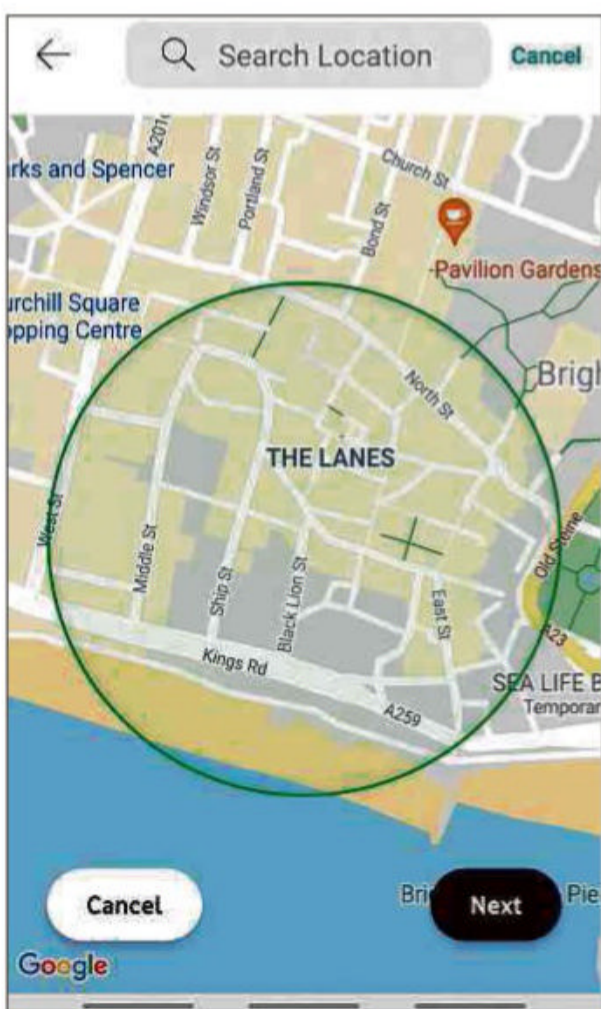
Tap the History tab within the app and you'll see a timeline of your Curve's movements. If you have used the Realtime Tracking Mode, you'll see a map showing the route it travelled during this period.

4 Create alerts for entering and leaving specific areas

You can set the Curve to notify you when it leaves or enters a specific area – useful if you want to know when someone has arrived at a certain location, for example. Select the Zones tab in the app, then tap Add Zone. A green circle will appear on the map, indicating your zone (see screenshot below) – you can then swipe the map to move the zone as required.

You can set multiple zones, but the diameter of each must be between 500 and 1,000 metres, which means you can't set a zone specifically for your house. It worked well when we tested it – a notification appeared immediately on the app when the Curve moved outside the zone we'd set.

However, when the Curve spends a prolonged period of time at the very



You can set the Curve to alert you when it enters or leaves specific areas

How I use location tracking

I have an uncanny knack for losing my keys. As a kid, I tried to locate them (with varying degrees of success) using one of those devices that beeped when you whistled. These days, I use a Tile Pro. I particularly like its long battery life. Unlike the Curve, which requires regular charging, switching the Tile Pro's battery (£2.99 for a four-pack from www.snipca.com/38044) is an annual event. I'm aware that if I lose my keys while on a walk, I'll have to rely on the Tile community to help track them down, but with the Tile app indicating that there are 473 other users within 10 miles of my home, there's a good chance that one of



them will walk past whichever park bench my keys are under.

I do plan to start using the Curve soon, though. With my constant demands to get a family dog slowly gaining traction, I intend to attach a Curve to his or her collar. If the dog escapes, I'll be able

to activate the Curve's real-time tracking to locate its whereabouts.

And I'm sure the kids will enjoy hearing me shout "Has anyone charged the dog?" every few days.

Will Stapley

How do you use location tracking?
Please let us know:
letters@computeractive.co.uk

edge of a set zone, we found it frequently triggered notifications. How soon you receive a notification also depends on the performance mode the Curve is set to. If it's set to Power Saving Mode, you might not get a notification until two hours after the Curve has left or arrived in your zone.

5 Send alerts from the Curve to your phone

You can also send alerts from the Curve tracker to your phone, which is useful if the person with the Curve wants to tell you where to pick them up, for instance.

To activate this feature, hold down the function button (located in the middle of the Curve) for three seconds. As with the power button, it requires a very firm press. Although it worked well when we tested it, it's a shame there's no visual or audible notification confirming the alert has been sent. We also advise caution if you're planning to use your Curve as a panic-button device. The alert will only be sent if the Curve has a mobile signal and the phone with the Vodafone Smart app is switched on and connected to Wi-Fi.

6 Make your Curve beep

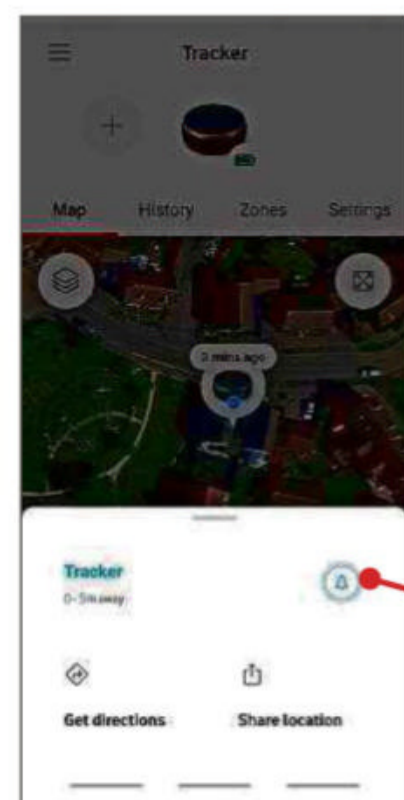
In April, Vodafone added some new features to the Curve, including 'Beep to find'. As with the Tile and AirTag, this lets you use the app to emit a beep on the model (a feature sorely

lacking from the original Curve).

To use it, select the Map tab in the app, then tap the Curve followed by the bell icon (see screenshot below). At this point you'll also see roughly how far away the tracker is, though this option is only available when the tracker is within Bluetooth range of your phone.

You can also now receive directions to the tracker's current location. Tap 'Get directions' after selecting the device on the map and you'll see the quickest route to it on Google Maps.

Vodafone is currently rolling these new features out via a **firmware** update to all existing Curve trackers, so if you already own one you should get it soon.



After a recent update, you can now make your Curve beep when it's nearby



Workshop1

Stop the next Windows update ruining your PC

What you need: USB stick; Windows 10

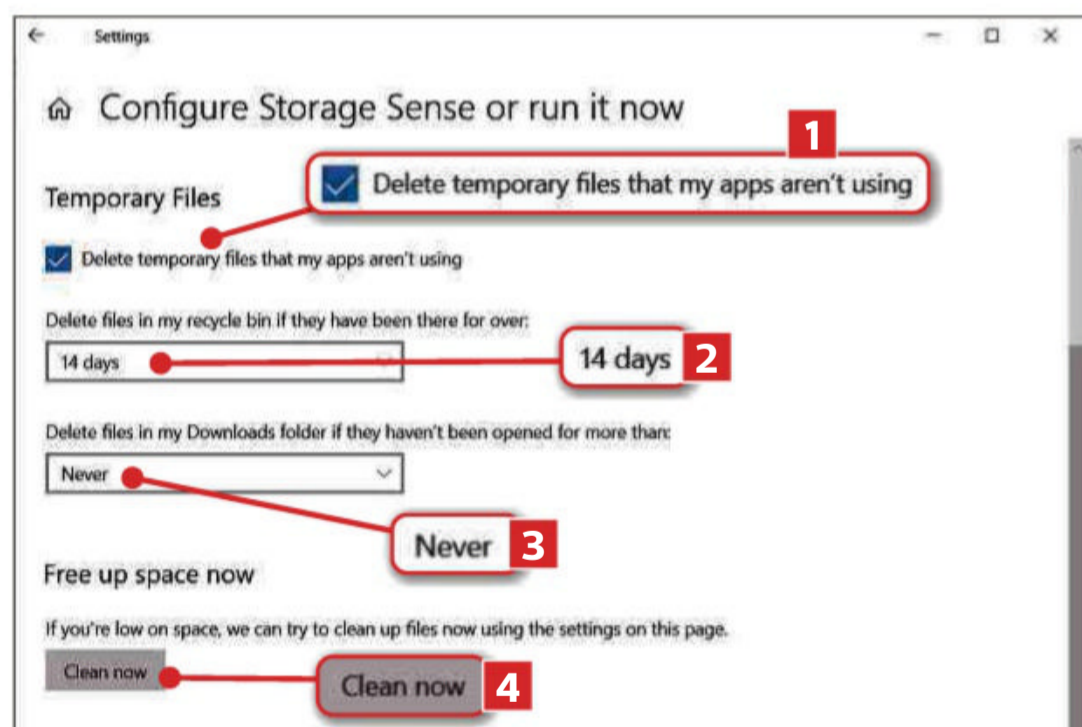
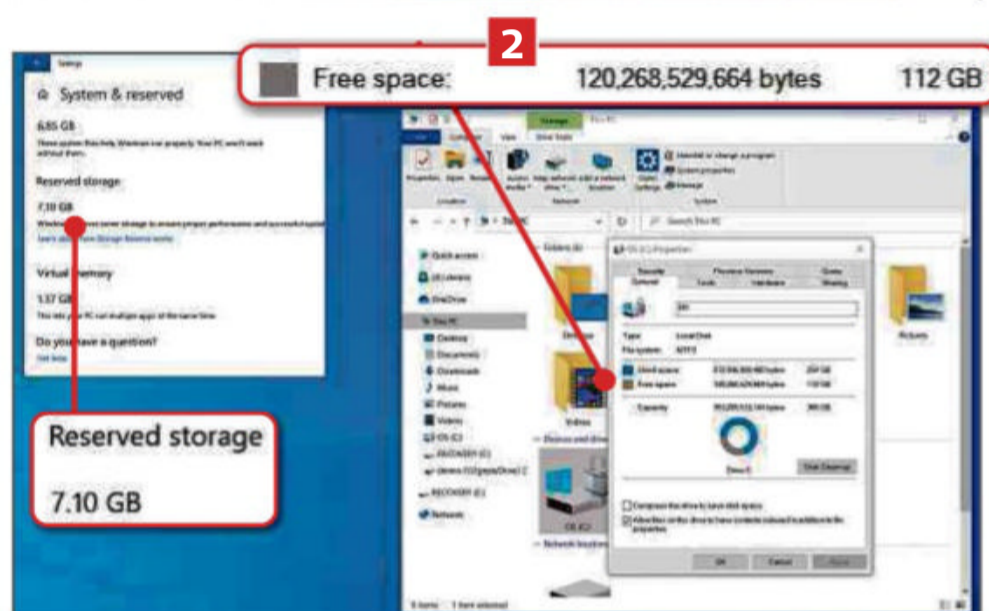
Time required: Around one hour

Some time this spring Microsoft will release the first Windows 10 Feature update of 2021. Known as 21H2, it's a relatively minor update with fewer new features than normal, but if previous updates are anything to go by it could

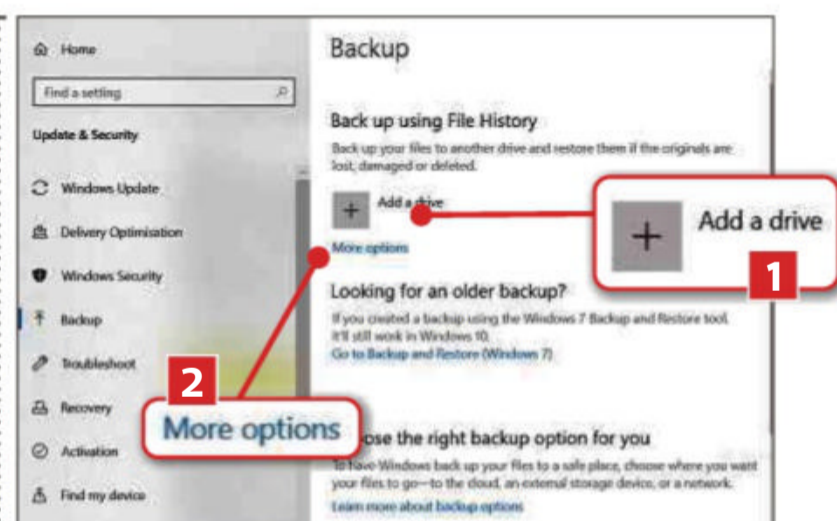
still cause problems for your PC. In extreme cases, it may even prevent Windows from booting. In this Workshop, we explain the steps you need to take now to avoid difficulties when the 21H2 update arrives.



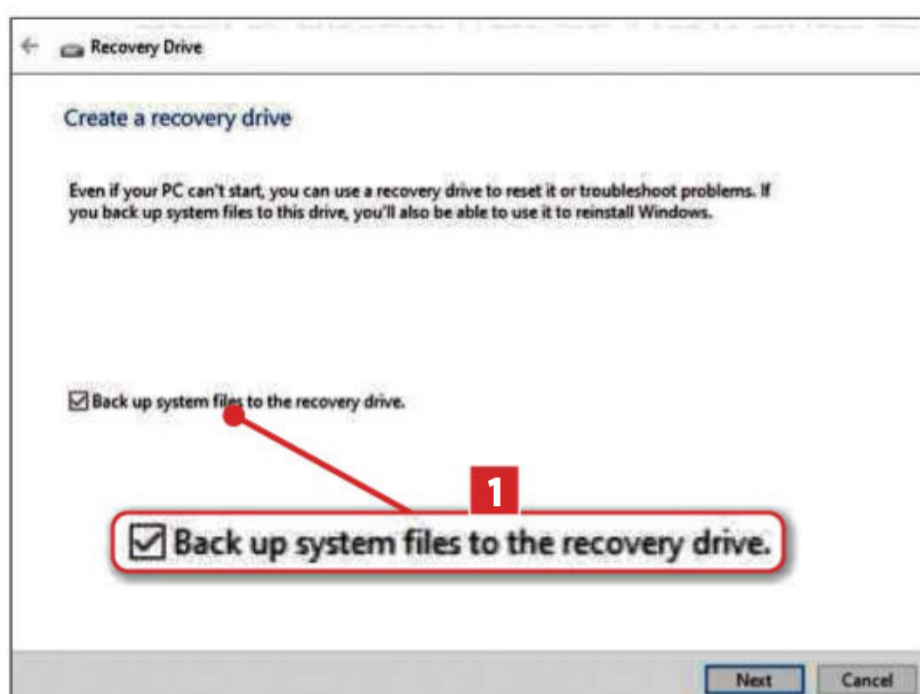
STEP 1 With the May 2019 update (version 1903), Microsoft added a Reserved Storage feature that keeps free seven to 10GB of drive space to ensure updates install smoothly. However, it's only on PCs that have had a **clean install** of this version (or later) of Windows. To check whether your PC has it, go to Settings (press Windows key+I), System, then Storage. Click 'Show more categories', then 'System & reserved' and look for an entry called 'Reserved storage' **1**. If you don't see it, you need to make sure there's enough space on your PC before installing the 21H2 update. Press Windows key+E to open File Explorer, click 'This PC', then right-click the drive Windows is installed on (usually C:), select Properties and look under 'Free space' **2**. If you have less than 10GB, go to Step 2, otherwise skip to Step 3.



STEP 2 Staying in the Storage section of Settings, scroll to the top and click 'Configure Storage Sense...'. Tick the 'Delete temporary files...' box **1**, then select what to remove from your recycle bin by clicking the 'Delete files in my recycle bin...' dropdown menu **2** (we've chosen to remove files that were deleted more than 14 days ago). Unless you're confident your Downloads folder doesn't contain any personal files, leave the 'Delete files in my Downloads folder...' field set to Never **3**. Click 'Clean now' **4**. If you need to free up more space, move large files (such as videos) to a USB stick or external hard drive, then copy them back to your computer once you've installed the update.



STEP 3 Back in 2018, Microsoft had to pause the release of the October 2018 Update (version 1809) after some users complained that it deleted their personal files. Only a small number were affected (read Microsoft's blog at www.snipca.com/37977), but it's a warning that you should back up your files before installing any Feature update. If you don't already have a backup process in place, now's the time to start. Insert a USB stick or external hard drive, then click Start, type **backup settings** and press Enter. Click 'Add a drive' **1**, select your USB drive, then 'More options' **2** to choose which folders to back up. Your personal folders (Documents, Desktop and so on) will be selected by default, and you can back up others by clicking 'Add a folder'.

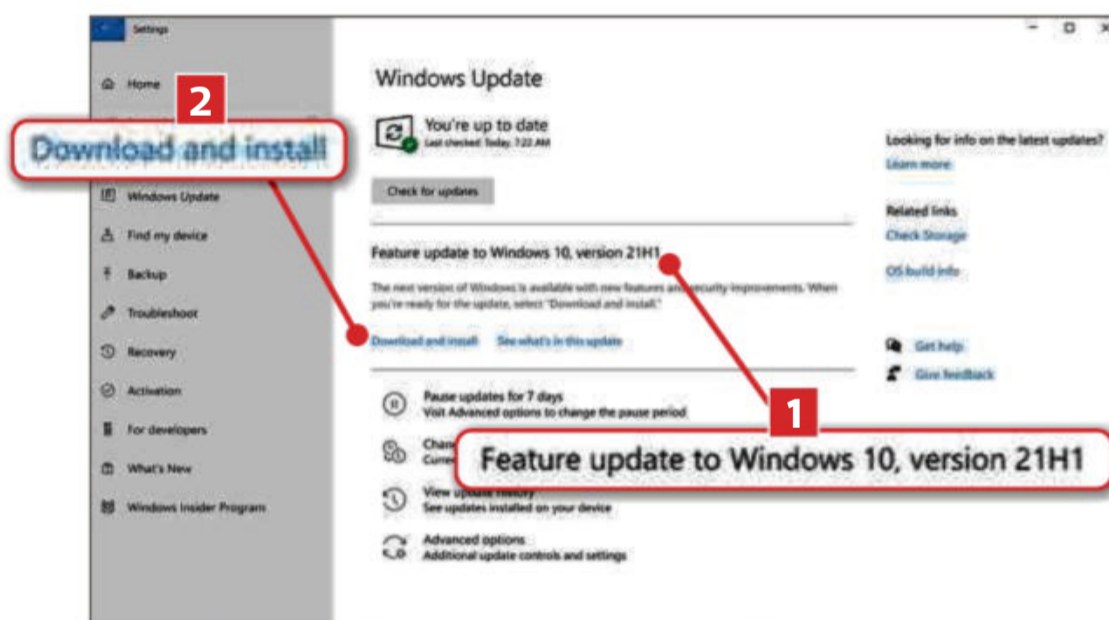


STEP 4 A failed Feature update can prevent your PC from booting, meaning you'll have to reinstall Windows. To make this process easier, create a USB recovery drive before installing the update. Click the Start button, type **recovery drive**, then press Enter. Leave the 'Back up system files...' box ticked **1** (this lets you use the stick to reinstall Windows). Click 'Next', then select your USB stick (the stick will be formatted and wiped, so back up any files on it before continuing). Click 'Next', then Create – the process can take around an hour. If the worst happens, you can then reinstall Windows by inserting the stick into your PC before switching it on. Because this performs a clean install of Windows, you'll need to reinstall your programs and copy your files from the backups you created in Step 3.



STEP 5 Feature updates tend to run smoother if you've already installed all of the latest bug fixes and patches for Windows. To do this, click Start, type **check for updates**, then press Enter. At the top of the window that opens, click the 'Check now' button. The scan usually takes a few minutes, after which all available updates will be listed **1** – click 'Install now' **2**. You may be prompted to restart your PC a number of times during the process.

STEP 6 The 21H1 Feature update won't download and install automatically. Instead, Windows will notify you when it's available for your PC, via a pop-up window in your system tray and within the Windows Update section of the Settings section **1**. Before clicking 'Download and install' **2**, it's a good idea to disconnect from your PC any non-essential devices (such as USB sticks, printers and scanners). These devices, particularly old ones, can cause Windows to crash during the update process. You can then re-connect them one by one *after* the update, allowing you to spot which (if any) fail to work or cause Windows to crash.



STEP 7 As with previous Feature updates, you can remove the 21H1 update up to 10 days after installing it (useful if you find it prevents your PC or any of your connected devices from working properly). To do this, open the Settings app (press Windows key+I), then select 'Updates & Security' followed by Recovery. In the 'Go back to the previous version of Windows 10' section, click 'Get started' **1**, then follow the prompts. If the 'Get started' button is greyed out, it means the update was installed more than 10 days ago so you can no longer roll back the update.

Workshop 2

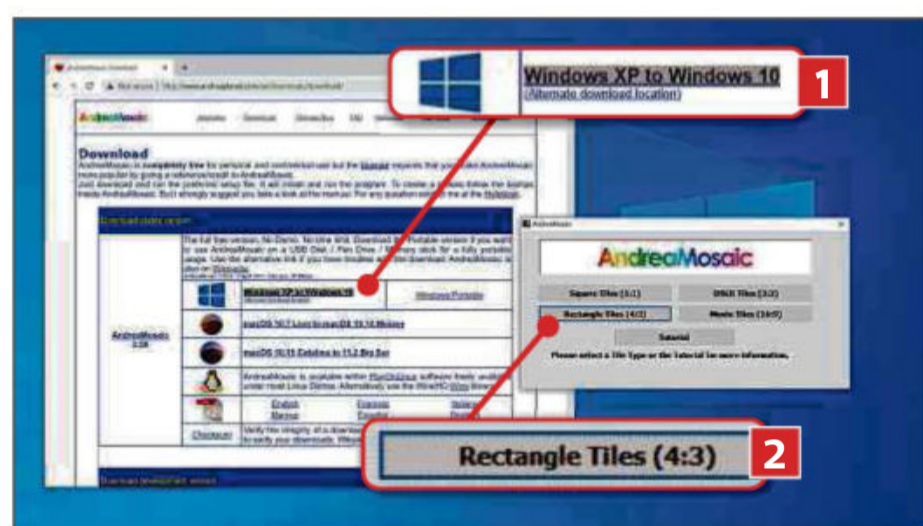
Turn your photos into mosaics

What you need: AndreaMosaic; Windows 7, 8.1 or 10

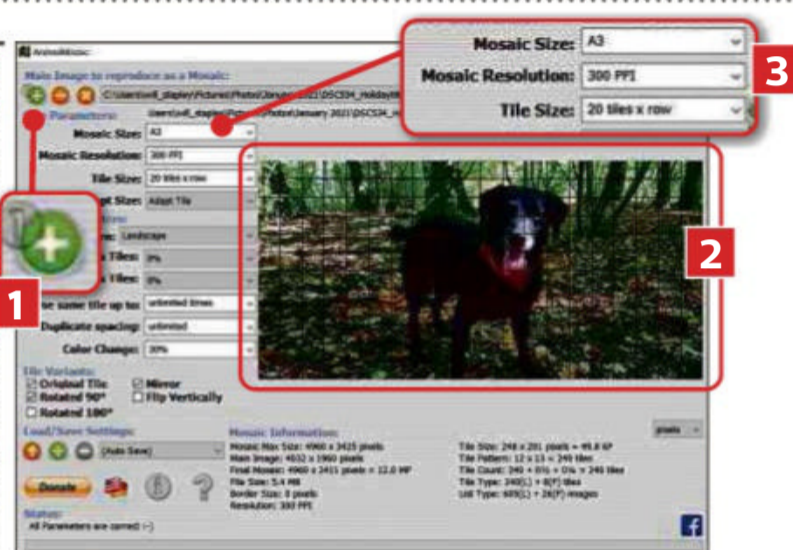
Time required: 30 minutes

AndreaMosaic is a terrific tool that lets you convert a favourite photo into an impressive mosaic using many of your other photos – perfect for printing and giving as a gift, or simply using as your Windows background. To get the best results, you'll need to

supply AndreaMosaic with plenty of photos (the more you provide, the better your final mosaic will look). Version 3.5, which was released in April, includes a new WebMosaic tool that makes it easier to show off your creations online.

