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 Windows 10







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Don't pay more than you need  
page 60



**INSTALL MICROSOFT'S  
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Complex instructions made easy **p40**

**HOW TO GET  
Windows  
10X**



**EARLY!**

It will transform  
how you use  
your PC **p35**

# Computer **active**

ISSUE 601 | 10 – 23 MARCH 2021

Microsoft spells trouble – **p11**

Learn something new in every issue

## HOW TO DOWNLOAD



# YouTube

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Keep your favourite videos & TV shows  
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**PLUS**

## TIME TO DITCH **LASTPASS?**

Syncing passwords is no longer free – switch NOW **p62**





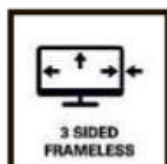
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I know we don't need yet another TV comedy panel show (surely 587 is enough?), but how's this for an idea: ask people to imagine what their younger self would have made of tech phrases that have entered the language. There are lots of great examples – 'block cookies', 'take a selfie', 'add Bluetooth' and, as featured in our Cover Feature, 'stream ripping'.

You probably didn't even realise that by downloading videos from YouTube you were, technically, ripping a stream. But knowing that doesn't mean it's easy. There are lots of settings to tweak, formats to select and dodgy tools to

avoid. Robert Irvine explains your best options not just for YouTube but for BBC iPlayer and Netflix as well.

'Sync your passwords' is another phrase that would have baffled people last century, but it's become commonplace as more of us sign into accounts using different devices. However, from 16 March LastPass will stop offering this for free, forcing millions to look for an alternative. Will Stapley reveals his top choice on page 62.

**Daniel Booth**  
[editor@computeractive.co.uk](mailto:editor@computeractive.co.uk)



## THIS ISSUE IN NUMBERS

**120 days**

Length of time WhatsApp keeps accounts inactive before deleting them - [p9](#)

**100 million**

Number of scam emails sent to Gmail users every day - [p10](#)



**1.16kg**

Weight of the five-star Lenovo Yoga Slim 7 - [p22](#)

## 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.



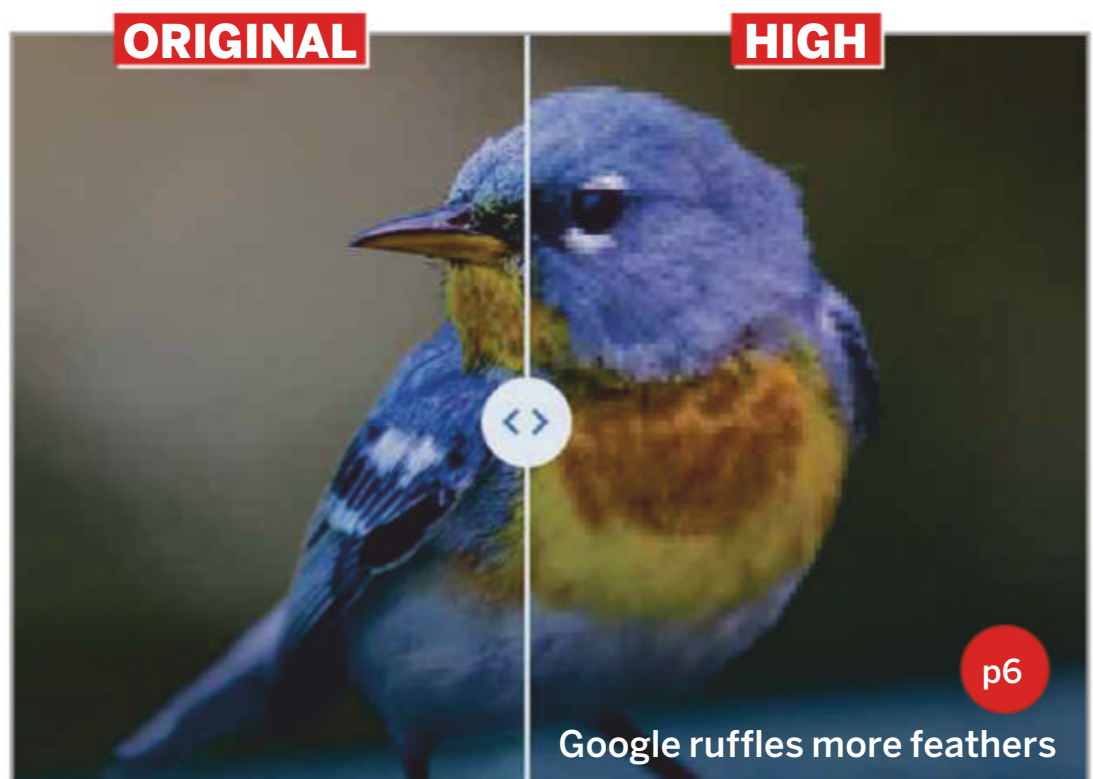
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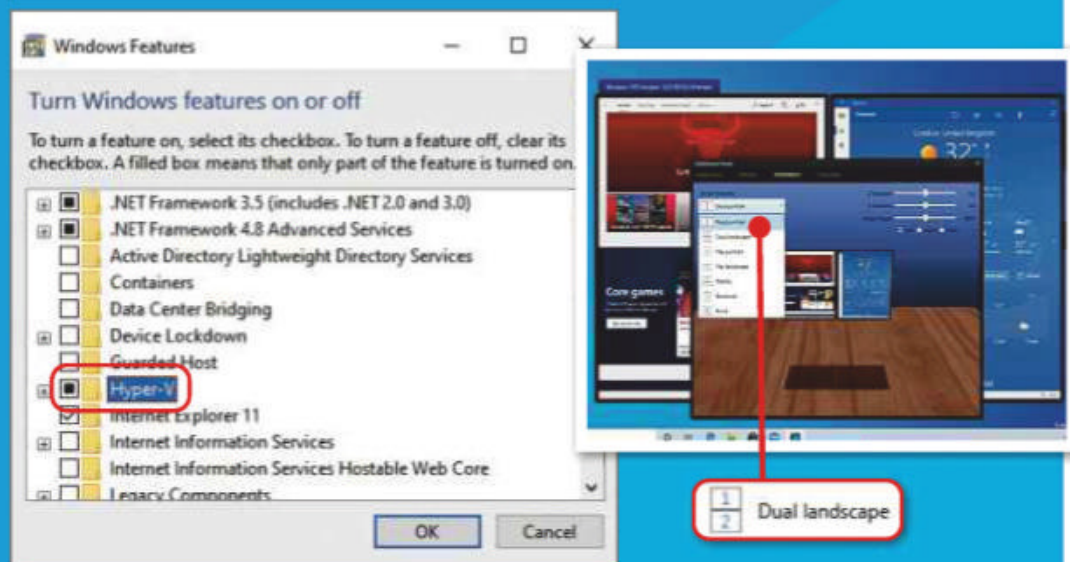


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## HOW TO DOWNLOAD

 **YouTube**  
 **iPlayer** &  
**NETFLIX**

COVER  
FEATURE  
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Keep your favourite videos & TV shows to  
watch whenever you like

**STOP USING**  
**LastPass**

\*\*\*\*\*

LastPass no longer gives us that syncing feeling

p62



## Google 'scaring' people into paying for photo storage

**G**oogle has been accused of scaremongering people into paying for its premium Photos service by urging them to save their photos in the best

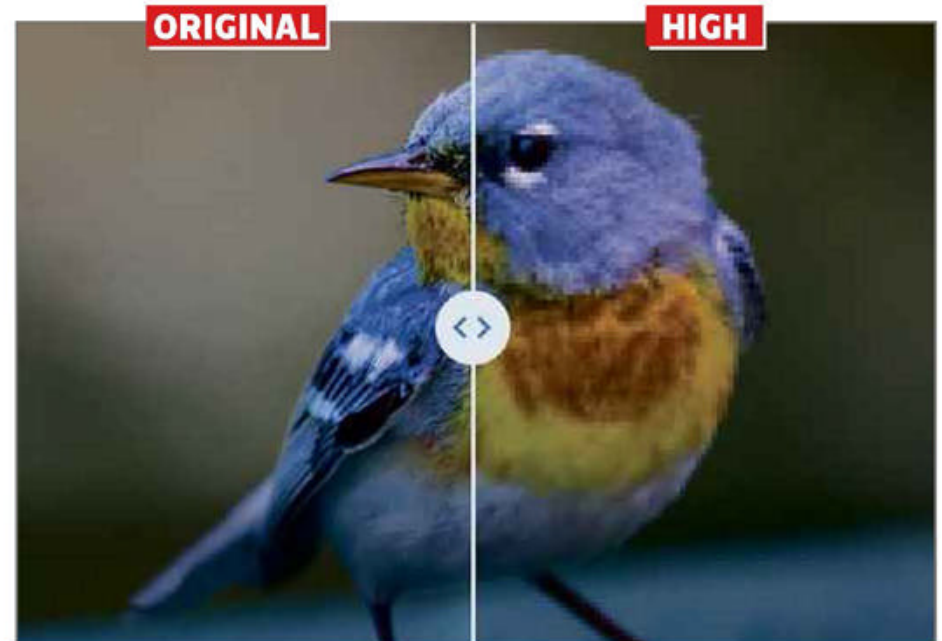
quality it offers.

You can choose either 'High quality', which is restricted to 16 megapixels for photos or 1080p resolution for video, or 'Original quality', which is whatever resolution your camera was set to – and therefore can be higher than the 16-megapixel/1080p limit.

In an email sent to Photos users at the end of February, it said that images saved at 'Original quality' preserve "the most detail and let you zoom in, crop and print photos with less pixelation".

Google included in the email a photo of a bird that's split in two to contrast Original with High quality. The former looks much sharper (see image), but some users took to social media to say Google has made the 'High quality' half of the photo look much worse than it is in reality.

They said Google is trying to pressure people into using 'Original quality' so they eat



up more of their free 15GB storage. They also pointed out that the email appeared to contradict what Google had previously said about saving in the lower, compressed quality, which is that it was "near identical" to original photos.

Currently, photos saved in 'High quality' don't count towards your free allowance, but that changes on 1 June. After that date, *every* photo or video you upload – in either Original or High quality –

will count, thus ending Google's previous promise of free unlimited storage. To increase your storage above 15GB, you'll have to pay for a Google One package, which starts at £1.59 a month for 100GB.

When this news was announced last November it triggered a huge backlash against Google. The company said the move was necessary to make sure the service "continues to meet your needs over the long haul".

### WHAT WE THINK

As misleading photos go, Google's bird image is almost on a par with the *Sunday Sport's* exclusive of a London bus half-buried at the South Pole. Anyone who has saved 'High quality' photos will know that the quality isn't the pixelated mess Google suggests. Indeed, we've often found it impossible to tell the difference between Original and High quality, while Google itself claimed they were "near identical". To say otherwise, just three months before it ends free unlimited storage, is breathtakingly cynical, and will further anger those who already feel betrayed.

## Office 2021 to cost same as Office 2019

**M**icrosoft has announced that Office 2021 will launch later this year, and be priced the same as Office 2019 (£119.99 for the 'Home & Student' edition).

It will be available as a one-off purchase for Windows and Mac users, and come in 32bit and 64bit editions. It

will contain the note-taking app OneNote.

Writing online ([www.snipca.com/37512](http://www.snipca.com/37512)), Microsoft said it would support Office 2021 for five years. It added that it doesn't "plan to change the price for these products at the time of the release".

The news ends speculation

that Office 2019 would be the final edition available as a one-off purchase.

Microsoft's long-term strategy is to persuade users to subscribe to Microsoft 365 (Office 365), which costs from £59.99 a year for a one-person account with 1TB of storage.



**You'll like this...** Nasa's website has a 360-degree panorama of Mars taken by Perseverance ([www.snipca.com/37504](http://www.snipca.com/37504))



**but not this...** There's been a surge in Royal Mail delivery scams ([www.snipca.com/37505](http://www.snipca.com/37505))



# Fly over British Isles in more detail with Flight Sim update

Stonehenge (pictured right), Stirling Castle, Snowdonia and Killarney National Park are four of over 70 British and Irish landmarks captured in more detail in Microsoft's latest update to Flight Simulator 2020.

The new images appear in the World Update 3, released in February. Other locations improved include the White Cliffs of Dover, Salisbury Cathedral, Loch Leven and the Lake District National Park, as well as several sporting stadiums.



There are also new high-resolution images for Birmingham, Bristol, Cambridge, London and Oxford, and five new “meticulously hand-crafted

airports” (Barra, Liverpool, Land's End, Manchester-Barton and Out Skerries in Shetland, pictured below left).

The update fixes glitches in the game that saw some landmarks like Stonehenge and Edinburgh Castle appear flat or distorted.

Visit Microsoft's blog to read more and watch a video of the improved locations: [www.snipca.com/37445](http://www.snipca.com/37445). Its next update, due in March, will concentrate on Belgium, France, Luxembourg and the Netherlands.



## UK phone users 'due £5 to £30 compensation' after 'overpaying'

More than 29 million people in the UK with an iPhone or Samsung phone may each be entitled to between £5 and £30 compensation if a lawsuit from Which? is successful.

The consumer group is suing US processor manufacturer firm Qualcomm for alleged anti-competitive policies that led to “inflated” prices of iPhones and Samsung devices.

It claims that the company abused its position by refusing to license its patents to rival processor manufacturers, such as Apple and Samsung, unless they bought a separate licence and paid royalties to Qualcomm.

Which? says this allowed

Qualcomm to charge Apple and Samsung more than would have been the case had it “behaved lawfully”. This increased costs for phone manufacturers, Which? alleges, which “in turn led to consumers paying higher prices”.

Qualcomm said the lawsuit had “no basis” because a similar claim was “effectively put to rest last summer by a unanimous panel of judges at the Ninth Circuit Court of Appeals in the United States”.

Which? estimates that £480m is owed to UK customers who “overpaid”. To be eligible for compensation, you need to have bought an affected phone after 1 October, 2015, such as Samsung's



Galaxy A6 (pictured above left) and Apple's iPhone 11 (above right).

How much compensation you might get depends on which devices and how many you bought.

Sign up at [www.smartphoneclaim.co.uk](http://www.smartphoneclaim.co.uk) to register your interest in the lawsuit, and check which phones are included.

### IN BRIEF

#### MAKE PHOTOS OF ANCESTORS 'COME ALIVE'

Genealogy site MyHeritage has launched a tool that lets you turn photos of your ancestors into moving pictures.



Called Deep Nostalgia, it uses **deepfake** technology to make static images smile, blink and turn their heads. Visit [www.myheritage.com/deep-nostalgia](http://www.myheritage.com/deep-nostalgia) then upload or drag and drop your photo.

#### GET 500GB FREESAT BOX WITH TALKTALK

TalkTalk is offering a Freesat 500GB recordable **4K** TV box (pictured below) that's normally priced £199.99 to new customers who sign up to one of its fibre-broadband packages (which start from £29.99 per month). The offer, running until 31 March, doesn't include the satellite dish and cabling. Read more on TalkTalk's site: [www.snipca.com/37481](http://www.snipca.com/37481).



### TOMORROW'S WORLD



Welcome to pandemic pool, perfect for our socially distanced times. American engineer Shane Wighton built a cue with a robotic tip that people can control over the internet. This fascinating video reveals how it was all done: [www.snipca.com/37483](http://www.snipca.com/37483).





## IN BRIEF

### SKY HIKES PRICES BY £6 MAX FROM APRIL

Sky is increasing its prices for broadband and TV (from 1 April) and phone (from 1 May) by a maximum of £6 a month, though the company says the average rise will be £3. It's contacting customers between 17 February and 27 March to tell them about the increase. Because this rise is above inflation, you can cancel your contract without paying a fee as long as you do so within 30 days of being contacted.

### MICROSOFT RELEASES OFFICE APP FOR iPad

Microsoft has finally released an Office app designed specifically for the iPad, containing Word, Excel and PowerPoint. Previously, to use Office on an iPad you had to use the iPhone app, which opened in a separate window. It's free for most iPad models, but you need a Microsoft 365 subscription to use all the features. Read more on Microsoft's blog ([www.snipca.com/37392](http://www.snipca.com/37392)), and download the app from [www.snipca.com/37393](http://www.snipca.com/37393).

## THE WORLD'S GONE MAD!



In the past, young people looked to music and clothes to distinguish themselves from their 'uncool' elders. Now it's the emoji. Generation Z (born between around 1997 and 2015) think the 'crying with laughter' image has been overused by their parents, and instead use a skull because it shows they "died with laughter". It all leaves us with a confused face.



# Force banks to refund all fraud victims, says watchdog

**B**anks could be forced to refund all victims of Authorised Push Payment (APP) fraud under new laws proposed by the UK's payment watchdog.

APP fraud is when a scammer poses as someone you trust – such as a solicitor or bank – and asks for you to transfer money into their account. Often it's a payment that you've been expecting to make, such as money for legal fees, meaning it's easier to be tricked.

For many years banks said that because victims voluntarily sent the payments – rather than having the money stolen – they didn't have to refund them. Campaigners argued that this was unfair, and eventually in 2019 banks agreed a code of conduct to reimburse victims unless they had ignored warnings about the scam or had been "grossly negligent" when transferring the money.

However, some banks, including Tesco Bank and



Monzo, haven't signed up, while many victims have complained that they weren't refunded in full.

The Payment Systems Regulator (PSR) says that around £403m was lost to bank scams between the end of May 2019 and the end of 2020, but just £175m was returned to victims.

It has now suggested that new mandatory refund rules should be introduced to make sure banks treat customers more consistently.

These might include forcing banks to agree to another new

code of conduct, or tightening the rules on transfers so banks could refuse to refund customers only if they were found to be involved with the fraud. It also proposed forcing banks to publish their "scam data", including how much money they've paid back.

The PSR says that EU laws previously restricted its ability to impose rules on UK banks. Now that the UK has left the EU, it wants the Government to lift those restrictions. It will now consult with all interested parties until 8 April.

## HMRC probes fewer tax dodgers on eBay and Amazon

There are fears that more overseas Amazon and eBay sellers are getting away with dodging tax after HMRC investigated far fewer cases in 2020.

A Freedom of Information request shows that between April and December last year it sent just 80 requests to sites for information about sellers, down from 2,684 in the 2019-20 tax year, and 2,317 in 2018-19.

HMRC said it had to reallocate resources last year as the Covid pandemic took hold. It moved staff to work on

implementing the furlough scheme, forcing it to cut the number of tax investigations.

High-street retailers say that this will encourage overseas sellers into thinking they can avoid paying 20-per-cent VAT on items they list online. The National Audit Office estimates that HMRC lost £1.5bn in potential tax revenue in 2015-16 alone.

Richard Allen, head of campaign group Retailers Against VAT Abuse Schemes ([www.ravas.org.uk](http://www.ravas.org.uk)), claimed that shopping sites are



"manipulating the tax system" in order to offer lower prices than high-street retailers.

He told the BBC: "This isn't an issue of online retail versus the high street. This is an issue of taxpaying businesses being attacked by non-taxpaying businesses because there are obviously a lot of online UK retailers who do pay VAT."



# WhatsApp to block users who don't accept new privacy terms

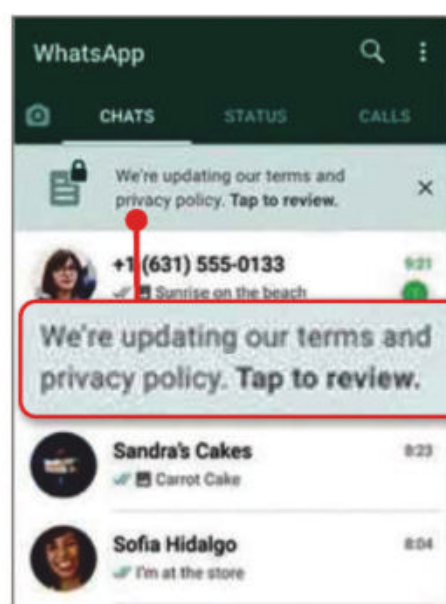
WhatsApp will prevent users who don't approve its new privacy rules from sending and receiving messages.

If users don't agree by 15 May their account will be listed as inactive, although they'll still be allowed to make calls "for a short while".

WhatsApp can delete inactive accounts after 120 days, meaning affected users could be removed in mid September.

WhatsApp's announcement of its new terms in January sparked a backlash as users interpreted them to mean that it would share their messages with its parent company Facebook (as explained in Issue 599, pages 60-61). Millions of worried users switched to rival messaging apps, such as Telegram and Signal.

WhatsApp responded by delaying the introduction of



the rules, saying it had fallen victim to "misinformation" spread online. It then published adverts claiming that it "respects and protects your privacy".

It stressed that any data it shares with Facebook does not include messages you send, groups you belong to, or logs of calls you make. Instead, it says the updated rules allow companies to add WhatsApp

chat options to their Facebook pages, making it easier for you to contact them directly.

To explain the changes, WhatsApp is sending an alert that will appear at the top of your Chats page (see screenshot). Tap this and you'll first see a screen with information about "some things to know", including that WhatsApp "can't read or listen to your personal conversations" because they are end-to-end encrypted (E2E).

Tap 'Continue' at the bottom and you'll be taken to a page explaining the changes in more detail. Tap 'Accept' at the bottom if you're happy with them, or one of the links to read more. Read WhatsApp's FAQ page for more information: [www.snipca.com/37447](http://www.snipca.com/37447).

Have you switched from WhatsApp recently? Let us know: [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)

## IN BRIEF

### FOUR YEARS SUPPORT FOR SAMSUNG DEVICES

Samsung has announced that it will provide security updates for its Galaxy phones and tablets for at least four years after release. This is double the previous period – and one year more than Google offers for its Pixel phones. It applies retrospectively to all devices released since 2019, as listed on Samsung's site: [www.snipca.com/37441](http://www.snipca.com/37441).

### 4G COMING TO 579 RURAL AREAS IN UK

BT's mobile network EE is upgrading more than 500 remote locations to 4G as part of the Shared Rural Network scheme. The work will cover 579 areas by the end of 2021 – 333 in England, 132 in Scotland, 76 in Wales and 38 in Northern Ireland – including all 15 of the UK's National Parks. Read more and see a map on EE's site ([www.snipca.com/37456](http://www.snipca.com/37456)).

### FIREFOX LAUNCHES MULTIPLE PiP MODE

Firefox now lets you watch multiple videos in picture-in-picture (PiP) mode, letting you view them in separate boxes. The new tool is part of Firefox 86, released in February. When you play a video online, click the 'picture-in-picture' icon (see screenshot below). Then, in another tab playing a different video, click the icon again and it will also appear in a box. Read Mozilla's blog for more: [www.snipca.com/37464](http://www.snipca.com/37464).



## More older people gambling online since lockdowns began

The number of older people gambling online has increased sharply during the coronavirus lockdowns, the Gambling Commission has revealed.

New research from the watchdog shows that 17.4 per cent of over-65s gambled online during 2020, up from 12.7 per cent in 2019. There was also a rise among those aged 55-64, from 19.6 to 27 per cent.

Overall, one in five adults gambled online in 2020, leading the Gambling Commission to warn of people becoming addicted to sites that make it easy to repeatedly place bets.

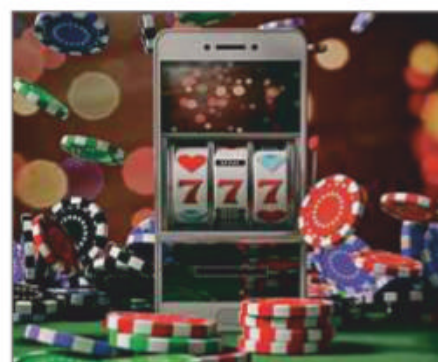
Nuno Albuquerque, Head of

Treatment at UK Addiction Treatment Centres (UKAT), said many people turned to online gambling "as a form of escapism" during the lockdowns.

He added: "These sites are not built to encourage gambling once or twice; they offer 'free' money or bets, they advertise other games to try and they nudge you to come back and gamble again if you've stopped for a short period of time".

Visitors to UKAT's website ([www.ukat.co.uk](http://www.ukat.co.uk)) rose by 300 per cent in 2020, as addicts sought help.

In February, the Gambling Commission announced



measures to make online slot-machine games less addictive. These include banning features that speed up play or celebrate losses as wins, while games will have to clearly display their total losses or wins.

The watchdog said that on average players lose more money playing slot-machine games than on any other type of gambling product. Sites will have to implement the new rules by 31 October.



# Question of the Fortnight

## Do scammers target older people more than younger?

Google research reveals what fraudsters look for in potential victims

Once you hit 55 you become easy prey. You grow more gullible with each year, and are easily confused by changes in technology. You're increasingly likely to believe email threats and act when faced with them. And you've left so many footprints over the web that stealing your email and password is almost embarrassingly easy.

That's what scammers think, anyway. It's long been assumed they target older people more than younger, and now we have proof. A joint study ([www.snipca.com/37403](http://www.snipca.com/37403)) from Google and Stanford University into what kind of people are targeted by **phishing** found that your chance of being attacked increases as you get older, with those between 55 and 64 being 1.64 times more at risk than 18-24-year-olds.

**“You're five times more likely to be attacked if your details have been leaked in a data breach”**

Interestingly, this drops slightly for the over-65s. Presumably, scammers see 55-64 as the sweet spot where gullibility overlaps with maximum internet use. Fraudsters are just like marketing executives, using crude stereotypes based on age, gender and location.

The figures come from analysis of a billion scam emails sent to Gmail users between April and August last



year. As well as age, where you live is significant. Around 42 per cent of attacks were aimed at people in the US, way ahead of the UK in second place, on 10 per cent, and Japan on five. But that

doesn't mean Americans are most at risk; just that, with the world's third largest population (most of whom are online), the US gives scammers lots of pockets to pick.

In fact, when attacks are calculated per person, there are 16 countries where people are more at risk than in the US. Top is the Democratic Republic of Congo, followed by Australia, Netherlands and the UK.

What device you use is also relevant. People who use phones only are less likely to be targeted than those who hop between mobile devices and computers. The researchers said this may stem from scammers assuming that the more devices you own, the wealthier you are – and therefore the more money you have to steal.

But there's one factor that trumps all others: whether your details have been leaked online in a data breach. If your username and passwords are being sold on the **dark web** you're five times more likely to be targeted by scammers.

That won't shock most readers – or anyone with a passing knowledge in cyber security – but it's still sobering to realise the extent to which a data breach increases your risk. You can check whether your details have been leaked by entering your email

### THE FACTS

- Those aged 55-64 are 1.64 times more likely to be targeted in scam attacks than 18-24 year olds
- The UK receives 10 per cent of scams, second only to the US on 42 per cent
- People who use phones only are less likely to be targeted than those who hop between mobile devices and computers

address at <https://haveibeenpwned.com>. It searches for this in 10.5 billion accounts that have been leaked (or 'pwned' to use the quirky security jargon).

What's more surprising is how short some phishing campaigns last. Google found that fraudsters typically use "brief but bursty" attacks that last less than a week, before changing their tactics to evade detection.

Google's advice is, naturally, to carry on using Gmail, claiming it blocks 99 per cent of the 100 hundred million emails containing spam, phishing links and malware sent every day.

It also preaches "account hygiene", which – given Covid – is a topical euphemism for using complicated passwords, and different ones for every account you have.

Perhaps stronger slogans are needed in this pandemic era. A digital equivalent of 'hands, face, space' would help to hammer home the importance and means of staying safe.



# Protect your tech

Scams and threats to avoid, plus new security tools

## WATCH OUT FOR...

## Misspelled URLs leading to scams

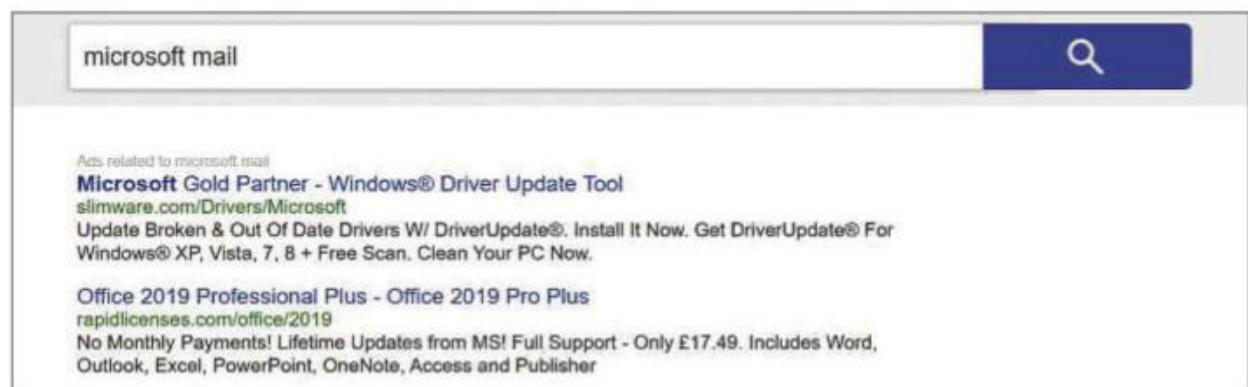
### What's the threat?

A misspelled URL in a recent Microsoft announcement led users to a scam site, highlighting the importance of typing website addresses correctly in your browser. The URL, which appeared in Microsoft's notes about its 'Patch Tuesday' security fixes released on 9 February, was spelled **msrc-blog.microosft.com** (note the misplaced 'o'), rather than **msrc-blog.microsoft.com**.

It was meant to take you to the blog written by Microsoft Security Response Center (hence 'msrc' in the address), but it actually sent you to a site owned by a scammer that contains unofficial adverts for Microsoft products (see screenshot). This URL would have been set up to deliberately exploit people mistyping the official website address.

### How can you stay safe?

Microsoft quickly noticed the error, confirmed it was a simple typing



mistake, and has now corrected the URL. But it's a reminder that scammers lurk behind many mistyped URLs. This strategy, often called 'typosquatting', is as old as the internet itself. Most major URLs have misspelled twins that will try to steal your details or, worse, install malware.

Typing 'www.goggle.com', for example, once took you to a site containing fake antivirus software that was itself malware. It's now a site providing analysis of last year's US presidential election that, a few months ago at least, was asking for your age and gender.

Thankfully, if you do type **www.goggle.com** Google asks you whether you mean **www.google.co.uk**, while if you type 'www.microosft.com' you're redirected to **www.microsoft.com**.

These responses should make typosquatting less of a threat than it was 10 or so years ago, but that's no reason to be complacent. In general, trust your bookmarks more than your clumsy fingers. Once you've created the former, click them to visit your favourite websites. You can't mistype a click, after all.

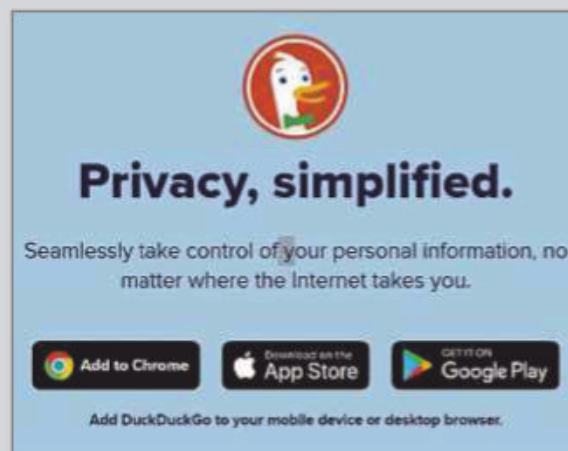
## New tools

DuckDuckGo's Global Privacy Control setting  
<https://duckduckgo.com/app>

Despite sounding like something from George Orwell's *Nineteen Eighty-Four*, Global Privacy Control (GPC, <https://globalprivacycontrol.org>) actually wants to help you *avoid* Big Brother. Set up by privacy-focused tech firms, it's a tool that tells a website you're visiting that you don't want it to collect any of your data.

It's similar to the Do Not Track system that was popular among users over the past ten years, but was largely ignored by websites because it had little legal clout. DuckDuckGo and others, including Firefox's developer Mozilla, are more optimistic that GPC will soon have legal backing, eventually forcing sites to stop tracking you.

DuckDuckGo already prevents most sites from tracking you, but it believes GPC's new technology will provide



"additional legal protection" to stop sites sharing your data. It has now turned on GPC by default in its browser **add-on** (Chrome, Edge and Firefox) and apps (Android and iOS). Click the link above to get the version you want (see screenshot). Read more on DuckDuckGo's blog: [www.snipca.com/37379](http://www.snipca.com/37379).

## ScamWatch

Readers warn readers



### Narrowly avoided Lloyds scam

I got a text purporting to be from my bank (Lloyds) saying that a new recipient had been added to my account, and prompting me to click the link to block this. It was similar to messages I receive when setting up a new payee in online banking, so I clicked it without thinking. This took me to a form asking for my bank details. I decided it would be quicker instead to phone Lloyds, but they told me there had been no such activity, and that the text was a scam. I'm always on the look-out for scams, but was nearly caught out by this one.

Stephen Foster



Warn your fellow readers about scams at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



# Letters

Tell us what's on your mind

## I get just 1.9Mbps in Shetland

✉ I'm writing after reading about a David Attenborough hologram being used to promote 5G in the home (News, Issue 598, page 9). I've lived in Shetland for 25 years and in that time have gone from dial-up to ADSL internet. The difference in speed has been minimal - I can now get 1.5 to 1.9Mbps per second. I pay £38 a month for broadband and phone, which is the biggest bill I have, apart from council tax and food.

I feel totally abandoned by service providers and the Government who keep telling me that 95 per cent of all homes are getting super-fast speeds and can stream TV. I can send and receive emails, but it takes some time if they have attachments. I do have a mobile signal at the house. Occasionally I even get 4G, but it's so irregular that it's not worth connecting to.

In my opinion, the Government and telecoms companies should focus all their efforts on getting the minority of slow areas up to a decent speed before rolling out any more 5G or super-fast fibre cables that allow a family of 10 to watch videos in the background while playing games at speeds the rest of us can't comprehend.

Graham Southern

## Nobody 'needs' Gigabit broadband

✉ Whoever wrote your Star Letter in Issue 600 (the name wasn't included) made a strong case for Gigabit, and I'm pleased it'll keep them entertained during his (hopefully) long and happy retirement. But I want to draw a distinction between 'needing' ultra-fast broadband and 'wanting' it. I accept that these days you need a good basic level of service to function fully in society, but that can be done on 24Mbps. Gigabit speeds are aimed mostly at people in large households who all want to be doing something different online at the same time (watch Netflix, play games etc). Those things are nice to do, but nobody really needs them, and so I can't really understand why people get so upset when they're unable to get such speeds.

John Moulton

**CA SAYS** Apologies to Nigel Dale, whose name we accidentally left off the Star



Letter in Issue 600. He revived a long-standing debate about the difference between needing and wanting a certain broadband speed. What's interesting is that we hear just as often from readers who cut their broadband speed (in order to pay less) and barely notice the difference as from those who rave about the benefits of faster speeds. It would be great to hear from more readers.

## Should I switch to 100Mbps broadband?

✉ I get about 35Mbps on a Fibre-to-the-Cabinet (FTTC) service with Plusnet, and that's fine for me. However, Fibre-to-the-Premises (FTTP) is being laid by a company called ZZoomm, providing 100Mbps download. You get only 10Mbps upload unless you pay an extra tenner to boost it to 100Mbps.

I might switch to Zzoomm, but it depends whether Plusnet offers me the service I currently have at more, or less, the same price I'm paying now, which is £23 a month. Zzoomm will cost £29, so if

Plusnet wants me to pay close to that, I may as well switch.

Adrian C Symonds

## Removing driver helped my PC to update

✉ I've been an avid reader for years and have found your articles extremely helpful. Issue 599's Cover Feature on removing Windows junk was the best yet. It has helped me solve the mystery of why Windows 10 on my PCs was stuck on version 1909 (released in late 2019), and hadn't been updated to version 20H2 (also called 2004).

As I was uninstalling all the junk software from my PC, I came across a Conexant HD Audio driver. I couldn't recall installing it, so I duly removed it. Later, I decided to check Microsoft's list of issues with software holding up the 20H2 update ([www.snipca.com/37373](http://www.snipca.com/37373)). Lo and behold, the Conexant driver was in the list. I checked the next day and saw that my PC had been updated to 20H2 without any coaxing on my part.

Tony Pelham

## Laptop hinges should last longer than a year

✉ I am a computer engineer and don't normally write to newspapers or magazines, but having read Issue 600's Case Update on "broken

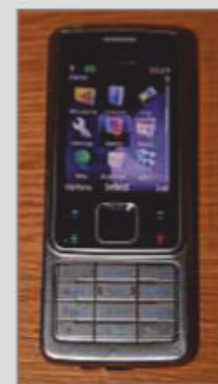
## Ye olde phones still worketh

✉ In Issue 599 you asked us for photos of the oldest mobile phone we still use. My wife uses a Sony Ericsson T700 (pictured below), which was released in 2008. A funny thing happened when we were touring the Houses of Parliament. While searching my wife's handbag, the security officer pulled out the phone and said, "It's been many a year since I've seen one of these". We all had a good laugh and then went on our way.



Martin Boyle

✉ Here's a photo of my trusty Nokia 6300 (right), which I bought in early 2007 and it's still going strong. It has had one new battery in that time. I volunteer on a preserved railway, working on the footplate of steam locomotives, and this is now my emergency phone. It lives in my footplate bag and takes a fair amount of punishment, so the long battery life is key for this task. As long as there is 3G I'll keep using it.



Mike Sherwood

**CA SAYS** As we expected, many of you are still proudly using phones made more than 10 years ago. Can anyone beat Mike's vintage model?



laptop hinges" (page 14), I felt I had to write. If I read the article correctly, the reader bought his Lenovo laptop in March 2020 and so it was less than one year old. Surely if the hinges failed within a year, they couldn't have been fit for purpose. After all, they are designed (or at least should be) to open and close the laptop hundreds of times.

Furthermore, I'd like to know how an engineer can look at a broken hinge without testing it and say that it's caused by wear and tear, rather than being of poor quality and therefore prone to breaking early (there are ways to test metals to determine their quality). It would be interesting to see if any other Lenovo owners have had the same problem.

Edward Watts

## The case for Chromebooks

There's been some criticism from readers recently about the fixed life of the operating system (Chrome OS) on Chromebooks. I'd like to speak in their defence as in my opinion they are value for money for those with modest computing needs, such as email, web browsing and basic office tasks.

In an ideal world Google would provide support for every Chromebook almost indefinitely (even though Microsoft and Apple don't support *theirs* forever), but I suggest the real problem is that manufacturers aren't sufficiently open about when Google will stop supporting a particular device. Is a sticker with an expiry date too much to ask?

A budget of £250 will buy you a reasonable Android phone or decent Chromebook, but only the most basic of laptops. Unlike a laptop, if your Chromebook has to be replaced or sent away for repairs, you can be up and running within a few minutes with no time spent reinstalling programs and settings. Also, you won't have to pay for antivirus protection (or rely on a free alternative), nor do you have to endure repeated Windows updates.

While those spending several hundred (sometimes thousands) of pounds on high-end computers reasonably might expect them to last a decade or longer, possibly by spending more on upgraded components, how many people spending £200-£300 on a phone or computer (laptop or Chromebook) expect it to last more than four or five years? After that time the battery probably would be coming to the end of its useful life, and

## STAR LETTER

### Searching for Covid symptoms 'saved my life'

I'd like to tell you a story about how searching for coronavirus symptoms helped to save my life. I feel prompted to share it after reading Issue 600's 'Question of the Fortnight' ('Can Google searches help to predict Covid peaks?'), which made interesting reading.

In the early days of the pandemic last March, the main symptom we were told about was heavy coughing. The problem for me is that I have a lung condition that sometimes leads to bouts of coughing. I can live with this given the correct medication, but I was worried whether I would be able to distinguish between this condition and Covid-19.

In early April I was suffering from a feverish headache, along with a heavier cough than normal, and was concerned it might be Covid. But what I couldn't



work out was why I had also lost my sense of taste and smell. I hadn't read that this might also be a Covid symptom until I searched for it on Google. Details about the virus were still changing all the time, but I read enough online (on the NHS's brilliant website) to believe I

had the disease.

A hospital test confirmed this, and I spent a few days in intensive care severely ill, before making what I hope will turn into a full recovery. I'm convinced that had I not read about the loss of taste and smell online I would have downplayed my fever and cough as just a bad but not life-threatening part of my condition. I probably would've deteriorated quickly and doubt I'd be here to send this email.

David Reid



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



they'll all be suffering from wear and tear.

Not too many years ago a computer was the ideal place to securely store photographs and documents, while a disc drive allowed music to be ripped. But it's become increasingly common to store and do things online (in the cloud). The logic of owning a traditional computer increasingly is being eroded. I rest my case, M'lud.

Paul Denyer

**CA SAYS** Paul makes some good points in his defence of Chromebooks, and there are many excellent models available, as well as some overpriced duds (see page 24). One way to test whether you like Chrome OS is to install

it on an old laptop, thereby turning it into an improvised Chromebook. For full instructions, see Issue 594's How To (page 35).

## Skype 'clunky'? It's better than Zoom

I think you did your readers a disservice by suggesting in Issue 599's Cover Feature ('Remove All Windows Junk') that we should dump Skype and replace it with Zoom. I don't recognise your description of Skype as "clunky and outdated".

Skype has several advantages over Zoom. First, anyone who has a Windows computer has Skype already installed, and also has a ready-made Skype (ie, Microsoft) account. Second, and crucially, Skype doesn't cut you off after 40 minutes. There's one feature I particularly like about Skype: you can use one of your own photos as a virtual background, while with Zoom you have first to create a green screen. What's clunky about that?

Roger Hughes





We stand up for your legal rights

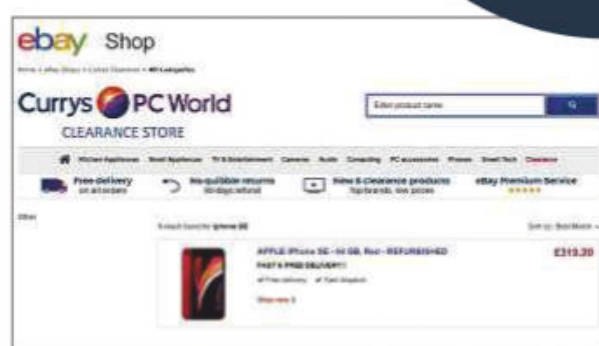
## Can I get the price difference for cheaper phone?

**Q** In early January I bought an iPhone SE (2020) from the Currys Clearance eBay store ([www.ebaystores.co.uk/currysclearance](http://www.ebaystores.co.uk/currysclearance), pictured). I bought the £290 128GB model, but Currys sent me the £246 64GB phone instead. I decided to keep it because there were no more 128GB phones in stock, and asked for the difference in price to be refunded. However, Currys have asked me to return the phone for a *full* refund. What are my rights?

Mike Beasley

**A** We contacted Currys about Mike's case and it has now refunded him the £44 difference in price, and apologised for the problems he had getting it resolved.

By offering only a full refund, Currys wasn't ignoring the Consumer Rights Act (CRA). However, it didn't take into account that the CRA states also that consumers can ask for damages instead of a full refund, as outlined in section 20, subsection 19 ([www.snipca.com/37359](http://www.snipca.com/37359)): "It may be open to a consumer to claim



damages where there is no entitlement to receive a refund, or because of the limits of the entitlement, or instead of a refund".

Damages are usually cited when a customer wants to retain the goods but seeks some money to compensate for a minor defect. They can ask for any amount, but it's typically a partial refund. Mike could have taken this approach to insist on a partial refund, but only if he could prove that returning the phone would've caused him additional loss or significant inconvenience.

We're glad Currys saw sense in this case. After all, it would have lost money by insisting Mike returned the phone for a full refund. It wouldn't have been able to resell the phone as new, because Mike had used it before discovering it wasn't the correct model.

CASE CLOSED

## Can you help get my Epson printer repaired?

**Q** I bought an Epson ET-2710 printer from the TV shopping channel QVC in February 2019. I noticed in September 2020 that the latch on one of the ink-tank covers was missing. Epson sent the printer to a repair company, which said the part wasn't replaceable and I'd have to have the whole tank assembly replaced at my own cost. Can you help me?

Gerry Barnes

**A** We'll certainly try because if the problem is an inherent fault, Gerry is covered by the Consumer Rights Act for up to six years (five in Scotland). His contract is actually with QVC, which will have to refund, repair or replace the printer if a fault is found.

However, while Gerry should demand that QVC picks up the case, he can still use Epson's help. Because it's more than six months since purchase, he'll need to prove the fault is inherent. He should therefore ask the repair company (via Epson) for proof of the fault, and the reason why it can't be fixed. This should lead to a quicker resolution than dismissing what the repair firm said and starting again through QVC.

CASE ONGOING

### CASE UPDATE

## Reader gets fast-tracked refund for faulty toy



We live in a world of 'computer says no' bureaucracy, so it was encouraging that John Lewis Finance (JLF) refunded reader John Taylor when it didn't have to.

As we explained in Issue 599, John bought a dinosaur-dragon toy from Magoloft ([www.magoloft.com](http://www.magoloft.com)) that turned out to be faulty. The website, which has an Essex address but is owned by a Chinese-based businessman, said that because of the pandemic it wasn't accepting returns of faulty items. If this really

is it's policy, then it's breaking the law.

It did offer John a half-price refund, but he rightly refused this, and then contacted us when the company stopped replying to his emails. We didn't have any better luck contacting the firm.

There was a glimmer of hope because John had paid for the toy – bought for his granddaughter – by Mastercard, as issued by JLF. The purchase was under £100 and so he wasn't automatically covered by Section 75 of the Consumer Credit Act, but

we contacted HSBC – which owns JLF – and asked whether it would refund him anyway.

Banks will consider such requests on a case-by-case basis, taking into account factors including whether it seems the customer has been ripped off. Normally they would talk to the seller to assess the claim, but JLF fast-tracked John's refund as a goodwill gesture after we stressed how badly he had been treated. Let's hope the next toy he buys keeps his granddaughter entertained for longer.



Contact us so we can investigate your case

✉ **Email:** [consumeractive@computeractive.co.uk](mailto:consumeractive@computeractive.co.uk)  
Please include your name, phone number and address.

## Do I have only 28 days to get a refund?

**Q** An Arris Freesat recorder that I bought from Currys PC World at the end of October last year doesn't work properly. Freesat has tried to help, but I shouldn't have to be resetting the box all the time. Currys PC World said that because I've owned it longer than 28 days, I have to call the manufacturer. Is this right?

Neal Sims

**A** No, it's wrong, and it's worrying that a company as big as Currys PC World should employ staff that give such advice. It doesn't surprise

us though – we've lost count of the number of times its employees have tried to pass the buck to manufacturers.

So, for the benefit of Neal, other readers and Currys PC World's training department, a customer's contract is with the retailer, not the manufacturer. If something goes wrong, you should always approach the retailer first.

It's also puzzling why the store mentioned the period of 28 days, which has never existed in consumer law. It used



to be commonly cited by phone companies, but it never held any legal weight. Being generous, we can just about believe that the assistant might be

thinking of the 30-day deadline, after which a retailer can choose to repair or replace faulty goods, rather than be obliged to issue a refund.

The store has told us it will contact Neal about his complaint. In our experience, it usually admits errors made by staff and so will do the right thing by replacing, repairing or refunding.

**CASE ONGOING**

## Can I get money back from Gumtree scammer?

**Q** I've been scammed by a person on Gumtree ([www.gumtree.co.uk](http://www.gumtree.co.uk)), who was selling an iPad for £240. The seller persuaded me to send the money via PayPal's 'friend and family' service, which means it won't refund me. I'm a pensioner and can't afford to lose this money. I've reported the crime to Action Fraud ([www.actionfraud.police.uk](http://www.actionfraud.police.uk)). What else can I do?

Liz Charmers



**A** There's probably not a lot Liz can do right now except contact Action Fraud to check whether it's investigating. PayPal is within its rights not to refund her because transactions sent to friends and family aren't covered by its Buyer Protection scheme. This is almost definitely why the scammer (who called herself 'Shannon') asked to be paid this way. Liz says Shannon also provided both a fake address and tracking number.


PayPal told us it won't refund Liz

as a goodwill gesture, but there's no harm in her contacting the Financial Ombudsman ([www.financial-ombudsman.org.uk](http://www.financial-ombudsman.org.uk)). It could bring some pressure to bear on PayPal to clamp down on fraudsters using this service. We think it's unlikely though. PayPal states clearly that you should never use this service when sending money to a stranger. Using 'friend and family' is a trade-off: you don't have to pay transaction fees (as PayPal explains at [www.snipca.com/37360](http://www.snipca.com/37360)), but you're not covered if anything goes wrong.

**CASE ONGOING**

### CREDIT WHERE IT'S DUE

## Motorola trusted me on broken headphones

 I bought Motorola's One Hyper phone (pictured) on pre-order in May 2020 as part of an offer to get a free pair of the company's SH012 Bluetooth headphones, which are worth £40. However, the headphones band snapped off at one side when I was pulling them apart to fit over my head.

I emailed Motorola and they replied saying they'll send me a brand new pair. I consider this to be fantastic service because they trusted my word about the fault. I didn't have

to upload any photos as evidence, nor did they ask me to send the headphones back for inspection.

Incidentally, the One Hyper ([www.snipca.com/37297](http://www.snipca.com/37297)) is an excellent phone. It has two SIM slots and has 120 fps video for slow motion, making it great for recording and comparing a golf swing.

William Mackay

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



Contact  
Motorola

• **Live chat** [www.snipca.com/37298](http://www.snipca.com/37298)  
• **Phone** 03339 997 550



# Grow Your Family Tree



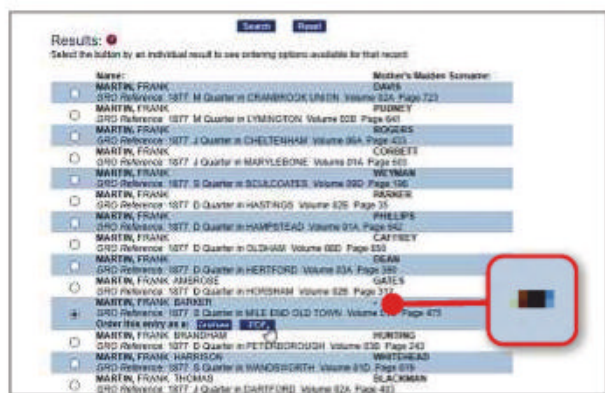
Do you have ancestors born to unmarried parents? Follow **Nick Peers'** advice on how to...

## Find fathers of illegitimate children

**R**eaders Roger Hudson has run into an obstacle that many – myself included – have come across. He's found an illegitimate ancestor, with no obvious biological father to research. While chances of identifying this person may be slim, they're not impossible.

### Discover whether your ancestor was illegitimate

Sometimes it's not obvious that your ancestor was illegitimate. Signs include their presumed parents marrying after the child's birth (the child may be theirs, or the father may have simply adopted the child as his own), or your ancestor apparently failing to appear in the birth records when searching using the father's surname. This was my experience with my great-great grandfather Frank Howell.



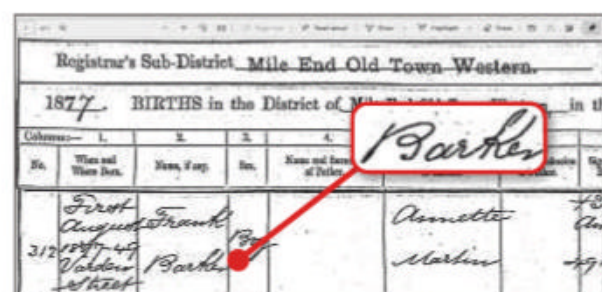
A dash instead of a maiden name indicates that the mother was unmarried

The trick is to search for your ancestor under the mother's surname – Frank Martin in my example. Log into the GRO website at [www.snipca.com/37324](http://www.snipca.com/37324) and click 'Search the GRO Indexes'. Enter the year, followed by the mother's surname into 'Surname at Birth' (but leave 'Mother's Maiden Surname' blank), along with your ancestor's first name and gender. Click Search.

Review the matches using date and area to locate your ancestor. Look for a dash in the Mother's Maiden Surname column (see screenshot below left), indicating the absence of a maiden surname and that the mother was unmarried. Select the record, then click the PDF link to order a digital certificate for £7.

If you're lucky, the father's name will be recorded on the birth certificate, but even if it's blank, the trail may not yet be cold. You may find a clue in your ancestor's name – if the mother knew the father, it's common for them to record his surname as the child's middle name. For example, Frank was recorded as Frank Barker Martin on his birth certificate (pictured above right), which suggests his natural father may have been a Barker. His mother's name was Annette Martin.

If the child was born within a few years of a census return, check the mother's



It was common for mothers to record the father's surname as the child's middle name

entry on the census and look for neighbours or housemates with the same surname. Frank was born in 1877, and a check of the 1881 census revealed a Henry Barker living a few doors down from Frank's mother and grandmother, born in the local area and roughly the same age as Annette. Might this be Frank's actual father? The connection itself proves nothing, but further lines of enquiry might establish a stronger link. As for Frank, his mother married Charles Howell in 1882, and he adopted Frank.

### Track down baptism records

Try to track down an original image of the child's baptism record – you'll find an increasing number available at sites such as Ancestry, Find My Past and FamilySearch. Sometimes church officials noted the father's name in the margin.

Before 1834, parishes were responsible for illegitimate children, and often summoned the mother to name the father to avoid having to pay for their upkeep. A few counties have their records online. Ancestry, Find My Past and the Genealogist have records for some counties. The rest can be found at local records offices around the country.

One final resource are probate records. Sometimes, illegitimate children were remembered in their father's last will. If you know the father's surname, search for it through the records at <https://probatesearch.service.gov.uk> – your ancestor may be a beneficiary.

## Your Genealogy Problems Solved

I pay for genealogy services like Ancestry and the British Newspaper Archive. Are any paid-for services offering free access during the current lockdown?

Kit Shorten

The National Archives ([www.nationalarchives.gov.uk](http://www.nationalarchives.gov.uk)) has waived charges for downloading digital records. Many libraries are continuing to offer the

same free online access as before lockdown, letting you access Find My Past and/or Ancestry without payment. Visit [www.gov.uk/local-library-services](http://www.gov.uk/local-library-services) to locate your local online library, then log in with your membership details and search for genealogy services.

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





# PCSPECIALIST



## CUSTOM GAMING DESKTOPS AND LAPTOPS

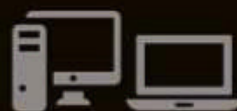
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# Best Free Software

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

## FILE VIEWER

### CSVFileView 2.50

[www.snipca.com/37500](http://www.snipca.com/37500)

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



CSVFileView is a brilliant tool from NirSoft that lets you open and monitor CSV (comma separated values) files. If you're new to CSV files, think of them like spreadsheets, but instead of the data being separated into cells, each value is separated by what's called a 'delimiter character', such as a comma.

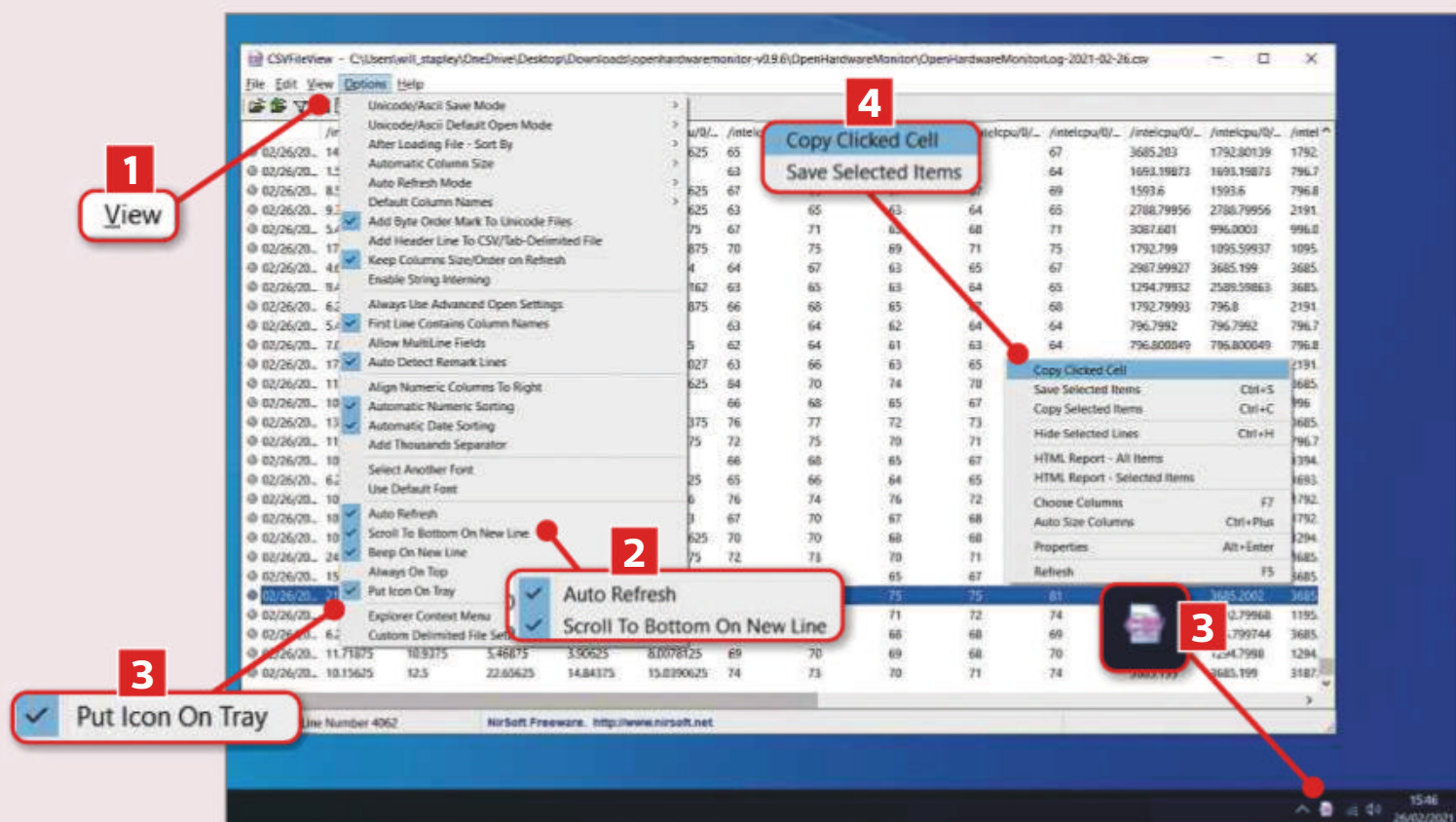
Many programs output data to CSV files, including several NirSoft tools and programs such as OpenHardwareMonitor (<https://openhardwaremonitor.org> – see our Workshop in Issue 600, page 40). Once you've opened a CSV file, you can set it to automatically refresh (select Auto Refresh from the Options menu). When this feature is switched on, CSVFileView will constantly scan the CSV file you've loaded, updating the view whenever new data is added to the file.

Although individual values in CSV files are usually separated by commas, they can also use other delimiter characters, such as spaces and semicolons. When we tried it, CSVFileView did a great job of detecting the correct

delimiter character when we opened a number of CSV files. However, if your CSV file doesn't display properly you may need to specify a different delimiter character – click File, 'Advanced Open...', then enter whichever character your CSV file uses to separate values in the 'Use the following character as delimiter' box.

By default, CSVFileView shows all columns in a CSV file. You can narrow this down to only those you're interested in by opening the View menu, selecting Choose Columns, then unticking those you want to hide (if you want to hide most of them, click Deselect All, then tick those you want to see).

New features include the ability to copy individual values from the CSV file, as well as those from multiple rows (see below). You can also now set CSVFileView to minimise to the system tray when you close it – click Options, then select Put Icon On Tray.



**1** To load a CSV file, simply drag it into the middle of the CSVFileView window. You can then set which columns are displayed by clicking View, then Choose Columns.

**2** When you've set a CSV file to automatically refresh, you can also tick Scroll To Bottom On New Line, which tells CSVFileView to scroll to the last line whenever new data is added to the file.

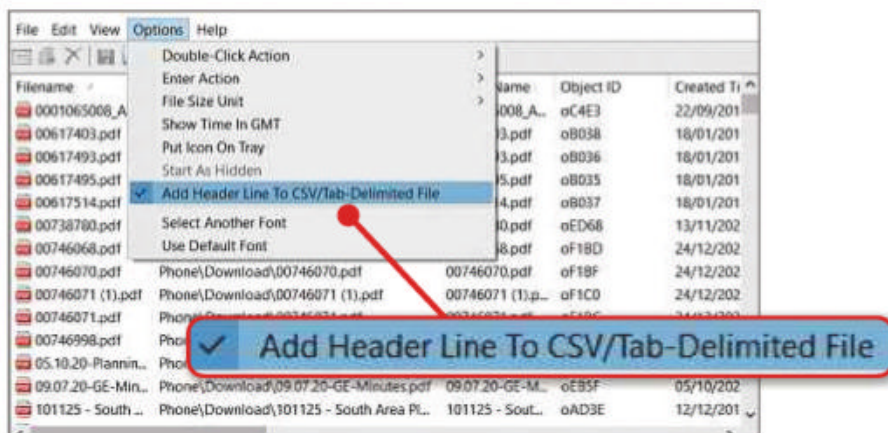
**3** This version now lets you set CSVFileView to run in the background by ticking Put Icon On Tray. To re-open it, double-click the CSVFileView icon in the system tray.

**4** To copy data from a CSV file, right-click it then select Copy Clicked Cell. To copy a selection of rows, hold down Ctrl while clicking them, then right-click and select Copy Selected Items.





## FILE MANAGER



## MobileFileSearch 1.36

[www.snipca.com/37489](http://www.snipca.com/37489)

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

MobileFileSearch lets you look for files on your phone using advanced search queries from your PC. Over the past few months, NirSoft has released several updates for the tool. You can now change how the file sizes in your search results are displayed – click ‘Options’, File Size Unit, then choose from criteria such as KB, MB and GB. Additionally, when you select multiple files from the search results, their total size will be displayed at the bottom of the window. Other new features let you exclude folders from your searches and add a header row when exporting your search results to a CSV file (click Options, then ‘Add Header Line...’, see screenshot).

## AUDIO CONVERTER

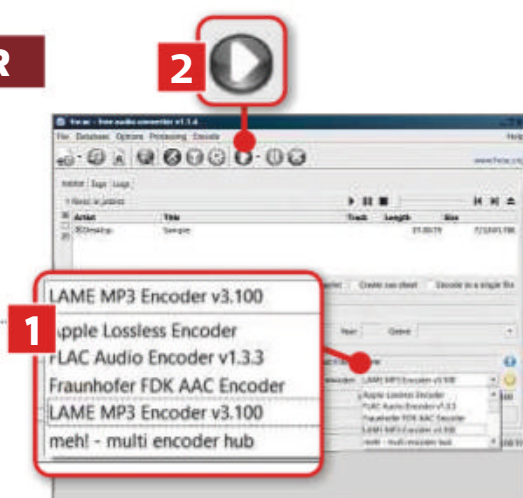
## fre:ac 1.1.4

[www.snipca.com/37482](http://www.snipca.com/37482)

**What you need:**

Windows 7, 8.1 or 10

Audacity ([www.audacityteam.org](http://www.audacityteam.org)) might be our favourite tool for recording and editing audio, but it can be slow at converting files, taking around 90 seconds to turn a one-hour WAV file to MP3. In comparison, the dedicated audio converter fre:ac is lightning fast – and it’s just become even faster. In our tests, version 1.1.4 converted the same one-hour audio file in just nine seconds (significantly faster than Audacity, and nearly twice as fast as the previous version of fre:ac). Although it’s packed with advanced options, performing simple conversion tasks is straightforward – drag your files into the fre:ac window (1 in our screenshot), select your output format, then click the Play button at the top (2). You can download fre:Ac as a traditional Windows program via the link above. It’s also available as a Windows app via the Microsoft Store at [www.snipca.com/37485](http://www.snipca.com/37485), which benefits from automatic updates but only works on Windows 10.



## WHAT SHOULD I DOWNLOAD?

We tell you what software & apps to use

## What can I use for basic video editing?

Q

I have been using the Photos app in Windows to edit my videos, but it often fails to save my edits. Could you suggest a suitable replacement?

Robin Crosher

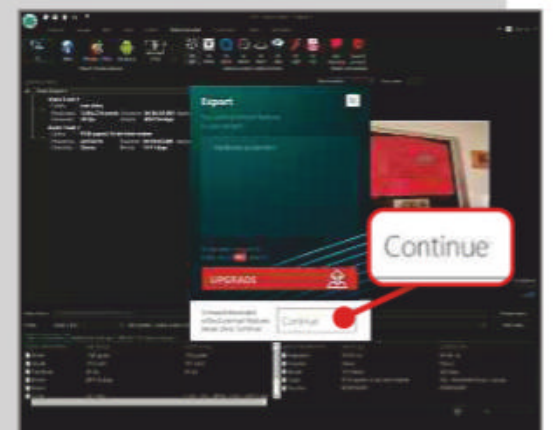
A

There are plenty of free video editors, but most involve a steep learning curve. If you’ve become familiar with the Photos app, try something like VSDC ([www.snipca.com/37490](http://www.snipca.com/37490)) – it doesn’t offer a huge range of features, but it is very easy to use. Once installed, drag your clips into the main VSDC window, then arrange them using the timeline at the bottom. When you’ve finished, you can export your video by selecting the Projects tab, then clicking Export Project twice. VSDC will prompt you to upgrade to the Premium version to benefit from **hardware acceleration** (this speeds up the export process), but you can export for free by clicking Continue (see screenshot).

Although some features are reserved for Premium users (including the stabilisation tool that smooths shaky footage), the free version includes everything you need for simple editing.

If you want a greater choice of tools, including special effects and transitions, try Shotcut ([www.snipca.com/37491](http://www.snipca.com/37491)). It’s not as easy to use as VSDC, but the website has a range of video tutorials at [www.snipca.com/37499](http://www.snipca.com/37499). We explained how to use some of its best tools in our Cover Feature in Issue 583 (page 50).

Finally, it would be remiss of us not to mention DaVinci Resolve ([www.snipca.com/37492](http://www.snipca.com/37492) – scroll down, click Download Now, then select the Resolve version, not the paid-for Resolve Studio). Resolve is by far the most powerful free video editor (it’s used by many film studios), but you’ll need to spend a lot of time getting used to it. It’s also very demanding on system resources, so you’ll need a PC with an Intel Core i7 or AMD Ryzen 7 processor, along with 16GB of memory.



Do you need our advice on what software to use? Just email us at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



HOW I USE...

# Plex and Alexa

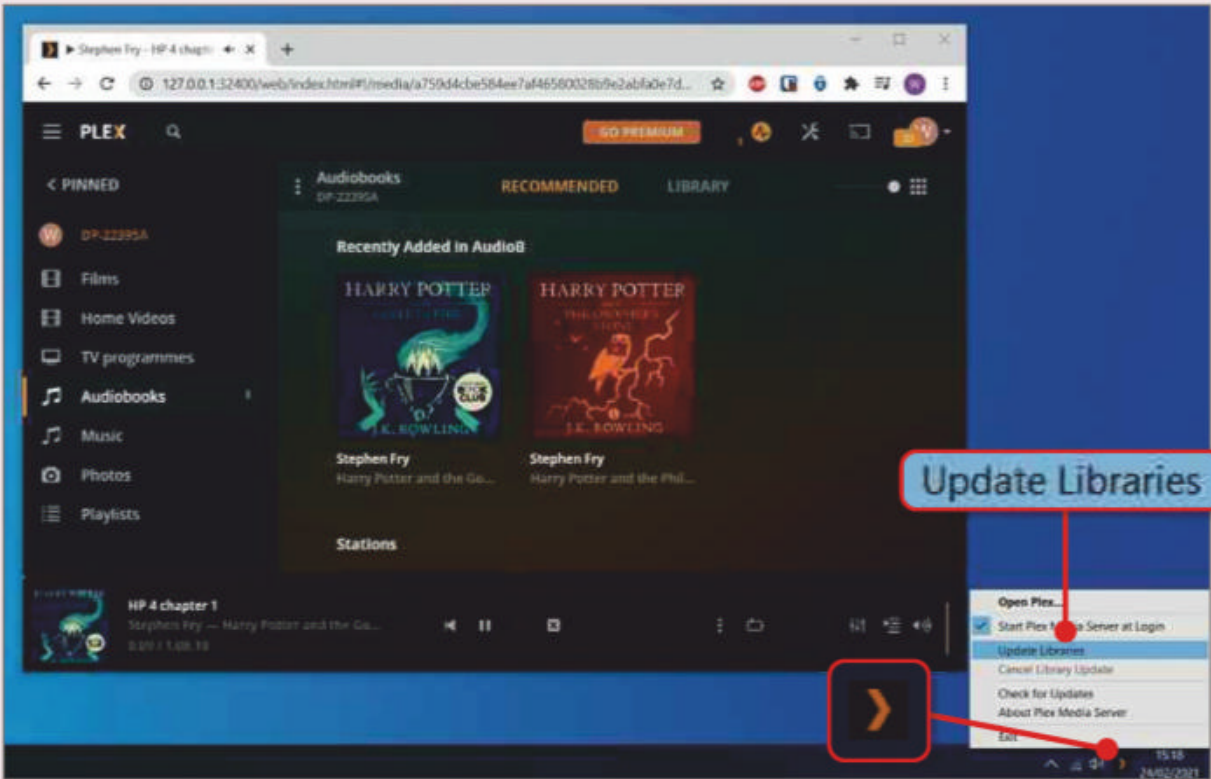


**Will Stapley** explains how his kids can now listen to their favourite audiobooks via a smart speaker

Revelling in the success of converting *Harry Potter* audiobook CDs into MP3 files (see Issue 600), I wanted to take things a step further. Having my kids listen to audiobooks via a PC isn't ideal, not least because when the computer's on, Minecraft tends to take over. Instead, I wanted to let them stream their audiobooks through our Amazon Alexa smart speaker.

Alexa won't link up with my PC by itself, so I needed to enlist the help of the media-streaming software Plex ([www.plex.tv](http://www.plex.tv)). If you're new to Plex, Issue 590's Cover Feature explains how to get it up and running (grab our 2020 Back Issue CD if you missed it – [www.snipca.com/37458](http://www.snipca.com/37458)).