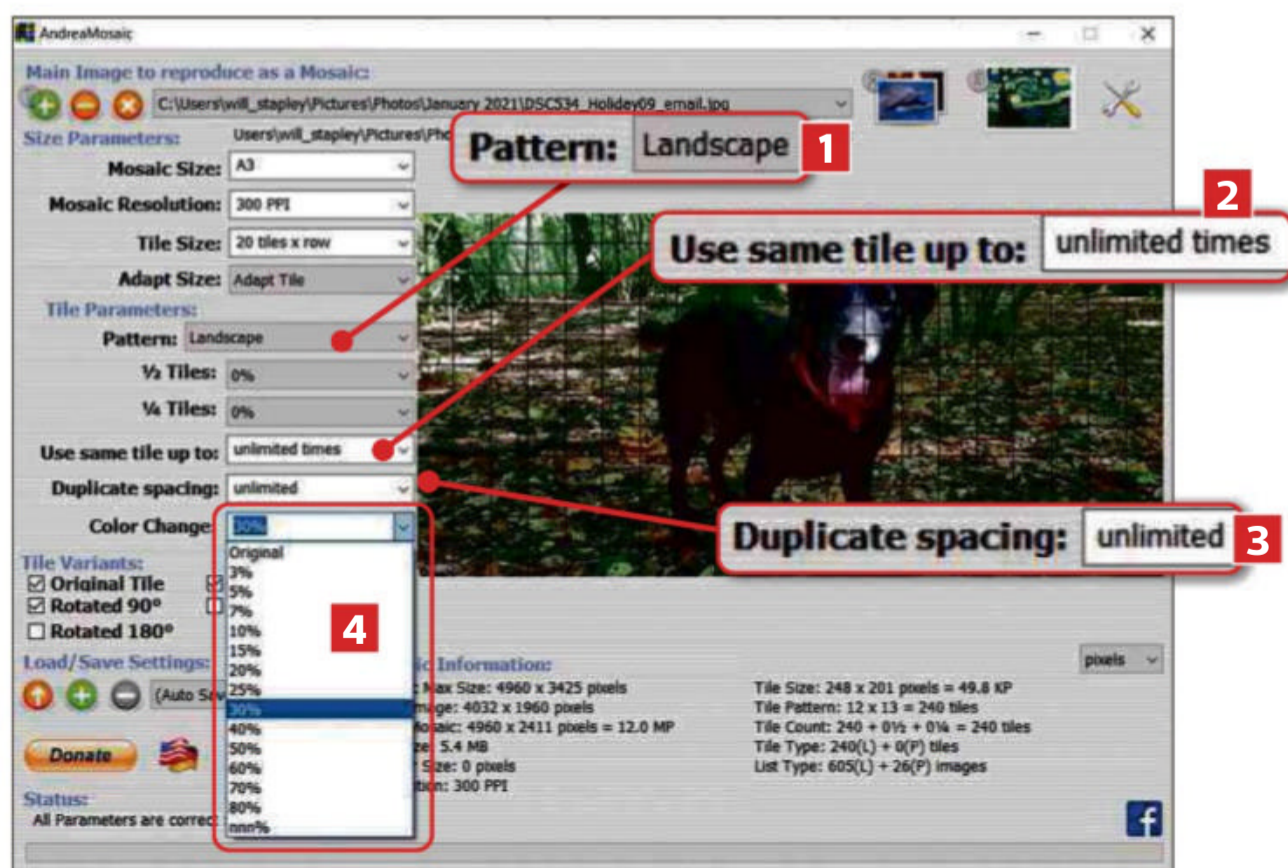


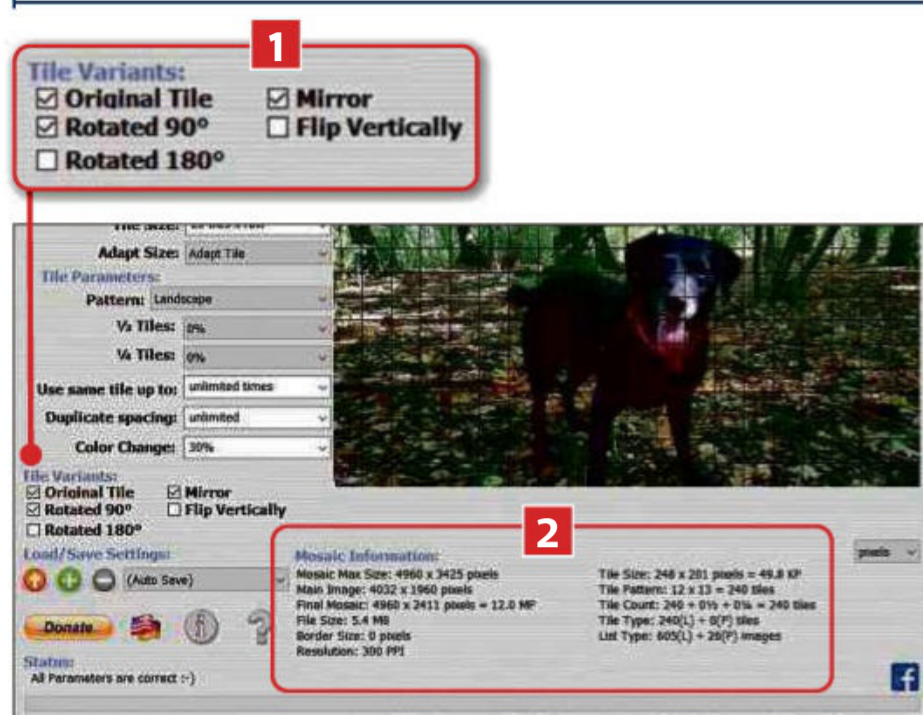
STEP 1 Download the free version of AndreaMosaic from www.snipca.com/37973 (click the 'Windows XP to Windows 10' option **1** in the 'Download stable version' section), then open the **EXE** file and follow the installation process. When you first run the tool you'll be prompted to select a tile type, which will determine the shape of the tiles in your mosaic. If you're using photos taken by a digital camera or smartphone, select 'Rectangle Tiles (4:3)' **2**.



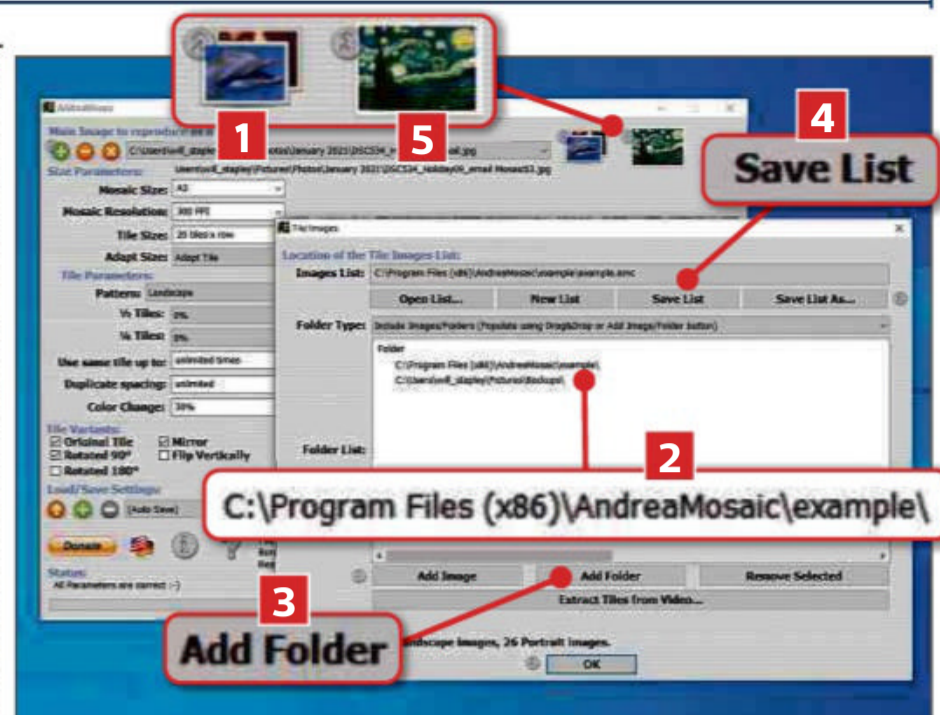
STEP 2 Click the green '+' button **1**, then select the photo you want to create your mosaic of (AndreaMosaic supports **JPEG** and **PNG** image files). Alternatively, drag the photo from File Explorer directly into the AndreaMosaic window. You'll now see a preview of how it will be split into tiles **2**. You can adjust its size (we've chosen A3), resolution (300 PPI is best if you're planning to print it), and the number of tiles the mosaic will comprise **3**. The more tiles, the more detailed your mosaic will be – we've opted for 20 per row.

STEP 3 Next, choose a pattern for your mosaic's tiles **1**. To keep the tiles the same size and shape, select either the Landscape or Portrait option. Alternatively, select one of the Mixed or Parquet presets to have a combination of orientations. You can also choose how many times the same photo can appear in your mosaic (in the 'Use same tile up to' dropdown menu **2**) and set how close together each duplicated photo can be (in the 'Duplicate spacing' dropdown menu **3**). AndreaMosaic automatically adjusts to the colour of each tile to better suit the mosaic – click the Color Change box **4** to set by how much each photo's colour can be adjusted.

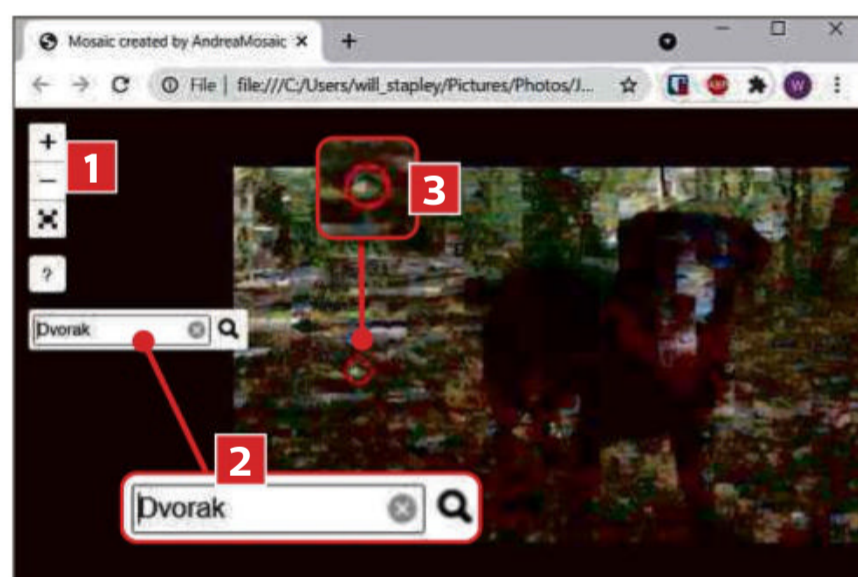




STEP 4 AndreaMosaic can also rotate, flip and mirror your tile images (don't worry, none of these settings will affect your original photo files). To set these options, tick the relevant boxes in the Tile Variants section 1 - the more you allow AndreaMosaic to do with your photos, the better your mosaic will look. As you make changes, the Mosaic Information section 2 will show you what impact they have on the final mosaic, including its resolution, file size and how many photos will be used to make the mosaic.

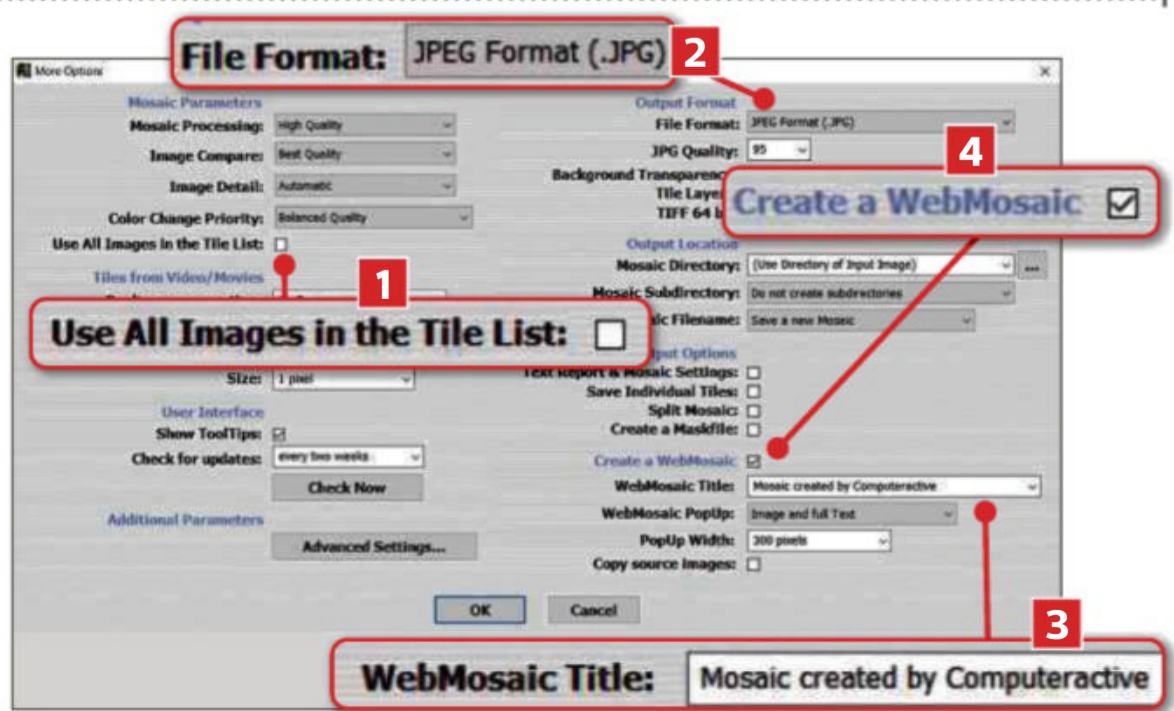


STEP 5 You now need to tell AndreaMosaic which photos to use for the tiles. Click the Tile Images button 1. In our example, we're going to use the sample photos that come with AndreaMosaic, along with some of our own. If you want to use only your own photos, highlight the 'example' folder 2, then press Delete. To add your own folders, click Add Folder 3, then select the folder containing your photos (any photos in sub-folders will also be used). When you've added your folders, click Save List 4, then OK. In the main screen, click the Create Mosaic button 5.



STEP 6 The latest version of AndreaMosaic includes WebMosaic, a tool that lets you view your mosaic in a browser - this will appear shortly after your mosaic is completed. You can zoom in and out using the plus and minus buttons 1 or your mouse's scroll wheel. Click and drag to move around the mosaic. You can also search for images in the mosaic by clicking the search box 2, entering part of the image's filename, then selecting from the results. The selected image will be highlighted with a red ring 3. The WebMosaic, along with a version of the mosaic as a JPEG file, will be stored in the same location as your source image.

STEP 7 To further tweak how AndreaMosaic works, click the Settings button in the main screen. Tick the 'Use All Images...' box 1 and your mosaic will be created using *all* images that you've supplied (bear in mind setting it to use all photos may reduce the overall quality of the mosaic). You can also choose the output format (such as JPG, PNG and TIFF) 2 and whether the tiles should have borders. To change the text that appears in the bottom-right corner of WebMosaic, edit the WebMosaic Title box 3. If you think you won't need the WebMosaic feature, you can disable it by unticking the 'Create a WebMosaic' box 4.



Readers' Tips

TIP OF THE FORTNIGHT

Connect Bluetooth speaker to Freesat TV

My wife is a great fan of BBC Radio 4, but we struggle to get reception for ordinary or digital radio because our walls are two-feet thick. Internet radio is okay, but the microwave kills it off.

Our solution was to buy a Bluetooth 5.0 transmitter (£11.99 from Amazon www.snipca.com/37854) and connect it to our Freesat TV (there's no ordinary signal in the Devon Valley where we live). We also bought a ZeeTree S1 Bluetooth speaker for £15.99 from



Amazon (www.snipca.com/37855, pictured), and a case for it too (£13.99 from www.snipca.com/37856).

The TV needs to have a 3.5mm

headphone socket and a USB socket for power (with a cable length of 40cm). I switched on the TV, then the transmitter and speaker – it worked first time!

The speaker has great sound considering it was so cheap, and also has sockets for a USB stick and **TF card**. Battery lasts about 12 hours, so it's fine for using outdoors.

Conclusion: a happy wife!

Chris Adam



Chris wins a copy of our 2020 Back Issue CD

Buy it on Amazon www.snipca.com/37026

MUSIC

Combine MP3s using Command Prompt

✓ In Issue 600 (page 20), Will Stapley complained that he had to carry on combining MP3s separately when using Audacity. I understand his frustration. Audacity is an excellent program, but using it in this way brings sledgehammers and walnuts to mind. It's a lengthy process involving importing the separate MP3s before copying and pasting them into a third 'project' that must then be exported.

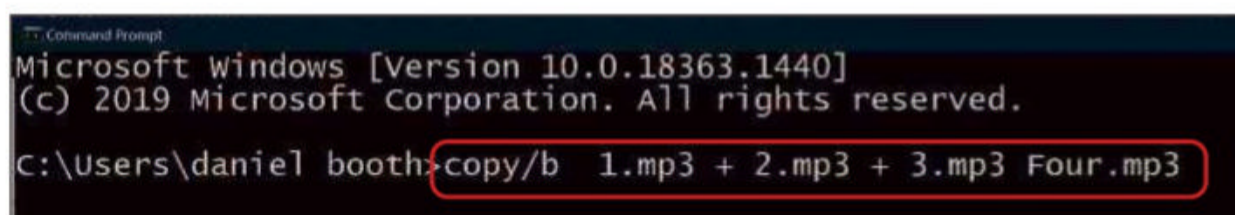
A faster and somewhat simpler way to combine MP3s is to use Command

Prompt. You could for example link 1.mp3, 2.mp3 and 3.mp3 to create 'Four.mp3'. To do this, first copy all the MP3s into one folder. Next, type **cmd** in Windows search, then open Command Prompt.

Now type **copy/b 1.mp3 + 2.mp3 + 3.mp3 Four.mp3** (see screenshot below) and press Enter. The ensuing process is very fast.

I combined two 30-minute MP3s, plus one 60-minute MP3, into one two-hour file in less than one second. I hope my suggestion might help save Will some time in his mammoth undertaking.

John Lawrence



HARDWARE

Fix split plastic in ThinkPad hinges

✓ I read a couple of items in *Computeractive* recently about failing hinges on Lenovo laptops. I thought I ought to mention my experience with a ThinkPad X121e, which I bought in 2012 and worked fine for a couple of years. Then I started to notice the upper and lower body of the laptop parting on the left side.

Looking online, I found this was a very common problem with ThinkPads. According to other ThinkPad users, Lenovo typically says that the problem counts as 'customer induced damage', and I would be charged a hefty fee for replacing the bodywork.

I decided to attempt a fix myself. I took the laptop apart and saw that the problem lay where the hinge screws were

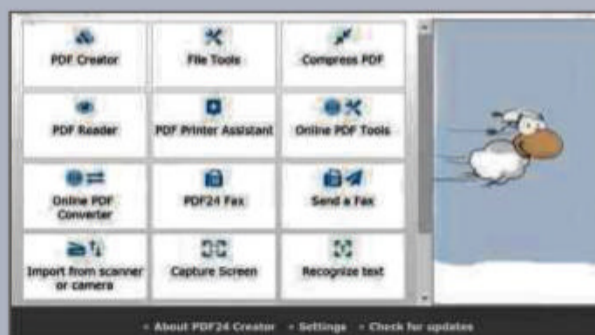
Why I stopped using...

SimplyPDF

✓ I had been using SimplyPDF (<https://simplypdf.com>) to convert PDF documents to Word, but had never been very happy with uploading my docs to the site and getting them back from who knows where.

And what I use instead...

When I used SimplyPDF recently I found the resulting Word file was full of errors, such as single quote marks



being replaced with double quotes. Also, there were double quotes where there should have been apostrophes, and characters had been superimposed

randomly, making the document hard to read and an enormous job to correct.

So I want to thank Will Stapley for recommending **PDF24** (www.snipca.com/37711) in Best Free Software (Issue 603, page 20). This tool came to the rescue by converting my document without the problems that plagued SimplyPDF. It took a bit longer to do the conversion, but I can handle that.

Alan Turk

✉ 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



fixed into brass inserts in the plastic. This plastic wasn't sufficiently strong or braced, so it split following years of opening and closing of the lid.

I bought a 'U' section aluminium channel and some M3 stainless screws, nyloc nuts and washers. I drilled out the hinges in the base from 2.5 to 3mm, then cut the channel to length, deburring the edges to make it safe.

Then I drilled through the base and channel, finally fixing everything in place (pictured above). This DIY solution has served me well ever since, though the laptop isn't as fast as it once was.

Mark Young

WINDOWS

Press Shift to open multiple File Explorer windows

✓ I'd like to recommend a simple File Explorer tip that makes it easier to move files between folders. Make sure you have one File Explorer window open. Now, press down the Shift button on your keyboard and every time you click the File Explorer icon on your taskbar a new window will open. It's the kind of simple Windows tip I'd like to read more about in *Computeractive*, rather than programs which are a faff to download, or single-purpose apps.

Roy Huffey

MUSIC

Check whether your car's stereo has 'List' function

✓ In Issue 603 (page 65), you provide a solution for Roger Currie's problem concerning the playback of music tracks from a USB stick on a car stereo. I encountered a similar problem when I bought a new Kia three years ago.

However, a little searching found that the stereo had a playback function called List, which was not the manufacturer's

Reader recommends...

Kobo Forma 8GB

£240 from Argos www.snipca.com/37898

✓ I retired in late 2020, and vowed to catch up with all the reading that my busy job deprived me of. As a treat to myself, I bought a Kobo Forma, which is one of the more luxurious e-readers available.

I was tempted by Amazon's Kindle Oasis, but the Forma's 8in screen is one inch bigger. I was also keen to try its Comfort Light feature, which turns down the **blue light** towards bedtime. I like reading in bed, so I knew I'd appreciate this aspect.

Three months on from purchase, and I can confidently say it's one of my best ever buys. I've read it for an hour almost every night this year and it hasn't disturbed my sleep once. My



only regret is buying the 8GB version, rather than the more expensive (£290) 32GB model, though I hear that's been discontinued anyway.

Simon Birchall

✉ Want to recommend hardware or software to fellow readers?

Email letters@computeractive.co.uk

default setting.

When the system is set to play in this function, album tracks are played in the correct order (as a list), rather than in alphanumeric order. Any reader who has encountered this problem might find it worthwhile to check whether their stereo system has a similar function before going through the effort of manually renaming all the files.

Chris Davies

GENEALOGY

List overseas ancestors in Family Tree Maker

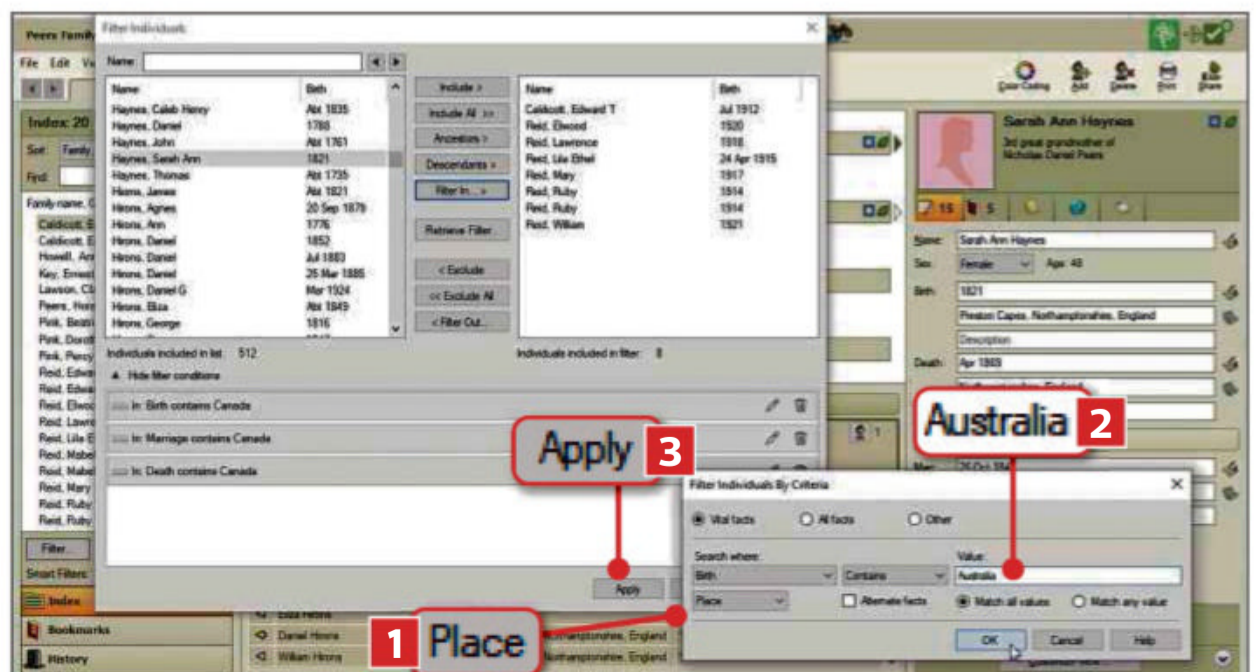
✓ In Issue 603's Grow Your Family Tree (page 16), reader Malcolm Smith said he couldn't list overseas

relatives and ancestors in Family Tree Maker (FTM). But it does have a perfectly adequate filter that enables this.

First, click Filter below the name index, then Filter In. Below the 'Search where' box choose, say, Birth, then change Date to Place (1 in screenshot).

Type the name of the place (which in this case would be a country) in the 'value' box (it's Australia in the screenshot 2). Repeat if you want to add marriages and deaths. Once the filtered box has everything you need, click Apply 3. I do this when a new overseas data source becomes available or when I'm restricting my search to records from a particular country.

Ged Parker



Phone and Tablet Tips

ANDROID

Identify toolbar icons with Microsoft SwiftKey's tooltips

 Microsoft SwiftKey (www.snipca.com/37927) is one of the most popular alternative keyboards for Android. Part of its appeal is the way it allows users to customise the keyboard with themes, but it also offers a number of practical advantages, such as the option to use swipe gestures for one-handed typing. The latest update adds another useful feature – tooltips for the keyboard's toolbar icons. These are pop-up labels that help you quickly identify an icon's function – handy if you find the icons themselves hard to see or difficult to remember.


You'll need SwiftKey installed and enabled first, then check it's set as your

device's default keyboard under Settings, System, then 'Language and input'.

While using the keyboard, long-press one of the toolbar icons and a tooltip will appear above the icon, offering a brief description of the icon's function (see screenshot below left). This will disappear automatically after a couple of seconds.

ANDROID


Navigate the revamped Google Play Store

 Next time you visit the Google Play Store on your Android device, you could be in for a bit of a shock. Google has started rolling out an update for the Google Play app that significantly changes the way you navigate the store – most notably by removing the familiar

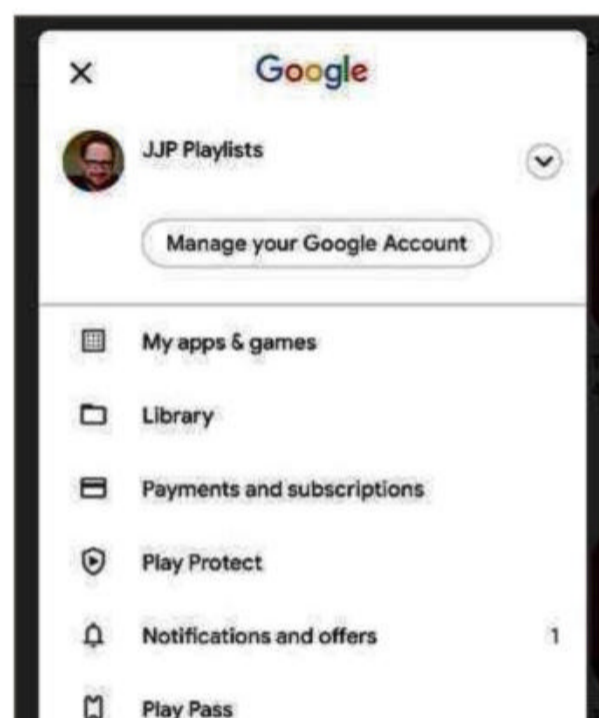
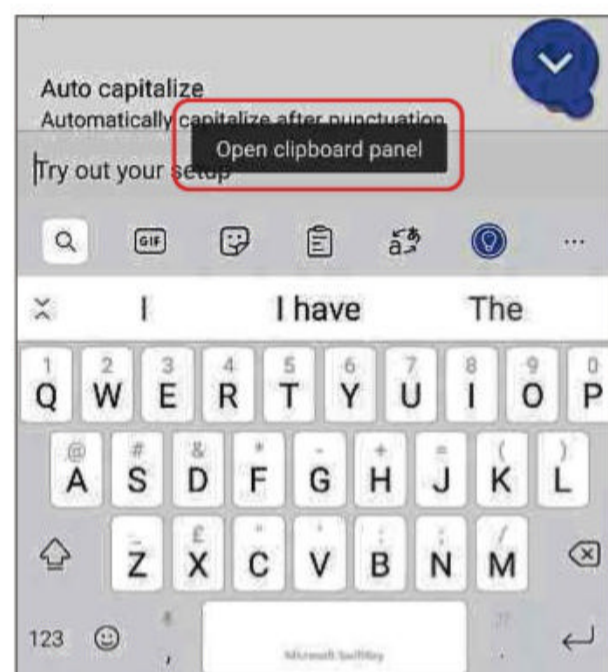
three-horizontal-line menu button from the top-left corner of the screen. Until recently, this button provided access to a dropdown menu that housed all the Google Play app's main functions and options, including Settings, 'My apps & games', payment options and more. However, if you're using the updated version of the Google Play app, it's not immediately obvious where these have been moved to. In fact, you now need to tap your profile image in the top-right corner of the Search bar. Doing so will open a pop-up window with the options from the old three-lines menu (see screenshot below left). Tap the option you need or tap X in the top left of the pop-up to close it again.

iOS

Correct the colours on your phone or tablet screen

 Do the colours on your iPhone or iPad screen look a little off? If so, there's a hidden tool squirrelled away in iOS that effectively lets you colour-correct your device's display. The Colour Filters tool is largely intended for colour-blind users and for those who have difficulty reading some coloured text, but it can also fine-tune your screen's colour settings so that they're more to your liking.

To find it, tap Settings, Accessibility, 'Display & Text Size', then Colour Filters – you'll now see a screen showing coloured pencils. Tap the slider to enable



BEST NEW APPS

What you should install this fortnight

Smart Photo Widget

Free*

iOS www.snipca.com/37929

This AI-powered app gives you a home-screen photo **widget** that cleverly



reframes photos so they look their best, while skipping blurry, poorly shot photos, screenshots and more. It's free to use but paying (£2.79 per year or £9.99 lifetime use) unlocks unlimited photo collections and the ability to add effects to your snaps.

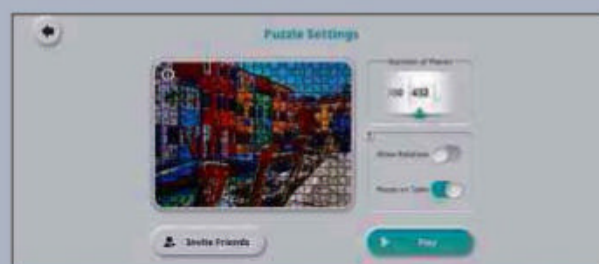
Jigsaw Video Party

Free*

Android www.snipca.com/37930

iOS www.snipca.com/37931

Better suited to a tablet than a phone, this app for jigsaw puzzlers offers the ability to invite friends to join you via in-game video chat. There are several starter puzzles to play for free, and further themed bundles – including Classic Paintings and 'Animals & Nature' – can be unlocked for £3.99 each.

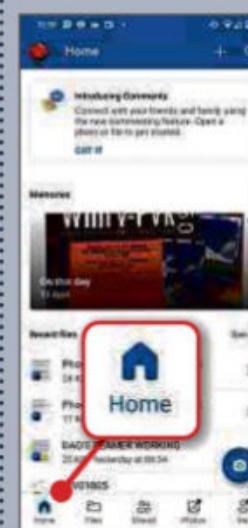


OneDrive for Android

Free*

Android www.snipca.com/37928

The latest version of OneDrive for Android introduces a useful new Home tab. This



previously iOS-only feature provides instant shortcuts to both files you've recently accessed and those you've downloaded, making it easy to pick up where you left off. The Home screen also displays an 'On this day' photo and useful tips.

*Contains in-app purchases



this feature and you'll see several options. Most of these are designed to compensate for different types of colour-vision deficiencies – the Red/Green Filter (see screenshot above), for example, alters colours to suit sufferers of protanopia, who tend to see red colours as green or blue.

Below these is a Colour Tint option – tap this to enable a pair of sliders below. These let you fine-tune the dominant hue of your display and its intensity. Start by dragging the Hue slider left and right. You'll notice the colours of your screen change as you do this. It's really just a case of playing with this until the screen starts to look right to you. If you feel that your screen's overall colour is a little cold-looking, for instance, you could use the Hue slider to nudge it away from blue towards a warmer colour, such as red or yellow. Once you have the tone you want, use the Intensity slider to make the effect stronger or weaker, as required.

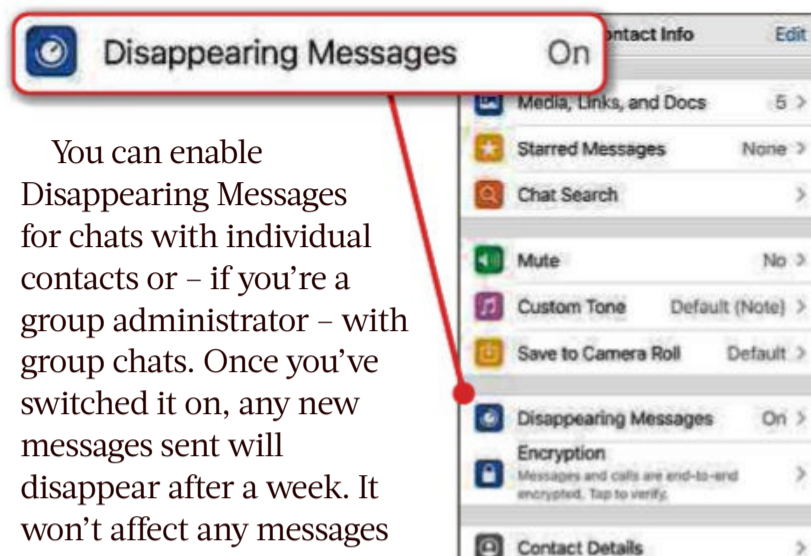
ANDROID & iOS

Send WhatsApp messages that self-destruct



WhatsApp uses **end-to-end encryption**, meaning that messages you send and receive are protected from snoopers who might try to intercept them. The problem with online messaging, however, is that your messages remain on the devices of those you've been communicating with, even if *you* delete them on your device. This means it's always possible for someone to gain access to someone's phone and read potentially private conversations.

To counter this, WhatsApp recently introduced the Disappearing Messages feature, which lets you set specific conversations to self-destruct after a period of seven days.



You can enable Disappearing Messages for chats with individual contacts or – if you're a group administrator – with group chats. Once you've switched it on, any new messages sent will disappear after a week. It won't affect any messages you've previously exchanged with your contact or group. It's possible to enable it temporarily, then disable it later, should you wish – only messages sent while the setting is switched on will be deleted. Alternatively,

you could create a new group chat for you and a specific contact and enable Disappearing Messages on it, providing you with a quick way to have private conversations with them.

To turn on the feature, open a chat with someone, then tap their name at the top of the screen. Scroll down and tap Disappearing Messages, then select On (see screenshot left) and tap the back button. The process is similar for groups – group administrators need to open a chat with a group, then tap the group name to turn on Disappearing Messages.

BEST APPS FOR...

Graph paper

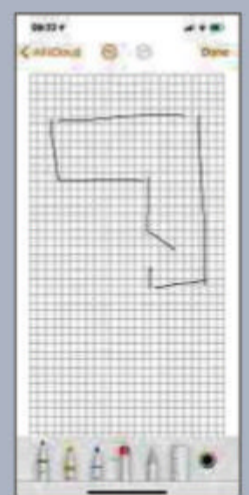
Notes

Free

iOS www.snipca.com/37932

Apple's built-in Notes app has a handy – albeit fairly hidden – graph-paper feature. To access it, tap the 'new note' icon, then tap the three-dots button in the top-right corner and select 'Lines & Grids'. Here you can select from a range of layouts, including graph paper.

Best for Quick sketches of layouts and plans



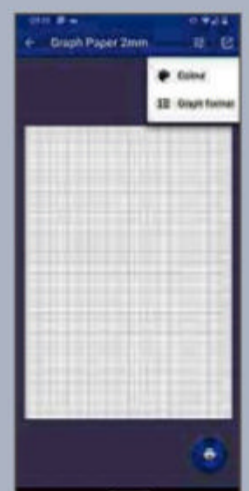
Paper Printer

Free*

Android www.snipca.com/37933

For most of us, actual graph paper is something we only use once in a while. And, more often than not, when you do need some there's never any around. This useful app lets you print your own blank graph paper whenever you need the odd sheet.

Best for Creating your own graph paper



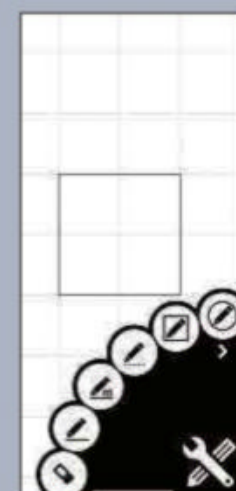
Draft Paper

Free*

iOS www.snipca.com/37934

A digital graph paper app that's designed for creating floor plans, layouts, blueprints and similar. Lines you draw with your finger snap to the grid, allowing you to create clean, professional-looking plans. It's free, though paying £4.99 unlocks the ability to create designs with more than two layers.

Best for Designing a home makeover

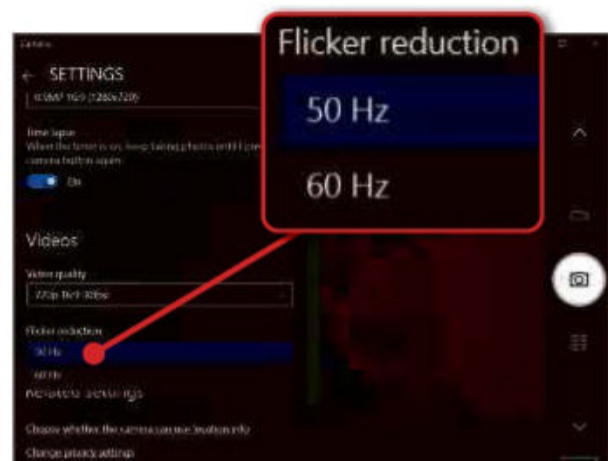


*Contains in-app purchases

WINDOWS 10

Stop your webcam flickering

Depending on the lighting in your room, you may find your webcam adds an irritating flickering effect to video calls – fluorescent lighting is particularly bad for this. Thanks to a hidden feature in the Windows Camera app, you can usually fix this – or at least reduce the problem.

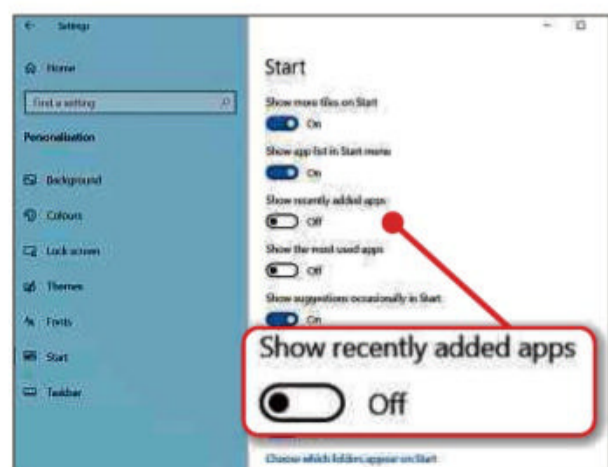


If you're in the middle of a video call, either end the call or turn your video off (in Skype, click the camera icon; in Zoom, click Stop Video). Next, click the Start button on your taskbar, type **camera**, then select the Camera app from the results. Click Settings (cog icon, top left), then go to the Videos section at the bottom, click the 'Flicker reduction' box and select either 50Hz or 60Hz (see screenshot above), checking the live video to see which option results in the best outcome. When you've finished, close the Camera app, then return to your video call.

WINDOWS 10

Stop new apps being prioritised in the Start menu

When you install a program, Windows will add it to the 'Recently added' section at the top of the Start menu, pushing more useful sections (such as 'Most used') further down. To stop new apps being prioritised in this way, open Settings (press the Windows key+I), select



WINDOWS 10

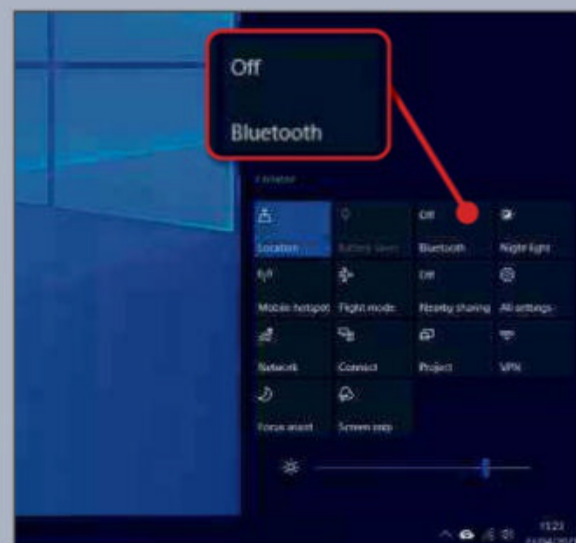
Stop your headphones pairing with your PC

In Issue 602 (page 62) we explained how you can use a set of Bluetooth headphones to watch TV without disturbing others around you. However, if you've also paired your headphones with your PC, you may find they connect to that instead of your TV when you turn them on. There are two ways to fix this.

One way is to turn the headphones off, then disable Bluetooth on your PC. To do this, press the Windows key+A to open the Action Centre sidebar, then click the Bluetooth button so that it reads Off (see screenshot). When you turn your headphones back on, they should now connect to your TV, not your PC.

If you have other Bluetooth devices connected to your PC (such as a Bluetooth keyboard and mouse), you'll need to re-enable Bluetooth once your headphones are connected to your TV – simply repeat the process above, but turning Bluetooth back on.

While this is the quickest way to stop your headphones connecting to your PC, you'll have to do it each time you use them. A more permanent fix is to unpair your headphones from your PC.



Go to Settings (press the Windows key+I), select Devices, then 'Bluetooth & other devices'. Make sure the Bluetooth slider at the top is set to On, then select your headphones from the list and click Remove Device, followed by Yes.

Your headphones will now no longer connect to your PC when you turn them on. To pair them again in future, turn on pairing mode on your headphones (there's usually a dedicated button for this, but check the manual if you have one), then return to the Bluetooth window in Settings. Click 'Add Bluetooth or other device', Bluetooth, then select your headphones from the list.

Personalisation, then Start. On the right-hand side of the window, locate the 'Show recently added apps' option and click the slider so that it reads Off (see screenshot below left). If you also want to remove your most used apps from the Start menu, click the slider next to 'Show the most used apps'.

WINDOWS 10

Remove Vertical Tabs button in Edge


In March, Microsoft added a Vertical Tabs option to Edge, which shifts all tabs from the top of the browser window to the left-hand side. If you don't intend to use this feature, the shortcut button to switch between tab modes just takes up unnecessary space on Edge's toolbar and you may find yourself clicking it



accidentally. To remove it, right-click the icon, then select 'Hide from toolbar' (see screenshot above). Should you want to restore it, right-click an empty section of the Edge toolbar, select 'Customise toolbar', then click the 'Show vertical tabs button' slider.

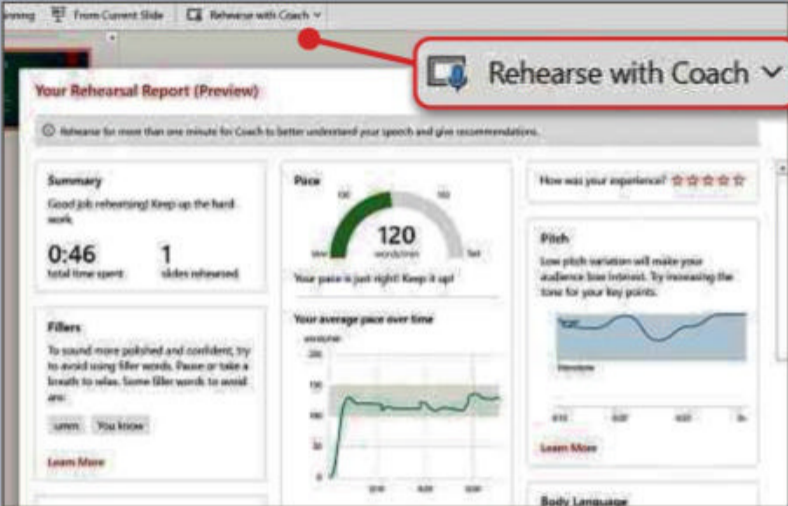
MICROSOFT POWERPOINT

Get feedback on your presentations



When you're preparing a presentation, it's always a good idea to have a dry run in front of someone so they can give you feedback. If there's no one available, the free online version of PowerPoint (otherwise known as 'PowerPoint for the web') will oblige. And thanks to a recent update it will now give even more comprehensive feedback, including on your body language.

To use it, sign into your Microsoft account at www.office.com. If you don't have an account, click Sign-in (top right), then 'Create one'. Next, load your presentation, select the SlideShow tab, then click 'Rehearse with Coach' (see screenshot). If you want feedback on your body language, and have a webcam attached to your PC, click the




through your slides. If you selected the body language option you'll see your video in the bottom corner. PowerPoint will provide suggestions as you progress through your slideshow – for example, to come closer to the camera if you start drifting too far back or to stop using filler phrases such as 'you know' and 'umm'.

When you reach the end of your presentation, you'll receive a more detailed report, which will include feedback on the pitch of your voice, whether you repeated certain phrases, and how fast you spoke throughout the presentation.

MICROSOFT EXCEL

Visualise geographical data on a map



When you have a spreadsheet of data relating to geographical areas, Excel can help you visualise this in a map. This feature is only available for Microsoft 365 (the new name for Office 365) and Excel 2019.


Load your spreadsheet in Excel, then select the data you want to represent on a map. Next, click the Insert menu, Maps (in the Charts section of the toolbar), then the Filled Map button (see screenshot below).

The first time you do this, Excel will ask for permission to use your data with Bing, which runs the search to determine which regions to show in your map. After a moment, your map will appear, with the regions you've selected shaded according to your data. Whether Excel manages to successfully populate the map depends on the data you provide it – we've found it works particularly well

with separate columns for country and county or state.

LIBREOFFICE CALC

Carry out quick calculations across two columns




LibreOffice Calc has a handy shortcut that lets you quickly carry out calculations across two columns. In our example, we have a row of data showing the number of units sold each month (row B) and another showing the number of faulty units (row C). We want to subtract the number of faulty units from the sold units, and use the results to overwrite the cells in row B.

To do this, select all cells in row C then press Ctrl+C to copy them. Next, right-click the first cell in row B, then select Paste Special. In the window that opens, select Subtract within the Operations section (see screenshot below), then click OK. All values in row C will now be subtracted from their corresponding value in row B.

LIBREOFFICE CALC

Restore overwrite warnings when pasting data



When you paste the contents of a cell into another cell that already contains data, Calc will prompt you to confirm that you want to overwrite the existing data. If you're pasting a lot of data, this warning can soon become annoying, so you might be tempted to disable it by unticking the 'Warn me about this in future' box. However, what if you want to restore those warnings once you've finished working on that particular spreadsheet?

Open Calc, then click the Tools menu, followed by Options (or press Alt+F12). In the Options window, double-click the LibreOffice Calc section in the left-hand menu to expand it, then select General. Finally, tick the 'Show overwrite warning...' box (see screenshot below) and click OK. If you can't see this option, try expanding the Options window by clicking and dragging one corner of the Options box.

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In The Club



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

Use YouTube videos in Google Slides presentations

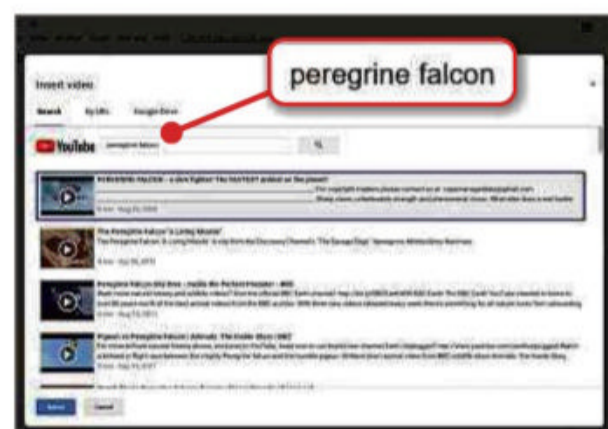
Are you struggling to keep your club members' attention during presentations? Adding YouTube videos to your slides is a great way to liven things up. One way of doing this is to include a link to your chosen video within your slide. It's not ideal, however, as you have to click the link to play the video, which will then open in a separate browser window. A neater alternative is to use Google Slides, which lets you search for YouTube videos and insert them directly into your presentations.