I already have the Plex Media Server running on my PC, so adding my freshly ripped *Harry Potter* MP3s was easy. I simply copied them to the same location as the rest of my media library, right-clicked the Plex icon in



Click the Plex icon in your system tray, then 'Update Libraries' to scan for newly added MP3s

the system tray, then selected Update Libraries (see screenshot above).

I then had to install the Plex 'skill' for Alexa (think of skills like extensions for browsers). To do this, I opened the Alexa app on my phone, tapped More, 'Skills & Games', then searched for Plex. I'll admit to being concerned at the skill's two-star user rating, but carried on regardless, tapping Settings (see screenshot left), then entering my Plex login details to link my Plex and Alexa accounts.

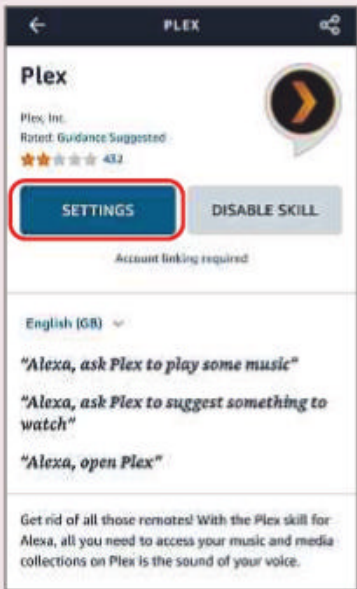
To use the Plex skill on an Alexa speaker, you have to start your voice commands with "Alexa, tell Plex to...". Although this worked fine when playing tracks in my music library, I couldn't get Alexa to play specific discs (or chapters)

within each *Harry Potter* book. I tried speaking more slowly, more clearly, then angrier, but to no avail – each time, Alexa simply played the first disc from each book.

Through a process of trial and error, I discovered Alexa (or possibly Plex) was struggling with the long file names I'd given my audiobook MP3s (such as 'Harry Potter and The Philosopher's Stone Chapter 1'). By reducing these to 'HP 1 chapter 2', both Alexa and Plex knew precisely what I was after. The shorter names also make for easier voice commands.

The Plex skill for Alexa is limited (probably the reason for its poor reviews – see box), but it does have handy features. By saying "Alexa, tell Plex to pause" and "...tell Plex to resume", my kids can pick up an audiobook where they left off. As I've discovered to my cost, the only reason a resume command won't work is if I've asked Alexa to play something else in the meantime.

Once you've linked the Plex skill to your Plex account, it lets you access your library via an Alexa speaker



## WHAT I'D LIKE TO SEE IN PLEX

Although the Plex skill for Alexa supports pause and resume commands, it doesn't let me (or more specifically, my kids) fast-forward or rewind. Given

that most audiobook chapters are an hour or so long, it would be useful to be able to say commands such as "Alexa, tell Plex to skip 30 minutes".



# Named & Shamed



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

## WARNING: JUNK AHEAD

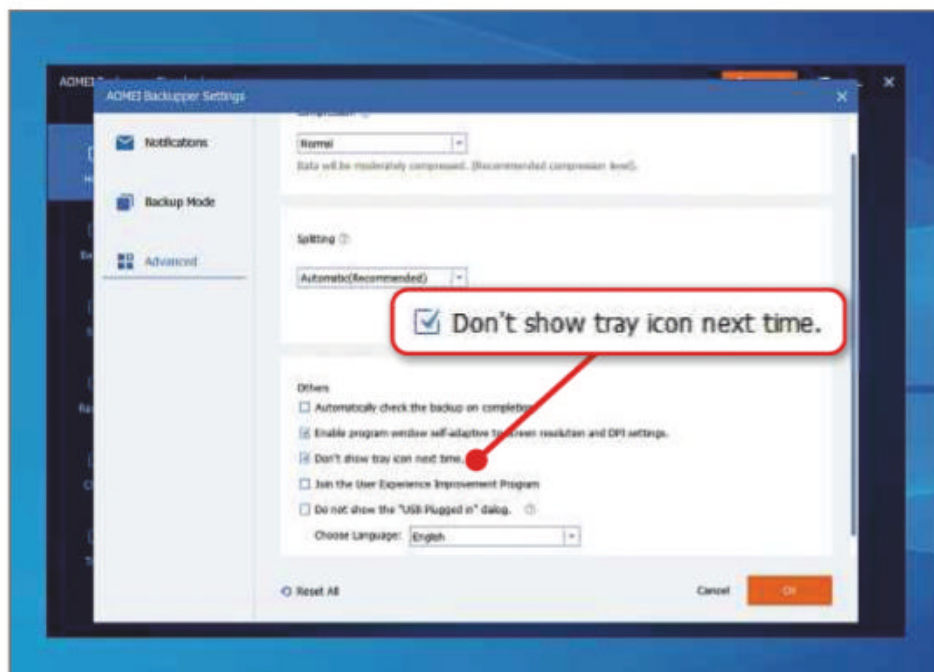
### Junk offender: AOMEI Backupper



I'm always saddened when a tool I've previously recommended starts trying to trick you into installing junk. And so I regret to report that my recent experience with AOMEI Backupper has significantly dampened my enthusiasm for the Singapore-based company and its products.

Things started to go wrong soon after downloading the free version of Backupper from [www.snipca.com/37437](http://www.snipca.com/37437). Run the installer and you'll almost immediately find yourself having to navigate a screen offering you the "Better Choice" of the Pro Edition. Nudging someone to buy a premium edition isn't the worst crime in the world, but you'll need your wits about you to click the Skip button if you want to stick with the free version.

Less defensible is the pre-ticked box towards the end of the installation process. If you don't take care to untick this, you'll be opted into AOMEI's User Experience Improvement Program (UEIP) – in other words, you'll be granting it



Tick this box to stop AOMEI's adverts popping up on your PC desktop

permission to gather data on how you use the software.

But the *really* annoying thing about the current version of AOMEI Backupper is how it spams your desktop with pop-up adverts for AOMEI's other products. Thankfully, you can turn this off by clicking the menu button (three lines), selecting Settings, clicking Advanced and ticking the 'Don't show tray icon next time' option (see screenshot) before finally clicking OK. You can also opt out

of the UEIP here if you missed the option during installation.

Backupper is still a pretty decent tool, so I'm not going to suggest that anyone should stop using it. Yes, it's a junk offender, but it's still better than most alternatives, and life is all about trade-offs. I'm sure *Computeractive* will be recommending it again soon, and rightly so. But that just makes it all the more annoying that it should resort to such irritating tricks.

### WHAT ARE THEY TALKING ABOUT?

#### WHAT THEY SAY

Microsoft

[www.snipca.com/37402](http://www.snipca.com/37402)

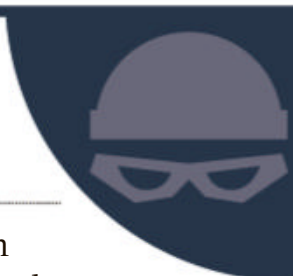
"Freeing people from being tied to screens, simplifying tasks into micro workflows, minimizing the burden of app, and process disaggregation are all capabilities centered on people's evolving needs – helping them in turn focus on work and personal commitments."

#### WHAT THEY MEAN

Mobile phones let you work anywhere, but they still can't translate gibberish like this.



### JONATHAN'S VILLAINS OF THE FORTNIGHT Call Centre Ops and House Guard



The whole point of signing up to the Telephone Preference Service (TPS) is to send a clear message to marketing firms that you don't want them hassling you over the phone. Unfortunately, the message seems to have fallen on deaf ears where two particular cold-calling companies are concerned.

The two offenders in question are Call Centre Ops, based in Nottingham, and House Guard, from Bournemouth. This pair of persistent pests managed to rack up more than 860,000 unsolicited calls to registered TPS users over a period of several months

in 2018 and 2019. In doing so, they blatantly contravened the UK's Privacy and Electronics Communication Regulations (PECR).

Hopefully, the six-figure fines issued to both firms last month by the Information Commissioner's Office (ICO) will serve to refresh their knowledge of UK privacy laws (read the verdict at [www.snipca.com/37438](http://www.snipca.com/37438)). If you're still being pestered by cold callers after registering with TPS, complain at [www.tpsonline.org.uk](http://www.tpsonline.org.uk).



**LAPTOP** | £849 from Amazon [www.snipca.com/37348](http://www.snipca.com/37348)

## Lenovo Yoga Slim 7 (14in AMD)

### Driving force

Buying a Lenovo laptop is a bit like buying a Volkswagen hatchback. You can rest assured that you're getting something well made, reliable, close to the top of its class and usually quite stylish. And the new Yoga Slim 7 is Lenovo's Golf GTi. In terms of outright performance, endurance and quality, there's not much else around that can match it for the same sort of money.

This is an attractive and solid laptop with an aluminium body and lid that don't creak or squeak. The styling is angular, and our test model comes only in 'Orchid', a distinctive burgundy colour.

“With a great screen, this is a well-made machine that's faster than many rivals running Intel chips”

It's lightweight for a 14in laptop, weighing 1.16kg and measuring 16x205x321mm. This is similar in size to the MacBook Air, despite having an extra 0.7in of screen across the diagonal. The bezels surrounding it are reasonably slender at around 6mm down the sides and 10mm above and below.

On its left side there are two USB-C ports, one of which supports DisplayPort, while the other is used for charging.



There's also a 3.5mm audio jack and an HDMI port. On the right are two USB 3.0 ports and a microSD card reader. The 720p webcam has an IR sensor to support Windows Hello, which works well. It's not so good for video calls, though, on which our image looked dull and grainy, especially in low light.

The keyboard is as good as you might expect, being thoughtfully laid out, robust and quiet. The trackpad is similarly well-engineered: the textured-glass cover is pleasant to the touch and the buttons feel perfectly weighted and precise. These are the sort of basics of laptop design that Lenovo has always excelled at and continues to do so.

Flanking the keyboard are two upward-firing Dolby Atmos-branded speakers. There's plenty of volume on offer, a decent amount of bass and even a hint of stereo separation. In fact, the Slim 7 is one of the best sounding compact laptops we've encountered.

The 14in 1920x1080-pixel IPS screen is also impressive, though it's not touchscreen. Its sRGB coverage is decent

at 95.7 per cent, as is the peak brightness of 389cd/m2. A contrast ratio of 1,705:1 and a non-reflective, matte finish are the icing on the cake.

Our benchmark tests put this laptop with its Ryzen 7 processor well ahead of laptops running Intel's Core i5-1135G7 chip, but slightly behind Apple's M1. The integrated Radeon RX Vega 8 GPU also delivered a good performance boost. Running through fairly demanding games, the Slim 7 managed more frames per second than laptops with Intel's Core i5. Better still, under gaming and benchmark stress the Slim 7 remained cool, while the fan noise, even when running at full speed, wasn't particularly annoying. Our battery video-playback test ran for an impressive 15 hours 40 minutes, which is an hour better than the MacBook Air managed.



### SPECIFICATIONS

AMD Ryzen 4700U processor • 8GB memory • Radeon RX Vega 8 graphics • 14in 1920x1080-pixel screen • 512GB SSD • 802.11ax Wi-Fi • Bluetooth 5.0 • 2x USB-C ports • 2x USB 3.0 ports • 1x HDMI port • 1x microSD card slot • Windows 10 Home • 16x321x205mm (HxWxD) • 1.16kg • One-year warranty [www.snipca.com/37348](http://www.snipca.com/37348)

**VERDICT** This is a fabulous bargain: fast, well made and sensibly priced

★★★★★

**ALTERNATIVE** Acer Swift 3 £850  
Acer's Swift 3 series has a model with the same processor and a similar price, but its battery life isn't as good





**LAPTOP** | £270 from eBay [www.snipca.com/37375](http://www.snipca.com/37375)

## Chuwi HeroBook Pro+

Low price, high resolution

There are a number of laptop vendors who sell directly from south-east Asia. Hong Kong-based Chuwi is one of the most prominent. If you are on the hunt for a bargain, willing to stray from big-name laptop makers, and prepared to buy direct from eBay or AliExpress ([www.snipca.com/37376](http://www.snipca.com/37376)), you can find a reasonable laptop for an incredibly low price.



“For the price, it has an astonishing screen, but it runs Windows slowly”

Chuwi's HeroBook Pro+ is a great case in point. It seems extraordinary that you can get a new laptop for less than £270, but while it inevitably falls behind more expensive rivals in terms of specification and performance, it has a great 3K (3200x1800 pixels) **IPS** screen and looks like a laptop that's significantly more expensive.

However, notable corners have been cut. It's powered by an Intel Celeron J3455 processor, which was launched in 2016, backed up by 8GB of **RAM**. Its results in our **benchmark** tests are, not surprisingly, on the low side. It will run Windows, of course, but it's slow. Even the Windows Start menu takes half a second to appear after you've clicked it. You can make it feel faster by going into

the Display menu and deactivating animations and transparency, then clicking the battery icon on the taskbar and choosing 'Best performance' rather than 'Better performance'. At this price, you'd never expect the HeroBook Pro+ to match a laptop running an Intel Core i5 processor for snappiness but, with these tweaks in place, it becomes surprisingly usable. Just don't try running any 3D games on it.

The screen, however, is nothing short of astonishing for the price. Chunky bezels make it appear smaller than its 13.3in diagonal suggests, but it's packed with detail thanks to its high resolution, and covers 92 per cent of the **sRGB** colour range. Its contrast and brightness are well below the levels we'd hope for and make it difficult to see in bright sunlight, but it's still a very decent screen for the money.

We found the keyboard a bit too spongy and the trackpad feels cheap when you click its integrated buttons. The case is plastic throughout and doesn't have that durable build quality we expect from more expensive laptops. The battery lasted only 4 hours 24 minutes in our video-playback test, which is too short, and it has only two **USB 3.0** ports, a headphone jack and a **miniHDMI** port on its sides.

### SPECIFICATIONS

Intel Celeron J3455 processor • 8GB memory • 128GB SSD • 3200x1800-pixel resolution screen • 802.ac Wi-Fi • 2x USB 3.0 ports • 1x miniHDMI port • 1x microSD port • Windows 10 Home • 18.5x330x221mm (HxWxD) • 1.16kg • One-year warranty [www.snipca.com/37375](http://www.snipca.com/37375)

### 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](http://www.expertreviews.co.uk)) and IT Pro ([www.itpro.com](http://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** Although the screen is amazing, the core components struggle to run Windows well, so pay more for better performance if you can afford it



**ALTERNATIVE** Chuwi CoreBook X £499 Spend a bit more money on a model that runs faster, has a larger screen and is more easily available through Amazon





**LAPTOP** | £1,031 from HP [www.snipca.com/37388](http://www.snipca.com/37388)

## HP Pro c640 Chromebook

### Chrome truths

Although Chromebooks have long been regarded as cheap and simple alternatives to Windows laptops, Google has also sought to carve out a space for more expensive models. This HP Chromebook is one of these, combining a top-of-the-range Intel Core i7 processor with 16GB of RAM, a 128GB SSD and a 1080p touchscreen, as well as an impressive range of connection options (pictured below).

The design is sturdy and businesslike, with a silver-coated aluminium exterior. Its expansive keyboard sits between two speaker grilles, all positioned above a spacious glass-coated trackpad. The two sections are joined by a 180-degree hinge that means it can lie flat, though it doesn't go all the way around to convert into a tablet. At 1.5kg, it's heavier than most 14in laptops. It's reasonably slim at 16.5mm, but there are plenty of thinner alternatives, such as the 13.7mm Asus Flip C436F (see Alternative below right).

“It's expensive for such a limited operating system and screen”

With a thick black border, HP could have squeezed a 15in screen into this chassis, and the 14in IPS touchscreen that has been used is disappointing. With brightness level at 255cd/m<sup>2</sup>, the matte display is far dimmer than you'd expect from a premium device, with most quality laptops clearing 300cd/m<sup>2</sup>. Similarly, a very poor 53.3 per cent coverage of the sRGB colour gamut can't be salvaged by its respectable 1,276:1 contrast ratio.



It isn't all bad news, with the backlit and water-resistant keyboard proving to be one of the highlights here, with well-spaced keys that are comfortable to type on. Glass on a touchpad normally makes it easier to use. Here, though, it often makes the cursor skid and slide around because the surface is so slippery. It also causes problems with click-and-drag actions and multi-touch functions, such as pinch to zoom and two-fingered right-clicking. It doesn't help that clicking requires more force than on other laptops.

While the processor-RAM-SSD combination sounds strong on paper, it scored poorly in our tests – only marginally better than some Core i5 laptops we've tested. Where it excels is battery life, lasting an impressive 12 hours 38 minutes in our video-playback test.

HP also scores points for squeezing in so many ports, including two USB-C and two USB 3.0 ports, in addition to an HDMI port, microSD card slot and 3.5mm jack. Support for Wi-Fi 6 and Bluetooth 5 ensures you also benefit from the best possible level of wireless connectivity.

The big question is whether you would want to ditch Windows and replace it with Chrome OS. Google argues that its trimmed-back, web-based operating system lets you do anything you can do on a Windows laptop, using online tools rather than software installed on your PC.

It's true that many web tools, from word processors to image editors, are almost as good as their installable counterparts, but Chrome OS doesn't run many of the programs that Windows users will be familiar with. Also, having to be connected to the internet at all times may prove a problem. We can live with that on a cheap Chromebook, but not on one that costs more than many Windows models.

It's also worth noting that Chrome OS relies on Google to keep it updated, and when these updates stop, a Chromebook will stop receiving the latest features and security updates. In the case of this HP model, that will be in June 2028. You can check the expiry date given to all Chromebooks on Google's Auto Update policy page at [www.snipca.com/37389](http://www.snipca.com/37389).

### SPECIFICATIONS

Quad-core 1.8GHz Intel Core i7-10610U processor • 16GB memory • 128GB eMMC SSD • 14in IPS screen • 2x USB-C ports • 2x USB 3.0 ports • HDMI port • 802.11ax Wi-Fi • ChromeOS • 16.5x325x205mm (HxWxD) • 1.5kg • Three-year warranty [www.snipca.com/37388](http://www.snipca.com/37388)

**VERDICT** The disappointing screen lets down an otherwise impeccable design, so we'd recommend a Windows laptop if you're looking to spend £1,000

★★★★★

**ALTERNATIVE** Asus Chromebook Flip C436 £799 A slimmer, lighter, cheaper Chromebook with a touchscreen that flips all the way into tablet mode





**LAPTOP-TABLET** | £1,600 from Amazon [www.snipca.com/37431](http://www.snipca.com/37431)

# Asus ZenBook Flip S UX371EA

## Can't stand the heat

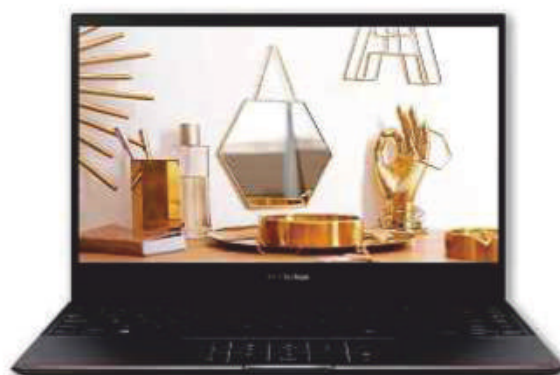
You might have come across **OLED** technology if you've looked for a new TV or smartphone recently, but it isn't available on many laptops. OLED screens are more expensive than traditional laptop screens, because they have great colour range and brightness, and perfect contrast. It goes some way to explain why this model is so expensive.

The Flip's 13.3in screen has **4K** resolution (3840x2160 pixels) and it's a thing of beauty. It's as bright as you need, reaching a peak level of 460cd/m<sup>2</sup> in our tests, and its perfect contrast makes films and TV programmes look fabulous.

The display is touchscreen and has a 360-degree hinge, letting you fold it all the way back on itself so you can hide away the keyboard and use the laptop in 'tent' mode (pictured below) when you want to sit back and watch something. You can also use the laptop as a large tablet if you don't mind scribbling on the screen with the bundled stylus.

The luxurious feel extends beyond the screen. It looks very classy, with gleaming bronze trim contrasting nicely with a matt-black keyboard and a brushed aluminium lid. The whole thing is extremely slim and light, weighing only 1.2kg, and is 13.9mm at its thickest point.

Both the keyboard and touchpad are a pleasure to use. The backlit, **chiclet**-tile keys have a good depth of **travel**, and the touchpad is broad, sensitive and accurate. It also has a clever trick up its sleeve, transforming into a touch-sensitive number pad if you need to tap in a lot of figures.



Elsewhere, the specification is typical for a device of this price. Unlike many Windows laptops these days there's only one model to choose from. It has an Intel 11th generation Core i7-1165G7 processor, integrated Iris Xe graphics, 16GB of **RAM** and a 1TB **SSD**.

Unfortunately, performance was disappointing in our tests. This appeared to be due to poor thermal management: as soon as you put the laptop under stress, the temperature of the processor skyrockets and performance drops off a cliff. While running a video conversion, the processor reached its limit at 99 degrees Celsius, even with the fan mode set to maximum.

Battery life is also disappointing, possibly because the OLED screen needs more power than regular laptop screens. It lasted 7 hours 18 minutes in our video-playback test, which isn't terrible, but falls short of what we'd expect for the price.

### SPECIFICATIONS

Octa-core Intel Core i7-1165G7 processor • 16GB memory • 1TB SSD • 2x USB-C ports • 1x USB 3.0 ports • 1x HDMI port • 802.11ax Wi-Fi • Bluetooth 5.0 • Windows 10 Home • 13.9x305x210mm (HxWxD) • 1.2kg • One-year warranty [www.snipca.com/37431](http://www.snipca.com/37431)

**VERDICT** A classy laptop with a great screen, let down by poor performance and a short battery life

★★★★★

**ALTERNATIVE** Samsung Galaxy Book Ion £1,150 A cheaper laptop with a **Q-LED** screen, which almost matches the ZenBook's OLED panel



## CHOOSE THE RIGHT SPECS

### Processor cores



#### What do they do?

The processor or CPU (central processing unit) is the brain of your PC or mobile device. As processor technology has developed, manufacturers have worked out how to make these smaller, so they can install more than one processor on a silicon chip. When a chip has more than one processor, each one is called a 'core'. The more you have, the more tasks your PC can carry out at the same time without slowing down.



#### How does it work?

The only magic here is miniaturisation. A multi-core processor has two or more processors built on to the same chip. It's effectively providing your PC with extra brain power, without you having to buy and install more than one processor. What's more, the cores can communicate with one another very quickly, because they don't have to swap information via any other components.

#### What are the specs?

Most basic PCs now come with at least a dual-core processor, which improves a PC's ability to multitask. This is enough for office work and web browsing, where there's only one or two things going on at any given time. If you enjoy gaming or regularly use software such as basic video editing, you'll benefit from a quad-core system, as the complex calculations required can be shared out between the cores. Six- and eight-core processors are really only necessary if you're gaming while performing other tasks (such as streaming or recording video), or for complex editing tasks such as professional video-, image- or audio-editing.

#### Can I change them later?

Processors can be upgraded, but upgrading the number of cores would also require a new motherboard, so it's generally less hassle to buy a new PC.



**PHONE** | £200 from Amazon [www.snipca.com/37412](http://www.snipca.com/37412)

## Motorola Moto G9 Plus

Best of three

The Moto G9 Plus is the best of the trio of G9 smartphones that Motorola has treated us to. First there was the Moto G9 Play (£155 from [www.snipca.com/37413](http://www.snipca.com/37413)), followed by the Moto G9 Power (£200 from [www.snipca.com/37414](http://www.snipca.com/37414) – see our review, Issue 599) with its whopping 6,000mAh battery. Despite its name, the Plus is only slightly larger than the Power. However, everything else except the battery has been beefed up, so we get a faster processor and superior screen.

The screen takes up most of the phone, with a bezel that's around a millimetre thick all the way around, except for the bottom where it doubles to 2mm. The fingerprint reader is combined with the side power button and the front-facing camera is located in a pinhole in the top left-hand corner of the screen. It has a 3.5mm headphone jack for wired headphones and a **microSD card** slot for supplementing the 128GB of internal storage with an additional 512GB.

### SPECIFICATIONS

Octa-core Qualcomm Snapdragon 730G • 4GB of memory • 6.81in 60Hz 2400x1080-pixel screen • 64-megapixel rear camera • 16-megapixel front camera • 128GB storage • MicroSD card slot • 4G compatible • 802.11ac Wi-Fi • Bluetooth 5.1 • Android 10 • 170x78x9.7mm • 223g • Two-year warranty [www.snipca.com/37412](http://www.snipca.com/37412)

“A snappy phone with superior screen and decent camera”

The other Moto G9 phones have **720p** screens but the G9 Plus gets Full HD with a resolution of 1080x2400 pixels. It's also marginally brighter (466**cd/m2** compared with 425**cd/m2** on the G9 Power) and has better colour accuracy, covering 93.6 per cent of the **sRGB** colour range.

Inside is the eight-**core** Qualcomm Snapdragon 730G processor, previously only seen in phones costing around twice as much, backed up by 4GB of **RAM**. In everyday use the phone feels snappy and it performed well in our graphics **benchmarks** tests.

Battery life is above average, lasting 19 hours 11 minutes in our video-playback test, but this isn't as impressive as the G9 Power with its extra battery capacity and lower-resolution screen. The G9 Plus comes with four cameras on the back: a 64-megapixel main camera, supported by an 8-megapixel ultra-wide lens and two 2-megapixel sensors: one for depth and the other for **macros**.

The main camera is very good for this



price, taking detailed shots in daylight, with decent colour balance. In lower light, the camera was prone to a little graininess. It also performed well shooting video – capable of 60**fps** at **1080p**, or 30fps in **4K** resolution, and its **image stabilisation** works well at both resolutions.

**VERDICT** There's a lot of competition around for the best £200 smartphone, but this superb Moto is up there with the best of them

★★★★★

**ALTERNATIVE** Motorola Moto G9 Power **£200**  
The G9 Power ran for over 26 hours in our video-playback battery test but the performance and screen aren't as good



### WHAT SHOULD I BUY?

We solve your buying dilemmas

## Can you suggest a laptop with a separate numeric keypad?

**Q** Can you suggest a reasonably priced laptop with a numeric keypad? My daughter works from home, but her work involves inputting numbers, and using the keys across the top slows her down. She doesn't want a separate keypad as she tends to work on a small area or her lap.

Les Owen

**A** You don't get numeric keypads on laptops with screens smaller than 15in because there simply

isn't enough space in the chassis to incorporate them. However, there are plenty of affordable 15in models available. At the cheaper end of the scale, the HP 15s-eq1540na costs £319 ([www.snipca.com/37409](http://www.snipca.com/37409)), though it only runs Windows 10 S and will be quite slow. Dell has a similarly priced laptop – the

Inspiron 15 3000 – with Windows 10



Home but a slow Celeron processor and a large standard hard drive ([www.snipca.com/37410](http://www.snipca.com/37410), pictured). If you can afford it, spend more on a better processor, more **RAM** and a larger **SSD**, as these elements will dramatically improve the laptop's performance. For example, you can get the same Dell model with an AMD Ryzen 5 processor, 256GB SSD and 8GB of RAM for £499 ([www.snipca.com/37411](http://www.snipca.com/37411)).



Do you need advice on what you should buy? Email us at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



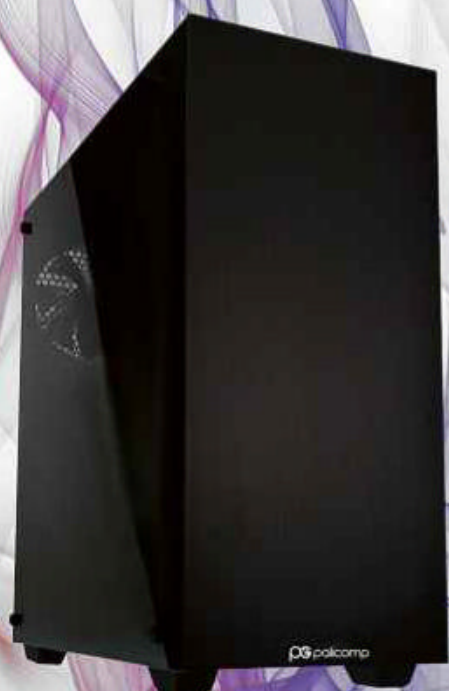


£499.99

**Impulse**

## AMD IMPULSE (RYZ7)

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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)

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AMD 5700XT 8GB  
CORSAIR iCUE 220T RGB White  
MICROSOFT Windows 10 or 10 Pro

**palicomp**

01270 898 104  
sales@palicomp.co.uk



**TABLET** | £509 from Amazon [www.snipca.com/37399](http://www.snipca.com/37399)

## Samsung Galaxy Tab Active 3

### Hard case

If you avoid having a tablet around the house because you or perhaps younger members of the household are accident-prone, or you just want a tablet you aren't afraid to carry with you wherever you go, the Samsung Galaxy Tab Active 3 may just fit the bill. It isn't a cheap, cut-back tablet designed for clumsy kids, but a fully-featured device that should survive being flung in the car, taken on holiday (that'd be nice) and absorbing a knock or three. Samsung claims it can survive a 1.5m drop and being immersed in 1.5m of water for up to 30 minutes.

“A rugged device that'll withstand hard knocks inside and outside the home”

While the tablet itself feels strong, it also comes with a case. This fits around it and offers further protection, while also providing housing for the Samsung S Pen stylus, which comes with it. Despite this, the Active isn't heavy, weighing just over 400g. The only challenge is removing the S Pen from its slot: it takes a bit of a tug, but that does mean it won't be easily lost when out and about.

Inside the tablet is an eight-core Samsung Exynos 9810 processor and 64GB of storage, which you can expand to 1TB using a microSD card. It can also accommodate a 4G SIM card, so you can have a data connection on the tablet even if you take it to places without a Wi-Fi network. The latest 802.11ax (Wi-Fi 6) standard is supported, as is Bluetooth 5.

The screen is bright and clear, with a sharp 1920x1200-pixel resolution. It uses Samsung's Plane to Line Switching technology, which is similar to the IPS standard

you'll find on other mobile devices. We measured its peak brightness at just shy of 500cd/m<sup>2</sup>, so it's usable even in direct sunlight. Colour coverage is excellent, with 99.9 per cent of the sRGB colour standard available.

The battery lasted seven hours 30 minutes in our video-playback test. And if you've ever had a tablet that was bricked because the battery was worn out, you'll be pleased to know that this one is replaceable, without needing to resort to special tools or expert help.

It wasn't the best performing tablet we've ever put through our benchmark tests – you'll need less rugged models for that. Nevertheless, apps snapped open on demand and we were fairly happy with its speed. Graphics performance is good enough to run most games but if you want to play the latest 3D titles, look elsewhere.

The front (5-megapixel) and rear (13-megapixel) cameras are fine, but as with most tablets not brilliant. You wouldn't want to use them to take your wedding photos, but they're fine for casual snaps. Your smartphone probably has a better camera.

There are a few features that you might not get on regular tablets. Because this has a USB-C port on the bottom, you could connect it to a USB-C hub and plug in a keyboard and monitor. This basically turns your tablet into small, Android-based mini-PC, should you ever want to use a bigger screen to view photos or a keyboard to type a document or write a long email.

### SPECIFICATIONS

8-core Samsung Exynos 9810 processor • Mali-G72 graphics • 4GB RAM • 8in 1920x1200 pixels PLS screen • 64GB storage • MicroSD slot • 13-megapixel rear camera • 5-megapixel front camera • 802.11ax Wi-Fi • Bluetooth 5 • NFC • GPS • 4G • 3.5mm headphone jack • USB-C connector • 5,050mAh battery • Android 10 • 214x127x9.9mm (HxWxD) • 2-year warranty [www.snipca.com/37399](http://www.snipca.com/37399)



Overall, there's a lot to like about this tablet. We gave it considerable abuse over the testing period and it didn't fall apart. Compared with a standard tablet it's expensive, but it's designed to keep working even if it takes a few knocks and, in the average family home, this can only be a good thing.

**VERDICT** This tablet is ideal for an active household and will survive being knocked off a kitchen work surface or dropped in the bath

★★★★★

**ALTERNATIVE** Amazon Fire HD 8 Kids Edition £140 A more affordable tablet that's still rugged enough to share with young family members





**SMART SPEAKER** | £229 from Audio [www.snipca.com/37443](http://www.snipca.com/37443)

## Audio Pro G10

Comes with a glamorous assistant

Smart speakers are being built into all sorts of brands now and this Audio Pro speaker from Sweden has Google Assistant built in. It's a stylish and compact cylindrical tower, clad in a durable fabric, available in either light grey (pictured below) or dark grey (right). A rubberised ring on the base ensures that it won't slip on any surface.

On top of the speaker there's a decent range of controls covering all the commands you'll need when not using the voice assistant. Best of all there's a power button – missing from most smart speakers – so you don't have to keep the speaker switched on all the time. There are also buttons for track skipping, source switching, Bluetooth pairing, adjusting the volume and muting the mic to activate its privacy mode.

“Stylish speaker produces excellent sound wherever you place it”

The speaker connects to your Wi-Fi network and is compatible with dual-band 802.11ac. It's set up via the Google Home app, which is a swift and painless process. Once on the network, you can take advantage of the G10's built-in Chromecast capabilities to stream audio from the wide range of Chromecast-enabled apps. Alternatively, use your Apple devices to play audio via AirPlay 2. The speaker also supports streaming through Bluetooth 4.2 and



there's a 3.5mm jack for devices that require cabled connection.

When we tested it using Google Assistant its two microphones picked up our voice consistently from distance. When we stood around 5m away, the G10 was able to recognise and carry out commands with no problems without us needing to shout. However, when we cranked up the speaker's volume, the range at which it could make out our commands was reduced.

In terms of audio quality, it stands out from the competition for all the right reasons. The sound is excellent and, despite its relatively compact form, the G10 can be turned up to full volume without distortion. It lacks correction technology that optimises a speaker's output based on its location, but it sounded great no matter where we placed it, as long as it was facing forward.

### SPECIFICATIONS

1.25in tweeter • 3in long throw woofer • 2x 4.5in passive radiators • 802.11ac Wi-Fi • Bluetooth 4.2 • 3.5mm jack • Supports Chromecast and AirPlay 2 • 193x140x140mm (HxWxD) • 1.43kg • Two-year warranty [www.snipca.com/37443](http://www.snipca.com/37443)

**VERDICT** A stylish, affordable and great-sounding smart wireless speaker that works effortlessly with Google Assistant

★★★★★

### ALTERNATIVE

**Sonos One £199** This comes with the option of either Google or Amazon's voice assistants, and costs slightly less



### DO I REALLY NEED...

## A rear smartphone screen?

### What is it?

A video of what appears to be a forthcoming Xiaomi



smartphone shows a second screen on the back (pictured), nestled among the usual bank of cameras. See it for yourself at [www.snipca.com/37448](http://www.snipca.com/37448).

### What does it do?

The screen, which appears to be no bigger than one inch across the diagonal, replicates what's being shown on the main screen on the front. It's probably designed to make it easier to take selfies with the phone's best camera (on the back), rather than inferior front camera.

### What's the catch?

We've seen secondary screens on smartphones before, but they haven't been very useful since the clamshell days, when a second screen could alert you to an incoming message even if the phone is closed.

### So can I do without it?

Yes, unless you're so obsessed by selfies that you want every photo to be taken on your main camera.