Insert your video

Go to www.google.com/slides and log into your Google account (if you don't have one, click the 'Create account' link to set one up for free). Open the presentation you want to add the video to (or create a new presentation), then click Insert in the top toolbar followed by Video. You can then search for YouTube videos by selecting the Search tab, entering your search term (see screenshot below), selecting from the results, then clicking Select at the bottom.

Alternatively, if you already know the YouTube video you want to use, open it in YouTube in your browser, then copy its URL from the address bar. Now return to your presentation, click the 'By URL' tab, then paste the video's URL into the box. After a few seconds, a preview of the video will appear – click Select to add it to your presentation.

You can also add videos stored in your



You can search for YouTube videos directly within Google Slides

Google Drive account, including those that have been shared with you. Select the Google Drive tab to browse all available videos.

Format playback

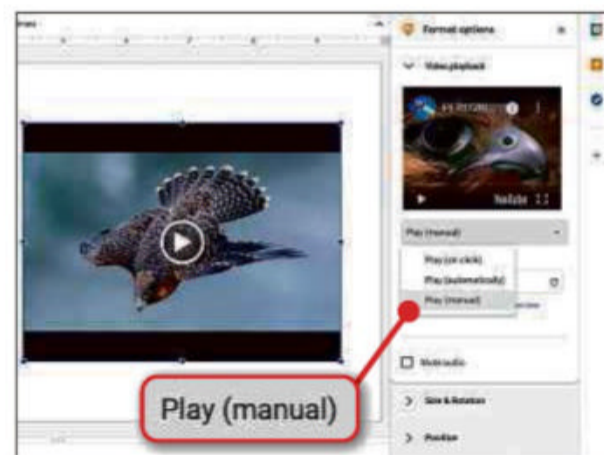
Once you've inserted your video, the 'Format options' menu will appear on the right-hand side of the Google Slides window (if you can't see it, right-click the video then select 'Format options').

Last year, Google changed the way videos are played when you're presenting. Instead of clicking on the video window to play it, you now just have to advance the slide (by pressing the Space bar, the right arrow key or clicking your left mouse button). If you prefer the old method, select 'Play (manual)' from the box just below the preview of the video (see screenshot above right). To make the video play as soon as you open the slide it's on, select 'Play (automatically)'.

You can also choose to play only a specific section of your video by entering the relevant times in the 'Start at' and 'End at' boxes. Alternatively, use the preview window at the top to skip to the desired start point, click 'Use current time' under the 'Start at' box, then skip to the end point and click the same option under 'End at'.

Present from your PC, laptop, phone or tablet

Once you've finished creating your slides you can present them remotely via video-chat tools such as Skype or Zoom (see Issue 603, page 48 on how to share your screen during video calls), or – when permitted – at an actual club meeting. When doing the latter, you can wirelessly stream your presentation to a TV or projector with a Google Chromecast (from £30, www.snipca.com/37987 – read more on page 55). To stream from a PC or laptop, open your presentation in Slides, click the down arrow next to Present, then select 'Present on another screen' and choose your Chromecast

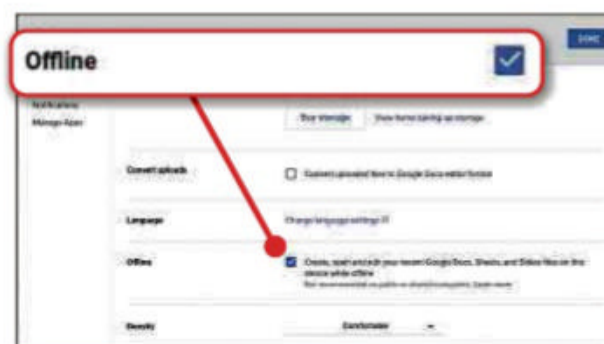


To make your video play only when you click it, change the playback mode to 'Play (manual)'

device from the list. On your phone or tablet, install the Google Slides app (Android www.snipca.com/37988; iOS www.snipca.com/37989), open your presentation, then tap the Chromecast symbol (a square with a Wi-Fi symbol).

If you fear you won't have a reliable internet connection where you're presenting, enable offline access beforehand. To do this on your PC, you first need to install the Google Docs Offline extension (www.snipca.com/37991). Next, log into your Google Drive account at <https://drive.google.com>, click the cog icon (top right), Settings, then tick the Offline box (see screenshot below).

Finally, open Google Slides in your browser, click the three dots next to your presentation, then click the 'Available offline' slider. To enable offline access on your phone or tablet, open the Slides app, tap the three vertical dots next to your presentation, then select 'Make available offline'. Be aware, while this lets you present your slideshow without an internet connection, any online videos (such as from YouTube or your Google Drive account) won't play.



Access your presentation without an internet connection by enabling offline access

What's All the Fuss About...



Boiling liquid

Microsoft is keeping things cool in groundbreaking new ways

What is it?

Fairly obvious, we'd have thought. It's liquid that boils.

Like water in a kettle?

That's one perfectly respectable example, but Microsoft is boiling liquid for a far more technically advanced reason than making a cuppa.

And that is?

To keep its computer servers cool, so it can process huge amounts of data. That photo right shows them bubbling away nicely in a data centre somewhere in the state of Washington.

But wouldn't boiling liquid heat up the servers?

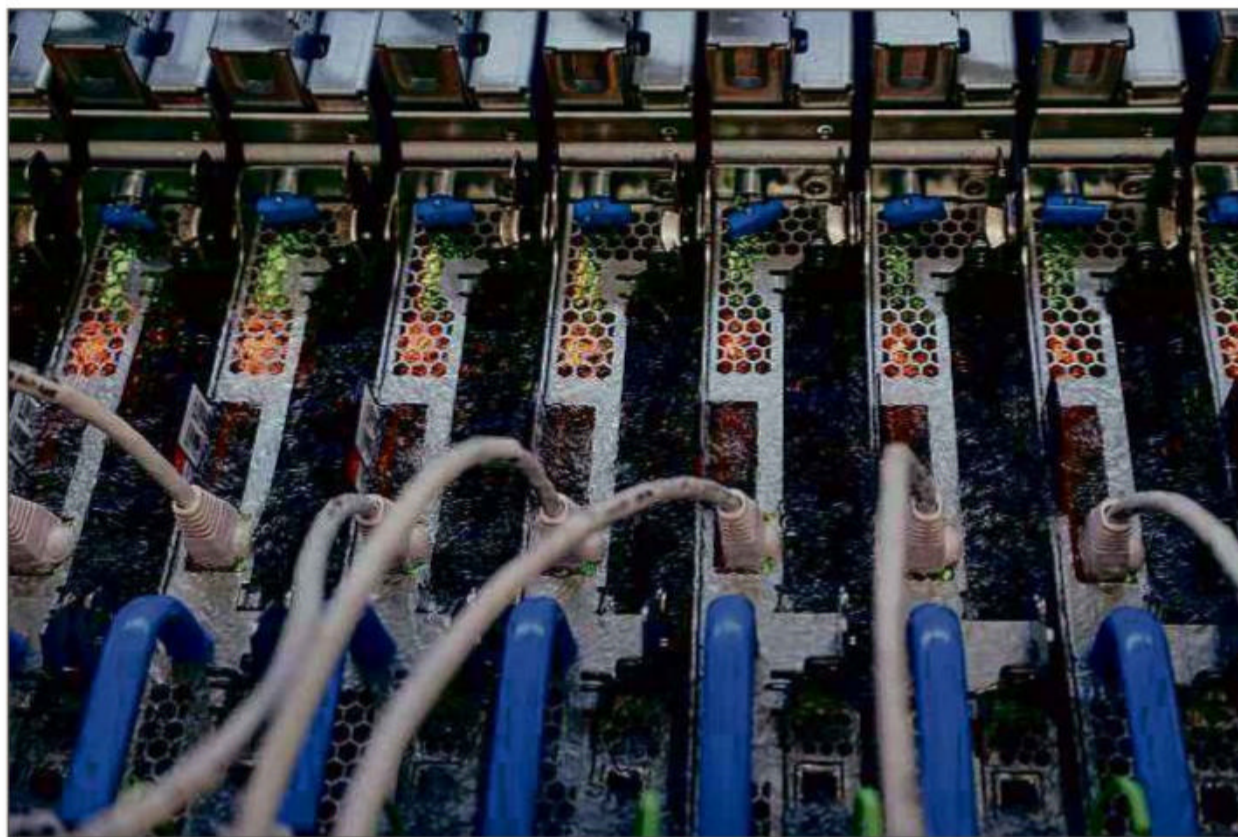
Not in this case. The boiling is actually caused by the heat coming off the servers as they process massive amounts of data. Vapour rising from the boiling fluid meets a cooled condenser in the lid of the "couch-shaped" tank the servers are submerged in. This changes the vapour to liquid, which 'rains' back on to the servers. This is called a closed loop cooling system, carrying heat away from the processors so the servers can work continuously at full power without overheating. The key to its success is the mystery liquid used.

Ah, so it's not water?

No. Water boils at 100 degrees Celsius (212 Fahrenheit), which *would* be too hot to cool the servers. The liquid Microsoft uses boils at 50 degrees (122 Fahrenheit).



Something smells fishy about Microsoft's plans to keep servers cool



And we have no idea what it is?

Well, we know it's a dielectric fluid made by US company 3M. When a dielectric fluid is placed in an electric field, practically no current flows through it, making it safe for electronic equipment. Tech companies are increasingly preferring this method over the more common air-cooling systems because it's more reliable and cheaper to maintain. And keeping servers cool is becoming more important because Moore's Law is slowing down.

What's that?

The famous prediction made in 1965 by Intel co-founder Gordon Moore that the number of transistors on a processor will double roughly every two years, in turn leading to more powerful computers. That proved true until a few years ago, when transistor widths shrunk to the atomic scale, and are now rapidly reaching their physical limit. But, as Microsoft writes online (www.snipca.com/37954), demand for faster processors has accelerated, forcing manufacturers to create new chips that can handle more power. CPUs now use over 300 watts of power per chip, up from 150 watts, while some graphics

cards now use 700 watts per chip. The more power they use, the hotter they get, hence why they need to be cooled in a large tank. However, Microsoft thinks it might need an even bigger one.

How big?

Well, is the Pacific Ocean big enough for you? In 2015, Microsoft submerged a data centre in a submarine-like tube off the California coast. Instead of a dielectric fluid, it was filled with dry nitrogen air, while the servers were cooled with fans, and heat was removed by piping seawater through the tube. This was followed by a two-year trial off Orkney, which ended in 2020.

And what did that conclude?

Two things. One is that servers underwater are more reliable than those on land because they don't suffer from temperature fluctuations, nor from corrosion caused by oxygen and humidity. And two, that if you leave a tank on the Scottish seabed for two years, it will become home to a thriving community of algae, barnacles and sea anemones (pictured left) – or "sea scum" as one engineer called them (www.snipca.com/37979). It all smells decidedly fishy to us.

Master Your TV STICKS

You can do so much more with your streaming stick than just watch TV and films. Robert Irvine reveals how to unlock secret features and beat restrictions on your Amazon, Google and Roku devices



✓ **ADD A VPN**



✓ **'SIDELOAD' APPS**



✓ **UNLOCK SHOWS**

Whether you want to turn your old telly into a smart TV, save money on a set-top box or access all your favourite television, film and music services on one pocket-sized dongle, a streaming stick is the perfect device for your entertainment needs. There's never been a better time to

buy one: Amazon's Fire TV Stick Lite costs just £30, while Roku has just launched a 4K stick, the Roku Express 4K (www.snipca.com/37967), for only £40. That's £10 cheaper than Amazon's equivalent 4K model and £20 less than Google's 4K-enabled Chromecast.

As with USB memory sticks, these tiny devices are incredibly easy to use (just plug them into an HDMI port on your TV, set up your account and you're ready to stream) and surprisingly versatile. We looked in detail at the pros and cons of all the main streaming sticks in Issue 593's Cover Feature (available on our Back Issue CD: www.snipca.com/37026), so this time we're digging deeper to reveal the secret tricks and hidden tools that the manufacturers don't mention in their 'quick start' manuals.

Starting with the Amazon Fire TV

Stick, which is currently the most popular and customisable option (Fire TV now has more than 50 million users worldwide – www.snipca.com/37968), we explain how to unlock the full power of your streaming dongle. Our other sections cover the £60 'Chromecast with Google TV' (www.snipca.com/38007), because you can make more changes to it than the cheaper £30 model, and Roku's range of streaming sticks (the Roku-based Now TV stick is too locked down for our purposes).

We've focused on the most useful but least known hacks, not obvious features such as controlling your device with your voice. And rather than recommend streaming services that you already use, such as Netflix, iPlayer and Spotify, we've chosen five apps for each stick that you may not have heard of but should install.

WHAT YOU CAN DO

- Install apps from outside the official app stores
- Mirror your PC, phone and tablet on your TV
- Create a TV screensaver from your own photos
- Hack your streaming stick's remote control



HACK YOUR AMAZON FIRE TV STICK

Install a VPN on your Fire Stick

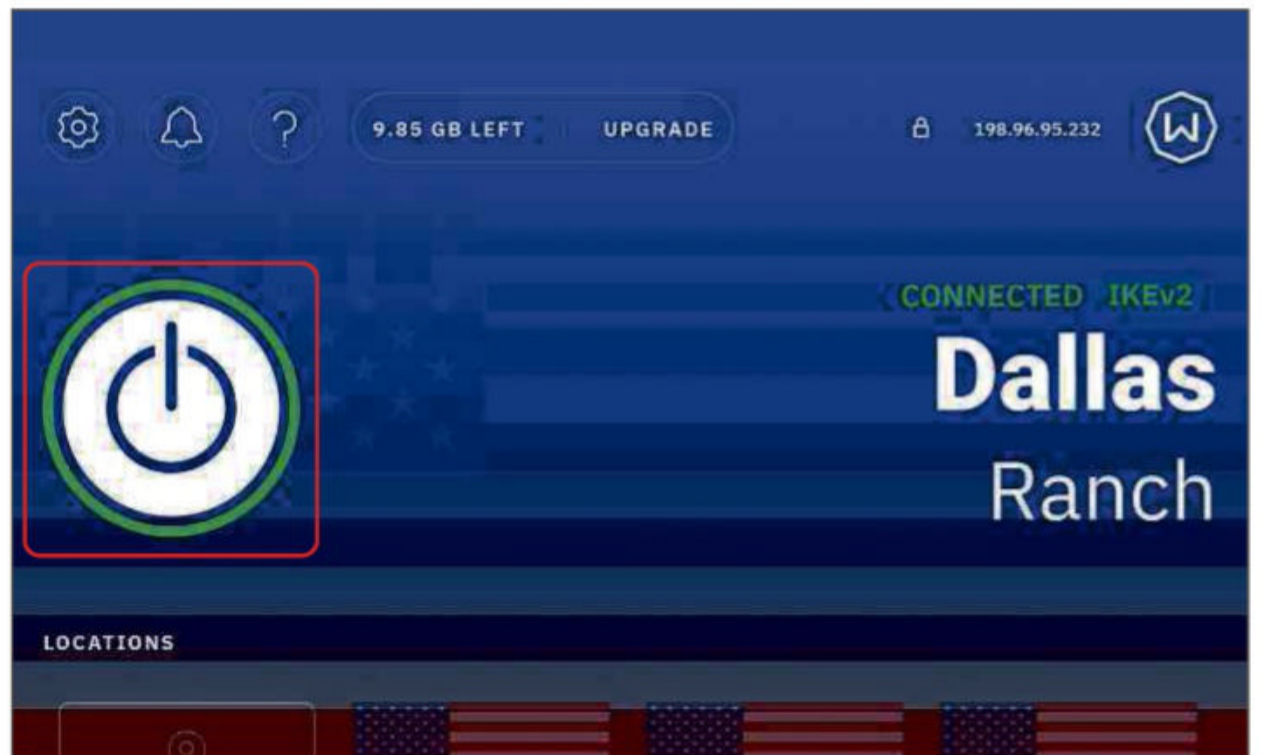
VPNs are an effective way to protect your privacy online and unblock restricted content, and you can install one on your Fire TV Stick just as easily as on your PC, phone or tablet. There are several VPN apps in the Amazon Appstore. Our favourite is the free version of Windscribe VPN (www.snipca.com/37907), which gives you 10GB of data every month and a choice of servers in 10 countries.

Sign up for Windscribe's free plan at www.snipca.com/37908, then choose Find, followed by Search on the home screen of your Fire TV Stick and search for 'Windscribe' (you can also ask Alexa to "find Windscribe"). Install the app from its Appstore page, then open it and sign into your Windscribe account. Select the big power button (see screenshot above right) to turn on the VPN and connect to a server. Choose OK when prompted to let Windscribe set up a connection.

To switch to a server in another country, press the down button on your remote control to browse other locations. Some of these require you to upgrade to the paid-for version of Windscribe, but the free plan includes servers in the US, Canada, France, Germany and Hong Kong. You can add extra locations, including Windflix US for streaming American Netflix, for \$1 (73p) per month using Windscribe's Build A Plan option. See www.snipca.com/37909 for details.

Install apps from outside the Amazon Appstore

The Amazon Appstore offers thousands of free apps for you to install on your Fire



Click the power button to run Windscribe VPN, so you can unlock content and boost your Fire TV Stick's privacy

TV Stick, so you may wonder why you need access to more. But many useful apps aren't available in the store, either because Amazon prohibits them or because their developers don't want them there. For example, the popular media player Kodi (<https://kodi.tv>) is banned from the Appstore, even though it's perfectly legal to use, provided you don't install **add-ons** that stream copyrighted content.

Rather than block these apps completely, Amazon lets you **sideload** them on to your Fire TV Stick, a process commonly called 'jailbreaking'. This may sound dubious and risky, but provided you only install apps from trusted sources, it's safe and straightforward to do – and easily reversible.

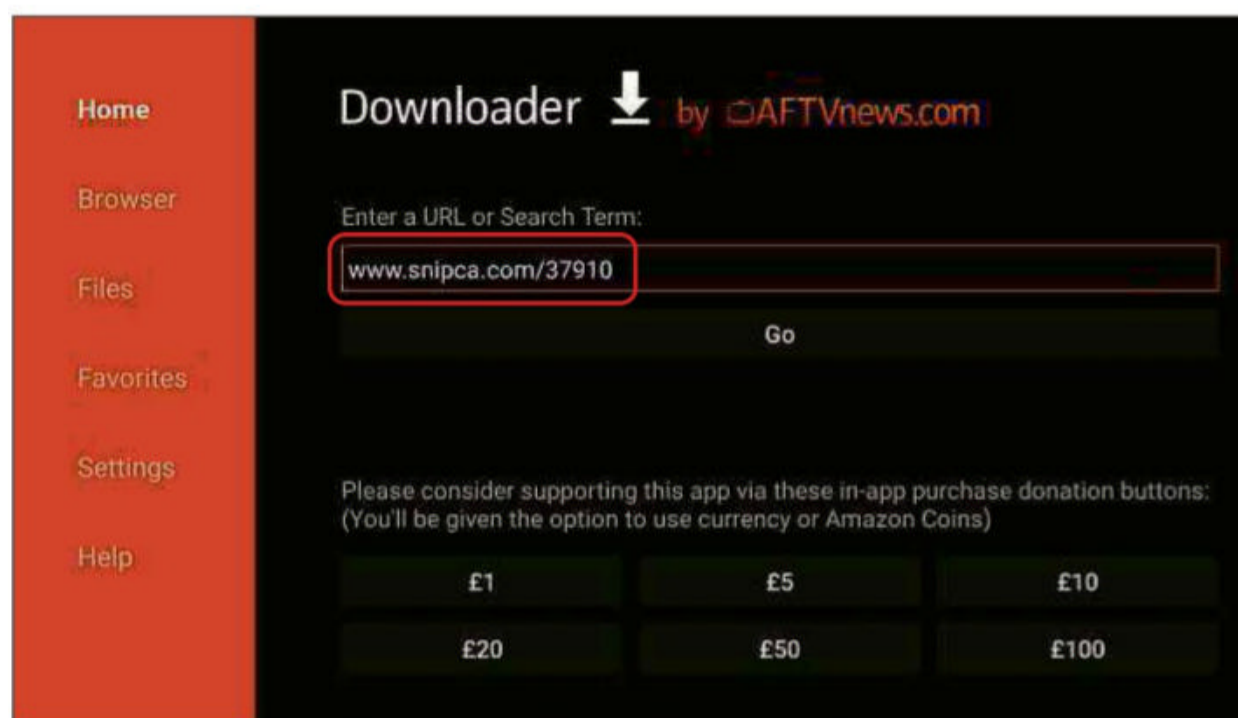
First go to Settings, followed by My Fire

TV on your device, then choose Developer Options and switch on ADB Debugging. Next, go to Find, Search and look for an Appstore app called Downloader (www.snipca.com/37870) – or just ask Alexa to "find Downloader app". Install this, then return to Settings, My Fire TV, select 'Install unknown apps' and set Downloader to On. Open the Downloader app and you'll see it works like a web browser, letting you search for – or enter the URLs of – the **APK** installation files for apps outside of Amazon's store. Our screenshot below left shows a Snipca URL for the Kodi app.

We recommend the trustworthy alternative app store APK Mirror (www.apkmirror.com), which checks all the apps it offers for malware and piracy. To get the Kodi app, go to the official Kodi download page (www.snipca.com/37910), choose the Android option and select the ARMV7A (32bit) installation file. Your Fire Stick will warn you if an app requires special access before you select Install, and you can uninstall any you're unsure of via the All Your Apps screen.

Free up space on your Fire TV Stick

Although Amazon claims that its Fire TV Sticks offer 8GB of internal storage, most of this is taken up by the system software and pre-installed apps that can't be removed. To see how much, go to Settings, My Fire TV, About, followed by Storage and you'll probably be alarmed by how little space is available – less than half on our new Fire TV Stick Lite



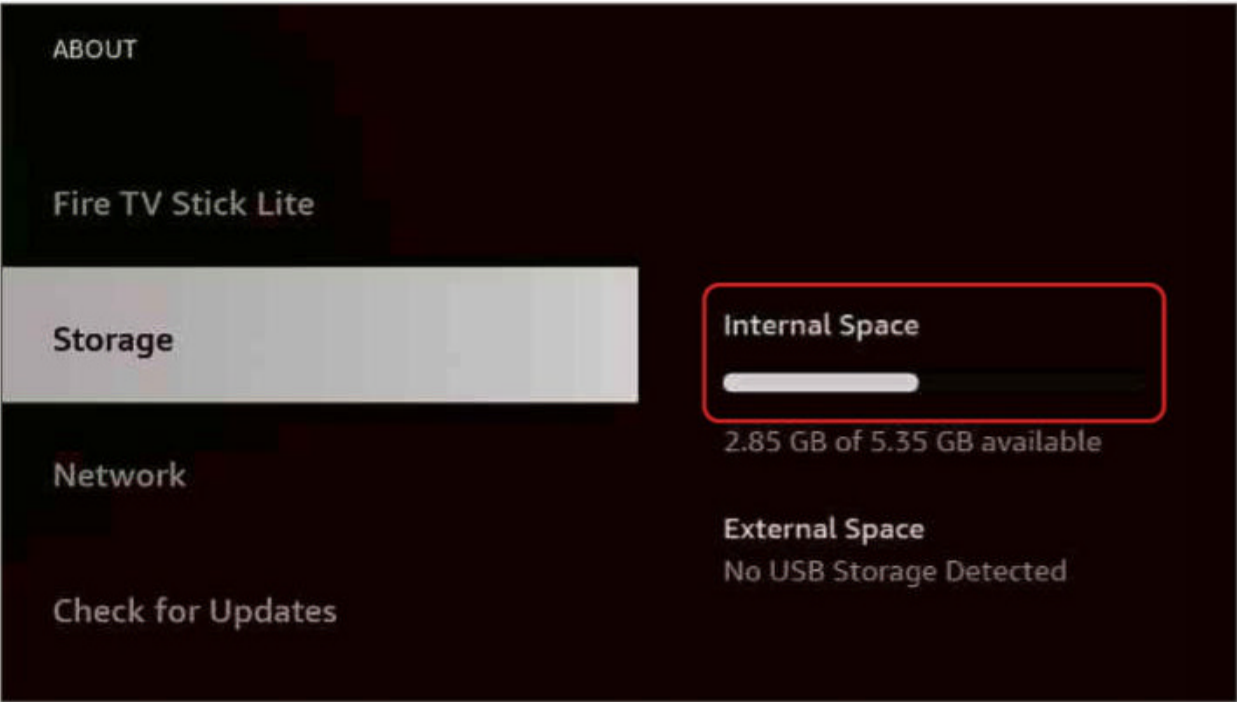
Type a URL into Downloader to find and install other apps from the web for your Fire TV Stick

(2.85GB out of 5.35GB – see screenshot right).

The obvious way to free up storage is to uninstall unnecessary apps. To do this, long-press the Home button on your remote, choose Apps, then highlight an app, press the three-line menu button and select Uninstall. You can also delete the **temporary files** stored by apps by going to Settings, Applications, Manage Installed Applications, then selecting an app and choosing ‘Clear cache’.

If you want to keep all your apps, you can expand your storage using a USB stick, although this works only on the 2020 version of the Fire TV Stick, its Lite version (not the 4K one) and the Fire TV Cube. The main hurdle is that these devices only have one **microUSB** port, which is used by the power cable. This means you’ll need to buy an OTG (on the go) splitter cable that has separate ports for your USB stick and the power cable (such as this £6.99 model on Amazon: www.snipca.com/37912).

Plug this cable into your Fire stick, then connect the USB drive and specify that you want to use it as ‘Device storage’. If you don’t see this prompt, you’ll need to format the drive by going to Settings, My Fire TV, USB Drive and selecting ‘Format to Internal Storage’. Once the USB stick is formatted, you can move apps to it from your TV Stick. Go to Applications, Manage Installed Applications, select an app and choose ‘Move to USB storage’. Note, however, that some apps can’t be moved.



Check your Fire TV Stick’s storage and you may be surprised by how little free space you have after the system software has been calculated

Fix problems with streaming quality

If the videos you stream keep **buffering** or pixelating, or apps are slow to respond, there are a few fixes you can attempt. First, try rebooting your Fire TV Stick by going to Settings, My Fire TV, then Restart. Clear the **caches** of problematic apps, as described in the previous section, before restarting.

You should also check that the problem isn’t being caused by slow Wi-Fi. Go to Settings, Network, then highlight the Wi-Fi network you’re connected to and check the ‘Signal strength’ on the right. Ideally, this should say ‘Very good’, but if the signal is weak, consider moving your router or changing your Wi-Fi channel

(see our Cover Feature in Issue 595). It’s also worth reducing your video quality to see whether that improves streaming. Select ‘Preferences’ on the Settings screen then choose Data Monitoring, Set Video Quality. Switch from the default setting of Best to the Good or Better options, which use less data by streaming video at a lower resolution.

Mirror your phone, tablet and PC screens

Whether you want to read documents, browse the web or view photos, duplicating the content of your phone, tablet or PC on your TV’s much larger

5 essential free apps for your Fire TV Stick

Amazon Silk

www.snipca.com/37917
Amazon’s web browser makes it easy to access your favourite websites on your Fire TV Stick. You can bookmark pages, save passwords and even switch to private mode to stop your browsing activities being stored.

VLC for Fire

www.snipca.com/37918
Everyone’s favourite desktop media player is available for Fire TV, letting you play audio and video files you have stored on the device or stream over a network. See our ‘How To...’ in Issue 600 for more details.

NASA

www.snipca.com/37919
Nasa’s official Fire TV app (pictured



above) lets you explore stunning photos and videos of space, and Earth from above. You can also tune into NASA TV for information about past, present and future missions.

Speed Test WiFi Analyzer

www.snipca.com/37921
This excellent app (pictured above right) tests your Wi-Fi network’s upload and download speeds and displays the results on your TV, showing you if your connection

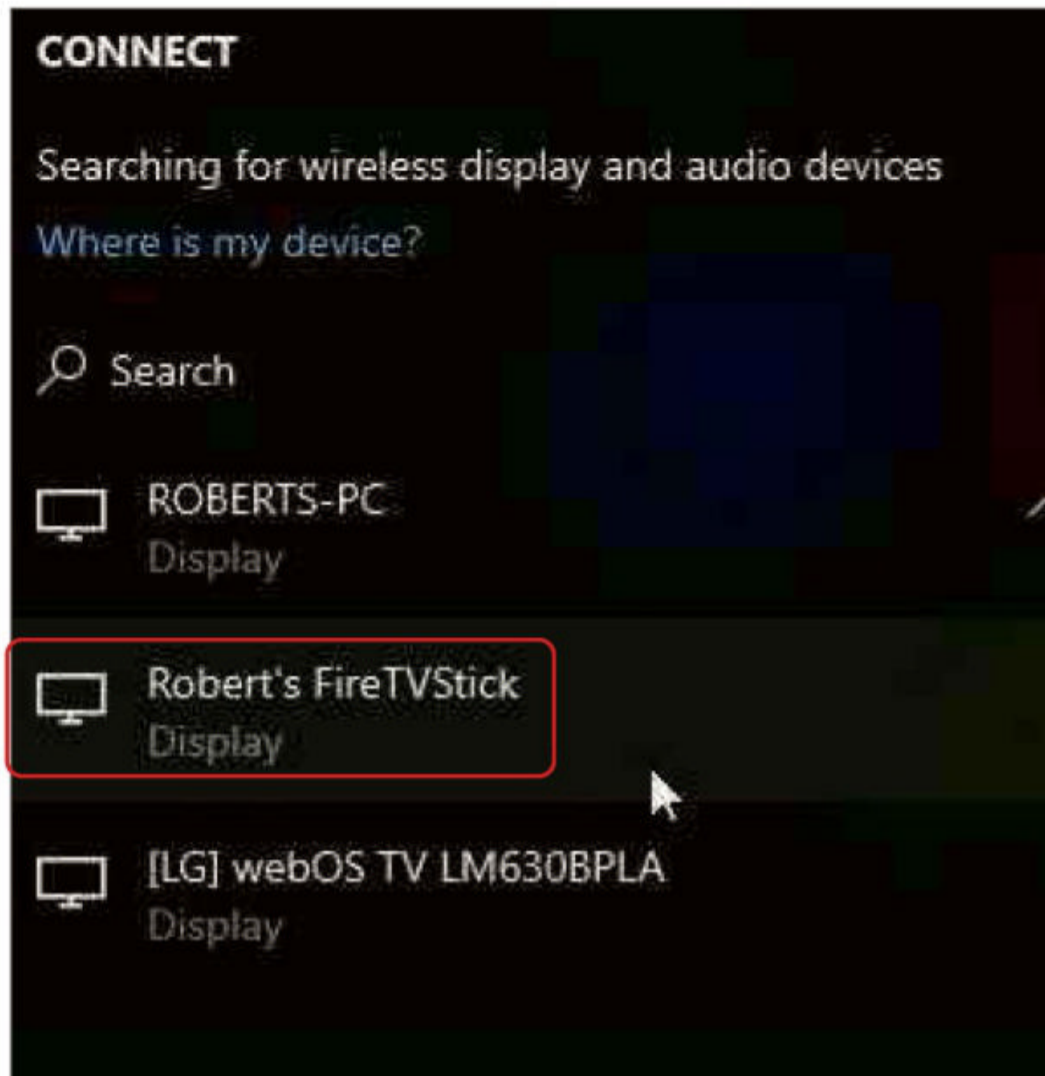


is fast enough for different streaming resolutions.

EarthCamTV

www.snipca.com/37920
Take a virtual trip around the world via this 24-hour global webcam network. The high-quality streams look great on the big screen, with a wide selection of free cams and more available with an All Access Pass.

Your Fire TV Stick lets you mirror the screen of your PC, phone or tablet on your TV



screen can come in very handy, and the Fire TV Stick makes **mirroring** your device very simple. You may not even need to install dedicated software: simply long-press the Home button on your remote, select Mirroring and your stick will load its Display Mirroring screen.

On your Android phone or tablet (it doesn't work on iOS), swipe down to open the Quick Settings panel, then choose Cast, 'Screen cast', MirrorShare (or a similar option) to detect and connect to your Fire TV Stick. On a Windows 10 PC that's on the same Wi-Fi network, open the Action Centre by clicking the notifications icon in the bottom-right corner, choose Connect then select FireTVStick to mirror your screen (see screenshot above).

If this doesn't work, or you're using an iPhone or iPad, search the Amazon Appstore for a free app called AirScreen (www.snipca.com/37913). Install and open this tool, then follow the instructions to mirror your device's screen on your Fire TV Stick. AirScreen walks you through several options, including using AirPlay on your iOS device.

Create a custom screensaver

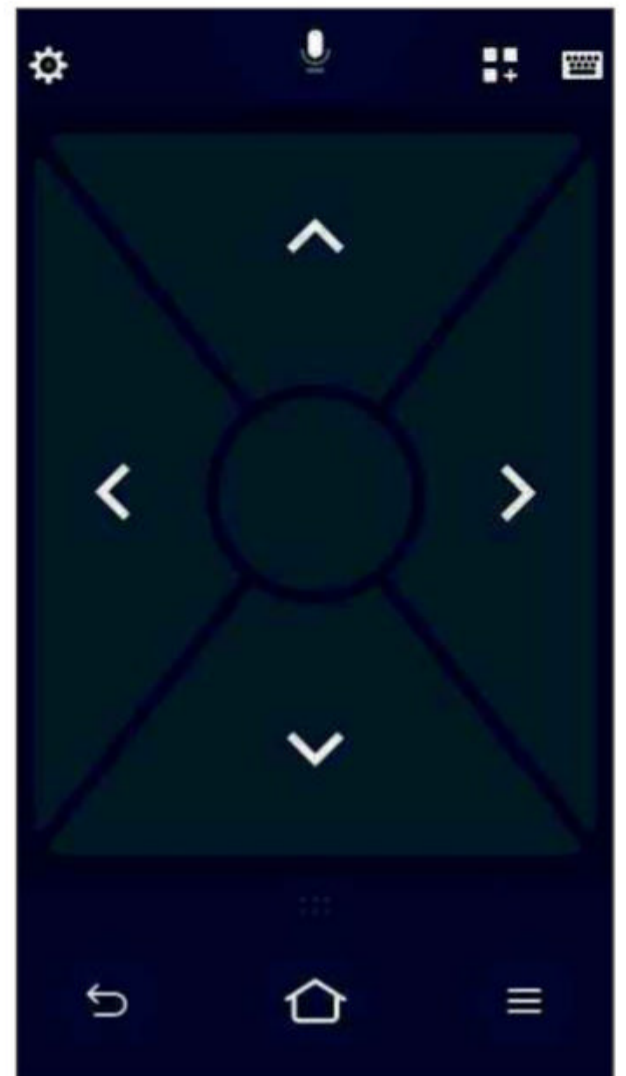
Your Fire TV Stick automatically displays a screensaver after five minutes of inactivity, using stock photos from the Amazon Collection. You can customise your screensaver by going to Settings, 'Display & Sound', Screen Saver, and changing how long it takes to appear,

whether it includes the date and time, captions and 'Alexa hints', as well as the speed and style of the slides. Best of all, you can show your own pictures that you've uploaded to Amazon Photos (see our 'Switch from Google Photos' feature on page 62). Choose 'Current Screensaver', then select Your Photos to cycle through all the images in your library, or choose Recent Photos or a specific album.

Hack your Fire Stick remote control

One of our favourite Fire TV Stick tricks tells you if your remote control's batteries need replacing. Go to Settings, 'Remotes & Bluetooth Devices', Amazon Fire TV Remotes, then check the Battery info on the right to see the current strength. If you've lost or broken your remote control, or you don't like using the on-screen keyboard, you can use your phone or tablet to control your Stick instead.

Install the free Amazon TV Remote app for Android (www.snipca.com/37914) or iOS (www.snipca.com/37915, pictured above right), then connect to your Fire TV Stick and enter the four-digit code to confirm. You can now use the app to navigate menus, open apps, control playback, issue Alexa commands and type search queries and login details much more easily. Other streaming sticks, including the 'Chromecast with Google TV' and Roku devices, also offer app-based remotes with this benefit.



Use the Amazon TV Remote app to control your stick from your phone or tablet

Turn off annoying auto-playing videos

One of the most common complaints about the Fire TV Stick is that it plays previews of TV shows and films as you browse your home screen or hover over the main picture at the top. These auto-playing videos are accompanied by loud audio, and some promote content on services you don't even use, so they're essentially adverts.

Fortunately, it's easy to banish this nuisance. Go to Settings, Preferences, then Featured Content and switch off the Allow Video Autoplay and Allow Audio Autoplay options. You'll now see only static, silent images on your home screen. You can also prevent Amazon from displaying adverts based on your viewing activity. Choose 'Privacy Settings' in the Preferences section and set Interest-based Ads to Off.

Equally annoying are the app notifications that pop up to tell you when updates are available or that a certain app is running. Disable these by choosing Notification Settings in Preferences and selecting Do Not Interrupt. You can check notifications manually by going to Settings, then Notifications.

Finally, if you hate the constant clicking of the Fire TV remote control, go to 'Display & Audio', then Audio and switch off Navigation Sounds.

READER OFFER!

**80%
OFF!**

Bitdefender Family Pack 2021

In this exceptional new offer, you can buy Bitdefender's Family Pack 2021 for just £29.99 (full price £149.99). It will protect **15 devices** for **two years**!

WHAT YOU GET

- ✓ Total malware protection
- ✓ Advanced parental controls
- ✓ Secure VPN
- ✓ English-speaking support 24/7

PLUS Full webcam protection



Bitdefender Family Pack 2021 works on PCs, Macs, iOS and Android, so it will keep all your family members safe no matter which device they use

15 devices for two years NOW ONLY £29.99*
Normally £149.99

Buy it from our Software Store at www.snipca.com/37338

*while stocks last



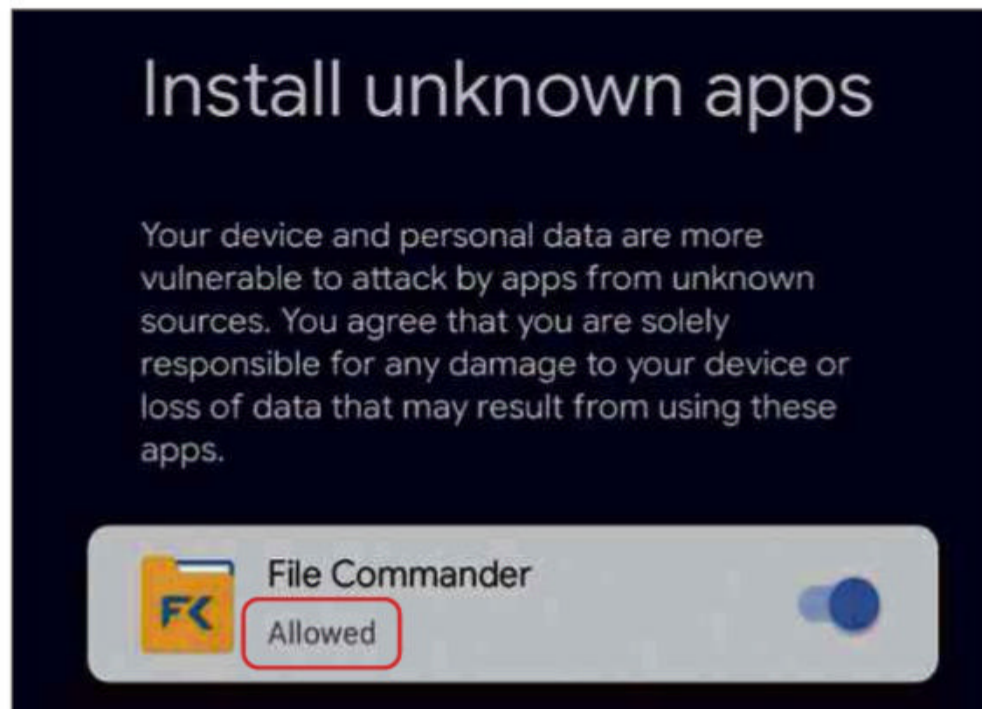
HACK YOUR 'CHROMECAST WITH GOOGLE TV'

Sideload apps that Google TV doesn't offer

The Apps section in Google TV lets you install apps and games from the Play Store that are specifically designed for streaming devices. If you find its selection too limited, you can sideload apps that your Chromecast doesn't officially support, with the usual proviso that you should only do so from trusted sources, such as APK Mirror (www.apkmirror.com). The tricky part involves getting the APK installation files on to your device.

On your computer, phone or tablet, download an APK file from APK Mirror, then upload it to Google Drive. On your Chromecast, search for and install the file-manager app File Commander (www.snipca.com/37935), or just ask Google to "find File Commander". Open the app, select Add Cloud from the menu and choose Google Drive, then grant File Commander access to your account (this is safe to do).

Next, long-press the Home button on your Chromecast remote control and choose Settings, System, then About. Scroll down to 'Android TV OS build' and select it seven times to unlock developer options. Go back to the Settings menu, choose Apps, 'Security and restrictions', then 'Unknown sources' and set File



Set File Commander to Allowed so it can sideload apps on to your Chromecast

Commander to Allowed (see screenshot above).

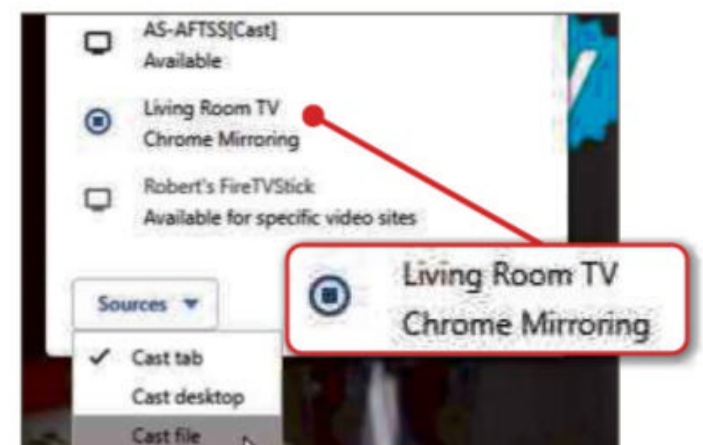
Finally, go back into File Commander, open Google Drive and browse the My Drive folder for the APK file. Select it to install the app on your Chromecast. Note that not all apps and games will work with Google TV.

Stream content from your PC and mobile device

Chromecast makes it very easy to mirror your computer's screen on your TV by **casting** content from Chrome (the clue is

in the name). When using Chrome on your computer, click the three-dot button in the top-right corner, then choose Cast and select the name of your Chromecast (ours is called 'Living Room TV' – see screenshot below). Click the Sources menu to specify whether to cast the currently displayed browser tab or your entire desktop, or choose 'Cast file' to stream videos stored on your PC. To stop streaming, click the Cast button on your toolbar, then your Chromecast in the list.

On an Android phone or tablet, you should see a Cast, 'Screen cast' or similar option in the Quick Settings panel that swipes down from the top of your screen. However, the best way to stream mobile content to your Chromecast is to cast it directly from compatible apps, by tapping the Cast button in the top-right corner. Because the new 'Chromecast with Google TV' comes with many popular apps pre-installed, and lets you install plenty more, you shouldn't need to do this too often. But it's a useful way to watch content on services that the device doesn't yet support, including All 4, Now (TV) and BritBox.



Select the name of your Chromecast to stream web pages and videos from Chrome to your TV screen

5 essential free apps for your Chromecast

Downloader by AFTVnews

www.snipca.com/37940

This Google TV app is trickier to use than its Amazon equivalent (see page 51) as you need to install a separate browser **plug-in**, but it's still a great way to download the APK installation files for apps.

Plex

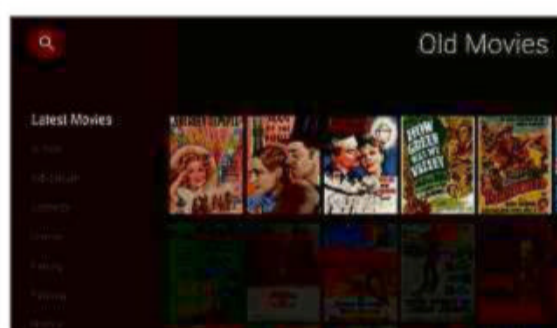
www.snipca.com/37941

The brilliant Plex app lets you stream thousands of films, TV shows and podcasts, as well as your own media files from other services. Most of the content is free.

Send Files to TV

www.snipca.com/37944

Install this on both your Android device and your Chromecast, and you'll be able to share files between the two over your Wi-Fi network. Just choose Send on your device or Chromecast and select a file.



Old Movies

www.snipca.com/37948

Watch free movies (hosted on YouTube) from the classic Hollywood era on this app (pictured). Recent additions include *Bringing Up Baby* and Alfred Hitchcock's *Notorious*.

JustWatch

www.snipca.com/37943

JustWatch helps you find TV series and films to buy and watch for free across the main streaming services. Search by title and actor, and create a list to view later.

View your own photos in your screensaver

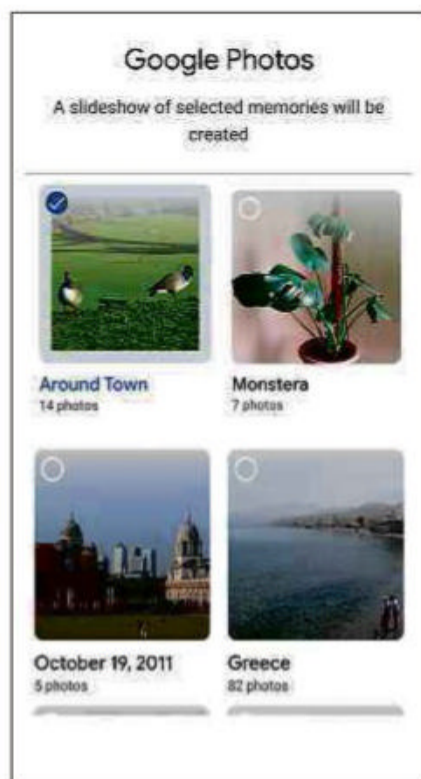
The 'Chromecast with Google TV' lets you customise its screensaver to display your own pictures from Google Photos. To decide which images appear in the screensaver (or 'Ambient mode' as Google calls it), open the Google Home app on your phone or tablet, select your Chromecast, press the three-dot menu button and choose 'Ambient mode settings'. Tap the Google Photos option and select the albums you want to include in your screensaver (see screenshot right). You can also include information about your pictures, such as their name, date and location, and display the current time and weather.

To stop showing pictures from Google Photos, switch back to the default option of 'Art gallery'. This features images and artwork from sources including Getty Images, Nasa and Google Arts & Culture.

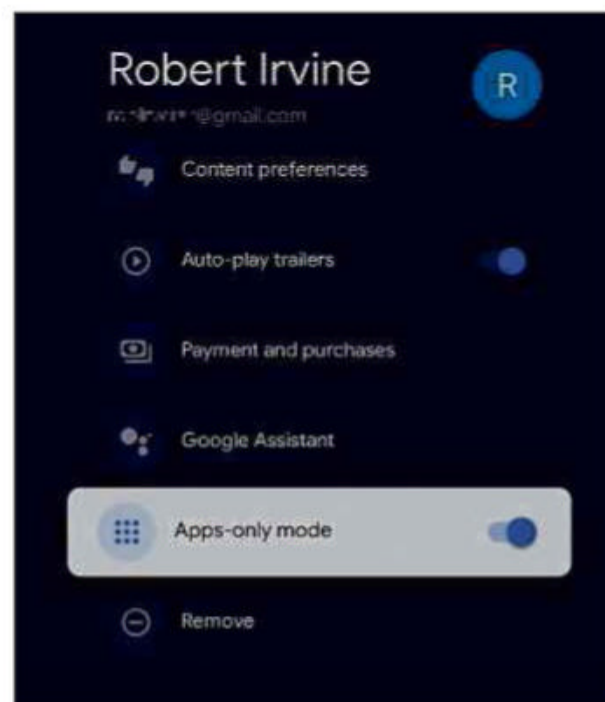
Declutter your Google TV homescreen

The home screen of your 'Chromecast with Google TV' is dominated by recommendations for what you should

Choose which Google Photos albums to include in your Chromecast screensaver



watch next. These include new TV shows and films on services you use, 'top picks' based on your viewing history and watch list, and content that's currently popular with other users. You can remove all this clutter to make the screen focus on your favourite apps by switching to 'Apps-only mode'. Go to Settings, then 'Accounts & Sign-in', select your account and turn on 'Apps-only mode' (see



Turn on 'Apps-only' mode to remove recommendations from your home screen

screenshot above). Note that search and Google Assistant are disabled in this mode.

One alternative is to keep recommendations but make them more relevant. Choose 'Content preferences', and rate each of Google's suggestions as 'Less like this' or 'More like this'. You may also want to disable annoying video previews by turning off 'Auto-play trailers'.



HACK YOUR ROKU STREAMING STICK+

Mirror the screen of your PC and mobile device

Like other streaming sticks, Roku lets you mirror the screen of your PC, phone or tablet on your TV screen. This is useful for viewing content on apps that Roku doesn't support, such as Kodi.