### NEXT ISSUE

On Sale **Weds 24 Mar**

### PC Specialist 15.6in Lafié Pro

An £830 laptop with a 15in screen and all the power you need



### Amazon Echo Show 10

The latest Alexa smart screen is primed for video calls

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

### LAPTOP

NEW  
ENTRY

**Lenovo Yoga Slim 7**  
**£849** from [www.snipca.com/37348](http://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 £1,199 from [www.snipca.com/36642](http://www.snipca.com/36642)

### DESKTOP PC

**Palicomp Intel Mercury**  
**£600** from [www.snipca.com/34223](http://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. £1,549 from [www.snipca.com/35840](http://www.snipca.com/35840)

### APPLE IPAD

**Apple iPad 10.2in**  
**£329** from [www.snipca.com/36178](http://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](http://www.snipca.com/33050)

### ANDROID TABLET

PRICE  
DROP

**Samsung Galaxy Tab S6 Lite**  
**£329** from [www.snipca.com/35795](http://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. £70 from [www.snipca.com/35336](http://www.snipca.com/35336)

### APPLE IPHONE

**Apple iPhone 12**  
**£799** from [www.snipca.com/36582](http://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](http://www.snipca.com/34773)

### ANDROID PHONE

**Realme X50 5G**  
**£260** from [www.snipca.com/36037](http://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](http://www.snipca.com/36586)



## Gopher [Geomyidae]

Gophers create a complex network of private underground tunnels that are intrinsic to their protection and survival

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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](http://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

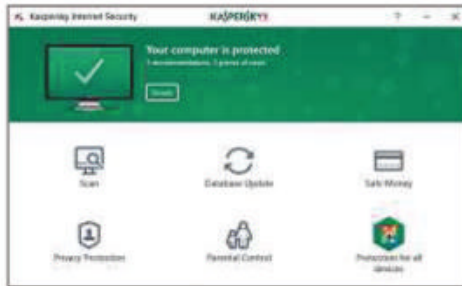
Not waterproof, but has more lighting options to avoid blue light. £110 from [www.snipca.com/32586](http://www.snipca.com/32586)

## SECURITY SOFTWARE

### Kaspersky Internet Security 2021

**£14.99** from [www.snipca.com/21532](http://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](http://www.snipca.com/32069)

## PHOTO EDITING

### Serif Affinity Photo

**£24** from [www.snipca.com/23739](http://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. £28 from [www.snipca.com/26514](http://www.snipca.com/26514)

## PC MONITOR

### BenQ GL2780

**£157** from [www.snipca.com/34834](http://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. £196 from [www.snipca.com/37096](http://www.snipca.com/37096)

## ROUTER

### D-Link DIR-1960

**£102** from [www.snipca.com/32849](http://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. £215 from [www.snipca.com/30710](http://www.snipca.com/30710)

## PRINTER

### Epson Expression Premium XP-6105

**£162** from [www.snipca.com/37271](http://www.snipca.com/37271)

**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](http://www.snipca.com/36183)



## COMPETITION

# Win 1 of 3 Lindy BNX-100XT headphones

Winner of a Recommended award in Issue 598 (page 26), Lindy's BNX-100XT headphones have advanced noise-cancelling technology for a superior listening experience.

They have noise-detection microphones on the earpieces (Feedforward) and inside the speaker driver assembly (Feedback). This hybrid system lets the headphones

suppress noise over a wider range of frequencies regardless of the direction of the sound.

They've also been built to deliver superb quality hi-fi sound using advanced aptX technology, providing deep bass, perfect clarity and crystal-clear treble.

Its brilliant Auto Pause feature turns off the audio when you remove the headphones, then resumes when you put them back on. Equally clever is Audio Pass-Through, which you can set to reduce playback volume when you need to hear something important, such as a train announcement.

To enter this competition, email your home address to [cacomp@dennis.co.uk](mailto:cacomp@dennis.co.uk) with 'Lindy' in the subject line by midnight Tuesday 23 March. Good luck!

You can buy the **Lindy BNX-100XT headphones** for £100 from Amazon ([www.snipca.com/37065](http://www.snipca.com/37065)). You get a pair of headphones that operate using Bluetooth 5, a durable hard-shell carrying case, a 3.5mm audio jack cable, a USB-C charging cable, an aeroplane plug adapter and a 6.3mm stereo-plug adapter. Battery life is an impressive 15 hours.



### MESH ROUTER

**BT Whole Home Wi-Fi**  
**£200** from [www.snipca.com/26990](http://www.snipca.com/26990)  
**Tested** Issue 496

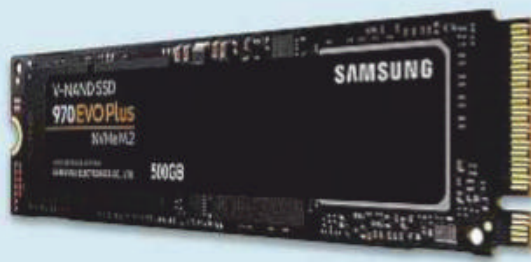


BT's set of three discs, managed from an Apple or Android app, connects to your broadband and spreads high-speed Wi-Fi all around the house. Reception is far better than a single router, and the price is lower than any rival.

**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](http://www.snipca.com/27309)

### SOLID-STATE DRIVE

**Samsung 970 Evo Plus 500GB**  
**£76** from [www.snipca.com/31265](http://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](http://www.snipca.com/37304)

PRICE  
DROP

### SMART SPEAKER

**Google Nest Audio**  
**£90** from [www.snipca.com/36475](http://www.snipca.com/36475)  
**Tested** Issue 593



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

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



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# Workshops & Tips

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

**35** Install and run Windows 10X

**38** Add and print captions on your photos

**40** Install Microsoft's new update to remove Flash

**42** Readers' Tips

**PLUS**

**44** Phone & Tablet Tips

**46** Make Windows better

**47** Make Office Better

**48** In the club: Email using Google Groups

## HOW TO...

by Nik Rawlinson

## Install and run Windows 10X

**What you need:** Windows 10 Pro **Time required:** Up to a day

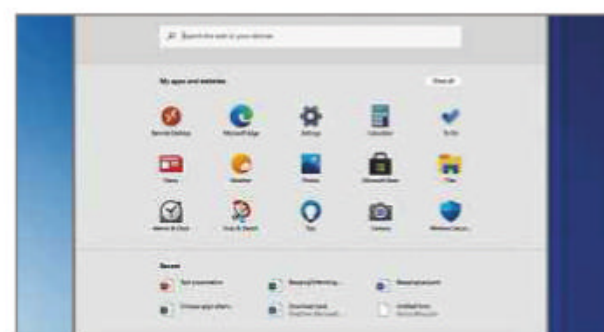
Microsoft is putting the finishing touches to Windows 10X, which looks set to be the most interesting new version of the operating system since it launched in 2015.

It announced the system in late 2019, initially saying it would be built for foldable devices with two screens. However, it has changed course and now says the system will first launch on single-screen devices. The idea is to give users a simpler version of the operating system, with fewer tools and a more streamlined design (including a new-look Start menu – pictured above right), rivalling Google's Chrome OS, which runs on Chromebooks.

Microsoft has recently released a preview edition of Windows 10X, mainly for developers so they can build software

for it before it launches. After all, nobody will want to use an operating system, or the devices that run it, if they can't do anything with it. However, it's not available *only* to developers – you can download it yourself (for free) from the Microsoft Store.

Naturally, Microsoft has no way of knowing what hardware people will be running it on, so rather than build a version that will run automatically on your computer, it's produced an emulator image, which runs as a 'virtual' computer inside a quarantined environment. That sounds more complicated than it really is. An analogy might be useful: because you can't open a spreadsheet directly in Windows, you first have to launch a program like Excel or LibreOffice Calc, which can handle it



on Windows' behalf.

The Windows 10X emulator works in a very similar way, only in this case you're not using a spreadsheet to open the file you want to access, but a program called a hypervisor that pretends to be a computer so it can accept commands from the operating system it's hosting and translate them into the instructions your PC can process. To use Windows 10X you need to turn on Microsoft's hypervisor called Hyper-V. This is available only in Windows 10 Pro, not Home, so you'll need the former to complete our instructions.

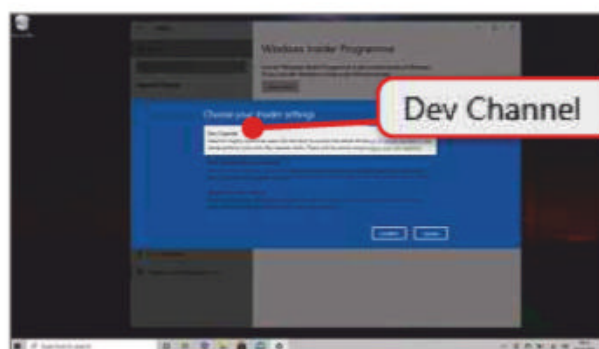
**1**

### Sign up to the Windows Insider Program

Specifically, you need to have downloaded build 19555 or later of Windows 10 Pro from the Windows Insider Program (WIP). By signing up to WIP, you'll receive preview builds before they're available to everyone, letting you try new features early – bear in mind that not all of these will work perfectly.

Before you start, make a complete backup of your system. Better yet, if you have an old PC you can use, rather than your usual machine, switch to that. You

can sign up for Windows Insider at <http://insider.windows.com>, where you'll need to sign in with a Microsoft Account.



**Sign up for the Dev Channel to try the most recent preview version of Windows 10 Pro**

You can choose how early you want to receive each new build of Windows by opening Windows' Settings program (press Windows key+I) and clicking 'Update & Security', followed by Windows Insider Program. There are three options: Release Preview Channel (the most stable version), Beta Channel (for what Microsoft calls "early adopters") and Dev Channel (for "highly technical users" happy to cope with some "rough edges and instability" – see screenshot left).

Once you've signed up for Windows Insider, reboot your computer, then



open Settings again and click 'Update & Security'. On the Windows Update page, click 'Check for updates' and Windows will download and install the latest available build for your selected channel. We opted for the Dev Channel, so that we receive the earliest releases. We're running build 21301.1010 of WIP, which more than meets the requirements of the Windows 10X emulator.

The update will require multiple restarts and may take several hours (as ours did). When it has finished installing and rebooting, the build that you are running will be displayed at the bottom of your Windows desktop should you ever need to refer to it.

## 2 Activate Hyper-V on your computer

Microsoft's Hyper-V is the layer that sits between Windows 10 Pro and the Windows 10X emulator, converting commands from the latter into instructions that can be understood by your computer hardware.

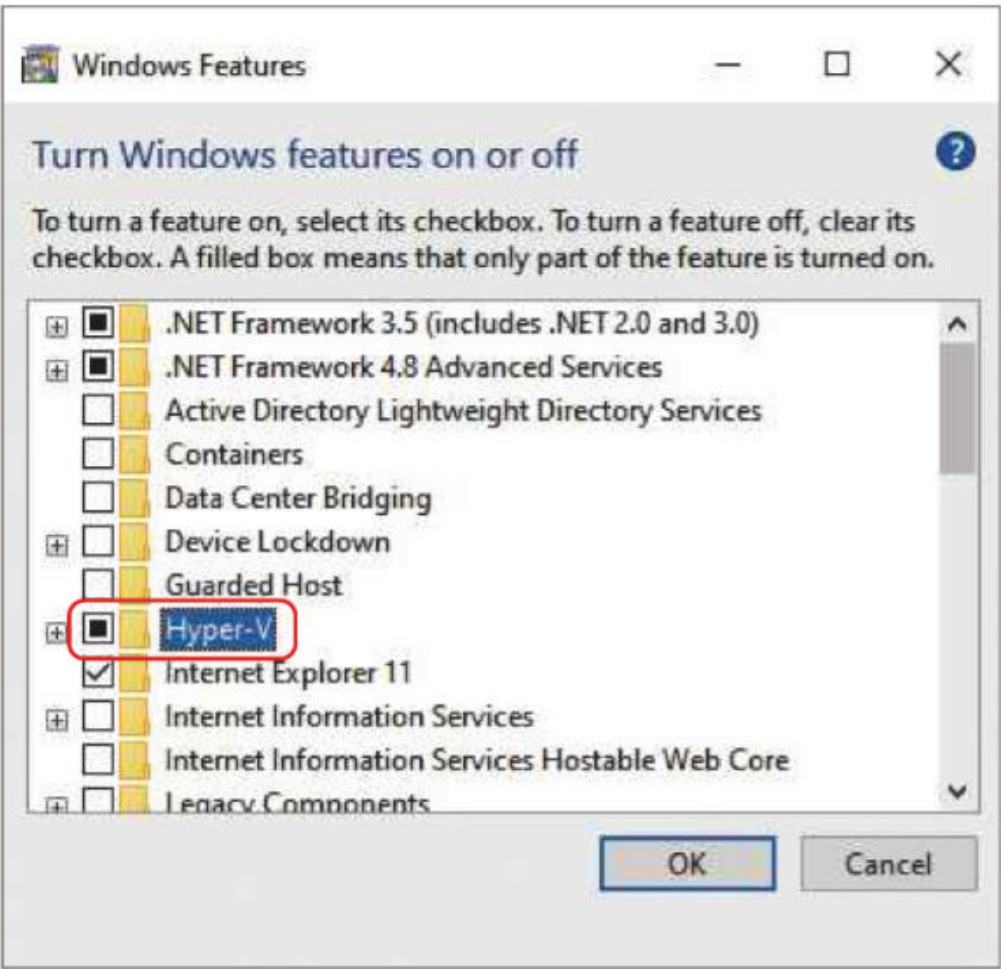
Open the Windows menu and type **windows features**, then click 'Turn Windows features on or off'. Click the box beside Hyper-V. If this fills the box with a block rather than a tick, as shown in the screenshot below, click the plus sign beside it to expand its options.

You should see 'Hyper-V Platform' listed. If it's greyed out, you'll need to check that hardware virtualisation is enabled on your PC. This isn't something

you can do inside Windows so you'll need to reboot your computer and, before Windows launches, press whichever button opens its **BIOS** or **UEFI** interface. This is the part of the **firmware** that controls how your computer starts, which features are available, and how it works with the operating system. Which button you need to press depends on the make and model of your computer, but it's usually F2 or F10. Keep an eye on your screen when the PC is rebooting, as the required key might be shown. If not, check your manual or online help pages.

The layout of the configuration screen it opens also depends on your PC's manufacturer and model. Work your way through them until you find an option to activate hardware virtualisation. Turn it on, then save the setting and reboot.

If you see a Windows Features box with a block inside (rather than a tick), click the plus sign to expand its options



## How I use Windows 10X

Having now tested Windows 10X, I'd be very tempted to buy a Windows 10X device when they become available. It combines much of what I like from other operating systems, including Google's Chrome OS and the full-screen simplicity of iOS. The PC on which I trialled Windows 10X has long been showing its age, so the idea of swapping it for something sleek and web-centric is very appealing. But a lot depends on how much the first batch of devices cost.

Nik Rawlinson

How do you use Windows 10X?  
Please let us know: [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



Return to the Windows Features screen and make sure you can enable every option within the Hyper-V section. When you've done so, the square block will become a tick.

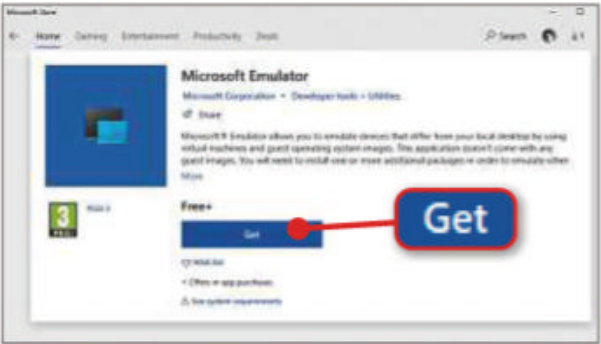
You'll now be prompted to restart your computer. Allow it to do so, and Windows will install some additional components that are required to run Hyper-V on your system.

## 3 Install and run the emulator

Open the Microsoft Store from the Windows menu and search for Microsoft Emulator (or visit [www.snipca.com/37378](http://www.snipca.com/37378) to go straight there). Click it in the results, then click Get (see screenshot below). The emulator will download and install itself. Once the installation has completed, click Launch.

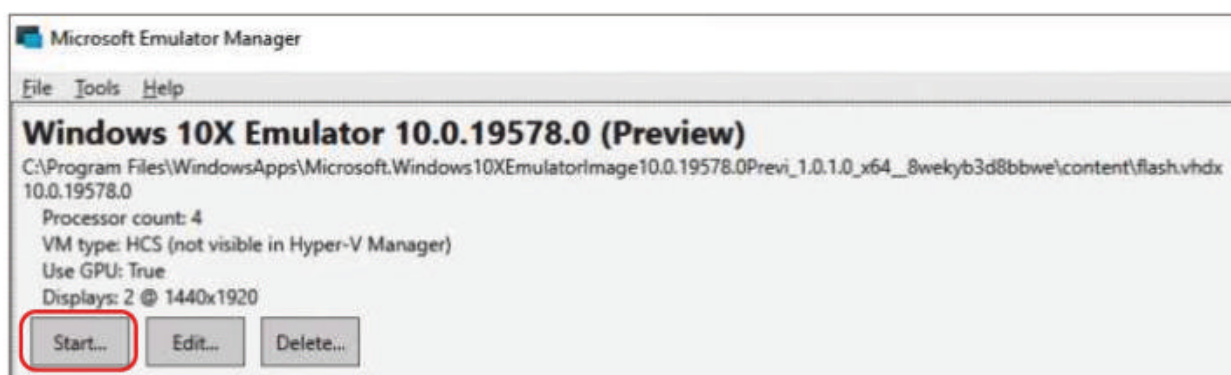
The emulator will now search for emulation images in the Microsoft Store. Click 'Install' beside the version with the largest build number to add it to the emulator environment. Emulation images are complete operating systems totalling several gigabytes. So, just as was the case when you updated Windows, the download can take some time to complete. It's worth doing something else while you wait for it to do so.

When the emulation image has been installed, it will appear within Microsoft



Click the blue 'Get' button to download Microsoft Emulator from the Store





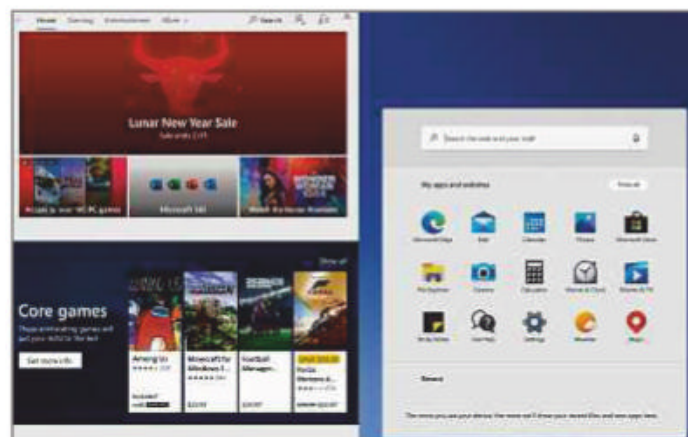
Once the emulation image has been installed, click 'Start...' to launch it within the emulator

Emulator's list of available environments. Click the 'Start...' button immediately below its details (see screenshot above).

Read the License Terms that appear and click Accept. The first time we ran the emulated Windows 10X environment, it was quite slow and hindered other processes on our PC. In large part, that was due to us having installed it on an eight-year-old machine. However, after shutting down the emulator and rebooting again, it was more responsive. It should be much faster on newer computers.

By default, Windows 10X launches in dual-screen mode, which lets you run two full-screen programs side by side. In the screenshot above right we have the Microsoft Store open on the left and the new-look Start menu on the right.

Click the Windows icon on the left screen to open the familiar Windows menu and pick one of the pre-installed programs, which are all fully operational. You can browse the web, check the weather, plan routes using maps and more. To launch another program on the right-hand screen, click the horizontal bar at the bottom to expand the taskbar,



By default Windows 10X runs two screens side by side, letting you use different programs at the same time

then click the Windows icon to open the menu.

As mentioned earlier, the first version of Windows 10X will probably be for single-screen devices, so the emulator also lets you mimic these, as well as hardware in which the screens are stacked one on top of the other, rather than side by side. You can choose this option (and others) by clicking the layout button on the floating toolbar then selecting 'Dual landscape' (see screenshots below). For more options, click the chevron at the bottom of the toolbar.

As you become more familiar with Windows 10X, you'll notice that while it's recognisably a spin-off from the main

## 3 THINGS YOU CAN DO WITH WINDOWS 10X

### Install Microsoft Store apps

Windows 10X isn't built to work with older software, and is designed to run everything full screen, but you can install apps from the Microsoft Store.

### Work across multiple devices

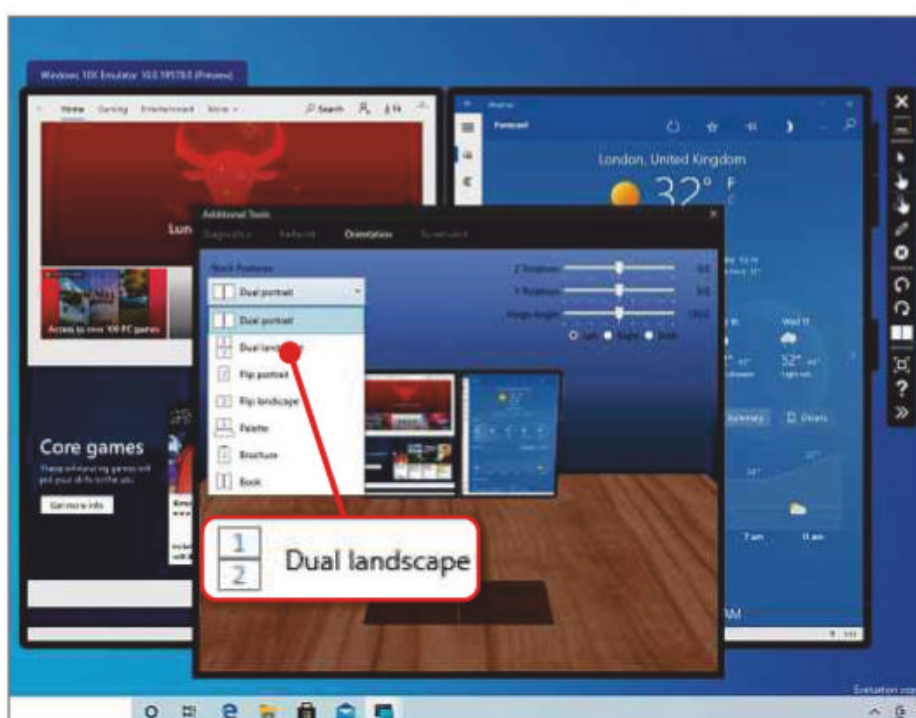
OneDrive, which is at the heart of the system, will synchronise your files to online storage, making it much easier to stop working on one device and pick up again on another.

### Find things faster

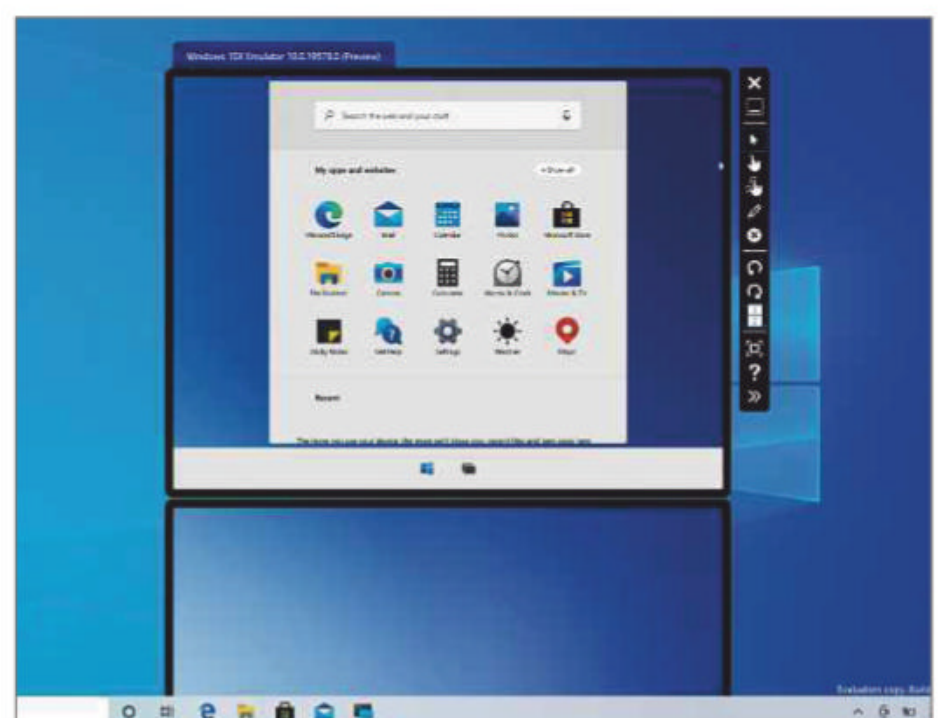
The Start menu has been simplified, so there are no 'Live' tiles updating in real time. Recently installed programs or recently used files have their own space on the Start menu and there's a search box at the top. The new Action Centre, to the far right of the taskbar, lets you control many settings, including playing audio.

Windows 10, a lot has changed behind the scenes to make it feel more logical and easier to use. You'll also realise that it has lost many of the old features dating from Windows Vista, and some of the design styles from the days of Windows 8.

What it probably won't be is a like-for-like replacement for your existing operating system, being unable to handle advanced software as smoothly. We'll explore it in depth when (or if) it arrives later this year.



Choose 'Dual landscape' in the floating toolbar...



...to see one screen on top of another on your desktop



# Workshop1

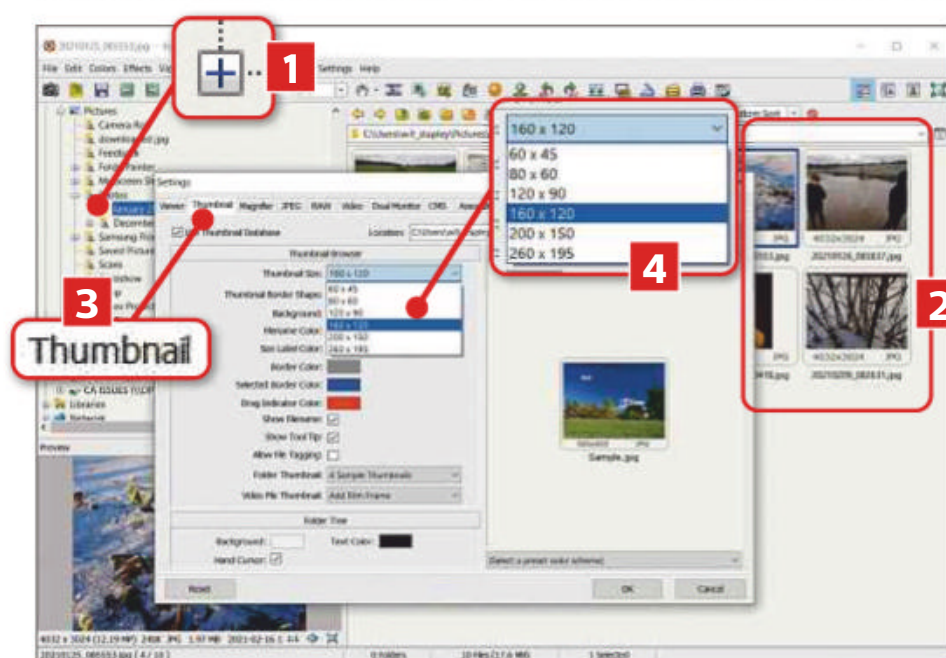
## Add and print captions on your photos

**What you need:** FastStone Image Viewer; Windows 7, 8.1 or 10

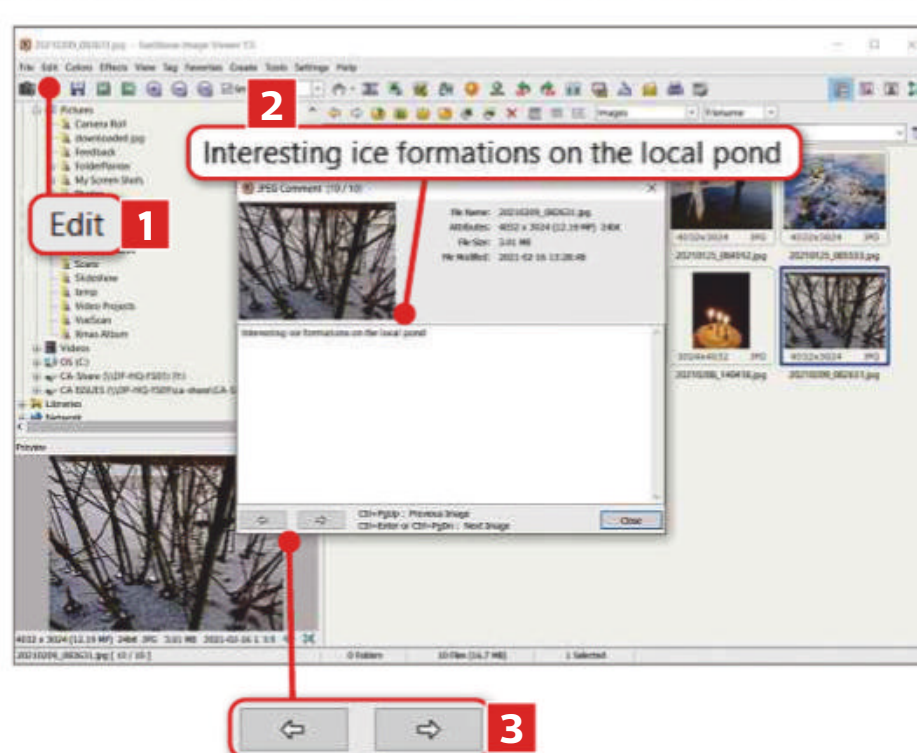
**Time required:** 30 minutes

When *Computeractive* reader Peter Ashton asked us to suggest a tool to place captions on his photos (see Issue 600, page 19), we had no hesitation in recommending FastStone Image Viewer. In this Workshop, we take things a

step further, revealing how to make these captions (and other details, such as the date the photo was taken) visible within your images. You can then print your captioned images and insert them into traditional photo albums, ready to share with friends and family.

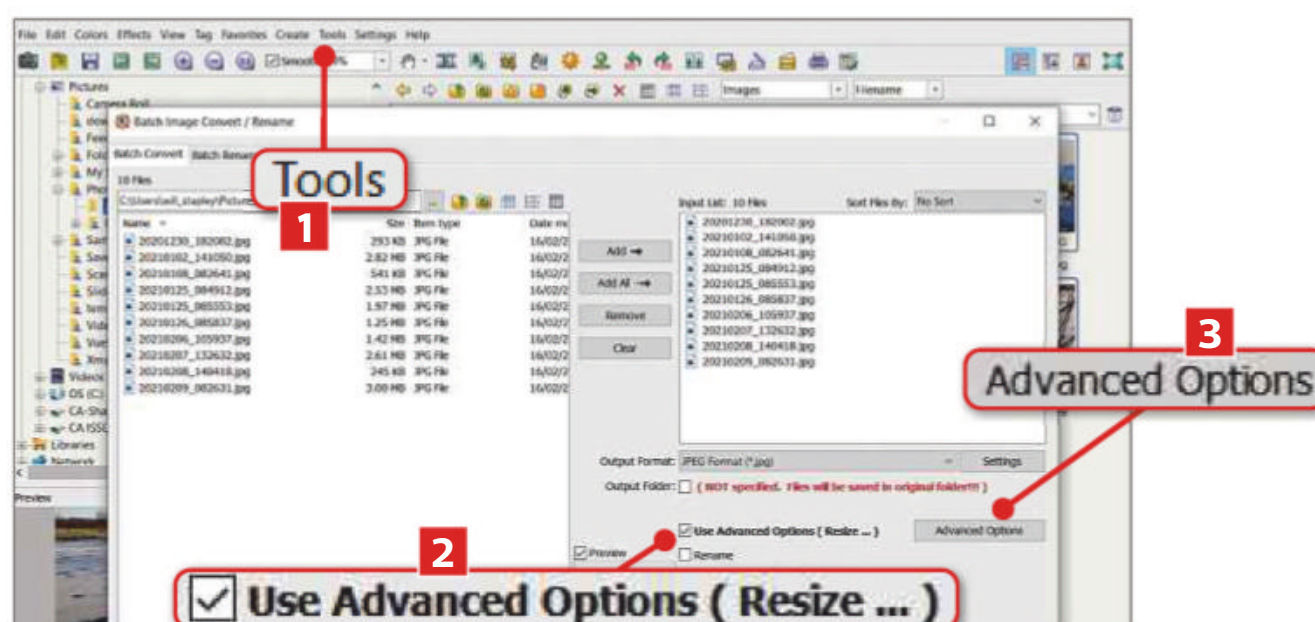


**STEP 1** Download and install FastStone Image Viewer from [www.snipca.com/37371](http://www.snipca.com/37371) (click the Download button under the 'exe' heading at the top of the page). Run FastStone, then use the left-hand pane to navigate to the folder containing your photos (click the small '+' buttons **1** to open folders). When you select a folder, FastStone shows thumbnails of the photos in the right-hand pane **2**. You can adjust the size of these thumbnails by pressing F12, selecting the Thumbnail tab **3**, then choosing an option in the Thumbnails Size dropdown menu **4**.

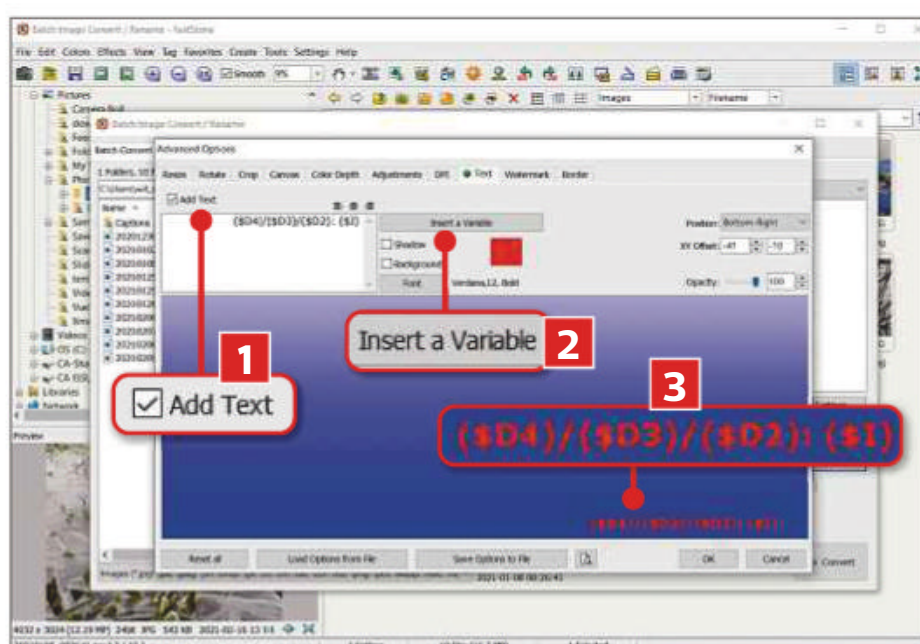


**STEP 2** You can now start adding captions to your photos. Select the first photo you want to caption by clicking its thumbnail. Now open the Edit menu **1** and select JPEG Caption (or press T on your keyboard). Type your caption in the white box **2**, then move on to the next image using the arrow buttons **3**, pressing Ctrl+Enter or clicking its thumbnail. Note that you can add captions to **JPEG** images only.

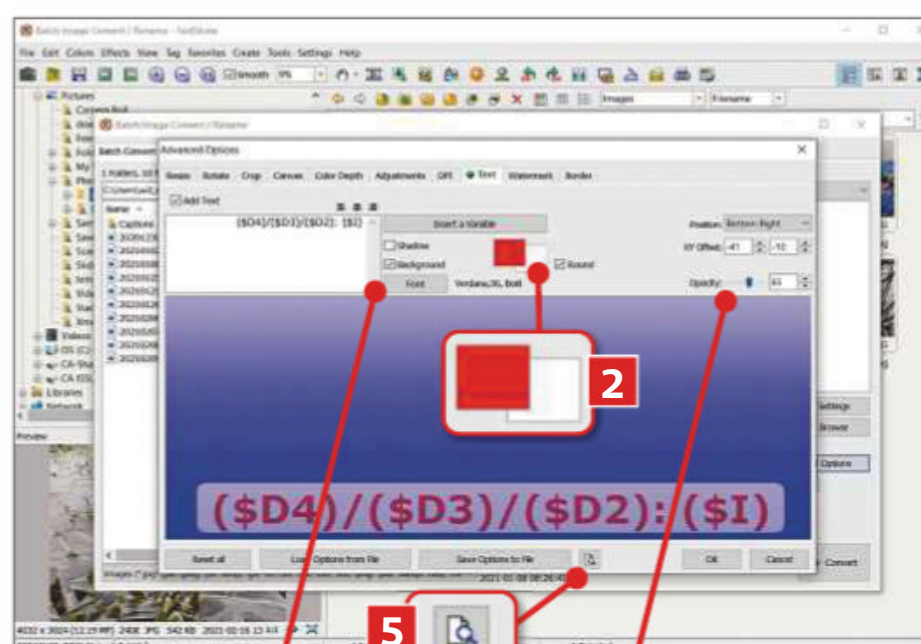
**STEP 3** Once you've added all your captions, close the JPEG Caption window. You can now start making the captions visible in your images. Select each image by holding Ctrl, then left-clicking them in turn. To select all images within a folder, press Ctrl+A. Next, open the Tools menu **1** and select Batch Convert Selected Images (or press F3). In the window that opens, tick the 'Use Advanced Options...' **2** box, then click Advanced Options **3**.





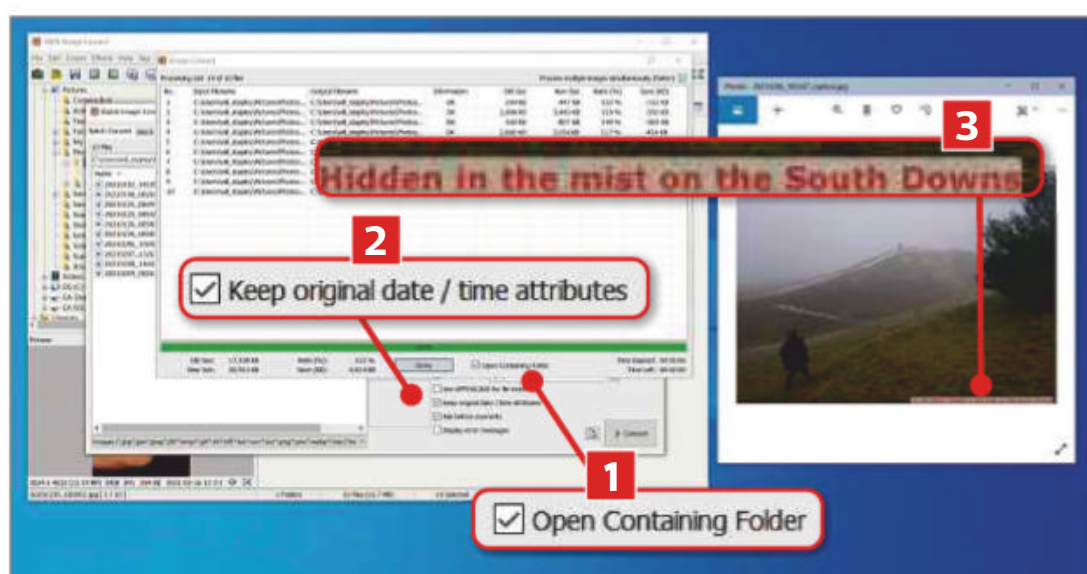
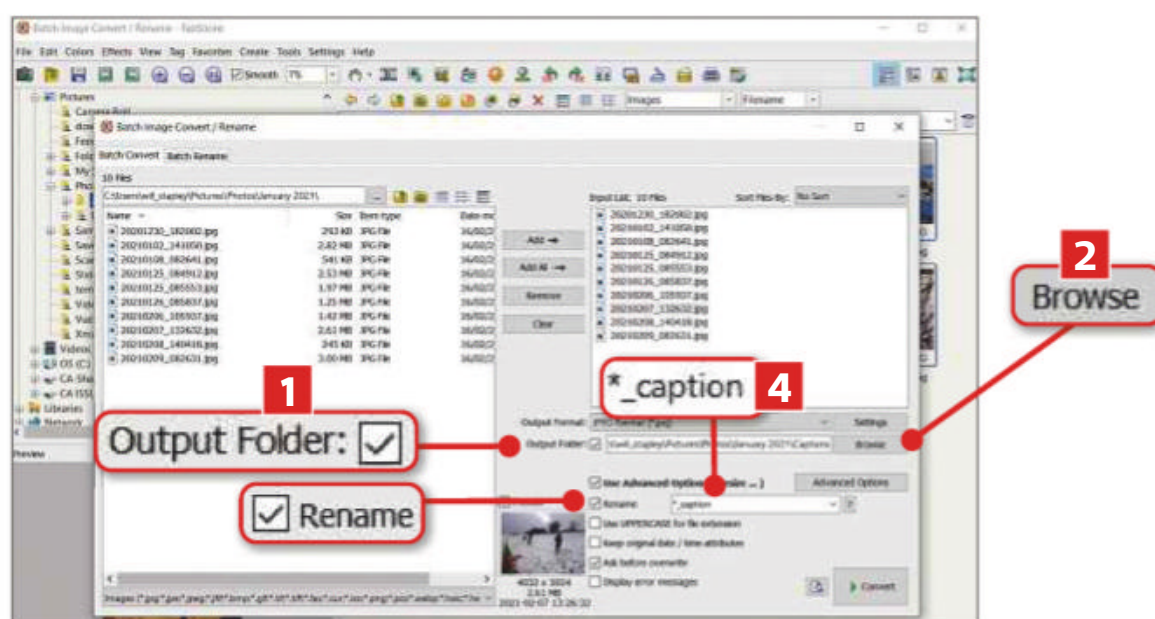


**STEP 4** Tick the Add Text box **1** to reveal the text options. To have the same text on every photo, type or paste it into the white box. However, for each photo to have a unique caption you need to add a 'variable'. Click 'Insert a Variable' **2**, then select 'JPEG Comment...' in the list. FastStone will now add '(\$I)' to the text box (this is the variable representing the captions you created earlier). This also appears in the blue preview box below, showing where your caption will sit – click and drag this box to reposition it. You can repeat this process to insert additional variables – we added the day (\$D4), month (\$D3) and year (\$D2) variables separated by forward slashes, while a colon separates these from the caption **3**.



**STEP 5** To make your captions easier to read, we recommend adding a background **1**. You can change the colour of your background and text using the two colour boxes **2**. Click Font **3** to change the style and size (we found 36 worked well) of the text. If you choose to add a background, it's worth dragging the Opacity slider **4** to the left, making both the background and caption semi-transparent. Click the Preview button **5** to see how your captions look. Once you're happy with them, click OK.

**STEP 6** If you leave the Output Folder box unticked, FastStone will save images to the same folder. Here, we've opted to save them to a different folder by ticking Output Folder **1**, clicking Browse **2** and selecting the relevant folder. You can also rename your captioned photos (particularly important if you're saving them to the same folder as the originals) by ticking Rename **3** then specifying the new naming format in the box – we've entered \*\_caption **4**, which tells FastStone to insert the original name (signified by the asterisk), followed by '\_caption'.



**STEP 7** When you copy a photo, it loses some of the original **metadata**, including the time and date the photo was taken. To ensure this detail isn't lost in your captioned photos, tick the 'Keep original date/time attributes' box **1**. When you're ready to create your captioned photos, click Convert. The 'Image Convert' window will now open, detailing the progress of each photo. Once it's finished, tick the Open Containing Folder option **2**, then click Done. You'll now be able to view your photos complete with captions **3**, then share or print them.



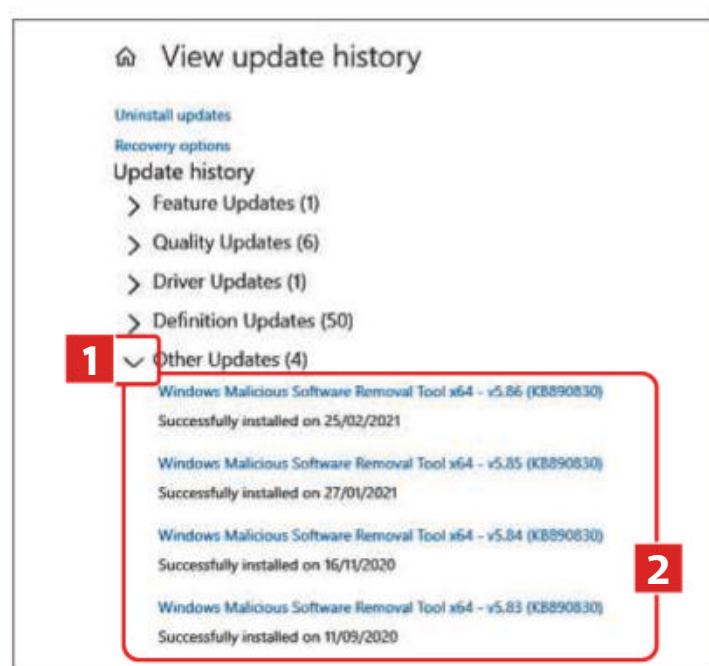
# Workshop 2

## Install Microsoft's new update to remove Flash

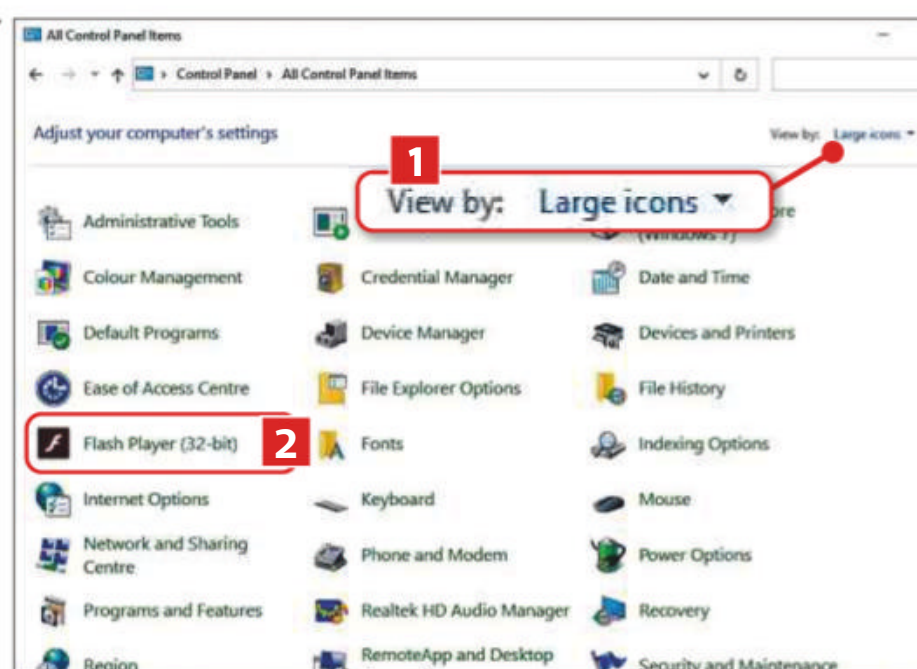
**What you need:** Windows 8.1 or 10 **Time taken:** 20 minutes

Adobe ended support for Flash on 31 December 2020, turning what was already a security risk into a tool nobody should have on their PC. To help people get rid of Flash, Microsoft recently released a Flash-removal tool. It should

install automatically via Windows Update, but the rollout appears to be patchy. Here, we show you how to find out whether you've still got Flash installed on your PC and, if so, how to remove it for good.

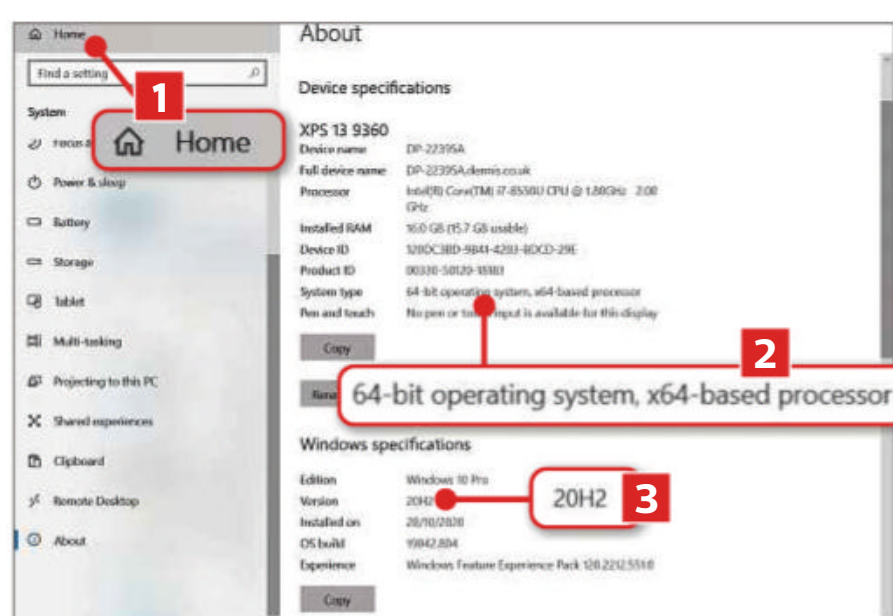


**STEP 1** First, check whether your PC has already downloaded the Flash-removal tool. Open the Settings app (press Windows key+I), select 'Updates & Security', then Windows Update. Scroll down on the right and click 'View update history'. In the next screen, expand the Other Updates section at the bottom **1** and look for an entry called 'Update for Removal of Adobe Flash Player...' (with reference number KB4577586). Although our PC has four updates listed in this section **2**, none relate to the Flash-removal tool. If your PC does have the Flash-removal tool listed as being installed, it's still worth double-checking that it has removed the Flash player built into Windows, as we explain in Step 2.

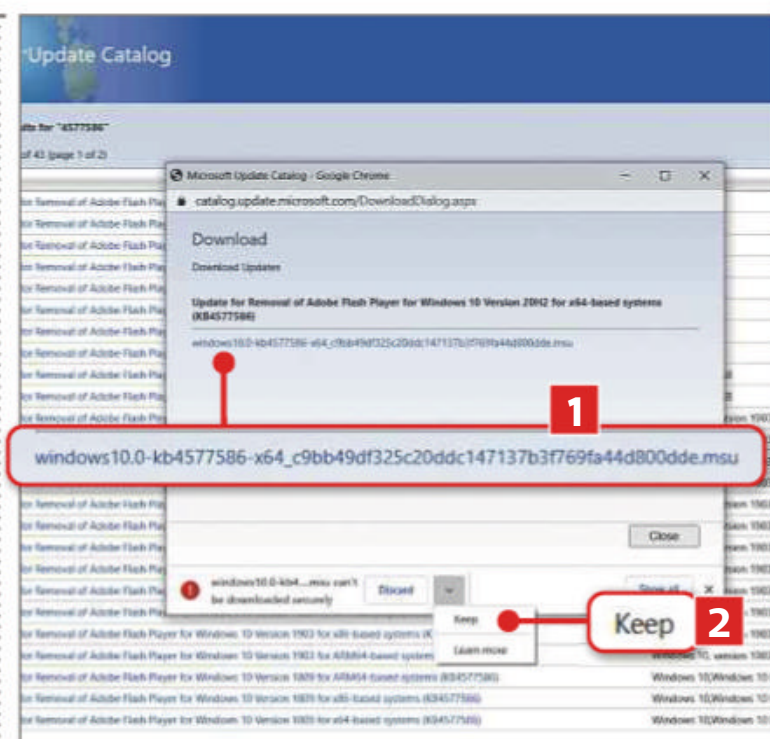
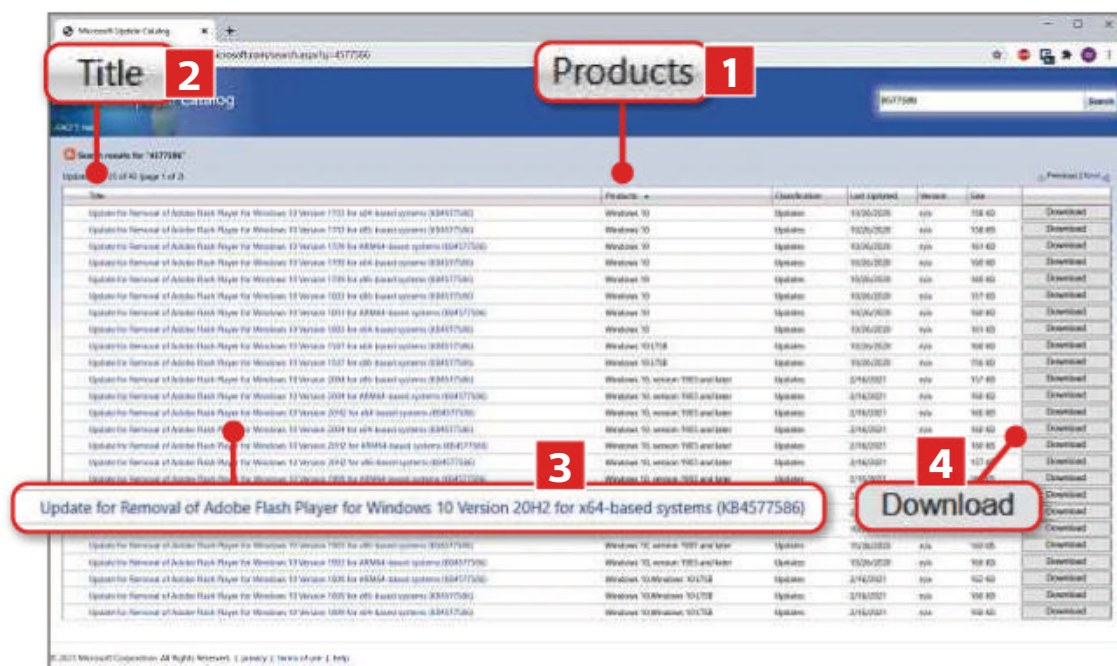


**STEP 2** Click the Windows Start button, then type **control panel** and press Enter. Next, click the 'View by' box in the top-right corner and select 'Large icons' **1**. If you see an icon called 'Flash Player (32-bit)' **2** or similar, it means Flash player is still installed. Instead of waiting for Windows Update to download the tool, we recommend downloading it yourself. If you don't see an icon for Flash Player, skip to Step 7.

**STEP 3** There are several different versions of the Flash-removal tool. To find the one that's right for your PC, you need to first check some of your PC's specifications. Return to the Settings app, click the System section (if you can't see this option, click the Home button **1**), then scroll down the list on the left and select About. On the right-hand side of the window, make a note of the 'System type' ('64-bit operating system, x64-based processor' on our PC **2**) as well as your version of Windows (we have 20H2 **3**, which is the latest version).

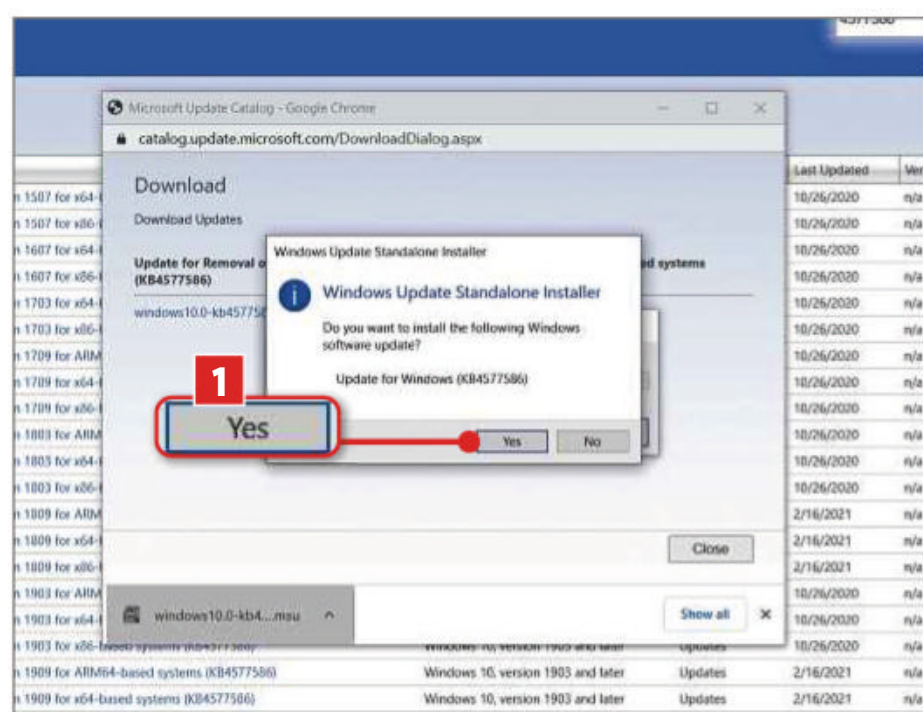




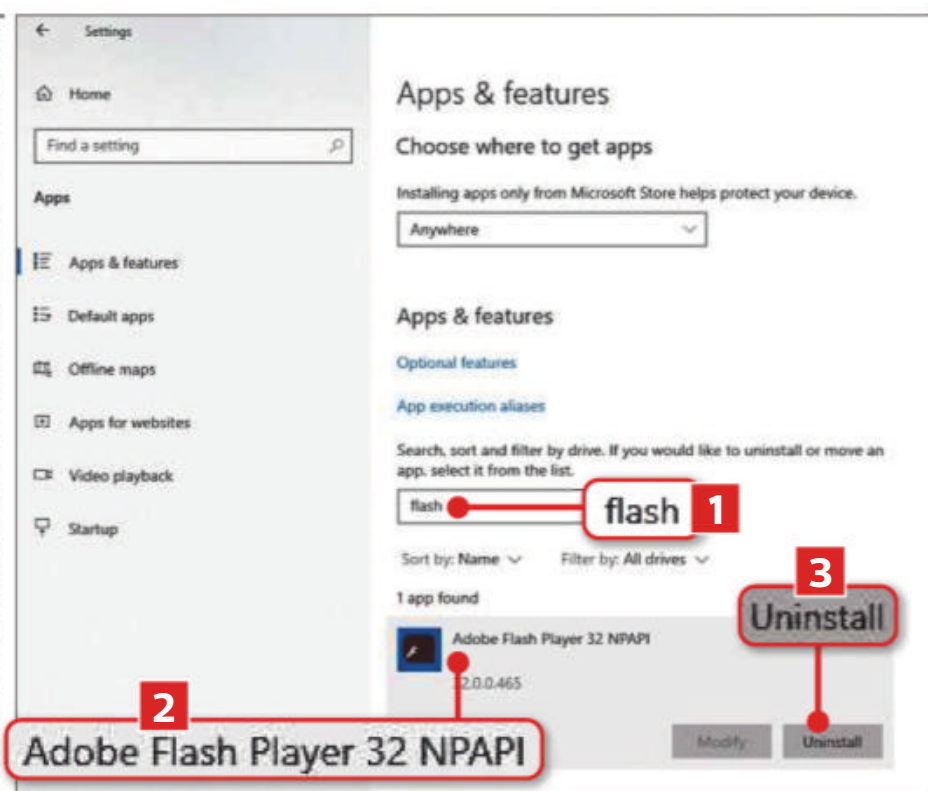


**STEP 4** Go to the Microsoft Update Catalog page at [www.snipca.com/37471](http://www.snipca.com/37471) and click the Products column header **1** to re-order the list. To find the right update for your PC, look in the Title column **2** for entries that match your Windows version number (such as 'Windows 10 20H2'). There will be several entries with the same version number. If you're running the 64bit edition of Windows, select the one with 'x64' in the title; for 32bit Windows, select the one with 'x86'. Our PC is running the 64bit edition of Windows 20H2, so we need the version labelled 'Update for Removal of Adobe Flash Player for Windows 10 Version 20H2 for x64-based systems' **3**. Click the Download button **4** to the right of the appropriate update for your PC.

**STEP 5** In the Download window that opens, right-click the blue link **1**, select 'Save link as' then choose where to save it. Chrome sometimes flags these downloads as unsafe - if so, click the down arrow next to Discard, then Keep **2**. The tool should only take a few seconds to download. Once complete, run the update by clicking the file icon in the bottom-left corner of the Download window or from the folder you saved it to (it will have a file extension of '.msu').



**STEP 6** Windows will check that the update is compatible with your version of Windows. This should only take a few seconds, though it stalled on one of our computers. If this happens, click Cancel, then re-run the tool. When prompted, click Yes **1** to start the update, then wait for the process to complete. Now re-open Control Panel and you'll notice the 'Flash Player (32-bit)' entry is no longer there, meaning the removal tool has uninstalled Flash from your PC.



**STEP 7** Microsoft's tool won't necessarily uninstall all instances of Flash on your PC. If you - or a program on your PC - installed Flash, you'll need to remove that separately. To check whether you have any other installations of Flash, open the Settings app, then select Apps. Sort the list of installed programs by typing flash in the search box **1**. If any Flash installations are listed (as was the case on our PC **2**), click the Uninstall **3** button to remove them.



# Readers' Tips

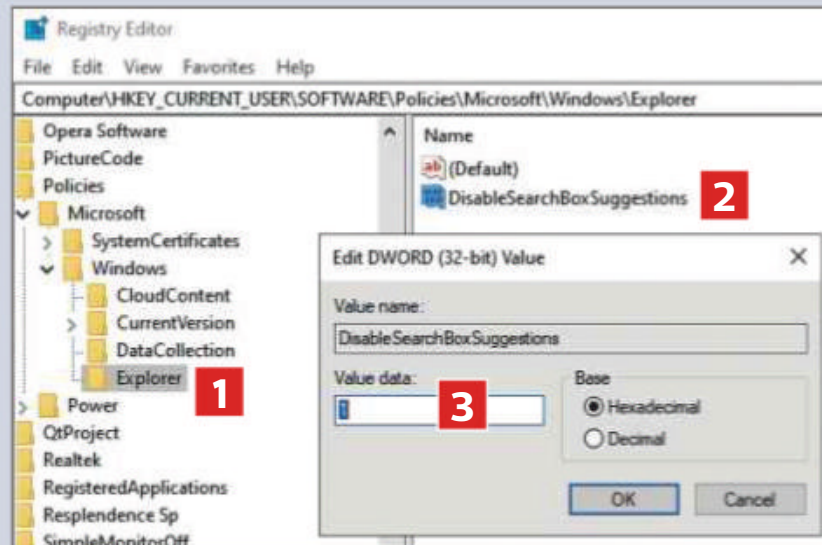
## TIP OF THE FORTNIGHT

### Block adverts for Edge in Windows

I'm an admirer of Windows 10, but that doesn't mean it can't be improved, so I enjoyed Issue 599's Cover Feature ('Remove All Windows Junk'). I like the Edge browser, but I also use Firefox, Chrome and Opera (they all have their strengths). What I dislike though is Microsoft showing me full-screen adverts after updates urging me to use Edge. I already do, Microsoft, you don't need to nag me!

To stop seeing this ad, choose 'Don't update your browser settings'. If you select 'Skip now' instead it'll keep coming back to haunt you.

You can also get rid of the



'Recommended - Microsoft Edge' ad in Windows Search, though it requires a registry tweak. Open the Registry Editor (press Windows key+R then type **regedit**) and navigate to the key: **HKEY\_**

**CURRENT\_USER\SOFTWARE\Policies\Microsoft\Windows\Explorer** (1 in the screenshot).

Look for a value called **DisableSearchBoxSuggestions**. If it isn't there, right-click the Explorer key and select New, DWORD (32-bit) Value (if you can't see the Explorer key, create that, too). Name the value **DisableSearchBoxSuggestions** (2, then double-click it and set the value data to 1 (3). Restart your PC and all recommendations (ie, adverts), including the one for

Edge, should be removed from your search results. Let's hope Microsoft takes the hint.

Jay Cooper



Jay wins a copy of our 2020 Back Issue CD

Buy it on Amazon [www.snipca.com/37026](http://www.snipca.com/37026)

## SOFTWARE

### Search multiple PDFs in one go

✓ Further to Michael Dunkin's letter in support of using Adobe Acrobat Reader (Letters, Issue 598) in preference to opening PDFs in Edge, I use the full search function in Reader (<https://get.adobe.com/uk/reader>) to search multiple documents in one go.

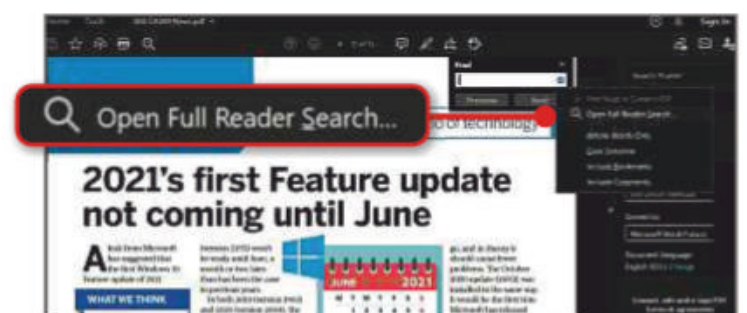
This is something that Edge's simple search function can't do. It's ideal if, for example, you have back issues of a periodical as PDFs that you wish to search to find an article.

First make sure you have set Acrobat Reader as the default program to open PDFs, otherwise Edge will grab it.

To do this, right-click any PDF, select Open With, then choose Adobe Acrobat Reader.

To search multiple PDFs, place them in a single folder. Open one and press Ctrl+F to bring up the 'Find' search bar. Click on the cog wheel to the right and select Open Full Reader Search (see screenshot above right). This will bring up a panel offering a search in My Documents. Click 'All PDF documents in' and select 'Browse for Location'. Browse to select the folder containing the collection of PDFs you want to search.

You can narrow your search by ticking on the boxes for 'Whole words only',



'Case sensitive', 'Include Bookmarks' and 'Include Comments', as appropriate.

Type what you're searching for in the box and click Search. A security warning will appear stating that Adobe requires access to your drives. Select 'Allow'. As the search progresses, you'll see each file that contains the requested word or phrase. You can open these in turn while

## Why I stopped using...

### Sky TV

✓ We used to have Sky, but it got so expensive that we cancelled it and used the satellite dish for a Humax box.

### And what I use instead...

We now use a Freesat box (the **Humax**) as well as the **Roku Streambar** (£130 from Amazon [www.snipca.com/36431](http://www.snipca.com/36431), pictured). The former gives us free

satellite channels, while the latter gives us streaming services on a 'dumb' TV (ie, not smart) without the need for an aerial.

Within a few months we had paid off the cost of these boxes by the money saved from not having Sky. We saved enough to be able to afford a smart TV, but the variety of apps available on the Roku box has made us keep this and



continue to use it, along with the Humax box.

Debs McDougall

✉ Tell us why you stopped using a website, app or program: [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



the search continues.

The present free version is Acrobat Reader DC, the DC standing for Document Cloud to enable you to access documents from any location if you create a free account with Adobe.

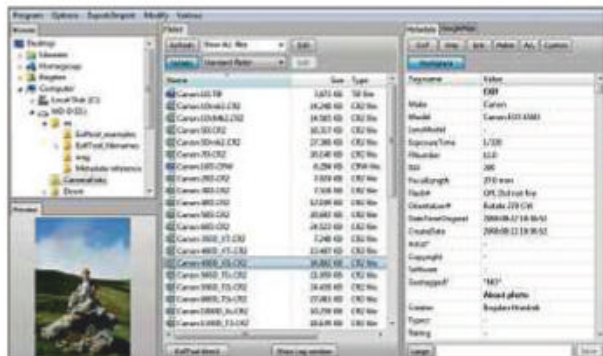
Tim Smith

## SOFTWARE

### Add a user interface to ExifTool

✓ I noticed in Issue 598 (Make Windows Better, page 46) that you again recommended ExifTool (<https://exiftool.org>) – a Command Prompt tool for batch-editing the metadata of your photos. It might be handy for readers who use ExifTool to know there's a graphical user interface (GUI) they can add to it. This makes ExifTool look more attractive (see screenshot below) and also means you don't have to type commands into Command Prompt. To get this, visit [www.snipca.com/37311](http://www.snipca.com/37311) – it will download automatically to your computer. You can read more about the GUI at <https://exiftool.org/gui>.

Dave Symes



## OPERATING SYSTEMS

### Install Linux on an old laptop

✓ I think I may be able to beat Alex Dickson's record of using a 13-year-old laptop (Letters, Issue 599). It might help Roger Wood too, who was looking for an alternative to Windows.

I recently revived my 32bit Dell Inspiron 1300 laptop that has to be at least 16 years old (it runs a 1.4 GHz Intel Celeron processor and 2GB RAM). I did this by installing Q4OS Linux (<https://q4os.org>) and using the Trinity desktop (pictured below – it's one of the



## Reader recommends...

### HP Pavilion 15-cw1017na laptop

£520-£550 from eBay

✓ I recently bought a touchscreen laptop directly from HP – their Pavilion 15-cw1017na (pictured). It came with a 256GB M.2 SSD and 8GB of RAM. I opted for their three-year extended warranty (parts, labour and collection) for an additional £49, and was then given a 10-per-cent discount (over the phone) bringing the total price to £494.09.

It has an AMD Ryzen 3 3300U processor, which is the equivalent of a modern (entry-level) Intel chip and is fast enough to handle all my (albeit modest) demands.

I'd highly recommend getting a touchscreen model. It's great for navigating through text documents,



folders, files and menus.

Since buying, it looks like the laptop has sold out on HP and is "currently unavailable" on Amazon. However, it remains on sale on eBay for between £520-£550.

Stephen Murchieson

✉ Want to recommend hardware or software to fellow readers?  
Email [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)

download options at <https://q4os.org/downloads1.html>).

It boots quickly from my hard drive, supports a choice of web browsers and runs LibreOffice. It's connected using Wi-Fi, letting me share files across my home network. I'm using it to test the open-source HomeBank software (<http://homebank.free.fr/en>) as I feel sure that Microsoft Money will soon cease to work on my modern Windows 10 computer.

Mike Sherwood

## HOME NETWORK

### Check MCB board to see where powerlines can work

✓ Regarding David Edwards' letter in Issue 598 ('Powerlines don't work in my rewired house'), a lot of houses these days have had extensions or substantial renovations and therefore the power sockets are unlikely to be still on the same electrical ring main. If you have a properly installed electrical system, then the MCB board (such as the one pictured above right) will probably show which sockets are on which ring (ie, each socket ring will have a separate MCB and these should be labelled accordingly).