On a Windows 10 PC, click the notifications icon in the bottom-right corner, choose Connect and select your Roku streaming stick, then on your TV choose Allow or Always Allow. On your Android device, swipe down from the top of the screen and choose Cast, 'Screen cast' or similar option. On an iPhone or iPad, open the Control Centre, choose Screen Mirroring and enter the code that's shown on your TV screen to connect to your Roku stick (see screenshot below



Roku lets you mirror videos that you play on your mobile device on your TV screen

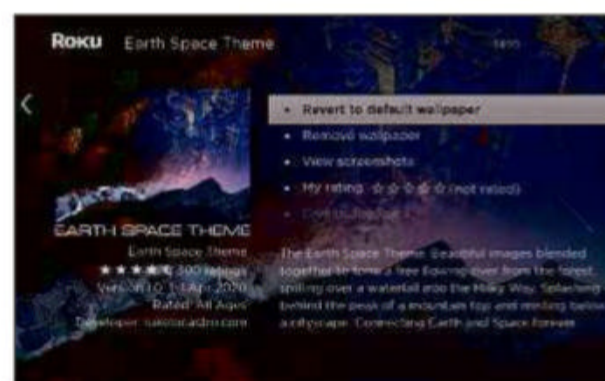
left). You can connect devices instantly without being asked for permission by going to Settings, System, then 'Screen mirroring' and choosing 'Always allow'.

Roku also lets you cast content from compatible mobile apps to your streaming stick. Just look for the Cast icon in the top-right corner of the app (the same one used by Chromecast).

Change your Roku theme and screensaver

Unlike Amazon and Google streaming sticks, Roku devices can't be jailbroken to sideload apps, but you can do more to alter their appearance. You can change the interface from its default purple by going to Settings, Theme, then Wallpapers and choosing from dozens of appealing options, including Earth Space Theme (pictured above right), Panda Wonderland and Fish Fun. Choose 'Get wallpaper', then 'Set as wallpaper' to apply the theme.

Similarly, you can change your Roku stick's screensaver by selecting Screensavers and exploring hundreds of options. Choose 'Screensaver wait time' to change how long your device must be idle before the slideshow starts, or



Earth Space Theme is one of dozens you can add to your Roku stick

'Restore default theme' to undo all customisation.

On some Roku devices, you can use your own photos as your screensaver. Open the Roku app on your phone or tablet and choose Media, Screensaver, Get Started, then select the images you want to use. If you don't see the Screensaver option, install the Roku channel 'PhotoView for Google Photos' (www.snipca.com/37951) to display a screensaver of your pictures from that service.

Unlock private channels on your Roku stick

Roku's Channel Store offers more than 3,000 'channels' (Roku's name for apps)

5 of the best free Roku TV channels

The Roku Channel

www.snipca.com/37955

Roku's own app is a great source of free films and TV shows, including documentaries, classic Westerns and series that were originally broadcast on Sky and Channel 4.

Pluto TV

www.snipca.com/37959

Unlike most streaming services, Pluto TV is completely free (though with adverts), with no need to sign up. You can browse and watch more than 100 live channels, including several devoted to films.

The United Kingdom Channel

www.snipca.com/37958

Explore the UK's best tourist attractions without the queues or Covid restrictions. Videos include a tour of Edinburgh Castle, a walk across Tower Bridge and Maypole dancing!

TWiT

www.snipca.com/37960

Stay informed of the latest tech news, reviews and advice by streaming the TWiT (The Week in Technology) channel. It gathers all the podcasts and videos from the TWiT network in one place.

The Train Channel

www.snipca.com/37957

Experience some of the world's most stunning rail journeys, and watch clips of historical locomotives and previews of future trains (pictured).



to add to your streaming stick, but if that isn't enough for you, further content is available through private channels. Because these services haven't yet been certified by Roku, they aren't listed in its store, and can't be installed directly on your device. However, Roku does support them, provided they don't stream copyrighted content – see its help page at www.snipca.com/37953.

To add a hidden channel to your Roku stick, you'll need to enter its special access code in your Roku account, through your PC or mobile browser. The easiest way to do this is through the online directory Roku Guide (www.rokuguide.com), which helpfully lists and reviews private channels and tells you whether they're free or require a subscription. Click (or tap) the 'Add Channel - [code]' button at the top of a channel page, then sign into your Roku account and choose 'Add channel'. Click OK to confirm you've read Roku's warning about non-certified channels, then click 'Yes, add channel'.

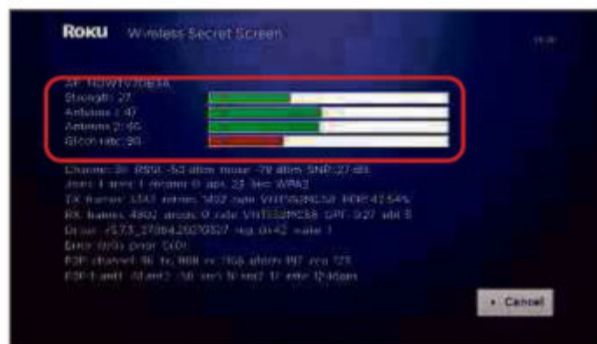
Private channels can take up to 24 hours to appear on the home screen of your Roku stick, but if you can't wait that long, go to Settings, System, System Update, then Check Now.

Fix buffering problems using secret tweaks

If you're experiencing buffering when watching content on Roku, try two secret tweaks to diagnose and fix your streaming problems.

The first lets you check the strength of the Wi-Fi signal to your device. On the Roku remote control, press the Home button five times, then Up, Down, Up, Down, Up. This unlocks the Wireless Secret Screen, which shows your current Wi-Fi strength, including the signal from each antenna (see screenshot below), so you can adjust your router accordingly.

The second tweak prevents the streaming quality from being too high for your available **bandwidth**. Press the Home button five times, then Rewind



Unlock Roku's Wireless Secret Screen to discover if weak Wi-Fi is causing buffering

three times and Fast Forward twice, to unlock the Bit Rate Override screen. Choose 'Manual selection' and try lowering the stream rate to see if that stops videos buffering. If not, change back to Automatic.

Stream Roku content quietly and privately

Roku lets you adjust the sound when watching TV and films at night, so sudden loud moments won't make you jump or disturb your family or neighbours. Press the asterisk key (*) on your remote control while streaming a channel then select 'Volume mode' in the Options menu. Either choose Leveling (to smooth out the high and low sounds) or Night (to set a maximum threshold for loud moments).

Even better is Roku's Private Listening mode, so that nobody can hear what you're streaming (or you don't hear them). Open the Roku app on your phone or tablet, plug in your headphones, then tap Remote and press the headphones button. This activates Private Listening so that audio streams directly to your ears, rather playing through your TV. It can be used on four devices simultaneously. **ca**

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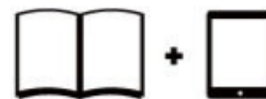
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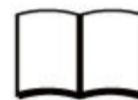
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Don't buy the wrong type of monitor



With so much to consider when buying a monitor – from screen size to resolution to type of panel – it's easy to end up with one that doesn't suit your needs. **Nik Rawlinson** explains how to avoid this mistake

Decide what you want to use your monitor for

The most important thing you need to decide is whether you'll be using the monitor for a specific task – such as gaming or editing videos – or for everyday computing. This decision will determine how much you'll need to spend.

Gaming, for instance, is an expensive pastime. You'll need a monitor with a high **refresh rate** to make games play more smoothly and increase your chance of beating competitors. So if you have £529 to spare, consider the 27in Samsung Odyssey G7 (www.snipca.com/37990) which refreshes at 240Hz (that's 240

times every second). It's a 27in curved panel that very slightly wraps around you so you can still see the pixels on the extreme left and right edge from face on.

If you're more interested in serious (possibly professional) photo and video editing, look for a monitor that prioritises colour management, like the 27in Eizo FlexScan EV2795 (pictured right). Again, it's not cheap – you'll need to find £800 (www.snipca.com/37999) – but colour accuracy is exceptional.

However, if you only want to browse the web, send emails and work on documents, while editing just the occasional photo or video, you won't need to spend anywhere near as much. Colour accuracy and refresh rates remain important, but as we'll explain you should pay more attention to the resolution and size.

Choose your size

Is bigger better? Not always. For one thing, if you're sitting close to your screen, you won't be able to see the largest displays from edge to edge without moving your head. This can be annoying when watching films. Moreover, you'll spend more time arranging windows, in which much of the working space may be wasted. Documents made to fit the screen's width can become difficult to manage, while web pages will often be bordered left and right by acres of empty pixels. Also, if your PC is starting to show its age, it may struggle to render so many dots, leading to jerkiness or dropped frames.



At £800 the Eizo FlexScan EV2795 is pricey, but its colours make photos and videos look outstanding

There *are* valid reasons to buy a 32in screen, but unless you're designing flyers or magazines, or lining up documents and web pages in adjacent windows so you can write while you research, you're better off with a monitor between 24 to 27 inches. If you're using a laptop, you might even consider buying something smaller, to run as a second screen (we'll come on to this in a moment).

Our top choice since Issue 581 has been the 27in BenQ GL2780 (see page 32, £160 from www.snipca.com/34834), which has great contrast (ideal for watching TV), while the impressive colour accuracy helps you edit photos and videos.

A little cheaper (£143 from www.snipca.com/38022) and smaller (at 24 inches) is the fantastic AOC 24BXH2 (pictured above right). It's a no-frills monitor that delivers brilliantly on what matters most – good picture quality. Another plus point – if you're not a gamer at least – is that it uses **IPS** panel technology, not **TN** (see box left for more details on the difference). You'll even find decent monitors for around £100, such as the 24in Dell SE2416H (www.snipca.com/37961) and the 21.5in BenQ GW2280 (www.snipca.com/38025).

TN or IPS panel?

The earliest **LCD** monitors used twisted nematic (TN) technology, where the degree to which the crystals within the panel were twisted either blocked light or let it pass. TN monitors are relatively cheap, but colours can be less accurate across wider viewing angles, making it less suitable for tasks like photo editing.

The alternative to TN is in-plane switching (IPS), developed in the 1990s to increase viewing angles before colours started to stray. This makes IPS monitors better for editing videos and more general use. However, IPS refreshes more slowly than TN, making the latter the preferred choice for some gamers.



AOC's 24BXH2 is a no-frills monitor that has superb picture quality

Choose your resolution

If you've bought a phone or tablet in the past few years, you'll know that the pixels on its screen are so small and tightly clustered that it's impossible to distinguish them. Manufacturers squeeze in around 300 pixels per inch (ppi), both vertically and horizontally, so you can't discern individual pixels from 12 inches away.

You should be sitting further than that from your monitor, in which case a lower pixel density will suffice. The screen on Microsoft's Surface Book 3 laptop, for example, achieves a similar result at between 220 and 267ppi, but even that is higher than is absolutely required. In reality, you should be able to get away with around 100ppi – and slightly lower – without the pixels becoming too noticeable.

This means that were you to buy a 4K monitor (3840x2160 pixels), you'd find it hard to spot the individual dots on even a 32in screen because the density would be around 137ppi. Check our reference table below, where we've calculated indicative densities for a range of common resolutions and physical monitor sizes.

4 more things to consider

Display inputs

Most monitors have **HDMI**, while others still use **VGA** and **DVI-D**. Pricier models might even have **DisplayPort**.

Adjustable stand

It's not uncommon to find a £150 monitor with tilt and height adjustment; those that swivel and rotate are rarer.

Fewer bezels

Some monitors now have only three edges (or bezels), making them take up less space on your desk.

Built-in USB hubs and speakers

The former are useful, but the latter are almost always terrible. Buy a cheap pair of dedicated PC speakers instead.

You can also convert resolution to ppi using this online calculator: www.snipca.com/38027.

Check which resolution your PC can handle

Once you've balanced screen size and pixel density, you need to check that your computer – and its **graphics card** – can actually provide sufficient pixels. If it can't, you'll probably suffer one of two irritants. The first would be an annoying border on all four sides, constantly reminding you that you could have saved space and money by buying something smaller. Second, what you see on screen will be softer because lower-resolution images will be stretched to reach all available pixels.

To check what your computer can handle, press Windows key+I to open Settings, then click System followed by Display on the left. In the middle, open the 'Display resolution' dropdown menu and make a note of the maximum possible resolution in the list (it's 1920x1080 on our computer – see screenshot above right). Look for monitors with the same

Open Windows Settings to check the maximum resolution your graphics card can handle

or a slightly lower resolution to ensure that every pixel is used faithfully to produce the best possible image.

Decide whether you want to use two monitors

Whether you'd benefit from two monitors depends on how you like to work. If the two screens are positioned directly ahead, side by side, you'll forever be looking left or right, which can lead to neck ache. However, it can be handy to use one as your main screen, positioned directly in front of you, and another to the side as a place to move reference material.

If you use a laptop rather than a desktop PC, you already have one screen. Adding a second, and using the two in sync, means you could buy a slightly smaller external display like the BenQ GW2280 mentioned on page 60 and still benefit from a higher combined resolution than many desktop PC users would have with a single large monitor on their desk.

If you decide to connect an external monitor to your laptop, or have a graphics card that can host two screens on your PC, open Settings and click Display (as described in the previous tip). Scroll down to 'Multiple displays' and switch from 'Duplicate these displays' to 'Extend these displays'.

Each monitor will now be able to host its own program windows, which you can drag between them. To make this easier, scroll to the top of the screen and drag the two monitor outlines in the 'Rearrange your displays' panel until they're in similar positions, relative to one another, as the screens on your desk. **ca**

Pixel densities at common resolutions

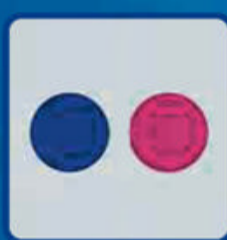
The higher the pixel density of your monitor, the less likely it is that you'll spot the dots that make up the image. As a rule, higher densities are more expensive.

	21in	24in	27in	32in	40in
1920 x 1080 (FHD)	104ppi	91ppi	81ppi	69ppi	55ppi
2560 x 1440 (QHD)	139ppi	122ppi	108ppi	91ppi	73ppi
3840 x 2160 (4K)	209ppi	183ppi	163ppi	137ppi	110ppi
5120 x 2880 (5K)	265ppi	231ppi	205ppi	173ppi	139ppi
7680 x 4320 (8K)	419ppi	367ppi	326ppi	275ppi	220ppi

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Switch from Google Photos

Don't risk losing your precious snaps when Google Photos changes its storage rules next month. **Robert Irvine** reveals the best alternative services and how to make that switch



On 1 June, Google Photos will stop offering unlimited free storage to its millions of users. Instead, every photo and video you upload to the service from your PC, phone or tablet will count towards the 15GB of storage that comes with every Google account, which is shared across Gmail, Google Drive and Photos.

Google is making this change to encourage us to pay for a Google One subscription, which costs from £1.59 per month for 100GB of extra storage. If you're a heavy Photos user, this means you could soon run out of space, even if your pictures are stored at 'High quality' (which previously didn't count towards the storage limit) rather than 'Original quality'. When that happens Google will start deleting your excess content.

To help you preserve your precious images before time runs out, we've rounded up the best free alternatives to Google Photos and provided step-by-step instructions for downloading your photos, so you can transfer them to another service before it's too late.

The best alternatives to Google Photos

Although there isn't a direct equivalent to Google Photos, which offers unlimited free storage to all users – for a few more weeks at least, there are several close contenders. Here we rank our top three alternative services.

GOLD

Amazon Photos

www.snipca.com/37906

What we like

Amazon Photos (see screenshot below) offers many of the same features as Google Photos, including online storage of full-resolution photos and videos, automatic syncing and backup across your PC, laptop, phone and tablet, as well as options for sharing pictures and organising them into albums. It also tags photos based on their location and subject (including people's faces), which makes them easy to find, and provides editing tools such as filters, cropping and brightness and contrast adjustment.

What we don't like

If you're an Amazon Prime subscriber, the service gives you unlimited free photo storage and 5GB for videos, but non-members get only 5GB for everything. Extra storage costs from £1.49 per month for 100GB, which is only 10p less than Google's new charge. Also, if you cancel

your Prime membership, you'll lose access to any content that exceeds the 5GB allowance, and it will eventually be deleted.

SILVER

Degoo

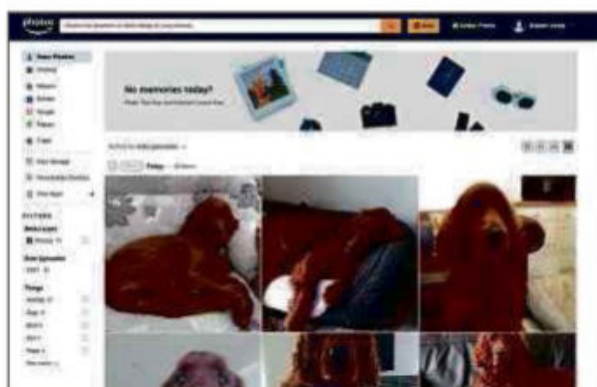
<https://degoo.com>

What we like

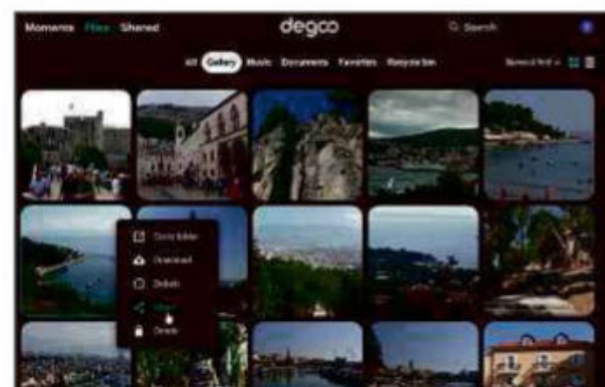
Degoo's free plan gives you a generous 100GB of encrypted online storage for your photos (and lets you earn more by referring friends), which you can upload from your PC or via its Android and iOS apps. Your images are stored at their original resolution in a simple gallery (see screenshot below) that makes it easy to share, comment on and download them. Degoo also offers an impressive range of tools for editing and enhancing your pictures, applying overlays and filters, adding text and frames, and more.

What we don't like

If you want to use Degoo on more than three devices, remove adverts and prevent your account being deleted after



Amazon Photos is the closest equivalent to Google Photos, especially for Prime members



Degoo gives you 100GB of free storage and makes it easy to share your photos

90 days of inactivity, you'll need to pay £1.89 per month for its Pro plan (which also increases storage to 500GB). Unlike Google and Amazon Photos, Degoo doesn't identify picture content or location of your shots to speed up searches, but you can add photo descriptions.

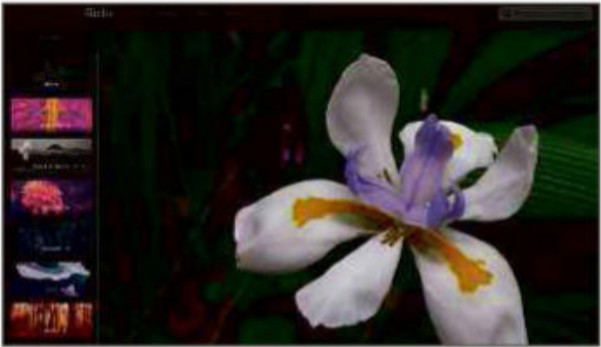
BRONZE

Flickr

www.flickr.com

What we like

Flickr (see screenshot below) lost thousands of users in 2019 when it reduced its free storage limit from 1TB to 1,000 photos, but it's still a good option if you want to share high-quality images at their original resolution. If you need unlimited storage, you can upgrade to Flickr Pro (for £4.66 per month). Flickr's Photo Editor provides a small but sophisticated set of tools for perfecting your pictures, and its website



Flickr may not offer much free storage these days, but it's high on photo quality

Free up space in Google Photos

You can find out how much Google storage you have left by visiting www.snipca.com/37902. This page tells you the amount of gigabytes you're using across Google Photos, Drive and Gmail. If you're nearing your limit, scroll down to the 'Get your space back' section and click 'Free up account storage'. Here you can review large and discarded files that count towards your total and delete them.

Next month, Google plans to introduce a new free tool that will detect "blurry, dark

and other low-quality photos", so you can delete images that are wasting storage. In the meantime, you can reduce the size of pictures (if you're not concerned about preserving their original quality) by going into Photos' settings (www.snipca.com/37903) and selecting 'High quality'. Google will tell you how much space you'll reclaim. Make this change before 1 June and your existing 'High quality' photos won't count towards your storage limit.

and mobile app make it easy to organise your shots into albums and add info.

What we don't like

Aside from the measly free storage (and non-refundable paid-for plan), you need to tweak your privacy settings to stop your photos being visible to anyone on the web. Click your profile icon, choose Settings, 'Privacy & Permissions', then click Edit next to 'Who will be able to see' and change the default settings to 'Only you' or 'Your friends and family'.

Download your photos from Google Photos

To avoid Google deleting your photos

should you exceed your storage limit, you can download a backup copy of all your images (and videos). This can then be uploaded to another photo-storage service or copied to an external hard drive.

To download specific pictures at their original, non-optimised quality, click the three-dot menu in the top-right corner and choose 'Download original'. To save an entire album, select 'Download all' to export the album as a ZIP file. This method isn't ideal if you have lots of pictures stored in Google Photos, so it makes more sense to back up everything in one go using Google's Takeout service – see our Workshop below. **ca**

WORKSHOP Use Google Takeout to switch from Google Photos

1 Access Takeout by visiting <https://takeout.google.com> or from within Google Photos: click the Settings cog, then the arrow next to 'Export your data' and choose Backup. When Takeout opens, ensure that Google Photos is ticked in the Products list under 'Select data to include' **1**. By default, Takeout downloads all your Photos albums, but you can exclude any you don't want to save by clicking 'All photo albums included' **2** and unticking the boxes next to albums you don't want.

2 Click 'Next step' and choose how you want to receive your backup – the best option is as a download link via email, but you can also ask for your files to be added to OneDrive, Dropbox or Box. Select 'Export once' **1** to create a single backup, then choose the maximum file size for your download, from 2GB to 50GB **2**. Exports larger than the specified size will be split into multiple files. Leave the 'File type' set to '.zip' **3**, then click 'Create export' **4**.

3 Google Takeout will now create a backup of all your photos. If you change your mind, click 'Cancel export' **1**. Once complete, click the 'Download your files' button in the confirmation email, then sign into your Google account and click Download **2** to save the ZIP file to your hard drive. The backup will remain available for one week, but you can create a new export **3** if it expires.

4 Open the ZIP file and extract the Takeout folder. This may take a while if you have a lot of photos (also make sure you have enough hard-drive space). Open the Google Photos folder to browse your saved images. These are organised into sub-folders for different albums and years **1**, which makes them easy to upload to a new photo service. Alternatively, double-click the 'archive browser' HTML file **2** to explore the Photos folder's contents in your web browser.

Problems Solved

Our experts solve all your tech problems

PROBLEM OF THE FORTNIGHT

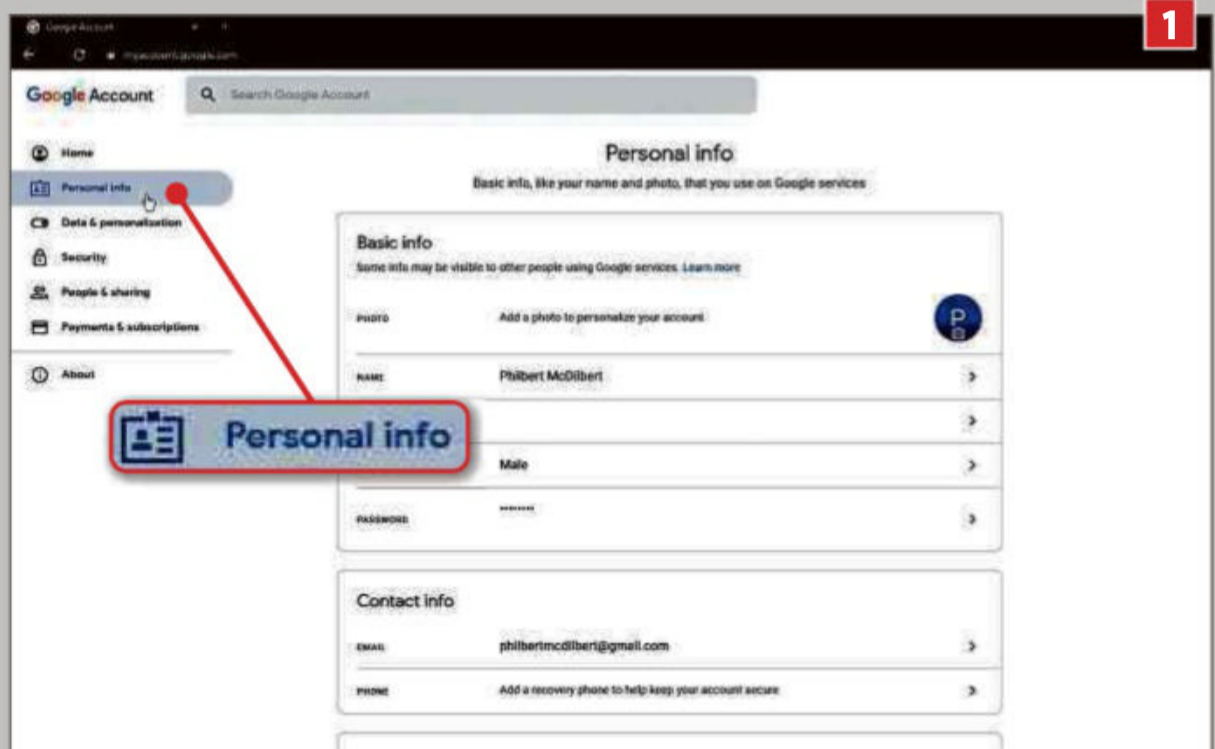
How do I change my digital identities?