If not, then simply identify a piece of electrical equipment (lamp, TV, alarm



clock etc) in each room and then switch each MCB off in turn and check to see what has stopped working as each one is switched off. This should show which rooms can be connected to the router via powerlines.

Andy Fazackerley

## BROADBAND

### Check your speed using Ookla

✓ An alternative to M-Lab's broadband-speed test, as recommended by Ian Broad (Issue 599), is Ookla's test at [www.speedtest.net](http://www.speedtest.net), which gives you download and upload speeds in a matter of seconds. You have a choice of over 20 servers, and you can save one as a favourite. It also saves a log of your previous tests.

David Eaglesham



# Phone and Tablet Tips

## ANDROID

### Improve your videos using automated tools

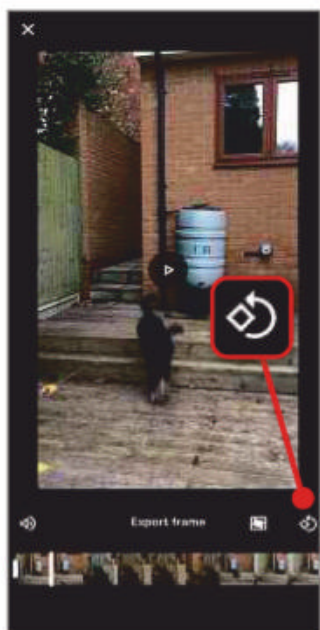


Filmed something in the wrong orientation? Is your video shaky? You can now solve these problems and more using the video-editing tools built into Android – and the best news is, it's almost completely automated.

Open the video you want to tweak and tap the edit icon (three adjustment sliders) at the bottom of the screen. This opens the frames of your video as a timeline. Swiping towards the centre of the timeline from the left or right will trim off the beginning or end of your video clip.

The more interesting buttons are the two that appear just above the timeline. Tapping the curved arrow on the far right (see screenshot below right) rotates the entire video by 90 degrees anti-clockwise. Tap it again to rotate 90 degrees further, and so on. This is an easy way to make a portrait video landscape (and vice versa) or turn an upside-down video the right way up.

To the left of the rotation button, there's a stabilisation button, which will help even out any jerky movements, which are



common when filming on the move or panning across a landscape.

When you've finished editing your video, tap 'Save a copy'.

## ANDROID & iOS

### Take a screenshot of a complete web page

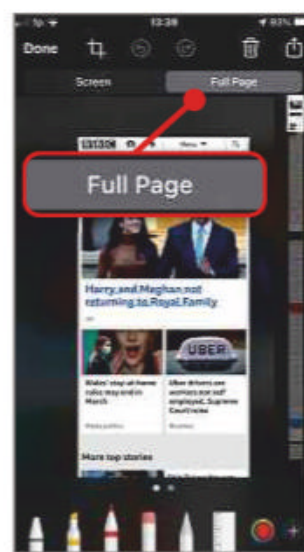


One option when you want to save a long web article for future reference is to take multiple screenshots of the web page as you scroll down it. It works, but keeping those screenshots together and referring to them later can be fiddly. It leaves you with a cluttered image library, too. Thankfully, there are better alternatives.

On an iPhone, open the web page you want to capture in Safari, and take a screenshot by pressing the home and

power buttons simultaneously (on iPhone 6s, 7 or 8), or volume up and the side button (on iPhone X or later). Tap the thumbnail preview of the screenshot that appears in the bottom-left corner of the screen, then tap Full Page (see screenshot above right) at the top of the screen to switch from a grab of just the part of the page that appeared on screen to its full length. Tap Done.

On Android, the screen-capture process differs between manufacturers, so the simplest solution is to install a third-party



app like LongShot ([www.snipca.com/37419](http://www.snipca.com/37419)). Launch it and tap Capture Web Page, then type the address of the page you want to capture. Scroll to the bottom of the page and tap 'End here and capture'. The entire screenshot will be saved to an album called 'longshot' in the Photos app.

If you want to capture just part of the page, scroll down until the first section you want to capture is at the top of the screen and tap 'Set start position'. Next, scroll down until the end point is at the bottom of the screen and tap 'End here and capture'.

## iOS

### Watch a video while doing something else on your device



iPhone users running iOS 14 can take advantage of picture-in-picture, a handy feature that lets you float videos out of web pages you've opened in Safari so they remain in view and keep playing while you do something else on your device.

Start your video playing, then tap it to bring up the playback controls. Next, tap the third button from the right, which looks like a full window slipping out of itself (see screenshot above right), to

## BEST NEW APPS

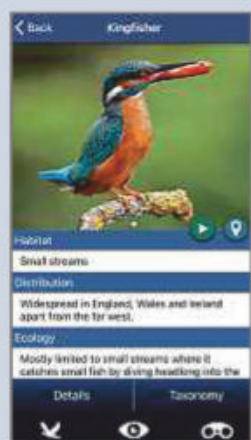
## What you should install this fortnight

### Bird ID

£3.99

iOS [www.snipca.com/37422](http://www.snipca.com/37422)

With spring on the way, many of Britain's migrating birds will be returning and, if you'd like to know more about what's feasting on your feeders, Bird ID could be



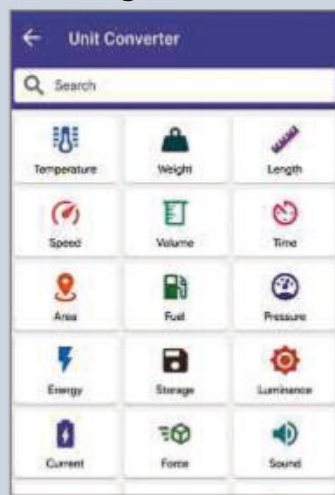
just what you need. Choose an outline shape and Bird ID will list matching species so you can identify them from their plumage. It includes images, call sounds and stats, and is tailored to UK species.

### Smart Tools

Free\*

Android [www.snipca.com/37424](http://www.snipca.com/37424)

This is a multi-function app that provides everything from clothes-size converters (including for hats), cooking measurement



equivalents, fuel-cost tools and QR code-generators, to a flashlight, compass, screen light and bubble level. It's a useful app to tuck away in a folder, and dig out when you need it.

### Kneady

Free\*

iOS [www.snipca.com/37421](http://www.snipca.com/37421)

Baking came back into fashion during the pandemic lockdowns. If you want to try your hand at sourdough, tortillas, Swedish rye crispbread and more, this is where

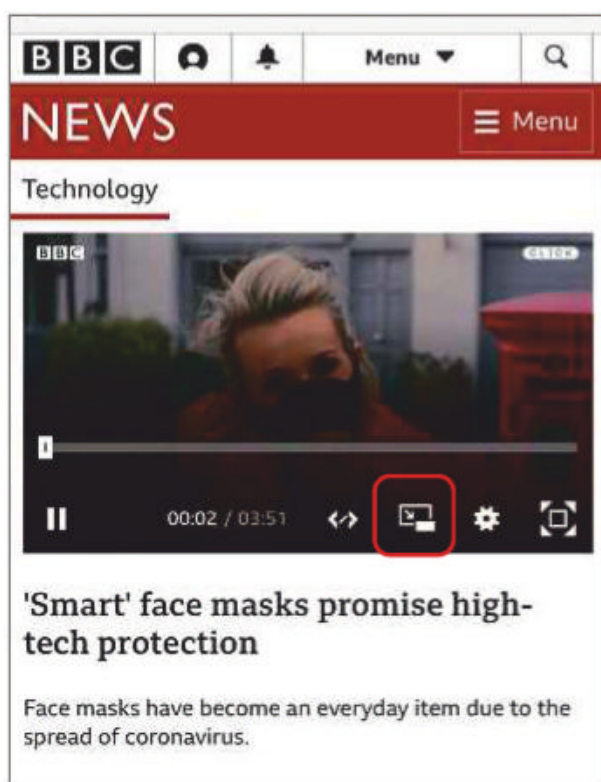


you'll find all the info you need. There are loads of free recipes, which use weights rather than US cup measurements, plus a handy timer. An in-app purchase unlocks extra content.

\*Contains in-app purchases



## Brilliant things to do on your device



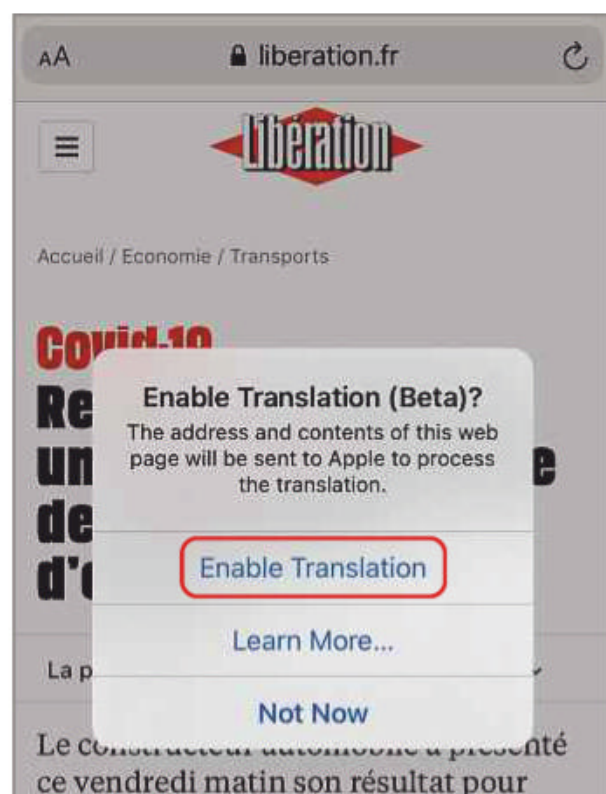
extract the video from the web page. Press the home button to exit Safari and the video will remain on screen. You can drag it to wherever you need it so it doesn't get in the way, and resize it by pinching or unpinching in the usual way.

When you want to get rid of the floating video, tap it again and tap the icon in the top-right corner of the frame to slide it back into the web page where you found it.

### iOS

#### Translate websites on the go

We've been long-time fans of Google's free translation tool at <https://translate.google.co.uk> and the companion apps for iOS ([www.snipca.com/37417](http://www.snipca.com/37417)) and Android ([www.snipca.com/37418](http://www.snipca.com/37418)). You can either paste in foreign text for a direct translation, or



enter the address of a foreign-language web page and it will display a link that directs you to a translated version. It's very efficient, but wouldn't it be even better if you could cut out a few steps?

If you're using Safari and running iOS 14 (available for iPhone 6s and later) you can, though at the moment this works only with a handful of languages, including German, French and Spanish, but we hope to see that range expand.

Open Settings and tap About, followed by 'Language & Region'. Tap 'Add Language...' in the Preferred Language Order box, and choose the language you want to use for translations. When asked

whether you want to change to the new language or keep your existing setting, choose 'Keep English (UK)', and your device will take a few seconds to install the necessary vocabulary as an **add-on**. When it's finished, close Settings.

Next, open Safari and visit the foreign-language web page you want to translate. When it's finished loading, tap the 'AA' button on the far left of the address bar followed by 'Translate to English'. If this is the first time you've used the translation function, tap Enable Translation (see screenshot below left). The web page will be converted to English, preserving its original layout and fonts.

### BEST APPS FOR...

#### Panoramic photos

##### PanoramaCrop

Free\*

Android [www.snipca.com/37425](http://www.snipca.com/37425)

If you want to create panoramic swiping galleries on social media but only have one photo, this app lets you select the most important part and create a multi-frame panorama. Alternatively, if you have a tall or wide picture that you don't want to be cropped, you can embed it in a squarer frame that's better suited to social media.

**Best For** Converting non-panoramic photos

##### Photaf

Free

Android [www.snipca.com/37429](http://www.snipca.com/37429)

Rather than panning across the landscape, Photaf prompts you to take individual shots. Each one is rendered semi-transparent and moved to the side so you can use it as a guide to line up the next frame. It's easy to do and very effective. Results can be scrolled in the app and exported to your photos library for sharing with friends.

**Best For** Sharing panoramic shots

##### Google Street View

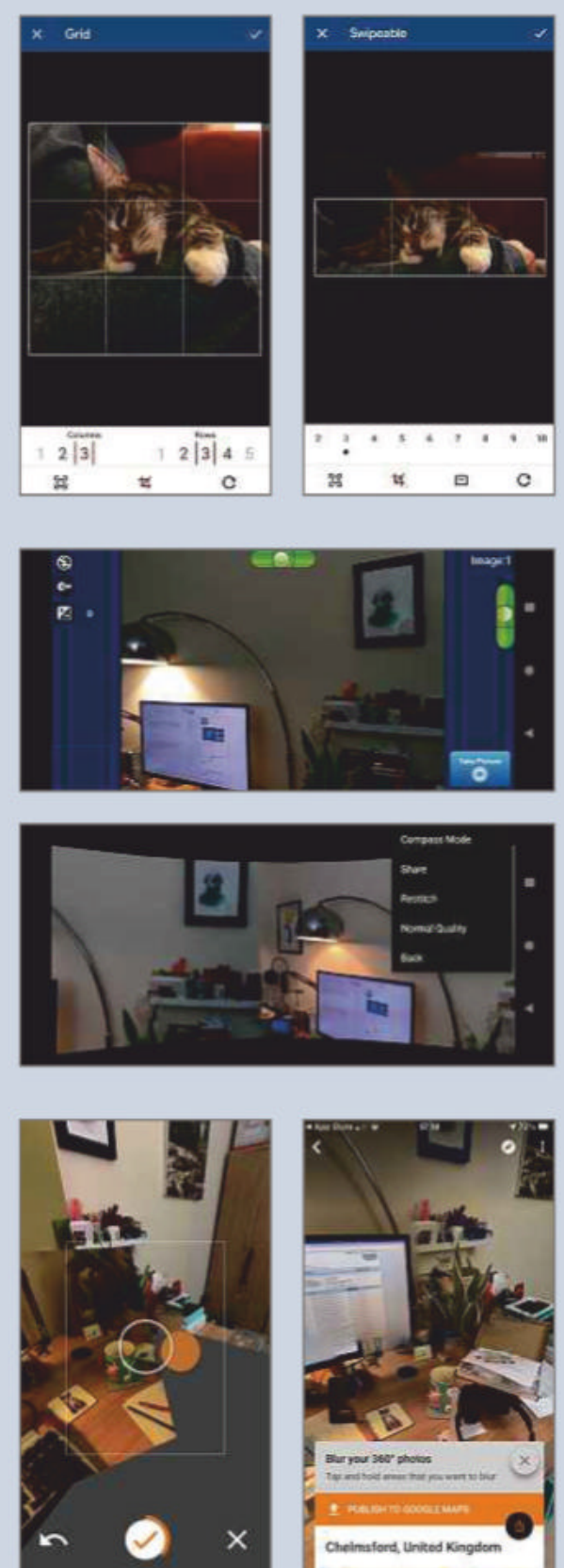
Free

Android [www.snipca.com/37427](http://www.snipca.com/37427)

iOS [www.snipca.com/37428](http://www.snipca.com/37428)

Street View has a handy tool for building 360-degree panoramas. Simply turn around on the spot and line up the circle on screen with the virtual dot overlaying your view on the screen, which moves to guide your rotations. Repeat, until you've covered the whole area and it will stitch your shots together. You can then share the results on Google Street View.

**Best For** Putting your panoramas on a map



\*Contains in-app purchases



### WINDOWS 7, 8.1 & 10

#### Find files in a crowded folder

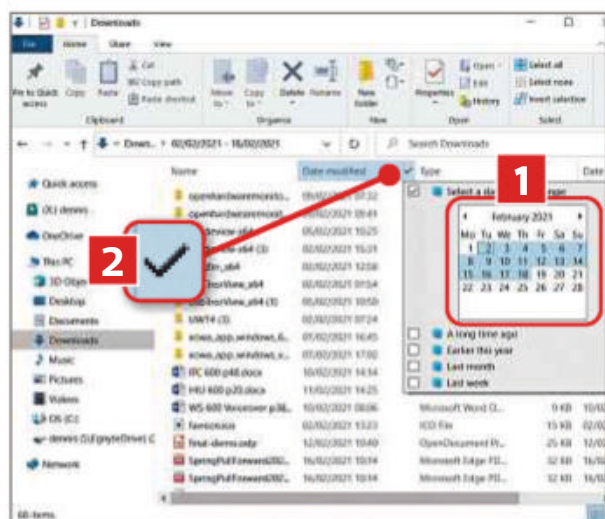


File Explorer may not be as versatile as alternatives such as

Q-Dir that let you view files in multiple tabs ([www.snipca.com/37513](http://www.snipca.com/37513) – see Issue 600, page 19), but it still has plenty of features hidden away.

For example, when viewing a folder containing multiple files, you can use filters to show only those that you're interested in. To access the filters, hover over the column header you want to filter with, then double-click the small down arrow. The filter options available depend on the header. In the 'Name' column, for example, you can filter files by the first letter of their name (such as '0-9', 'A-H' and so on). Double-click the arrow on the 'Date modified' header and you'll see a calendar that lets you select a specific date or – by clicking and dragging your mouse – a range of dates (see **1** in our screenshot below). Alternatively, you can tick the preset options below the calendar to see files modified in the last week, month or year.

When you've set File Explorer to filter files, you'll see a tick **2** to the right of each column header with an active filter.

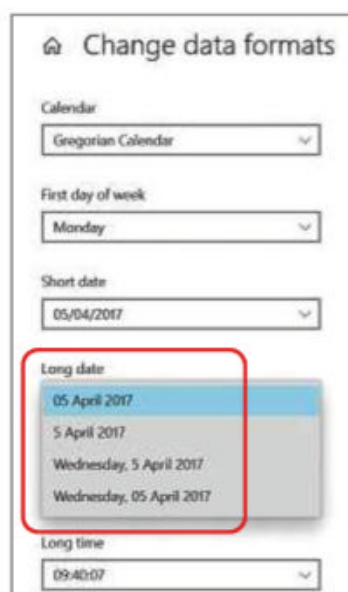


### WINDOWS 10

#### Change date formats

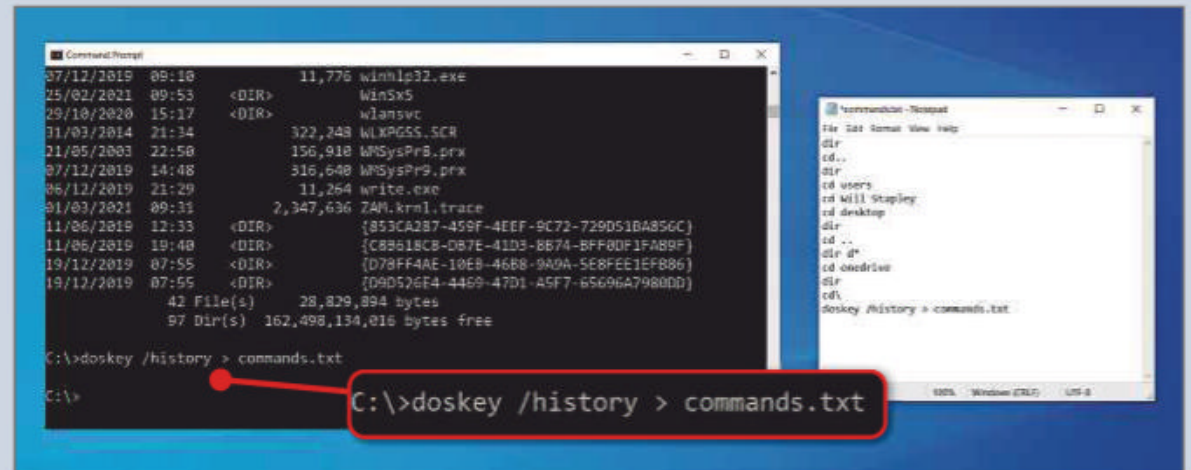


Windows uses a variety of long and short formats to display certain data, including time and date. To review and change these formats, open the Settings app (press the Windows key+I), select 'Time & Language', then select Region in the left sidebar. On the right-hand side, locate the 'Regional format data', then click the blue 'Change data formats' link. You'll now see all your current data formats.



### WINDOWS 7, 8.1 & 10

#### Quickly view all your commands



Command Prompt is incredibly powerful, but all those text-based commands can get tricky and it's easy to forget which ones you've previously used. If you want to view only the last few commands, simply press the up arrow on your keyboard, which cycles through your commands in turn.

However, this isn't much good if you want to review *all* your commands. To do this, type **doskey /history**, then press Enter. You'll now see all commands you've entered since you last opened the Command Prompt window. You

can save this list as a text file.

To do this, type **doskey /history > commands.txt** (see screenshot). Your commands will now be saved in a text file called 'commands.txt' in the folder from where you ran the command ('C:\', in our example) – you can change the name of the file if you wish. Alternatively, you can copy your command history to the clipboard using the command **doskey /history | clip**. Type the '|' symbol, called a pipe, by pressing Shift + \ (backslash). You can then paste it into a document or email by pressing Ctrl+V.

Unless you've installed a different calendar on your PC, you won't be able to change the Gregorian Calendar setting in the Calendar box at the top. However, you can change the rest, such as the 'First day of the week', which changes how calendars are formatted in Windows (for example, the one that pops up when you click the clock in the system tray).

Below this, you can change the 'Short date' and 'Long date' formats. Windows uses short dates in sections such as the

Date column in File Explorer, while Long dates (see screenshot left) are shown in the Created, Modified and Accessed sections when you right-click a file and select Properties.

The bottom two dropdown menus let you change how Windows displays the time. 'Short time' changes the format of the time in File Explorer (and the system-

tray clock), while the 'Long time' format is displayed in the Properties window of files (as well as in the system-tray clock).

There's no Save button, so your changes will take effect as soon as you make them

### WINDOWS 8.1 & 10

#### Quickly view system details



Which version of Windows are you running? Is it the **64bit** or **32bit** edition? How much memory does your computer have? Windows has the answers to all these questions, and much more besides, but the relevant page is buried within the Settings app. To view this page in a flash, simply use the Windows key+Pause/Break shortcut.

If your laptop doesn't have a Pause/Break key, you can usually simulate it using a function-key shortcut. On our Dell laptop, it's Fn+B, making the full command Windows key+Fn+B. See Wikipedia for a list of Pause/Break shortcuts for popular laptop brands ([www.snipca.com/37525](http://www.snipca.com/37525)).



### LIBREOFFICE CALC & MICROSOFT EXCEL

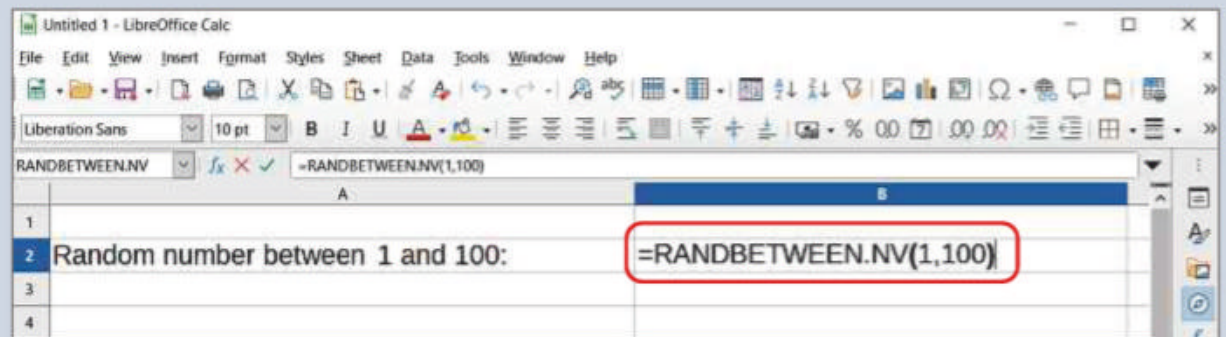
## Prevent random numbers from changing



Calc and Excel both let you generate random numbers.

The RAND() formula returns a random number between 0 and 1, while RANDBETWEEN(x,y) lets you specify a range for the random numbers (replace the 'x' with the lower number and 'y' with the upper). What you might not realise is that any cell with one of these formulas will update to display a new random number whenever you re-open your spreadsheet or even just edit a cell within it.

LibreOffice Calc includes two additional formulas that let you set cells to have permanent random numbers: RAND.NV() and



RANDBETWEEN.NV(x,y) – the 'NV' at the end of each stands for non-volatile. To have a cell generate a permanent random number between 1 and 100, you'd use the formula **=RANDBETWEEN.NV(1,100)** (see screenshot).

Microsoft Excel doesn't have similar 'non-volatile' versions of its random-number formulas, but there

is a workaround. Type the RAND or RANDBETWEEN formula in a cell as normal, then instead of pressing Enter, press F9. This tells Excel to use the result of the formula (your random number) as the contents of the cell, not the actual formula, which means the random number won't update each time you edit your spreadsheet.

### MICROSOFT WORD & LIBREOFFICE WRITER

#### Keep rows on one page



When working with tables in a Word or Writer document, you may find they span multiple pages. While this is unavoidable for long tables, you may notice that a single row in your table gets split across two pages, making it look like two separate rows.

To prevent this in Word, hover your mouse over the table, then click the small '+' icon at the top-left of the table (this selects the entire table). Now right-click anywhere in your table and select 'Table Properties...'. In the window that opens, select the Row tab at the top, then untick 'Allow row to break across pages' within the Options section. Click OK and the row that previously spanned two pages is now contained on the second page.

You can achieve a similar result in Writer by right-clicking your table (unlike in Word, you don't need to first select the table), click 'Table Properties...',

then the Text Flow tab. Now untick the 'Allow row to break...' option (see screenshot below left), then click OK.

### LIBREOFFICE WRITER

#### Control formatting in tables



LibreOffice Writer lets you further tweak your tables by controlling how numbers are displayed within them. To turn number formatting on, open the Tools menu, select Options, then double-click LibreOffice Writer from the list on the left and select Table. In the 'Input in Tables' section on the right, tick the 'Number recognition' box (see screenshot below). Now click OK.

When you next type numbers into your table, Writer will format them for you. For example, type **25/2/12** and Writer will detect you've entered a date, then convert it to '25/02/2012'. Type a percentage, such as **4.376%** and it'll round it to two decimal places (4.38%).

You can change the formatting rules by opening the Table menu, then selecting 'Number Format...'. In the window that

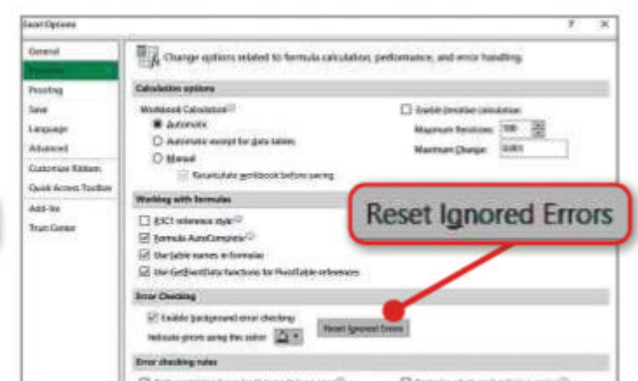
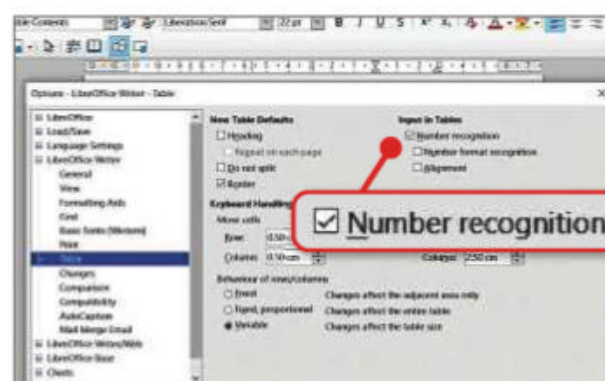
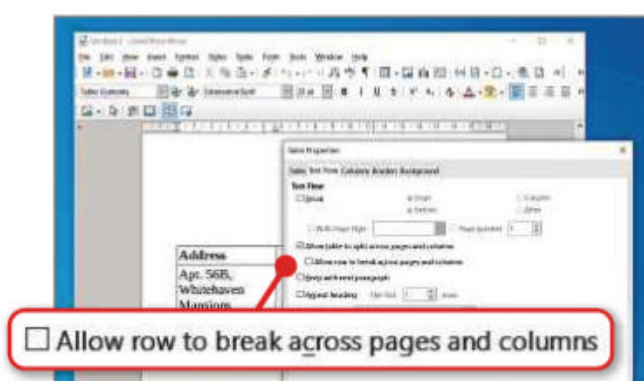
opens, select an entry in the Category section (such as Percentage), then adjust its formatting accordingly (the number of leading zeros, decimal places and so on).

### MICROSOFT EXCEL

#### Stop ignoring errors in formulas



When you enter a formula that either contains an error or is inconsistent with other formulas in your spreadsheet, Excel will tag the cell with a green triangle. Hover over one of these cells, click the exclamation mark that appears and you'll see various options, including to ask Excel for help with the error and copy the formula from the cell. You can also choose to ignore the error, which removes the green triangle. If you later change your mind and want to review cells that Excel believes have errors, you can quickly reset all your ignored cells. Click File, Options, Formulas, then click Reset Ignored Errors in the Error Checking section (see screenshot below). The green triangles will be restored to all cells with errors.





# In The Club



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

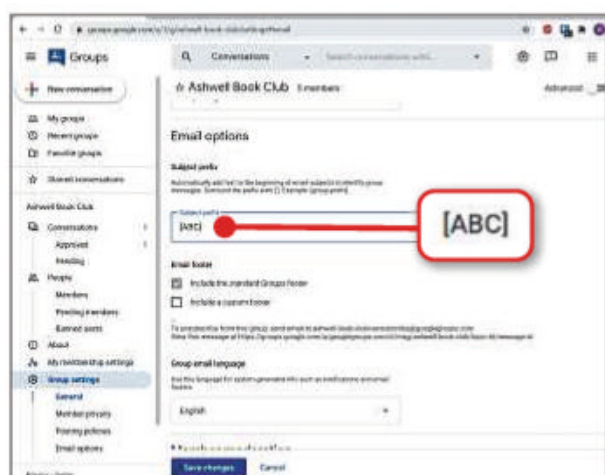
## Send emails using Google Groups

In Issue 600 we explained how to set up a free Google Group account for your club. Now it's time to use your new group to communicate with club members and organise events. Although some features are reserved for paid-for Google accounts, everything we cover here is available with the free account.

### Make your email notifications stand out from the crowd

When you (or any member) posts a message to your club's Google Group, everyone else in the group will receive an email notification. To make your club emails stand out, it's worth adding a club-identifying prefix to their subject line (this will also help members to filter club emails into specific folders).

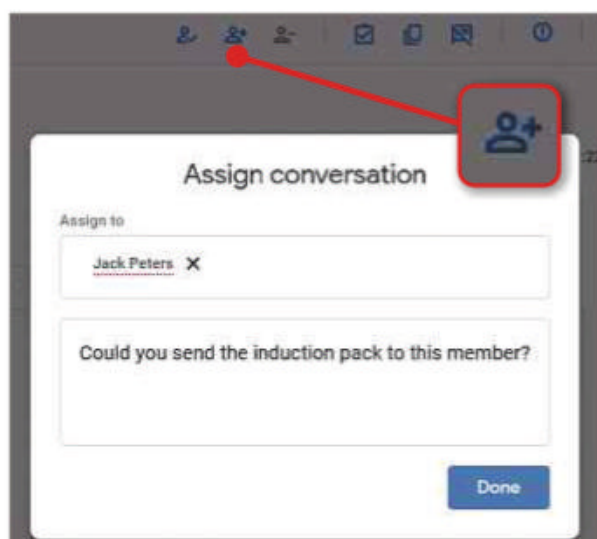
First, log into your Google Groups account with the email address you used to set it up. Select your group, then click 'Group settings' at the bottom of the left-hand sidebar, followed by 'Email options'. In the 'Subject prefix' box, type your subject line prefix. It's best to keep this as short as possible to stop the main subject of the email getting cut off at the end – we've opted for our club's initials (ABC for Ashwell Book Club) in square brackets (see screenshot below). Click 'Save changes'.



**Make your club emails easier to spot by adding a simple prefix**

### Assign tasks to certain members

At a basic level, your Google Groups page serves as a repository for all club messages, letting your members browse and respond to them. By enabling the 'Collaborative inbox' feature, you can



**Click this icon to assign your email to someone other than yourself**

assign messages that need some form of action (such as requests for assistance) to specific members.

To do this, return to the 'Group settings' window as above, then scroll down to the 'Enable additional Google Groups features' section, select the 'Collaborative inbox' option and click 'Save changes'.

Next, return to your Google Groups page and select a message. You'll see six new icons at the top right. To assign the message to yourself, click the 'Assign to me' icon on the far left. Alternatively, to assign it to another member, click the 'Assign to someone' icon (see screenshot above), enter the name of the person you want to assign it to and an explanatory message, then click Done. That member will now receive an email, notifying them of their new assignment.

To view all messages assigned to you, click the down arrow in the search box at the top, select 'Assigned to me' in the 'Assigned to' dropdown menu, then click Search. When you've completed the action, re-open the message, then tick the 'Mark as complete' icon (a notepad with a tick).

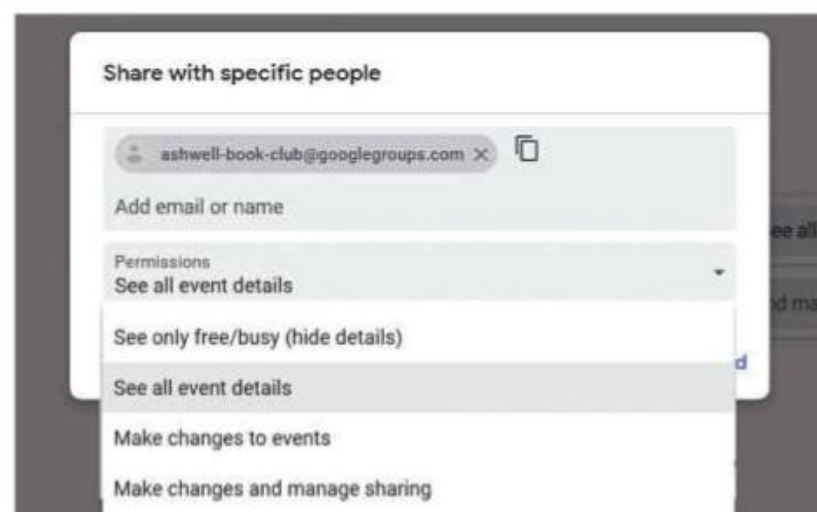
By default, only group managers and above can

create or be handed assignments. To extend this to all group members, go to the 'Posting policies' section under 'Group settings', then set the 'Who can moderate metadata' slider to 'Group members'.

### Share a calendar and arrange events

Google Groups also makes it easy to share a calendar of events with your club's members. Go to [www.google.com/calendar](http://www.google.com/calendar), then sign in using the email address you used to create your group. Next, click the '+' button next to 'Other calendars' in the left-hand sidebar, give your calendar a name, then click 'Create calendar'. When we did this, we saw an error message telling us the calendar could not be created. However, this would seem to be just a bug because the calendar was visible when we returned to the Google Calendar homepage.

To share your calendar, hover over it in the left-hand sidebar, click the three vertical dots, then 'Settings and sharing'. Next, scroll down to 'Share with specific people', click 'Add people', then type the name or email address of your Google Group. Choose the permission level you want your members to have (such as view-only access or permission to create their own calendar entries – see screenshot below), then click Send. All members will now receive an email, inviting them to view your Google Group's calendar.



**You can share a Google calendar with your group, then set how your members can use it**



# What's All the Fuss About...



## Rickrolling

An old internet prank returns looking sharper than ever before

### What is it?

It's an internet prank that tricks people into clicking a link that unexpectedly plays a YouTube video of the 1987 number one single *Never Gonna Give You Up* by British popster Rick Astley. Typically the link would be emailed or posted in an online forum.

### Hasn't it been around for years?

Yes, ages. It started in 2007 on obscure internet forums before peaking a year later when YouTube put links to the video on its homepage as part of an April Fools' joke. It was estimated that around 18 million people in the US alone were 'rickrolled' that year. Like most web pranks though, it didn't take long for the joke to wear thin.

### So why the interest now?

Because there's a new video of the song in 4K (Ultra HD) and played at 60fps, making it look astonishingly crisp, smooth and detailed.

### What does 'fps' mean again?

Frames per second. A 60fps video shows 60 images per second, fooling your brain into thinking you're watching moving pictures. It's how movies and TV have always worked, of course: early silent movies showed 16 to 24 images per second. It created the illusion of moving images, though looks jerky to modern eyes. The more frames per second, the smoother the motion looks. You can check the frame rate of videos you've downloaded by right-clicking the file



icon, then clicking Properties followed by the Details tab and looking under the Video heading.

### Is 60fps good then?

Yes. It's considered high enough for slick gaming and slow-motion video. It's the highest quality that YouTube allows. In the new video, uploaded by YouTube user Revideo, you can almost see every individual hair on Astley's beautifully coiffed quiff. The internet is excitingly predicting a revival of high-definition, super-sharp rickrolling.

### So how do I watch this new video?

Just visit [www.snipca.com/37459](http://www.snipca.com/37459) – it'll start playing automatically (don't worry – you haven't been rickrolled because you were expecting it to play). For copyright reasons it's only one minute long. To see it in 4K (assuming you have a 4K monitor), click the cog icon at the bottom right (1 in main

screenshot) then select 2160p60 at the top 2. You'll need a broadband speed of around 35Mbps to get the full effect. For a blurry contrast, click 144p – the difference is remarkable. You should also watch the original video, which has now been viewed more than 872 million times ([www.snipca.com/37420](http://www.snipca.com/37420)). It was recorded at 25fps, so looks a lot rougher even at its highest resolution of 1080p.

### Are there other examples of 4K 60fps videos on YouTube?

Yes, particularly from travel companies showing holiday destinations in the kind of vivid detail we've not been able to see in person recently. But more interesting are the colourised clips from over 100 years ago uploaded from Poland by Denis Shiryayev who, like Revideo, uses artificial intelligence to modernise old videos. Visit his channel ([www.snipca.com/37416](http://www.snipca.com/37416)) to watch Paris in the late 1890s, London in 1901 (pictured left), Moscow in 1896 and more. It even has what's believed to be the world's oldest surviving film recording.

### Where was that shot?

At Oakwood Grange (now demolished) in Roundhay, Leeds, in 1888. It lasts a mere 1.66 seconds, but that's long enough to see that the people dancing in it are better movers than Rick Astley.



Victorian labourers recorded in 1901, 86 years before Rick Astley promised he'd never give you up



# HOW TO DOWNLOAD



**Downloading videos from YouTube and other streaming services could soon become illegal. Robert Irvine reveals the best ways to save and keep their content to watch offline – while you still can...**

**F**or almost as long as there have been video-sharing websites, there have been tools that let you download their content. Shortly after YouTube launched in February 2005, a site called KeepVid emerged for the express purpose of grabbing videos from YouTube and others. Hundreds of similar tools appeared in KeepVid's wake,

so if you wanted to download web videos to watch offline, there was no shortage of options to choose from.

Recently, however, there's been a backlash against these so-called 'stream rippers', with copyright holders taking legal action to stop them. Last October the software developer community GitHub was ordered by the Recording Industry Association of America (RIAA) to remove the YouTube downloader YouTube-dl, though it's since been restored.

More worryingly, as we reported in Issue 600 (page 9), a group of major record labels represented by the British Recorded Music Industry Ltd (BPI) and Phonographic Performance Ltd (PPL) has appeared (virtually) in the High Court, demanding that UK ISPs block access to stream-ripping tools.

With that legal case ongoing, you may

not have much longer to download YouTube videos, so in this feature we reveal how to grab them while you still can. After all, as we'll explain later, there are valid reasons for downloading content that don't involve breaching copyright.

There are still plenty of websites, programs and **add-ons** you can use, but many are stuffed with ads, pop-ups and junk, or don't work as they claim. We recommend the fastest, safest and most reliable methods.

There certainly wouldn't be such demand for these tools if YouTube offered its own download options, outside of its paid-for Premium service. And while BBC iPlayer and Netflix both include download options, they come with restrictions. Over the next few pages, we'll show you how to bypass these restrictions, optimise your downloads and keep them forever.

## WHAT YOU CAN DO

- Download and convert YouTube videos using VLC
- Beat Google's ban on YouTube downloaders for Chrome
- Improve the quality of your downloads from BBC iPlayer
- Control the size of your Netflix downloads





## DOWNLOAD FROM YOUTUBE

YouTube might reserve its built-in download tool for YouTube Premium subscribers (which we'll look at later), but there are other ways to download videos. Here we look at the best free YouTube download tools.

### 4K Video Downloader

[www.4kdownload.com](http://www.4kdownload.com)



#### What we like

Versatile, fast and easy to use, 4K Video Downloader is our favourite desktop program for downloading YouTube videos. Unlike similar free tools, it isn't bundled with junk.

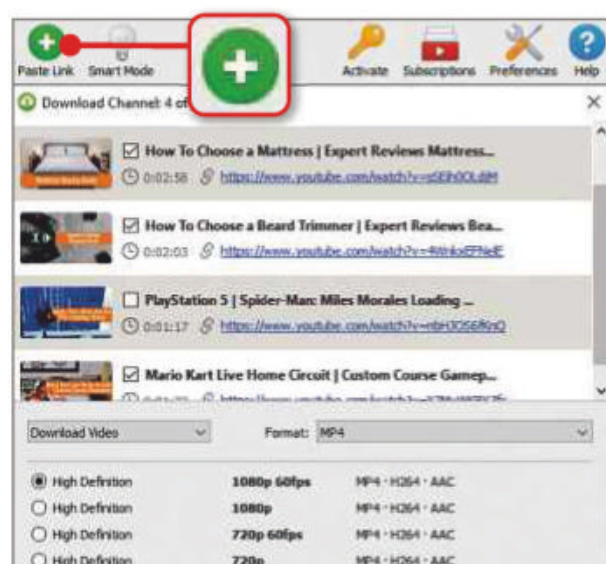
To download a video, simply copy its URL from YouTube, then open 4K Video Downloader and click the Paste Link button on the toolbar (see screenshot below). Select the quality – up to the highest possible resolution of 4K/UHD (2160p), the format (MP4 or MKV) and whether to include subtitles. You can also choose to extract the audio only as an MP3, M4A or OGG file. Click the Download button to get the video, then double-click to open it in your favourite media player.

There's also a handy Smart Mode, which lets you download videos with a single click, using your preferred settings.

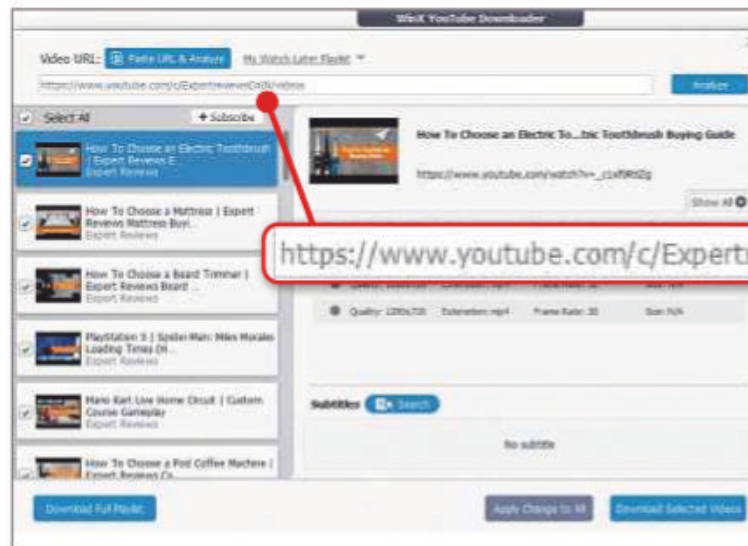
#### What we don't like

The free version of 4K Video Downloader has several restrictions, such as limiting you to downloading 30 videos a day, one at a time, and only the first 10 entries from YouTube playlists.

For unlimited downloads and the ability to subscribe to channels, you'll need to upgrade to the paid-for version for a one-off fee of £13.20. Additionally, although it works fine at the moment, we've experienced times when the tool failed to download videos.



4K Video Downloader offers a fast, free and safe way to download YouTube videos



Enter a YouTube playlist URL in WinX YouTube Downloader, then download all videos from it

### WinX YouTube Downloader

[www.snipca.com/37407](http://www.snipca.com/37407)



#### What we like

Unlike 4K Video Downloader, WinX YouTube Downloader lets you download as many videos as you want, including complete playlists. You can also use it to subscribe to YouTube channels – it will then download new content automatically and even records live streams. Just click Add URL, paste the YouTube link (see screenshot above), then click Analyze. WinX comes with its own media player, so you can preview your downloads instantly.

#### What we don't like

WinX processes videos more slowly than 4K Video Downloader and has fewer format and quality options. To convert downloads to MP3 you'll need to upgrade to its paid-for version, VideoProc, for \$29.95 (£21.53). Adverts for this upgrade litter the free version's interface.

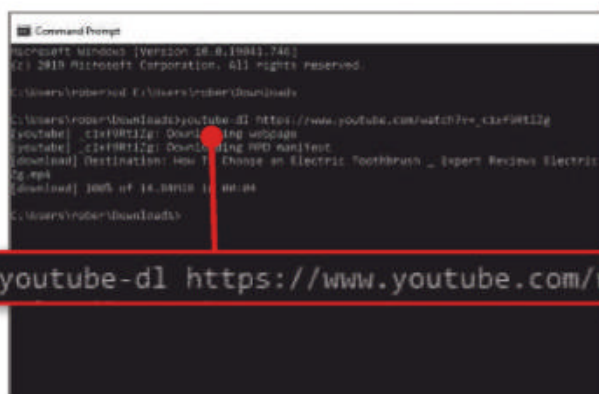
### Youtube-dl

<https://youtube-dl.org>



#### What we like

This free tool (click the 'youtube-dl.exe' link at the top of the page) has several advantages over other downloaders. It's run via Command Prompt, so there's no nagging, junk or evidence you've been downloading



Youtube-dl lets you download videos directly from YouTube using Command Prompt

videos, and it can download YouTube videos and playlists with no restrictions or adverts.

To use it, open File Explorer (press Windows key+E), then navigate to the folder you downloaded the 'youtube-dl.exe' file to. Next, press Alt+D to highlight the address bar, type `cmd` and press Enter. In the Command Prompt window that opens, type `youtube-dl` (see screenshot below left) followed by a space, then the YouTube URL. To start downloading, press Enter.

By default, Youtube-dl downloads at the best available quality, but you can use specific commands to change the video format. Other options let you download subtitles and extract audio – see [www.snipca.com/37381](http://www.snipca.com/37381) for the full list.

#### What we don't like

Unless you're comfortable using Command Prompt, Youtube-dl can be fiddly to use. You can download Youtube-dl-gui ([www.snipca.com/37349](http://www.snipca.com/37349)), which replaces commands with buttons and menus, but you'll still need to install the Python interpreter ([www.python.org](http://www.python.org)) for the tool to work in Windows. There's also the concern that, following its temporary removal from GitHub after the RIAA complaint, Youtube-dl may not be around for much longer.

### YT1s.com

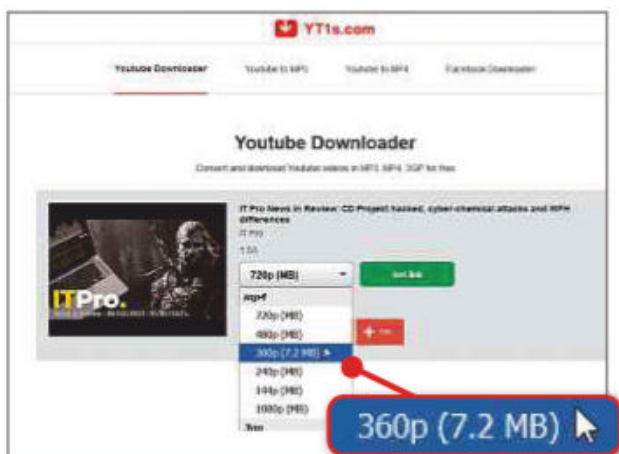
<http://yt1s.com>



#### What we like

Many once-popular websites for downloading YouTube videos have either disappeared from the web or have dropped that function – KeepVid being the most high-profile example. YT1s.com is still here (for now) and offers a speedy free way to download videos. Simply paste a YouTube link into the box on the homepage, click Convert, then





YT1s doesn't require you to install anything, but the website is packed with adverts

choose your preferred media format (MP4, MP3 or 3GP) and quality (see screenshot above). Click 'Get Link' and download the result.

We also like ClipConverter.cc ([www.clipconverter.cc](http://www.clipconverter.cc)), which supports additional formats such as MOV, MKV and AAC, but doesn't let you download videos that contain music.

### What we don't like

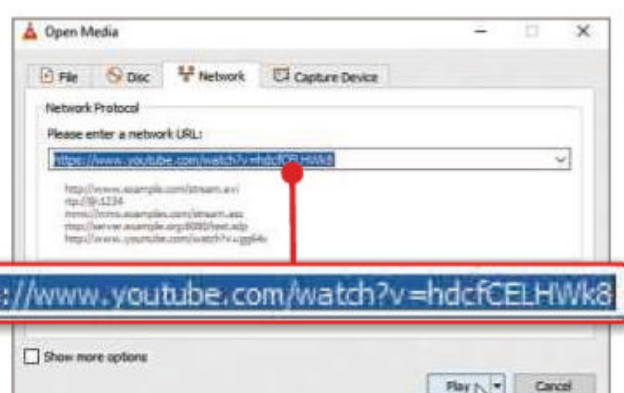
Like similar online tools, YT1s.com is blighted by ads and the website asks you to allow notifications (you can decline these by clicking Block). The choice of download options is limited compared with desktop downloaders, but at least you don't need to install any software.

### VLC Media Player

[www.videolan.org](http://www.videolan.org)



VLC has a hidden option for downloading videos from YouTube, to save you installing separate software or risking a dodgy online tool. To use it, copy a video link from YouTube and go to Media, then Open Network Stream. Paste the copied video address in the network URL box (see screenshot below) and click Play. Next, go to Tools, Codec Information and copy the long URL from the Location box at the bottom of the window. Paste this into your browser's address bar and the video will begin playing there. Finally, right-click it and choose 'Save video as'.



Download and convert YouTube videos for free using VLC Media Player



### What we don't like

This method doesn't let you decide the format and quality of the YouTube video upfront. To convert it from the download default of MP4, go to Media, then Convert/Save, add the video to VLC, then click the Convert/Save button. Choose a media format in the Profile menu, browse to your destination folder and click Start.

### Download using browser extensions

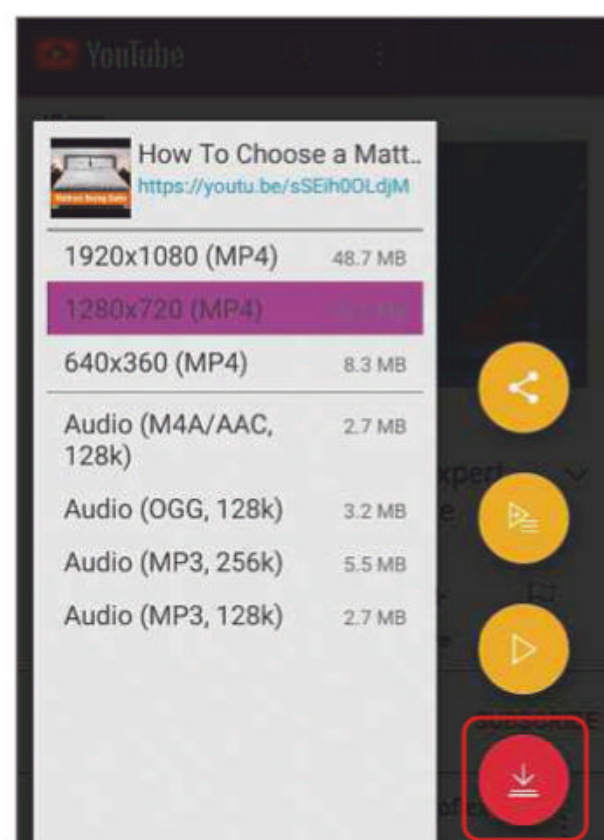
Considering how much money it makes from YouTube ads, it's not surprising Google doesn't like you downloading videos from the site and has banned all YouTube downloaders from the Chrome Web Store. There are plenty of Chrome extensions for grabbing videos from other sites (which is apparently fine according to Google!), but they won't work on YouTube.

Fortunately, there is a workaround using the excellent script manager Tampermonkey ([www.snipca.com/37354](http://www.snipca.com/37354)). Install this in Chrome, then install the free script YouTube Downloader ([www.snipca.com/37355](http://www.snipca.com/37355)). Go to YouTube and you'll now see buttons below the media player that you can click to download videos in MP4 and MP3 formats (see screenshot above). Ignore the MP4 (HD) option as this requires you to upgrade to a paid-for version.

For other browsers, there are no such restrictions on YouTube downloaders. You can find dozens of these extensions in the Edge Add-ons store, though many don't seem to work. One that definitely does work is AllTube Downloader ([www.snipca.com/37357](http://www.snipca.com/37357)) – just click its toolbar button when viewing a video and choose a download format and quality.

Firefox has an even greater choice of YouTube-downloading add-ons, of which our favourite is Easy Youtube Video Downloader Express ([www.snipca.com/37358](http://www.snipca.com/37358)). This places a Download As button below YouTube videos that lets you get videos in MP4 format (up to 1080p Full HD quality) or MP3.

Install a Tampermonkey script to add download buttons to YouTube videos in Chrome



Tap this button in TubeMate to download videos from YouTube on your Android phone or tablet

### Download on your phone or tablet

You've probably spotted that the YouTube app on your Android or iOS mobile device now has a Download option below the video player. Tapping this button, however, only leads to disappointment, because it tells you to upgrade to YouTube Premium to download videos.

For obvious reasons, you won't find YouTube-downloading apps in the Google Play store and Apple also prohibits them in its App Store, but there are a couple of workarounds. On Android phones and tablets, you can install an app called TubeMate to download YouTube videos, though this requires a little configuration.

Visit [www.snipca.com/37408](http://www.snipca.com/37408) in your mobile browser, then tap Download APK. Your browser will warn you that "this type of file may harm your device" – because they're not checked by Google, apps installed via APK files can contain malware. However, TubeMate is safe to use, so tap OK. If you've never downloaded an APK file before, choose Settings when prompted, then 'Allow from this source'.



Select Open, then Install and choose Open again to launch TubeMate. Agree to its terms of use, allow the app's required permissions (which aren't as worrying as they sound), then search for and play a video. You'll notice a red Download button (see screenshot below left), which you can tap to download the clip in your preferred format and quality.

Alternatively, to avoid TubeMate's ads, open a video in the YouTube app, tap Share, then choose TubeMate to access the download options. Either way, the video will be saved to your device's Downloads or Videos folder.

## Download using YouTube Premium

If you want to download videos without using third-party tools (and bending Google's rules), your only official option is to pay for YouTube Premium ([www.youtube.com/premium](http://www.youtube.com/premium)). This costs a pricey £11.99 per month, though you can try it for free for 30 days and cancel before the first payment is taken.

With a Premium subscription, you can download as many YouTube videos and playlists as you want to watch offline, at a maximum resolution of 1080p (where available). However, this option is available only in the YouTube app for Android and iOS, not on the website, and some videos can't be downloaded due to content restrictions. You can play videos only in the YouTube or YouTube Music app, and although your downloads will be retained if you cancel, you won't be able to access them until you restart your subscription.

YouTube Premium has other benefits, such as playing videos in the background or when your screen is off, exclusive access to YouTube Originals series and films, and – best of all – entirely ad-free viewing. It also includes a YouTube Music Premium subscription. But if all you want to do is download the occasional video, then the £144 annual cost is likely to seem exorbitant.

## Download videos unavailable in the UK

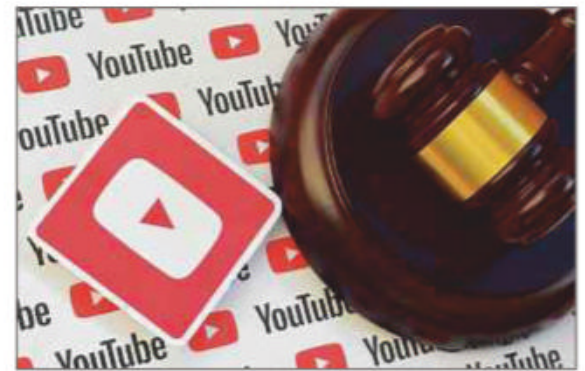
Some YouTube videos aren't available to stream in the UK, let alone download, because the creator or uploader has limited the content to a specific region. If you try to play one of these, you'll see a black rectangle and 'Video unavailable' message.

You can beat these restrictions by using a VPN. Our favourite free option is Windscribe (<https://windscribe.com>),

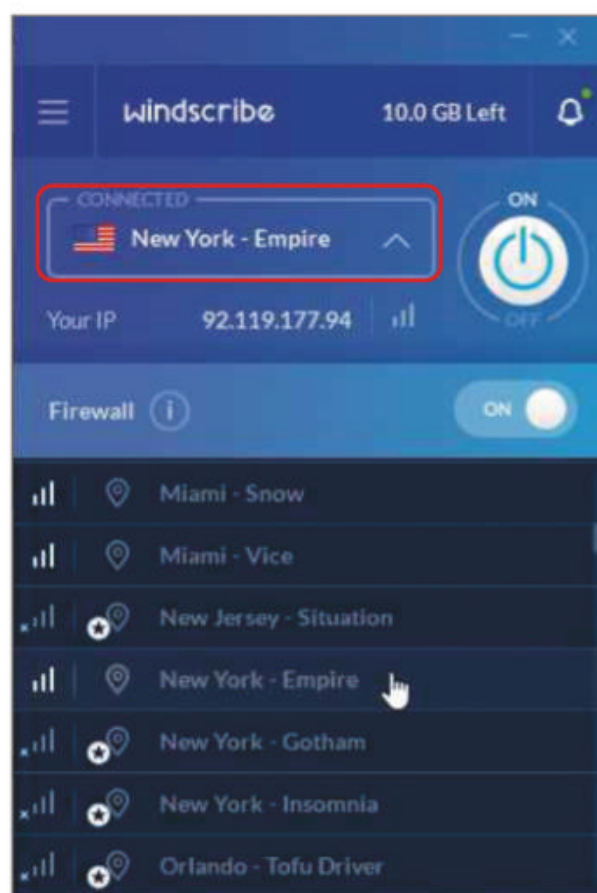
## Is it legal to download YouTube videos?

In its Terms of Service ([www.snipca.com/37432](http://www.snipca.com/37432)), YouTube states that you are not allowed to download any content unless permitted by the service (as you are with YouTube Premium) or with written permission from the rights holder. Yet Google makes it easy to find video downloaders (some even appear as adverts in Google search results), while YouTube has never sued any website, software developer or individual for breaching this rule (though it has threatened to).

Video downloaders aren't illegal, but making copies of copyrighted content is, and theoretically you could be fined up to £50,000 or imprisoned for six months. However, there's lots of content on YouTube that you are allowed to



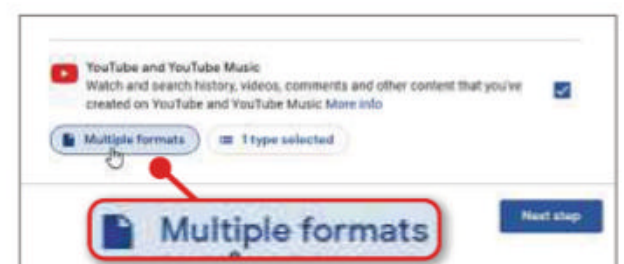
download, such as public-domain videos for which the copyright has expired, clips covered by a Creative Commons licence (<https://creativecommons.org>) or home-made videos that friends and family have shared with you (and don't mind you keeping). Just be sensible about what you download, and definitely don't redistribute content without permission.



Use the free Windscribe VPN to download videos that are blocked in the UK

which gives you 10GB of data each month and access to servers in 11 countries, including the US (where most blocked videos are likely to originate).

Run Windscribe's desktop program, connect to a US server (select this using the box at the top – see screenshot above), then open the blocked video in YouTube and it should now be available. While Windscribe is running, copy the link into a video downloader such as 4K Video Downloader and you'll be able to download the content in the usual way. Alternatively, if you're using an online downloader,



Download your own YouTube videos via Google Takeout to preserve their original quality

install Windscribe's browser extension for Chrome, Firefox or Edge ([www.snipca.com/37380](http://www.snipca.com/37380)), and choose a US location.

## Download your own videos from YouTube

If you want to reclaim your own videos from YouTube, such as any you've deleted or lost, you don't need to use a dedicated downloader. Instead, just go to YouTube Studio (<https://studio.youtube.com>) and click Content to view all your uploaded videos. Select one or all of the clips, click the 'More actions' menu then choose Download.

The downside to this method is that your videos are downloaded at lower quality than the original files. To save full-resolution clips, go to Google Takeout (<https://takeout.google.com>), select YouTube at the bottom of the list (by deselecting all the other options), click 'Multiple formats' (see screenshot above) and ensure 'Original format' is selected. Next, click 'All YouTube data', select only Videos, then click 'Next step', followed by 'Create export'. You'll then be emailed a link to download your top-quality YouTube videos.



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---

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\*while stocks last





## DOWNLOAD FROM BBC IPLAYER

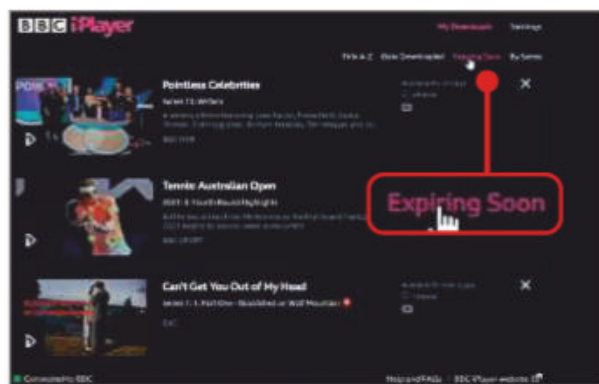
### Download iPlayer shows to your desktop PC

Unlike most streaming services, BBC iPlayer ([www.bbc.co.uk/iplayer](http://www.bbc.co.uk/iplayer)) lets you download TV shows and films to your computer, not just your phone or tablet. You need a TV licence to do this (see box below), but there's no extra charge to download.

Install the BBC iPlayer Downloads app for Windows or macOS ([www.snipca.com/37383](http://www.snipca.com/37383)) and click the Download button below a programme on the iPlayer website. You can save it in HD (high definition, 1280x720 pixels or 720p) or SD (standard definition, below 720p) – see screenshot below. The video will then be downloaded to the app, where you can click to watch it in your media player.

You can keep the shows for as long as they're available on the iPlayer website and app, after which they'll be deleted automatically. Because the BBC lifted the 30-day limit two years ago, most of its content remains on iPlayer for several months – over a year in some cases, which is very generous. However, films, sport and game shows tend to have shorter shelf lives because of copyright issues.

Usefully, you can sort your downloads by Expiring Soon (as shown in our screenshot above right), to ensure they don't vanish before you watch them, and



Sort your iPlayer downloads by expiry date to prioritise shows that will disappear soon

choose By Series to 'record' new episodes of a show automatically.

### Download shows on your phone and tablet

Downloading content on mobile devices is even easier than using the iPlayer website, because all videos are now saved, played and managed within the app (Android, iOS or Amazon Fire – [www.snipca.com/37385](http://www.snipca.com/37385)). In the past you needed to install a separate BBC Media Player app, but this has been quietly phased out.

Provided you're connected to Wi-Fi, simply tap Download below a programme or film to save it to your phone or tablet. Go to Menu, Downloads, then Downloaded to view your saved videos and tap one to play it. If you don't have a Wi-Fi connection, you can queue a download and delay it for when you have,

or use your mobile network instead. Tap Menu, then the Settings cog and choose 'Download over mobile networks' (see screenshot below left) – just make sure you don't exceed your phone's monthly data allowance.

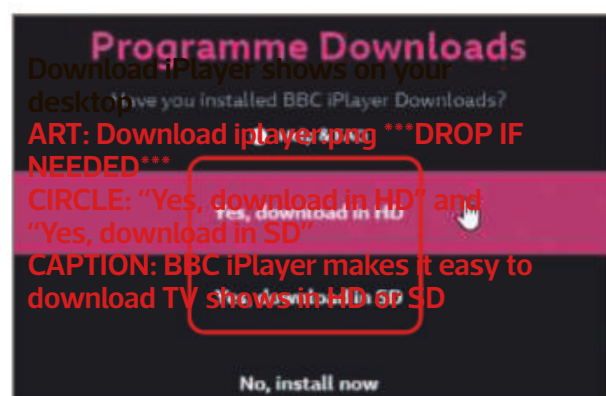
If you aren't concerned about data usage and have enough storage on your device, select Higher Quality Downloads to save videos at a higher resolution (and larger file size). You can also activate 'expiry alerts' to get notified when downloads are about to expire.

### Download BBC radio shows and podcasts

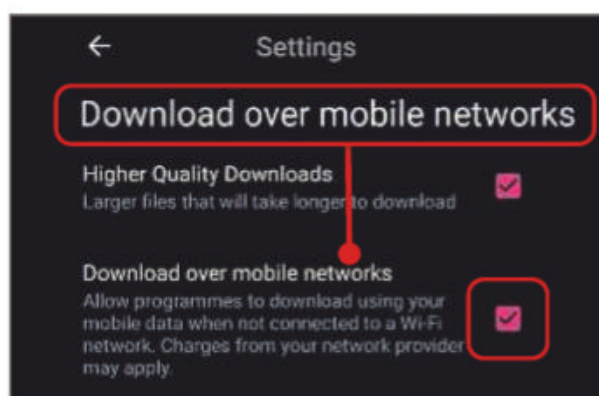
BBC Sounds replaced iPlayer Radio in 2019, and although you can't download complete radio programmes through its website ([www.bbc.co.uk/sounds](http://www.bbc.co.uk/sounds)) for "rights reasons", the Sounds app for Android, iOS and Amazon Fire devices ([www.snipca.com/37387](http://www.snipca.com/37387)) is far more flexible. It lets you save shows broadcast on the BBC's national and local radio stations over the past 30 days, then keep them for up to 30 days. Some content, such as sporting events, can't be downloaded, but the amount of free audio is impressive and you don't need a TV licence to use BBC Sounds.

Just tap the Download button to grab the show now, or queue it for when you are next connected to Wi-Fi. You can also subscribe to specific radio slots to download new 'episodes' automatically. As with the iPlayer app, BBC Sounds lets you download over your mobile network and select the audio quality you want. Go to My Sounds, tap the cog in the top-right corner, choose Downloads, then select from the three options (see screenshot below). Both the BBC Sounds website and app offer free podcasts, which include highlights from radio broadcasts or exclusive audio content.

Annoyingly, on the web you'll need to visit the separate BBC Podcasts site



Download iPlayer content in High or Standard Definition



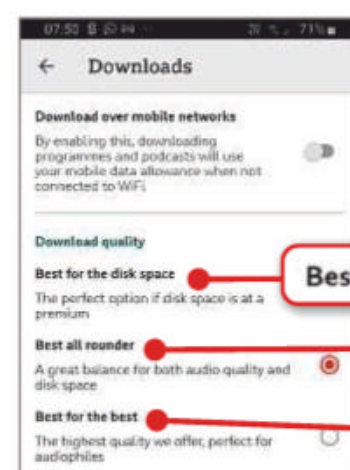
Configure the iPlayer app to download higher-quality videos over your mobile network

## Do I need a TV licence to watch offline?

It used to be the case that a TV licence was only required for watching live broadcasts. Catch-up and on-demand TV shows in iPlayer were all exempt, so if you never watched live programmes, you didn't need a licence. However, that changed in 2016, and you now need a licence to watch or record live TV programmes on any channel, or to download or stream BBC

programmes on iPlayer. This applies to all devices – TVs, computers, tablets, phones and games consoles.

You don't need a licence if you watch only downloaded content from broadcasters other than the BBC, or films and TV shows that you've paid for. See the TV Licensing website ([www.snipca.com/37396](http://www.snipca.com/37396)) for more information.



Use the BBC Sounds app to download radio shows you can keep for 30 days



([www.bbc.co.uk/podcasts](http://www.bbc.co.uk/podcasts)) to download these, but in the Sounds app the Download button is accessible.

**Download BBC TV and radio without restrictions**

Now that the BBC makes iPlayer content available to download for much longer, you may question the need for using an unofficial, third-party downloader tool. But the free Get\_iplayer program offers a way to beat the BBC’s remaining restrictions, letting you save and keep TV and radio shows for as long as you want. It also lets you watch and listen to the files you download in your preferred media player (instead of the BBC’s own apps) and move your downloads to other devices.

Get\_iplayer does have some limitations. It can only search for shows that were broadcast in the past 30 days (although there is a workaround for this – see our Workshop below), and doesn’t let you download certain content, such as news, sport and educational videos. Also, as Get\_iplayer points out: “a UK TV licence is required to access BBC iPlayer TV content legally”.

Some people are put off Get\_iplayer by its confusing, command-line interface. We provided a workshop explaining how to use this in Issue 566 (if you missed it,



Windscribe’s UK servers let you stream and download iPlayer content when you’re outside the UK

you’ll find it on our 2019 Back Issue CD: [www.snipca.com/37405](http://www.snipca.com/37405)), so this time we’ll walk you through the tool’s Web PVR Manager instead.

**Download iPlayer content from abroad**

You can also watch iPlayer shows abroad by downloading them to your laptop, phone or tablet before you go. Provided you have a TV licence, this is perfectly legal and permitted by the BBC. Downloading content while you’re abroad, however, is *not* allowed – iPlayer checks where you’re connecting from and will deny you access if you’re outside the UK.