Q Many thanks for keeping the *Computeractive* supply going over the last year – you obviously care about your readers. I wonder if you could give me a little guidance? I'm considering changing my name by deed poll. If I do this I'm aware I must then notify various authorities and financial institutions and so on. However, how does one go about effecting a change of name online? I'm mainly tied in with Google (happily!), but I wouldn't know how to go about advising the company that I have officially changed my name. What would happen to my existing Google and Gmail account that I've used for years? What would Amazon make of it?

Laura Turpitt

A There's no one-size-fits-all answer to this. Many online companies – Google and Amazon included – will let you change the name attached to the account simply by logging in, navigating to the relevant personal-details page and then providing the new name. With Google, for example, log in to your My Account page (at <https://myaccount.google.com>) and then, on the left, click Personal Info (see screenshot **1**). Next, on the right, click the Name field **2**. Finally, tap in your new forename(s) and surname and click Save **3**.

So far as Google is concerned, that's that – your name has changed.



You can change your name in your Google account by selecting 'Personal info' in My Account

However, in this particular case there is one major caveat, being that your Gmail email address remains the same. In other words, if you email someone from your Gmail account then the displayed name people see at the other end would be your new name, but the bit before @gmail.com would be the same as it was before.

There is literally no way around that, other than creating a new Google/Gmail account. However, you can add a new email address to your existing Gmail account, either from a new Google/Gmail account or from a different email provider. You can then add this new address to an alternative 'send from' address. You're then able to manually

select the 'from' address from which you'd like to send emails when composing a new message.

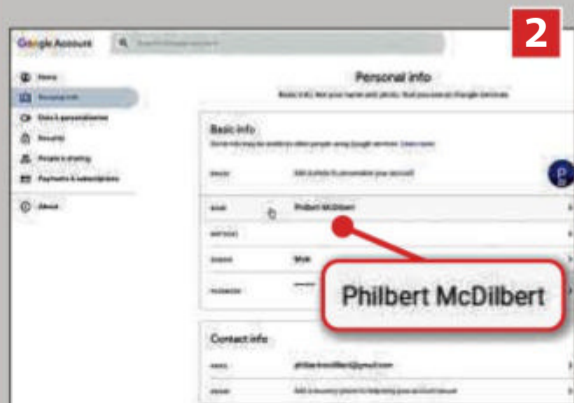
To do this, log into Gmail and then click the Settings cog at the top right, followed by the 'See all settings' button. Now click to select the 'Accounts and Import' tab and then, in the 'Send email as' section, click the 'Add another email address' link.

Next, tap in your name and the email address, before clicking Next Step followed by 'Send verification'.

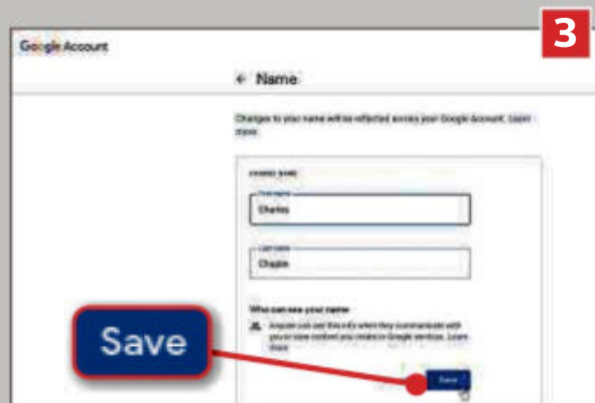
For some email addresses, you might be asked for the address of the SMTP server. This typically takes the form of smtp.gmail.com or smtp.outlook.com, for example – but if you're not sure, check with the email provider.

You'll now need to confirm the alternative email address by opening the verification email that's been sent to it by your Gmail account and clicking the link that it contains.

Finally, to make use of the alternative address when sending an email, compose your message as normal but, before clicking Send, click the From field at the top and then choose the relevant email address.



Click to select the Name field containing the name you're changing (Philbert McDilbert)...



...then type in your new first and last names in the 'Change Name' panel and click Save

Will a nano transceiver fix my loose mouse?

Q I don't get on with the trackpad on my Acer Aspire laptop, so I bought a USB mouse. It's very successful when it is working well, but it frequently loses its connection because the USB plug is very loose in the socket. I often have to waste a lot of time twiddling the plug in the socket and moving it from one socket to the other, before getting it to connect. I have found a wireless optical mouse I fancy, but this requires something called a USB nano transceiver. Presumably this must be plugged into the laptop, so using it might be merely transferring the problem from one device to another? I have no idea what nano stands for, incidentally. Is it an acronym?

Alan Beasley

A Manufacturing tolerances for USB sockets are incredibly small, so we'd say it's exceedingly unlikely that a laptop from a major manufacturer like Acer would have one port that would leave a USB plug loose –



The TeckNet wireless mouse with its nano transceiver

let alone more than one socket.

That leads us to conclude that the problem lies with the mouse. You didn't tell us the make or model but if it's a relatively cheap, unbranded device then this could explain the poor physical mating. You might be able to fix that with a strategically placed wedge of folded paper or cardboard. If that fails then, yes,

a replacement is likely to be the best idea. Nano is not an acronym, by the way.

Rather, it means a billionth of something – which is why it's widely used as a marketing term for something that is very small. A nano transceiver for a wireless mouse will indeed generally be very small: usually little bigger than a thumbnail (such as the pictured TeckNet model, www.snipca.com/37861). It's really nothing more than a tiny radio that communicates with the corresponding radio in the mouse.

Beyond that, though, it is just a USB plug, built to the same aforesaid manufacturing tolerances. So, if the problem with looseness really is down to your laptop – though we don't believe it is – then buying a wireless mouse and transceiver won't fix the problem. Rather, you'll just have a loose nano receiver.

If, on the other hand, you've just got a mouse with a dodgy plug then any replacement – wireless or otherwise – should fix the problem.

Why can't I get the October Update?

Q As a subscriber I'd like to thank you for the many interesting articles. I have tried to update to the Windows 10 October Update but find I cannot get to it. The version I'm stuck on is 20H2, installed way back in July 2020. I'm not offered an option to upgrade to the October Update. Any ideas?

Peter Hills

A Yes: your PC already has the October Update. In fact, it had it months before many others. Microsoft's codename for the October Update is '20H2'. It was officially released in October 2020 but those who signed up for the Windows Insider beta channel (at <https://insider.windows.com>) would have been able to get it months earlier. Evidently, that includes you.

So, you're seeking a solution to a problem you don't actually have. However, your confusion is



Anyone who is on the Windows Insider Program gets early access to Windows 10 updates

understandable, and caused by Microsoft's poor branding. In public, it refers to 20H2 as the 'October Update', but behind the scenes it's '20H2' – indicating the second half of 2020. That's also how Windows 10 itself displays it (which you can see by pressing Windows

key+R and typing **winver** before pressing Enter).

As of now, we're all awaiting 21H1. Given that you're on the beta channel you may already have it. If not, stand by because it's due around the time this issue hits the shelves.

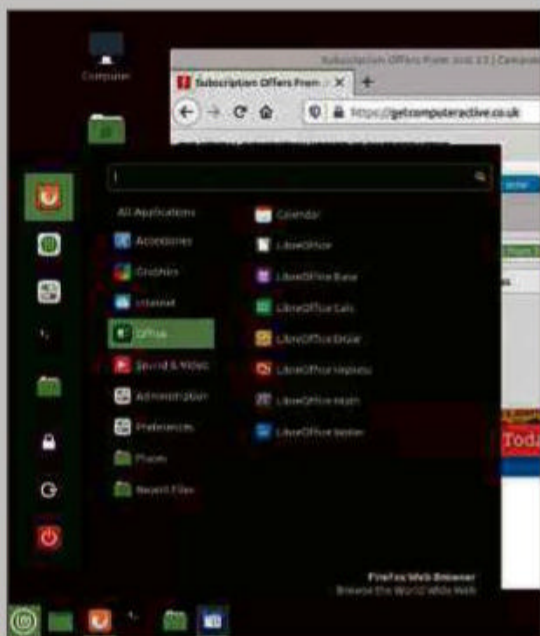
Can I update my Vista laptop?

Q I have an old Windows Vista laptop. Over the years you've said old laptops could have new operating systems installed. I took mine to a local computer shop, but they said it is too old for this. Is this correct or can a new operating system be installed? If so, which one?

Lee Morris

A We're not sure which laptop you have, so it's impossible for us to say with any certainty what it will or will not run. Nonetheless, if Vista is running okay then it's not completely unrealistic that your machine might run Windows 10. This demands a minimum 1GHz processor, 1GB of RAM (or 2GB for 64bit Windows 10) and 16GB of hard-drive space. However, Microsoft doesn't offer a free upgrade from Vista to 10, so you'd have to buy it – and we certainly wouldn't suggest doing that as a punt.

If you simply want to experiment with something different then we'd suggest Linux Mint, which is a free download from <https://linuxmint.com>. It has similar minimum requirements as Windows 10, and offers a similar visual experience (see screenshot below), but it's an adventure that won't cost you anything!



On a laptop running Vista, Linux Mint is a free system upgrade that's worth trying

Can you rid me of spam?

Q I get daily spam that I mark with the 'Block all future emails' and 'Delete all existing emails' options. However, the next day more appear. The problem is the email addresses change every day. They are composed of random letters and numbers, such as xyz@ixvgde7qz.com or zyx@ajnuueakp.com. Is there any way of stopping them once and for all?

David Tritton

A If we had the solution to your problem then we could be very wealthy, because this is an age-old frustration for which there is no simple fix.

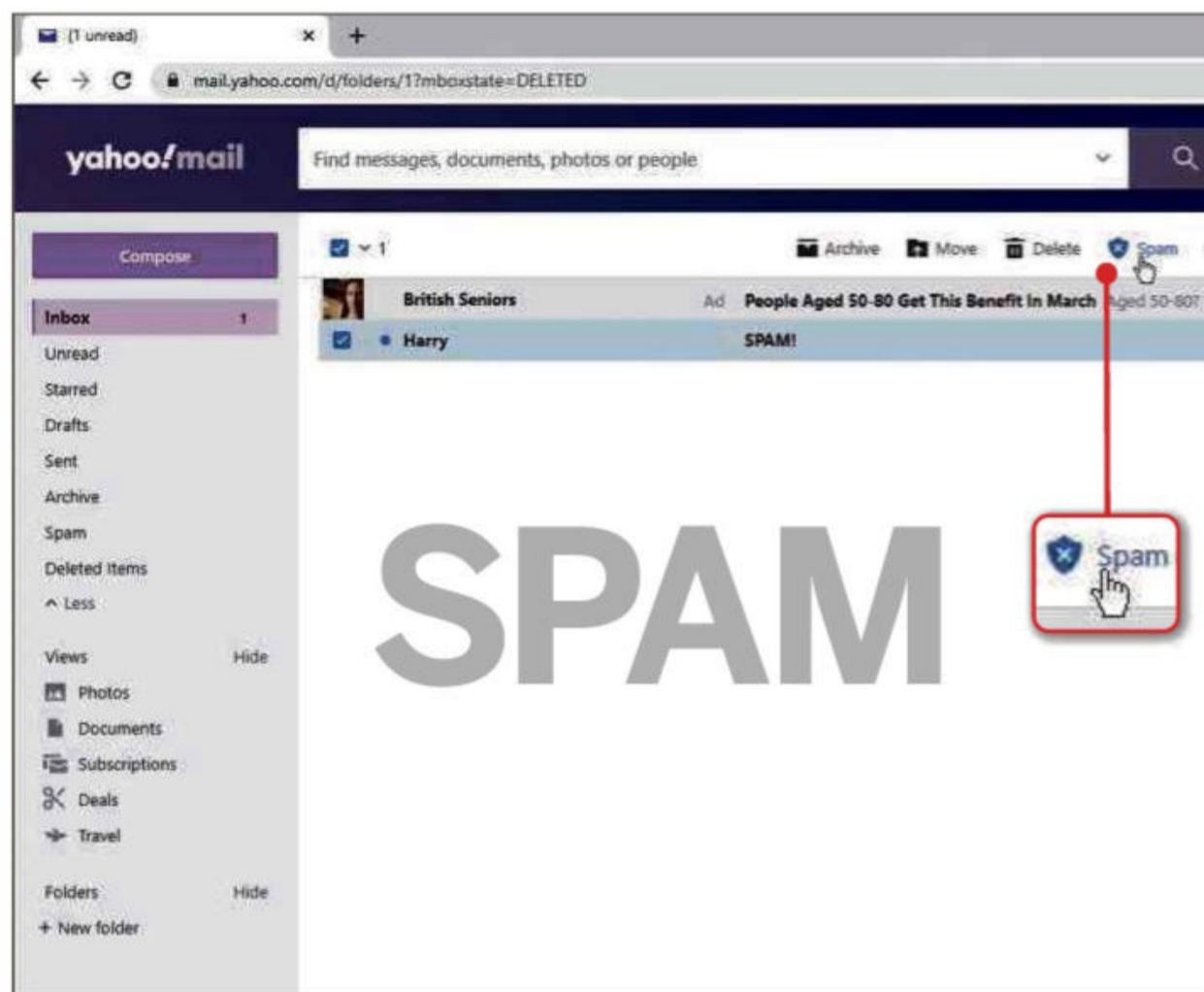
However, there's one thing you can do that is likely to reduce the flow of spam messages reaching your inbox.

You didn't explicitly say but we know

both from your email address and the particular options you've listed that you use Yahoo Mail.

Choosing the 'Block senders' option followed by the two subsequent options you mention obviously works for the selected message, but it's not actually a good way to deal with spam on Yahoo Mail. Rather, it's better to click the Spam button (see screenshot below). This has the effect of deleting the email instantly, and it also informs Yahoo that the message itself is junk – rather than merely a message from a sender you personally wish to block.

We're not pretending this is a magic wand that'll stop all your spam, but it helps Yahoo to learn which messages you consider spam, and thus similar ones are more likely to be blocked automatically in the future.



Click the Spam button to help Yahoo Mail learn which messages you want it to block

Q: Will an SSD save this old laptop?

A: Issue 588, page 64 – find it on our 2020 Back Issue CD

Buy it from www.snipca.com/37026

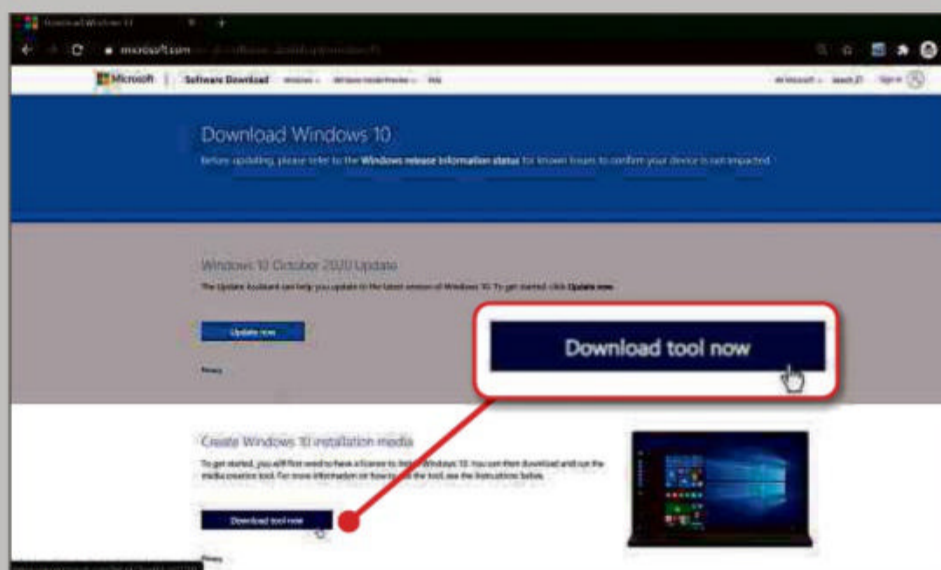


Will reinstalling in 64bit mode wipe my PC?

Q I'm using a desktop PC running **32bit** Windows 10. It runs slowly, so I'm looking to increase the **RAM**. I've run the Crucial system checker, which advises I can increase the RAM to 8GB **DDR2**. However, I'm concerned Windows 10 will not use 8GB, as I've read that the maximum RAM for a 32bit operating is 4GB. Apparently, to overcome this I'll have to reinstall Windows 10 in **64bit** mode, but I don't know if this is correct or even the best solution. I'm nervous because I've never wiped an operating system before. Can you advise me of the best solution?

George Wensley

A What you've read is correct: 32bit Windows 10 is unable to use more than 4GB, so upgrading to 8GB without also upgrading Windows 10 to 64bit would be pointless. More RAM is a great way to speed up a PC, so it is a worthwhile upgrade – but only if you go to 64bit Windows 10.



Click the 'Download tool now' button and then double-click the downloaded file to launch the Windows 10 tool

There's really nothing to be nervous about. However, you should be aware – as we believe you are – that you cannot perform an 'in-place' upgrade from 32bit to 64bit Windows 10. In other words, the process will literally wipe everything on your computer, including all personal files and folders. So, be sure that you have copies of all that stuff before beginning.

Beyond that, you just need to grab the latest version of Windows 10. Visit www.snipca.com/37857 and click the

'Download tool now' button (see screenshot above). Now double-click the downloaded file to launch the tool and, at the 'What do you want to do?' message, select 'Create installation media...' followed by Next. Then, clear the tick from the 'Use the recommended options for this PC' box, open the Architecture dropdown menu and choose '64-bit (x64)'.

Now click Next and follow the prompts to complete the installation.

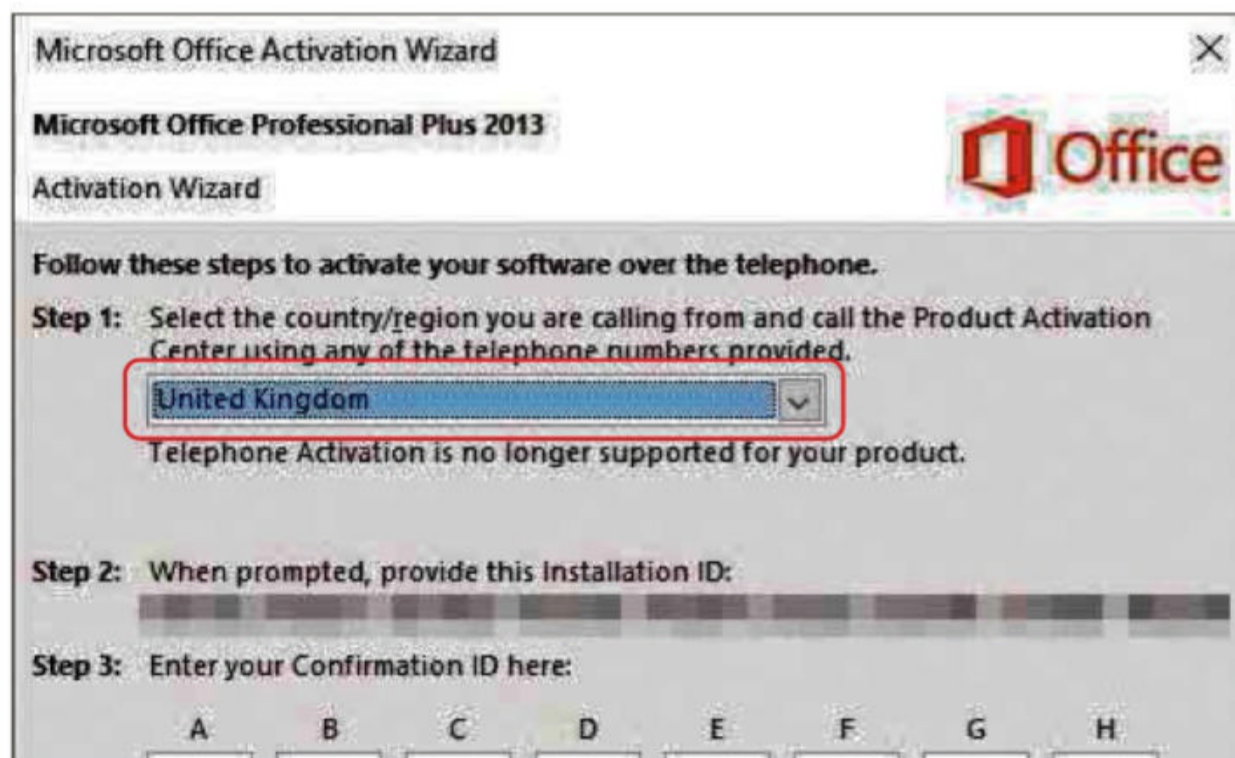
Why can't I activate Office 2013 over the phone?

Q Richard Avery writes in Issue 602's Problems Solved pages that he can't activate Office 2013. You give advice to activate the software by telephone, showing a screenshot from Office 2016. I have had similar problems to Richard following a rebuild but when I click the button to activate via the telephone, I am told this option is no longer available. Do you have any further suggestions?

Fraser Drummond

A We used an Office 2016 screenshot because we don't actually have any Office 2013 installation discs.

Richard was unable to activate his copy of Office 2013, full stop – so we directed him in the first instance to a Microsoft helpline. From your screenshot we can see that you're able to access the activation menu, but that the same



To activate Office 2013, choose United Kingdom from the list and the number will be displayed

notification also says that the telephone-activation service is no longer supported for your product.

We believe that to be incorrect, and that what's actually meant is that some of the telephone numbers in Office 2013's code no longer function. This is a known hiccup that's detailed on Microsoft's

support page, at www.snipca.com/37721. In fact, activation is still possible over the phone, as also explained on that page. Just choose your country from the dropdown list (see screenshot above) and the relevant number will be displayed. For the UK, currently at least, that number is 0800 018 8354.

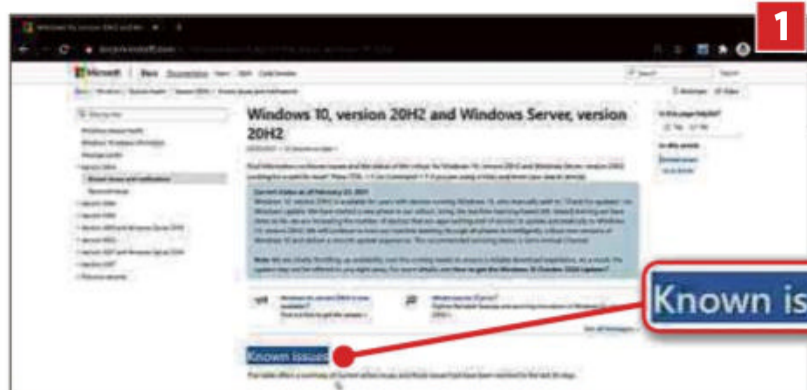
Is disabling Windows 10 updates risky?

Q My PC, running Windows 10 (1909), resolutely fails to install the 20H2 update, yet keeps nagging me to upgrade. I'm happy with Windows as it is and have found little to interest me in past upgrades. I'm considering stopping the upgrades. I have good, paid-for anti-malware protection so I don't really need Windows security upgrades. Can you foresee any future problems if I take this line?

Mike Pearce

A Yes – eventually your Windows 10 PC will become unsafe to use. Good security software will protect you for a while, but it can't stop the operating system's foundations from crumbling. If you don't keep Windows 10 up to date then it will eventually become exposed in a way that even the best security software cannot fix. That's because only Microsoft can repair unsafe Microsoft code.

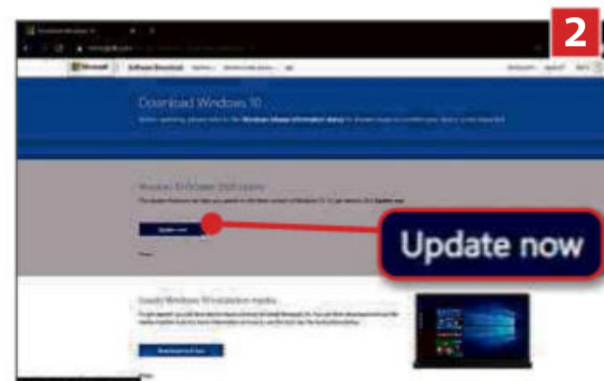
In the first instance we'd suggest a visit



Microsoft's 'Known issues' page lists 'compatibility holds' that might explain why a PC won't install 20H2

to Microsoft's 'Known issues' page, at www.snipca.com/37858 (see screenshot **1**). Here you'll find a list of 'compatibility holds' that might shine some light on why your PC won't install 20H2. If you can spot a problem that might be holding up your computer then see Microsoft's suggestions for a solution (though often the answer is simply patience).

If not, then we're not entirely sure why Windows Update is failing you. At this point we'd advise trying a manual upgrade, using the Update Assistant, at www.snipca.com/37859. Click the 'Update now' button **2** and then double-



One solution to a Windows Update failure might be to manually upgrade Windows 10

click the downloaded EXE file. Now just follow the prompts to install the latest Windows 10.

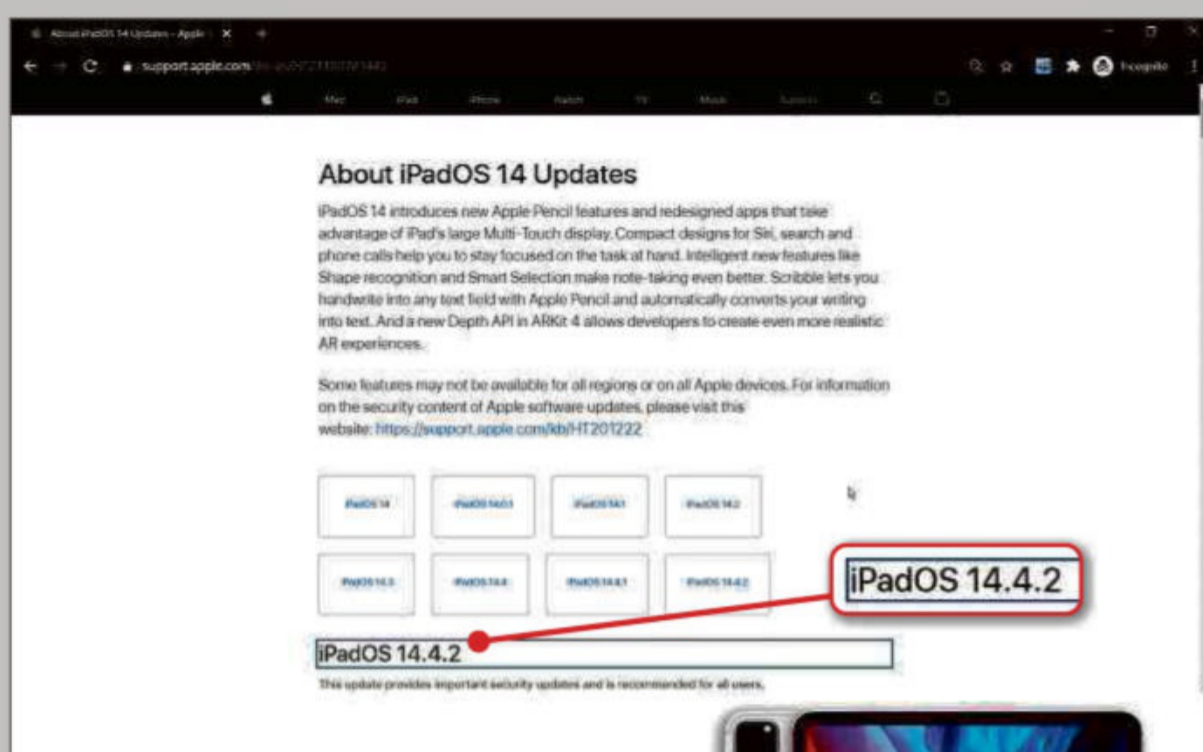
Is it safe to update my iPad?

Q I purchased an iPad Pro last year. Soon after, an iPadOS update was offered. I'm regularly prompted to update but, being a cautious type, I want to wait until the gremlins have been ironed out. I've tried to find useful advice online but with little success. Do you think it's a good time to update?

Mike Iillis

A We generally trust updates for Apple devices much more than we do those for Windows PCs. This isn't because Apple is magic but rather that the company controls every aspect of its devices, while Microsoft has to cater for a near-infinite variety of setups.

As such, while it's generally wise to wait for a short while before applying any major update, we really have no qualms in recommending allowing the latest iPadOS revisions to install. Apple is now so big that, if the internet hasn't been flooded with serious complaints within hours of each new release, you can be pretty sure it's safe. You can also



The iPadOS Updates page explains what features are included in upgrades

see a summary of what's in each new version before downloading, by visiting the Apple iPadOS Updates page at www.snipca.com/37860 (see screenshot above).

Apple updates for devices such as the iPad Pro (right) can generally be trusted





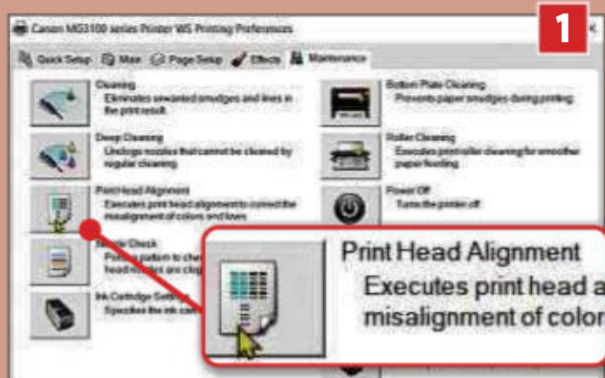
WHAT'S THE DIFFERENCE BETWEEN...

Generic and proprietary drivers?

Q I have just purchased a new Canon printer. Perhaps foolishly, without reading the instructions, I connected it to my Windows 10 computer and switched it on and then Windows set it up. This took just a few moments and then I was able to print. Nothing has changed – I can still print and everything is working well, but I've recently discovered that the box contained a **driver** CD-ROM from Canon. Given that everything is working well, I'm hesitant to install this and wondering if I even need to? Would there be any risks or benefit in doing so? What is the difference between whatever's on this disc and whatever Windows 10 has installed to run my printer?

Scott Hammond

A Given that everything is working as you want, you certainly don't need to install the drivers supplied on the CD-ROM. In fact, if you were to install any drivers at all at this point, then we'd recommend downloading them from the Canon

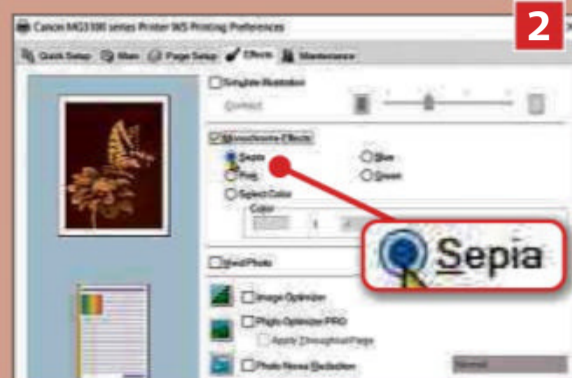


Canon's own printer drivers generally include advanced tools, such as print-head alignment

website, at www.canon.co.uk/support. This will ensure you have the latest available drivers – not ones that are sitting on a disc that could've been made months or more likely years ago.

That aside, there's little risk in installing the manufacturer's proprietary drivers to replace the generic ones that will have been downloaded by Windows 10. There's also likely to be multiple benefits in doing so.

We don't know exactly which Canon printer you have but manufacturer-produced drivers generally go beyond the basics of printing to offer access to advanced tools. For example, with



Proprietary drivers may also offer effects, such as making colour photos monochrome

proprietary drivers like Canon's you'll typically find maintenance options such as deep cleaning and print-head alignment (see screenshot 1). These are useful, though not usually essential, as such functions can usually be executed with controls on the printer itself. Depending on your particular printer model you might also be able to access printing effects that would otherwise be unavailable, like turning colour photos into sepia automatically 2 – no image-editing software required.

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

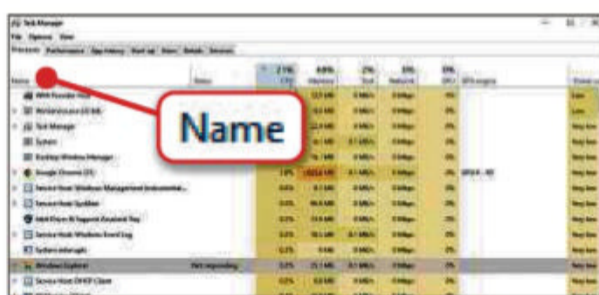
How do I stop Task Manager items jumping around?

Q I'm not a computer expert but I have learned from your magazine how to access Task Manager to close apps that aren't responsive. I use this from time to time on my Windows 10 PC, which is getting on a bit now. My problem is more of an annoyance because, whenever I enter Task Manager and try to click an item I want to close, the list jumps around. So, one moment the errant app might be under my mouse pointer, but by the time I click it's jumped to somewhere else. What's going on and how do I stop this?

Joe Curtis

A This will be happening because at some point in the past, intentionally or accidentally, you clicked on one of Task Manager's column headings to sort by a criterion other than names of the processes.

For example, if you click the CPU



Click the Name column to ensure that Task Manager's columns are sorted by name

column then Task Manager will sort all entries by order of the amount of processor power they're using at that moment, in descending order. A second click will sort them in ascending order. The same is true for all other columns.

However, because your computer's usage level of CPU, Memory, Disk and Network – the key column headings in Task Manager – change literally all the while, and sometimes by the second, the order of the listed processes updates to reflect the chosen sort order.

The answer, then, is to click the Name column to sort by that attribute (see screenshot left). This won't mean that the order of the listed processes will never change – some will be opened and closed automatically by Windows – but the Apps list, at the very top, will remain static until you close the troublesome app.

Next Issue

ONSALE
Weds
19 May

- How do I erase personal details from forms?
- Why don't I get PDF previews?
- Why are my videos green? ...And many more

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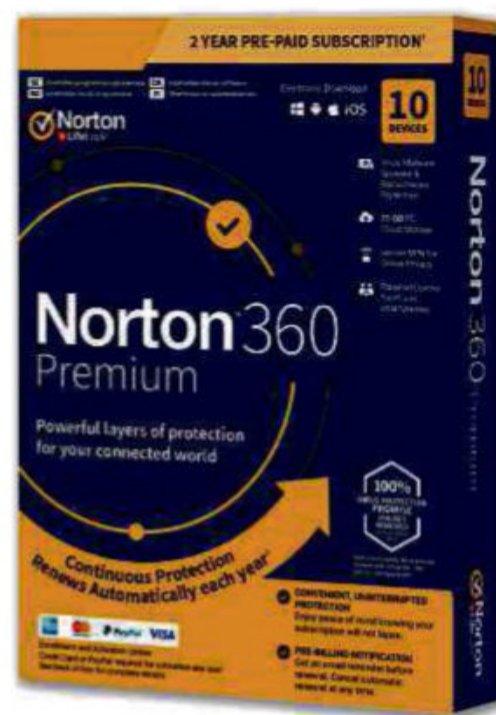
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Why doesn't your suggested network shortcut work?

Q On page 46 of Issue 602 you published a tip that promised quick access to a PC's network connections, by clicking Start and then typing **ncpa.cpl**. However, this produced no response on my PC – and nor could I find that file by searching. Can you help?
Christopher Clayton

A Assuming you're spelling the command correctly – and it's correct in your email to us – then something else is amiss.

First, check that the file is present and working. To do this, press Windows key+E to launch File Explorer, then navigate to **C:\Windows\System32**. Next, scroll through the list of files to find and then double-click **ncpa.cpl** (see screenshot below). If it's there and your double-click action launches the Network Connections menu, then follow the next paragraph but skip the command in the last line.

If **ncpa.cpl** is missing or otherwise produces an error when double-clicked, then it's likely some corruption has occurred. To fix this, first open an administrator-level Command Prompt window, by clicking Start, typing **cmd** then right-clicking Command Prompt and choosing 'Run as administrator'. Now type **sfc /scannow** and press Enter.

Next, you can run a command to ensure that a service essential to the Network Connections menu is correctly

entered in the registry. Still in the Command Prompt window, type **regsvr32 netshell.dll** and press Enter.

Close the Command Prompt window by clicking the cross at the top right of its window and the **ncpa.cpl** shortcut as published should now work for you.

Why can't I make WhatsApp video calls?

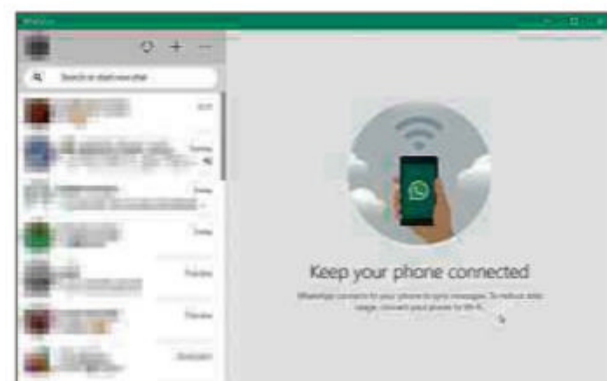
Q I have followed the 'Make WhatsApp video calls from your PC' Workshop, as published in Issue 602, but I cannot get it to work. In Step 5 the illustration of the PC screen does not reflect what I see. I have attached a photo of the screen. I do not get the video or other options. Any ideas to what I am doing wrong, please? Congratulations on an excellent magazine.
David Wraith

A The screen you sent us cropped out key details. However, it looks like you've installed the app but had not clicked a contact in the left-hand list (the bit missing from your shot, no doubt for privacy reasons). So, what you're seeing is the desktop app's standard **splash screen**, with its reminder to keep your phone connected (see screenshot above right). There are no call-related icons here, video or otherwise, because you can't make a call until you've clicked on a contact – in said list on the left.

So, we think that's all there is to this. If, however, you're clicking on contacts on the left but still not seeing the video- or voice-call icons then that's almost certainly because you're choosing WhatsApp group chats. Unfortunately, for now at least, WhatsApp on PCs is designed only for one-to-one calls.

Why can't I run the Print Management Console?

Q Out of interest I tried to discover the **driver** type for my Canon TS8250 printer following the instructions in the News section, on page



WhatsApp's standard screen reminds you to keep your phone connected

6 of Issue 602. However, I got a message saying that Windows could not find **printmanagement.msc**. You warned this might happen, so I then typed the 'manage optional features' command into the Start menu – but no optional features appeared when I typed **print** into the appropriate search box. I also searched for an alternative solution online, but without success.

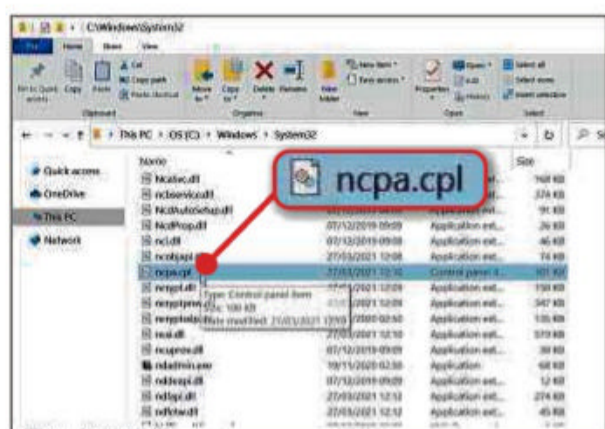
I am running Windows 10 Home (20H2). My printer works fine but is the absence of **printmanagement.msc** likely to cause problems in the future? If so, is there a solution?

Frank Stephenson

A The instructions we published for what was a temporary fix to a temporary problem came directly from Microsoft.

However, what the company neglected to mention – and we should have explained – is that the Print Management Console is a feature only of Windows 10 Pro and similar-grade editions of the operating system. In other words, it's not available in Windows 10 Home, so on your PC you won't be able to make use of this particular feature.

Its absence is therefore normal and makes no practical difference to the day-to-day use of your computer. Nor does it matter now for this particular fix because, as noted, the problem (and Microsoft's bodge) were both temporary – and the company has now fixed the underlying problem.



Scroll down the list to see if the **ncpa.cpl** file is there. If it is, double-click it

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.

4K Video with a resolution of at least 3840x2160 pixels.

Active noise cancelling Method for reducing unwanted sound by adding a second sound specifically designed to cancel the first.

Add-on A program that adds extra features to your browser.

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

Altimeter A sensor for measuring height about sea level.

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.

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

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

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

Benchmarking Comparing software and products with an accepted standard.

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

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

Blue light Light given off by PC and phone screens. Can disrupt sleep patterns.

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.

Cast To send content from your PC to TV.

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.

Core Units on a processor that carry out program instructions.

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

CPU Central Processing Unit. Another term for a PC processor.

DDR2 A type of computer memory, newer than DDR but older and slower than DDR3.

DirectPlay Old Microsoft tool that lets games be played over the internet.

DisplayPort A new socket for connecting monitors.

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

DVI-D Digital Visual Interface. A common type of display connector that can carry a digital signal.

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

End-to-end encryption A way of encrypting messages so that the only people who can read them are the sender and recipient.

EXE A program file designed to run in Windows. Has the file extension .exe.

Factory settings The original system state of an electronic device.

Far-field Audio technology that picks up sound further away from the microphone, so you don't have to be sitting right next to it.

Firewall A piece of software or hardware that prevents unauthorised access to a computer over a network, such as the internet.

Firmware Basic software stored on hardware, such as a processor, to control its operation.

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.

GHz Gigahertz. A measure of how many instructions a chip can process per second. 1GHz is equal to 1,000MHz.

Gorilla glass Scratch-resistant glass that's used to protect the screens of tablets and phones.

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.

HTML Hypertext Markup Language. The language used to write most web pages.

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

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

IP67 International Protection marking. The '6' denotes that a device is resistant to dust, general dirt and sand. The '7' indicates that it can be placed underwater for 30 minutes at depths of up to 1m without effect.

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

IPX4 A rating indicating that a device can withstand a splash of water from any direction for up to five minutes.

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

LCD Liquid-crystal display. The technology used to create almost all flatscreen monitors.

LED Light-emitting diode. An electronic device that emits light. Used on almost all electronic devices, and to provide the backlight for some LCDs.

M.2 A standard specification for internal PC expansion cards and connectors.

Macro lens Lets you take sharp, detailed, close-up photos of small objects.

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

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

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

NVMe Non-Volatile Memory Express. An interface that lets solid-state drives work faster.

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

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

Picture-in-picture Shows video in a small moveable screen while you browse the web or watch TV.

Plug-in A small program that adds extra features to software or to your web browser.

PNG Portable Network Graphics. A format for images that shrinks file sizes using compression but without discarding any data.

PUP Potentially unwanted program. A program that may not be desired, despite the user consenting to it being downloaded.

RAM Random-access memory. The computer's working area, used for data storage while the PC is switched on.

Refresh rate Measured in Hertz (Hz), the number of times per second that the image on your monitor is redrawn.

RGB image A colour picture created on a monitor, by combining a value for red, green and blue channels to determine the colour of each individual pixel.

Sideload To install apps without using the official Android or iOS stores.

SIM Subscriber Identity Module. Smart card used by all mobile phones. The SIM card carries the user's identity and phone number for accessing the network.

SMTP Simple Mail Transfer Protocol. A standard for sending email messages. It is now largely reserved for sending messages rather than receiving them.

Sound card An expansion card that lets a PC create game sound effects, music, and so on.

Source code Program instructions written in a high-level language that are readable by people but not computers.

Splash screen Conveys an impression of what a document will look like. Also refers to the screen you see when a program begins to load.

sRGB A standard RGB colour space for use on monitors, printers and the internet.

SSD Solid-state drive. Storage that, unlike a hard drive, uses no moving parts. Faster but more expensive than conventional hard drives.

Tag A keyword used to describe a file or web page. Programs use tags to organise related info quickly.

Temporary file A file created by a browser to store website data.

TF card TransFlash card, very similar to microSD card.

THX Audio/visual standard developed by Lucasfilm for cinemas, gaming consoles, PC speakers and more.

TN Twisted nematic. A common, cheap type of LCD.

Travel The distance the keys of a keyboard have to be pressed before the keystroke is recognised.

UHD Ultra High Definition.

Ultrawide Offering a field of view that's wider than traditional digital cameras.

USB 2.0/3.0/3.1 Faster successors to USB.

USB-C A new connector that's reversible, letting you plug it in upside down.

Vapour chamber A system of cooling components whereby liquid turns to vapour, and back again.

Vega 6 Radeon's built-in graphics card for laptops.

VGA Video Graphics Array. An older standard socket for connecting a monitor to a PC.

VPN Virtual private network. Keeps all internet communication safe and private.





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**

Keen to wallow in 1980s gaming nostalgia,
Robert Irvine attempts to...



Play retro games on his PC

Eagle-eyed readers may notice that, in a change to the advertised column, this page is not about how I hacked my streaming device. So enthused was I with that idea that I agreed to write a whole Cover Feature about the subject instead (see page 50). “I liked it so much, I bought the company!”, as Victor Kiam used to say in the old Remington TV ads. Instead, in another dated reference, I’m going to explain how I found a way to play *Chuckie Egg* on my Windows PC.

“

**You could spend
the rest of your life
rediscovering your
gaming past**

”

I’ve been watching an interesting documentary series on Netflix (when not hacking my streaming stick) about the early days of the video-game industry. Called *High Score* (www.snipca.com/37998), it traces the development and success of iconic games such as *Pac-Man*, *Donkey Kong* and *Super Mario Bros*, albeit from an American perspective.

My own experience of gaming in the 1980s (and probably yours too) has much more to do with the ZX Spectrum, Commodore 64 and – because my mum was too trendy to buy one of those two – the Amstrad CPC 464. So, for a more relevant blast of nostalgia, I decided to seek out the classic computer games of my youth.

My first stop was the Internet Archive’s incredible Software Library (www.snipca.com/37972), which features thousands of free retro games, and has extensive sections for the Spectrum, C64 and even my much-resented Amstrad. Old favourites such as *Jet Set Willy*, *Rainbow Islands*, *Head over Heels*, *Treasure Island Dizzy* (see screenshot below) and *Paperboy* were all available to play in my browser in an **HTML5 emulator**. I’m not exaggerating when I say you could spend the rest of your life rediscovering your gaming past, such is the vast choice of titles.



Forget *Assassin’s Creed*, Robert’s just happy to play *Chuckie Egg* again

My main problem was that the Internet Archive can be slow and while waiting for games to load helps maintain the sluggish spirit of the originals, it also tried my patience and led to me hammering random keys to make something happen. I wondered if a desktop emulator might be a faster and better option for playing games. One of the most widely recommended tools is MAME (Multiple Arcade Machine Emulator, www.mamedev.org), a free program that aims to preserve “vintage” software by letting you emulate it on a modern computer.

Sadly, when I ran MAME, I was confused by its many menu options and use of technical terms such as ‘Show DATS view’ and ‘Driver is parent’. I eventually deduced that the software provides a searchable directory of compatible games, but on clicking these I was told that the required **ROM** files were missing or incorrect. This meant I’d either have to find and download the ROMs myself, which is a ‘legal grey area’, or get them from MAME’s tiny library of approved games that nobody’s ever heard of, such as *Teeter Torture* (www.snipca.com/37975).

After declaring “MAME over”, I turned instead to a website called Crozza Remakes (www.snipca.com/37976), which sidesteps the copyright issues surrounding game ROMs by recreating classic titles including *Manic Miner*, *Q*bert* and – yes! – *Chuckie Egg* (see screenshot above). There are only 86 games on offer, while the site looks like it was designed in the Eighties and isn’t **HTTPS**-secured, but you don’t need to enter any personal details and all the emulated games are free to download. You’re prompted to install **DirectPlay** when you run your first Crozza game, but this is perfectly safe and the full-screen remakes – complete with authentic tinny sound – are worth the minor hassle.



Play thousands of retro games at the Internet Archive, including *Treasure Island Dizzy*

 Need help with playing retro games on your PC? Let us know: noproblem@computeractive.co.uk

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