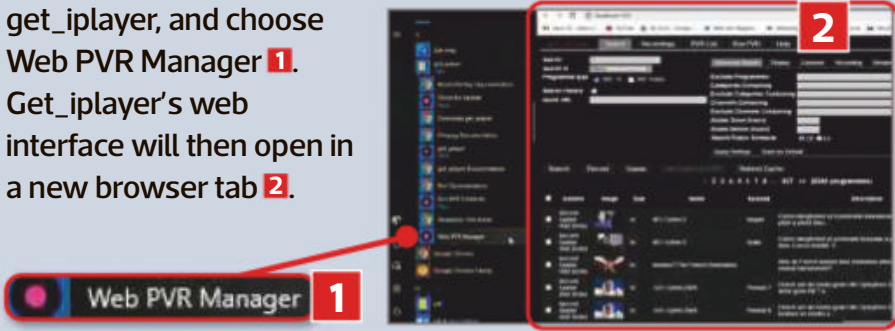
Using a free VPN is the obvious way

around this, but the BBC is now better at blocking many of these tools. Windscribe (<https://windscribe.com>) is one exception, and its free version offers two UK-based servers – the amusingly named ‘London-Crumpets’ (see screenshot above) and ‘London-Custard’ – that do appear to work, at least at the time of writing.

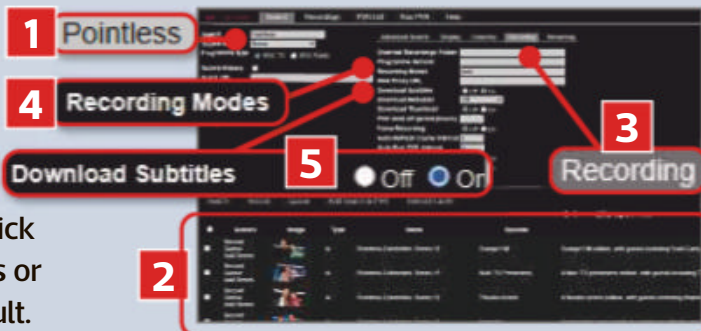
Paid-for VPNs such as NordVPN (£8.84 for a one-month plan – [www.nordvpn.com](http://www.nordvpn.com)) are more reliable. NordVPN also offers a help page dedicated to accessing iPlayer ([www.snipca.com/37406](http://www.snipca.com/37406)). You may need to empty your browser **cache** if you’ve previously tried and been blocked (in Edge or Chrome, press Ctrl+Shift+Delete).

**WORKSHOP Download BBC programmes in your browser**

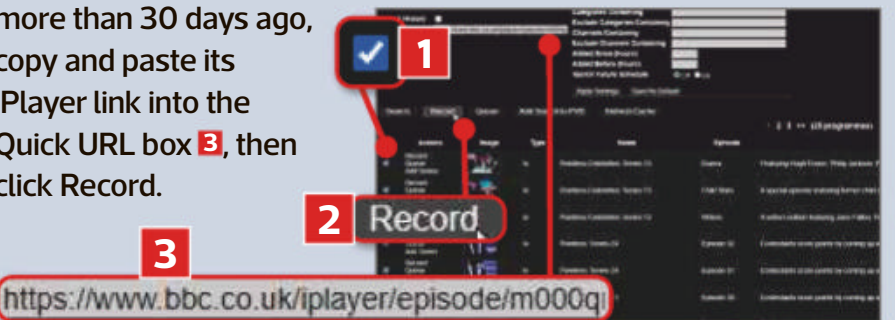
**1** Download and install Get\_iplayer from [www.snipca.com/37404](http://www.snipca.com/37404) (click the top EXE file listed). If you see a SmartScreen warning, click ‘More info’ then ‘Run anyway’. Once installed, click the Start button, scroll down and click the arrow next to get\_iplayer, and choose Web PVR Manager **1**. Get\_iplayer’s web interface will then open in a new browser tab **2**.



**2** Type the name of the show you want to download in the search box in the top-left corner **1** and click Search below. Matching results will appear in the list below **2**. To grab videos at their maximum quality, click the Recording tab **3** and enter *best* in the Recording Modes field **4**. You can also choose to download subtitles **5**. Click Apply Settings or Save As Default.



**3** Tick the box next to an episode, or collection of episodes **1**, then click Record **2**. The recording process will begin in a new tab. Leave this open until the download is complete. If Get\_iplayer can’t detect a media stream because the show was broadcast more than 30 days ago, copy and paste its iPlayer link into the Quick URL box **3**, then click Record.



**4** If Get\_iplayer finds only old episodes, click Refresh Cache **1** to check for new ones. To save multiple shows to download later, click the Queue button **2** to add them to your PVR List, then click Run PVR when you’re ready to download. Videos are downloaded in MP4 format to the iPlayer Recordings folder on your desktop, where you can play them in the media player of your choice.





# N DOWNLOAD FROM NETFLIX

## Download Netflix shows in Windows

Netflix is more restrictive than iPlayer when it comes to downloading its content, and its website doesn't provide an option for saving TV shows and films to your computer, no matter which plan you are on. Unlike YouTube, everything on Netflix is licensed and copyrighted for streaming, which means there's no valid reason for third-party downloaders to exist. Any you do come across are likely to be scams or illegal, so steer clear.

However, there is one legal way to download Netflix content on your PC, in the form of the official Netflix app for Windows 10. Free to install from the Microsoft Store ([www.snipca.com/37433](http://www.snipca.com/37433)), this lets you save some Netflix series and films to your hard drive to watch offline. Look for the Download button below a TV episode or film in the app (see screenshot below), or select 'Available for Download' in the left-hand menu to browse downloadable titles.

Downloads can be watched only in the Netflix app and expire after a set time: from 48 hours to 30 days. If a show or film expires before you play it, click the alert (exclamation mark) button and select Renew Download to save it again.

Note that these videos can be very large - often several gigabytes. To reduce their size, click the three dots in the top-right corner of the app, choose Settings and change the quality from High to Standard. You can also use the Smart Downloads feature to automatically delete episodes you've watched and



Use the Netflix app for Windows to download programmes and films to your PC

## Download from other services

Most streaming services, including Amazon Prime Video, Now TV, BritBox and Disney+, now offer downloads as part of their subscription, letting you watch their TV shows and films offline. For licensing reasons, this feature is usually only available through their mobile apps, with videos set to expire 30 days after you download them, and within 48 hours of when you start watching. You may find some content can't be downloaded, or that your download can't be played after that programme is removed from the service.

ITV only lets you download programmes if you upgrade to its ad-free ITV Hub+ plan for £3.99 per month, while Channel 5's My5 service has yet to introduce any download option. Channel 4 is more relaxed, letting you use the All 4 app to save thousands of shows to your Android or iOS mobile device for free (tap the Download button next to it), as well as download directly to an SD card and choose between Wi-Fi and mobile data. Paying £3.99 monthly for All 4+ removes adverts from downloaded programmes.

replace them with the following ones in the series.

## Download Netflix content on your phone or tablet

As with the Windows app, downloading Netflix programmes and films to your Android or iOS phone or tablet is straightforward: simply tap the Download button. Chromebook users can get this feature by installing the Netflix app from the Google Play store ([www.snipca.com/37398](http://www.snipca.com/37398)).

Once you've done this, press the Downloads icon at the bottom of the screen to view your downloaded content, as well as expiry dates and file sizes. Here you can also delete videos you've watched, and turn Smart Downloads on or off.

You can prevent Netflix downloads from using an excessive amount of mobile data or storage by tapping the More button and selecting App Settings. Ensure that Wi-Fi Only is selected in the Downloads sections and choose Standard Quality. Netflix also lets you change the download folder's location from your phone's internal storage to your SD card.

Bear in mind that the Basic Netflix plan (£5.99 per month) only lets you download to one device, while the Standard plan



If you remove a device from your Netflix account, you'll lose all downloads stored on it

(£9.99) allows two and the Premium plan (£13.99) four. To view and change your default download devices, log into your account at [www.netflix.com](http://www.netflix.com), hover over your profile icon, choose Account, then click 'Manage download devices'. When you remove a device (see screenshot above), all downloads stored on it will be deleted.

Additionally, Netflix has just added a new Downloads For You feature to its Android app, which automatically downloads content based on your viewing history, guessing what it thinks you might like. To activate it, tap Setup on the Downloads screen, choose the amount you want to download (up to 9.5GB), then tap Turn On. Netflix says the feature will come to the iOS app soon. **ca**

**NEXT ISSUE** On sale Wednesday 24 March

## BLOCK APPS THAT TRACK YOU

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**PLUS**

- Stop using the wrong PC drivers
- Listen to your TV using wireless headphones

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**V**ideo calls on your phone might be convenient (after all, most phones have high-quality cameras built in), but you'll usually end up squinting to see who you're talking to and in group video calls you'll probably be able to see only one speaker at a time. Switch to your laptop's larger screen, however, and you may find the poor quality of its webcam and microphone leave you looking and sounding a little ropy.

Poor positioning of built-in webcams can also present problems. On our Dell XPS 13 laptop, the webcam is located at the bottom-left corner of the screen, which not only makes it seem like we're looking off centre, but depending on the angle of our screen can also result in the laptop's keyboard being visible.

A dedicated USB webcam solves all this, letting you enjoy high-quality video calls on your PC or laptop. Here, we explain what to look for, and how to make sure you don't pay for features you'll never need.

## Video resolution

The resolution of a webcam is a measure of how much detail it can capture - the higher its resolution, the clearer the image it will send to those on the other end of your video calls. Cheaper webcams and those integrated into laptops tend to offer relatively low resolutions. Many are unable to deliver more than VGA (that's a resolution of 640x480 pixels) - for comparison, that's lower than a standard-definition TV picture.

If you're not sure of the resolution of your existing webcam, go to <https://webcamtests.com> and click 'Test my cam', then check under Webcam Resolution in the stats listed down the left-hand side of the webcam's preview (ours has a resolution of a 1280x720 - see screenshot below).

Although a 4K (3840x2160 resolution) webcam might sound tempting, they are expensive and, in most cases, unnecessary. **Logitech's 4K Brio Ultra HD Pro** costs

# Add a **webcam** to your PC

Looking to make video calls via your desktop PC? Want to improve on your laptop's built-in webcam? **Jonathan Parkyn** reveals what to look for when choosing one, and recommends the best available now

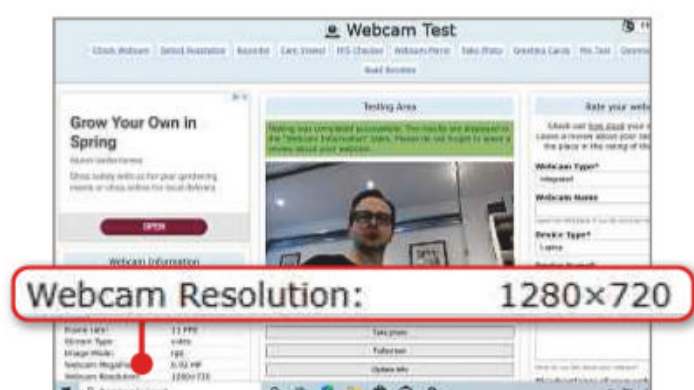


£199 ([www.snipca.com/37368](http://www.snipca.com/37368), pictured below), but you'll never put it to full use when video calling. Skype limits video quality to 1080x1920 (full HD), while Zoom's free service caps calls with more than two people at 1280x720 (**720p** or HD). You'll only get the most from a 4K webcam when using it to record video or live-stream via services such as YouTube.

While it's a good indication of quality, a high-resolution webcam doesn't guarantee better video. For example, the **Aukey**

**Webcam 1080p** (£40 from [www.snipca.com/37361](http://www.snipca.com/37361)) supports full HD video and performed well in our tests, but we found **Microsoft's LifeCam Cinema** (£77 from [www.snipca.com/37362](http://www.snipca.com/37362), pictured below) provided better overall quality with sharp, bright images in a wide range of lighting conditions, despite it only supporting resolutions up to HD. All things considered, it's our best buy.

Although it can't quite match Microsoft's LifeCam, **Logitech's HD**



Check your existing webcam's resolution on the Webcam Test website



A top-of-the-range 4K webcam like Logitech's Brio Ultra HD is unnecessary for most users



It might not support 4K, but Microsoft's LifeCam Cinema delivers high-quality video





Logitech's C270 is a great webcam at a low price and supports video up to 720p

**Webcam C270** (pictured above) also supports HD resolution and delivers similar video quality to the Aukey, even in low light – and at just £30 ([www.snipca.com/37363](http://www.snipca.com/37363)) it's a great choice for those on a tight budget.

### Frame rate

A webcam's frame rate refers to the number of images that it can capture every second. The higher the frames per second (fps), the smoother the motion of your video. Some webcams can capture at up to 60fps, but these are expensive (**Logitech's 60fps StreamCam** costs £90 – [www.snipca.com/37364](http://www.snipca.com/37364)). As with 4K, however, there's little point paying extra for a 60fps webcam if you only plan to use it for video calls – most video-calling services, including Skype and Zoom, support a maximum of 30fps. We still recommend avoiding webcams rated at under 30fps, though, because these will result in your video looking choppy.

### Sound quality

Most webcams have a built-in microphone, letting them capture both video and audio. Some, like the **Logitech C920 HD Pro** (£127 from [www.snipca.com/37367](http://www.snipca.com/37367)), have two microphones to capture sound in stereo, which provides clearer, more natural audio. Despite this, we found the Microsoft LifeCam Cinema's single mic provides better sound quality than the C920 thanks to its noise-cancelling technology, which filters out background sound – perfect if other people (or animals) can't

## Setting up your new webcam

In most cases, configuring a new webcam is simply a case of attaching it via USB, clipping it to your screen and installing any software that came with it. When you run a video-calling tool such as Skype or Zoom, it should automatically detect your new webcam. If you've attached a new webcam to a laptop with an existing built-in camera, you can usually switch between them within your chosen video-calling software (in Zoom, click the up arrow next to the Video button; in Skype,

go to Settings, select 'Audio & Video', then select your camera just above the preview windows). Alternatively, you can simply disable your integrated webcam. To do so, right-click the Windows Start button and select Device Manager. Look for your webcam in the list of hardware – in most cases it will appear under 'Imaging devices' – right-click it and select 'Disable device'. You can always reverse this if needed by repeating the process and selecting 'Enable device'.

keep quiet when you're on a call.

### Security and privacy

Many webcams come with motion-detection software. This lets you set your webcam to record video whenever it detects movement, allowing it to double up as a surveillance camera. Most Logitech models, including its budget C270 webcam, let you do this using the Logitech Webcam Software tool ([www.snipca.com/37384](http://www.snipca.com/37384)). Some also support face scanning with Windows Hello, the security feature built into Windows 10 that lets you unlock your PC by scanning your face (similar to Apple's Face ID on recent iPhones and iPads). Such webcams use a combination of optical and infrared sensors to scan your face. They are also expensive – the £199 Logitech Brio Ultra HD being one example.

Most webcams also offer features that protect your privacy. Logitech's C270 has an indicator light on the front to show when the camera is in use, which can quickly alert you to unauthorised access of your camera. Even better are models such as the **Ausdom AF640** (£60 from [www.snipca.com/37369](http://www.snipca.com/37369)), which comes with a privacy cover that lets you block the lens when you're not using the webcam, preventing anyone from spying on you.



The Razer Kiyo includes a built-in light ring to help illuminate you during calls, but it can be distracting

### Autofocus, face tracking and zooming

Most budget webcams, such as the Logitech C270, have a fixed-focus lens. While these usually work well when you're sitting between 1m and 3m from the webcam, move in close or further away and you'll slip out of focus. More expensive models like Logitech's C920 and Microsoft's LifeCam Cinema have an auto-focus lens that keeps your video sharp at all times. Unlike the plastic lenses found on cheaper models, both the C920 and LifeCam have lenses made from glass, helping to further boost video quality.

Some webcams come with built-in lighting, providing balanced illumination for your face during video calls. **The Razer Kiyo** (£125 from [www.snipca.com/37370](http://www.snipca.com/37370), pictured above) is one example, featuring a ring of **LEDs** around the lens. Although useful for gamers who like to keep the lights off, this can be distracting – in most cases, you're better off just using a nearby lamp to illuminate yourself during calls. Note that the Kiyo is currently out of stock, but you can place an order on Amazon and be notified when it's available.

If you tend to have a lot of people sitting in on a call from your computer, consider a webcam with a wide-angle lens. Logitech's C270 offers a reasonable 60-degree field of view, but to fit more people in you'll need to opt for something more expensive like Logitech's C920 HD Pro, which has a 78-degree view. The Ausdom AF640 goes even wider with a 90-degree view, but we found its video and audio lacked the clarity of Logitech's C920. **ca**

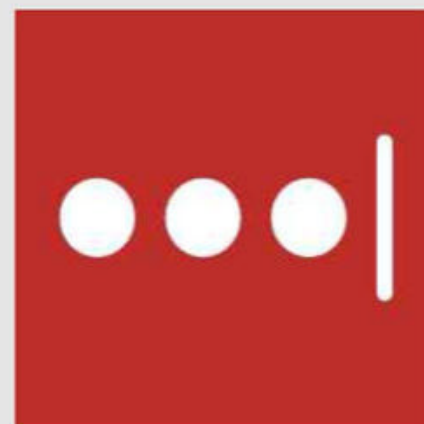
## Are cheap, unbranded webcams safe?

We recently received an email from a reader asking whether it was safe to use cheap, unbranded webcams, such as those widely available on eBay and Amazon. Although they probably won't match the quality of the more expensive webcams we've mentioned above, unbranded webcams that connect to your

PC via USB are unlikely to pose any risk. The exception to this would be network webcams – in other words, cameras that connect to your internet directly, either via Wi-Fi or a network cable. In theory, a malicious network webcam could film you without your consent and upload footage to hackers or criminals.



# STOP USING LastPass



\*\*\*\*\*

LastPass has announced significant restrictions to its free password manager. **Will Stapley** explains what's happening, and why you should switch to a better (and completely free) alternative

In 2016, LastPass introduced free password syncing across unlimited devices, which let you access your passwords on any PC, laptop, phone or tablet. This, combined with an easy-to-use design, meant LastPass quickly became our favourite password manager.

However, from 16 March you'll be able to use your LastPass account only on computers (ie, desktop PCs and laptops) or mobile devices (tablets, phones, smart watches and so on). The device you first log in with after this date will determine your preference. So if you log in with a laptop, your LastPass account will be set to work only with computers (you get three chances to change your preferred device type before it's locked in place).

With most people using a combination of computers and mobile devices, it's a change that will impact almost all LastPass users. To continue syncing your passwords across *all* your devices, you'll need to upgrade to LastPass Premium (£31.20 per year) – or switch to a new password manager.

We recommend the latter. As we explain in the Mini Workshop on page 63, it's easy to make that switch and keep all your passwords. First, however, you need to work out which password manager is best for you.

## Take your passwords offline

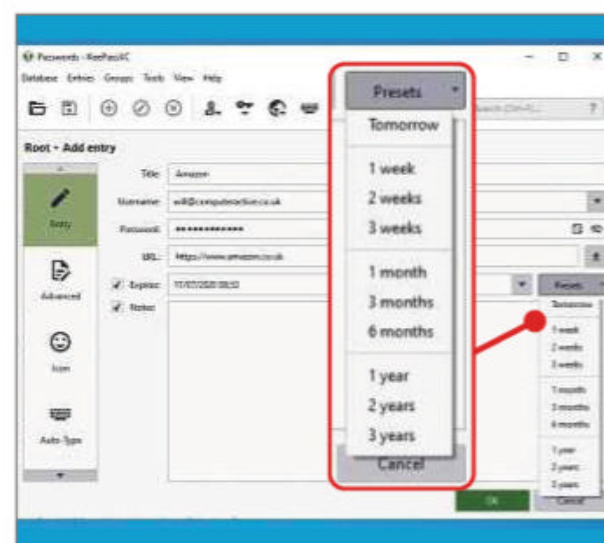
LastPass isn't the only online service to start charging for what was previously a

free and unlimited service. Having lured people into using its Photos service by promising unlimited storage, Google will impose a 15GB limit from 1 June and charge for more.

If this leaves you a little wary of free online services, you could take matters into your own hands by switching to an *offline* password manager and storing your passwords on your PC.

**KeePassXC** (<https://keepassxc.org>) is our favourite. It's based on the original KeePass (<https://keepass.info>), but has an improved layout and benefits from more regular updates. Like KeePass, it's **open source**, which means the code that it's based on is publicly available. This ensures transparency (if KeePassXC got up to no good, the open-source community would soon expose it) and means if KeePassXC decided to charge for certain features it's likely other developers would use the existing code to create their own free version.

Storing your passwords on a single PC means you won't be able to access them on other devices. However, you can get around this by uploading your KeePassXC database to an online storage service such as Dropbox (as we explained in our Workshop in Issue 591, page 40). Still, this isn't a perfect solution – if you update a password on one PC, it can take a while for the change to sync across your other devices. In addition, while the large choice of controls lets you tweak



Schedule KeePassXC to remind you to change passwords for specific accounts

KeePassXC to suit your needs (including setting it to remind you to change specific passwords after a set period of time – see screenshot above), it's not as easy to use as most online password managers.

## Use your browser's built-in password manager

Whichever browser you use, it will offer to save your passwords whenever you log into a new site. While this is convenient, there are downsides to using your browser's built-in password manager. A browser is primarily designed for accessing websites – the password manager tool is an added extra, and therefore won't have the same choice of features as a dedicated password manager (for example, most browsers won't let you store secure notes alongside your

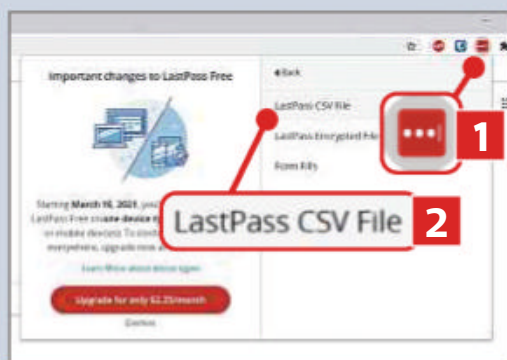


## WORKSHOP Switch from LastPass to Bitwarden

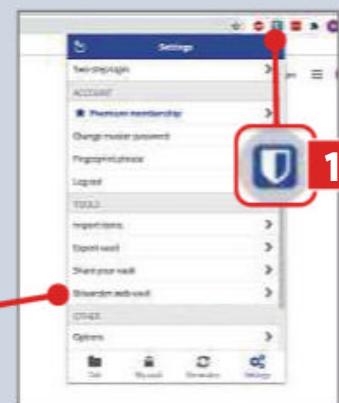
Before starting, sign up for a free Bitwarden account (go to [www.bitwarden.com](http://www.bitwarden.com) and click Get Started). This process will download

your LastPass passwords in an encrypted text file, so it's vital you permanently delete this when you've finished (see Step 4).

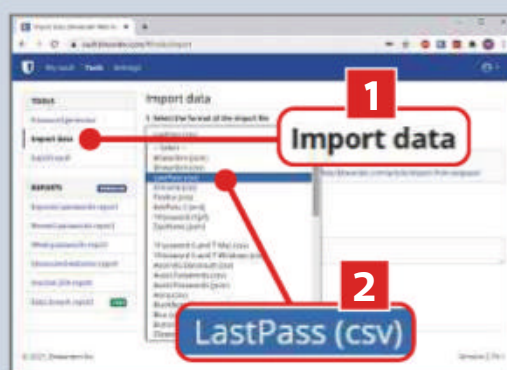
1 Open your browser, click the LastPass extension **1** in your browser and log in if prompted. Select 'Account Options', Advanced, Export, then LastPass CSV File **2**. After you enter your LastPass password, a 'lastpass\_export.csv' file will be downloaded.



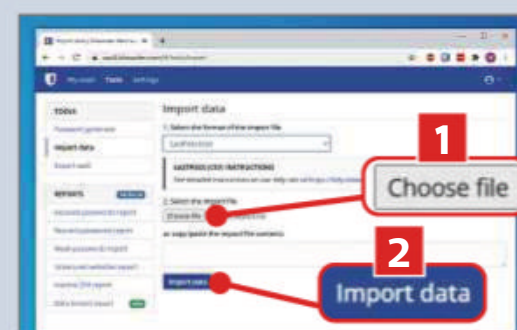
2 Open the Bitwarden extension **1** (if you haven't got this, download it for your browser from [www.snipca.com/37452](http://www.snipca.com/37452)). Next, click Settings, then scroll down to the Tools section and select 'Bitwarden web vault' **2**.



3 Log into your vault using your Bitwarden username and password, then click Tools. Select 'Import data' **1**, then click the 'Select the format...' dropdown menu and select 'LastPass (csv)' **2**.



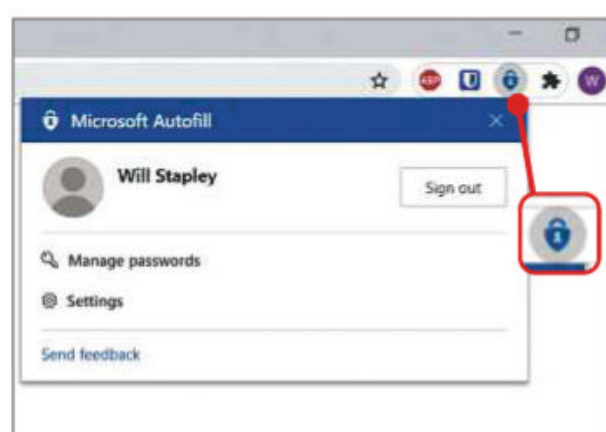
4 Click 'Choose file' **1**, locate the CSV file you downloaded in Step 1, then click 'Import data' **2**. You can now permanently delete the CSV file in File Explorer by holding down the Shift key, then pressing Delete (this means it won't be temporarily placed in your recycle bin).



passwords nor log you out after a set period of time).

To sync your passwords across multiple devices, you'll need to sign into your browser using the same account on each (your Google account in Chrome, Microsoft account in Edge and so on), which won't please anyone who wants to keep their browsing private.

Chrome syncs your passwords across devices using **Google Password Manager** (<https://passwords.google.com>). However, it won't sync them with other browsers. Edge offers a similar password tool, but when you combine it with the **Microsoft Authenticator app** ([www.snipca.com/37450](http://www.snipca.com/37450)), which Microsoft added a password manager to in December 2020, it becomes more flexible. Sign into this app using the Microsoft account you use to sign into Edge, and it will sync your passwords and let you access them on



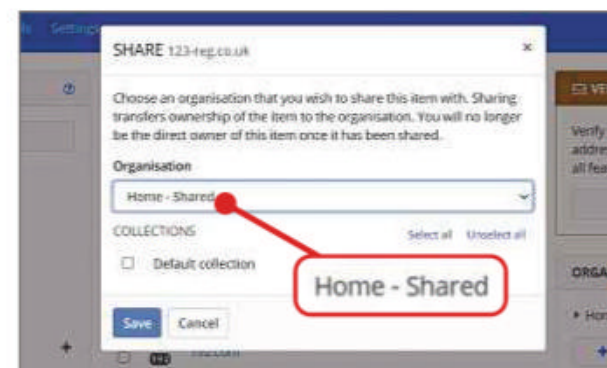
Use the Microsoft Autofill extension to access your Edge passwords in Chrome

any device. You can also access them in Chrome by installing the new Microsoft Autofill extension ([www.snipca.com/37446](http://www.snipca.com/37446), see screenshot below left).

### Use a dedicated online password manager

Our preferred option is to use an online password manager that provides a good balance between security and convenience. For this, we recommend **Bitwarden** ([www.bitwarden.com](http://www.bitwarden.com)). Like KeePassXC, Bitwarden benefits from being open source, but it's also far easier to use. Thanks to a range of browser extensions and mobile apps, it seamlessly syncs your passwords across unlimited devices and doesn't discriminate between computers and mobile devices. Anyone switching from LastPass will instantly feel at home with Bitwarden, which has a similar design and handy features such as a personal vault for your secure notes.

Bitwarden also lets you share your passwords with one other person, which is particularly useful for joint shopping accounts. Confusingly, this feature is designated as a business tool, but home users can use it too. To enable it, go to your web vault (as explained in the Workshop above), click 'New organisation' and select the free plan. You can then share individual passwords by hovering over them, clicking their cog icon, then selecting Share followed by your



Bitwarden's 'organisation' feature lets you share passwords with one other person

'organisation' (we called ours 'Home - Shared', see screenshot above). Upgrade to the Premium package (£7.10 per year) and you get extra features such as 1GB of secure storage space, but for most people the free version will be perfectly fine.

There are plenty of other online password managers, but they all have limitations. **NordPass** (from the VPN provider NordVPN – [www.nordpass.com](http://www.nordpass.com)) lets you store and sync unlimited passwords with unlimited devices. However, the free version restricts you to using one device at a time (log into NordPass on your phone and it'll log you out on your PC, for example) and you can't share your passwords. **Dashlane** is another option, but the free version lets you store only 50 passwords (most people have over 100) and, like NordPass, you can't share them. To remove these restrictions, you need to upgrade to Dashlane Family, which costs £42.59 per year. **ca**



# Problems Solved

Our experts solve all your tech problems

## PROBLEM OF THE FORTNIGHT

### Why won't my Bluetooth mouse connect?

**Q** I have a PC, self-built with great help from your magazine, with an MSI 970 Gaming motherboard and an AMD FX-8350 processor. It runs 64bit Windows 10 Pro. Recently I bought a Jelly Comb MS040 mouse with a Bluetooth USB module. It didn't include a driver, and I cannot install it on my computer. Apparently, my PC does not have a Bluetooth driver. The Bluetooth logo should be in Action Centre and Device Manager but it isn't. I tried to get a driver from Microsoft, MSI and Jelly Comb, all to no avail. How can I get a driver that works and resolve my problem of getting the mouse to pair? And a keyboard, for that matter?

Sidney Butt

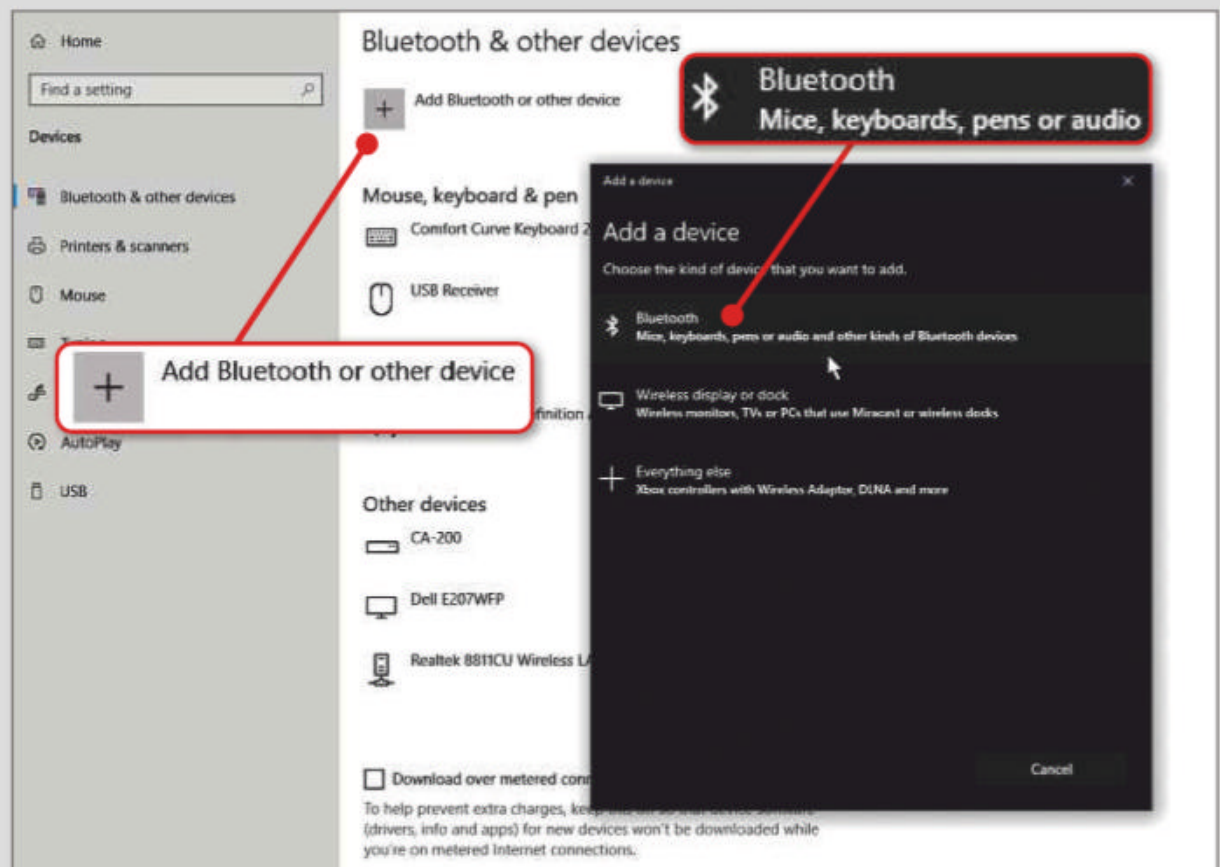
**A** Numerous aspects here need unpicking.

First, your mouse is designed to connect in one of two ways. The first is via Bluetooth, the transceiver for which is actually built into the mouse. This method requires a computer with Bluetooth.

The second option is using the included USB module, which has the 2.4GHz radio band to make a direct connection – but specifically is not a Bluetooth module. Note that this arrangement is common to pretty much all wireless mice these days, so there's nothing unusual about yours.



The Jelly Comb wireless mouse pairs with the module (below) via a 2.4GHz connection rather than Bluetooth



Clicking 'Add Bluetooth or other device' followed by Bluetooth will result in an error message

Next, let's consider your PC. According to MSI's support page, at [www.snipca.com/37287](http://www.snipca.com/37287), your motherboard does not have Bluetooth functionality. This means your self-built computer does not have Bluetooth. That explains why you don't see any Bluetooth options in Device Manager or Action Centre. You will find a 'Bluetooth & other devices' option in the Devices page of Windows 10 Settings. However, clicking the 'Add Bluetooth or other device' button here (see screenshot above) followed by Bluetooth will result in an error message. This is because your PC doesn't actually have any Bluetooth connectivity.

Now, you could buy a USB Bluetooth module to add Bluetooth to your PC, such as the TP-Link UB4A (around £10, [www.snipca.com/37288](http://www.snipca.com/37288)). That would let you connect your Jelly Comb mouse via Bluetooth, or indeed any other Bluetooth device – including Bluetooth keyboards. But recall we said that the USB module that came with your mouse is not Bluetooth? It might look extremely similar to the TP-Link Bluetooth module,

but to stress once more, your Jelly Comb one is a single-function, dedicated 2.4GHz transceiver – not Bluetooth.

So what's the point of the included module? Well, it lets you connect your mouse to pretty much any device with a USB port via a direct 2.4GHz connection from transceiver to mouse, no Bluetooth hardware, Bluetooth driver or Bluetooth pairing required. In other words, even though your PC lacks Bluetooth you don't actually need Bluetooth to use this mouse: you can just plug the (non-Bluetooth) 2.4GHz module into a USB socket on your PC and it's ready to go.

The only other thing you might need to do is press the Switch button on the mouse once or twice so that the indicator light under the module icon is illuminated, rather than either the 'BT1' or 'BT2' lights. Those two modes will indeed put the mouse into Bluetooth mode, ready to pair with up to two different Bluetooth computers – but in either case you wouldn't need to use the 2.4GHz module it came with.



## Why can't I play *all* my Amazon songs?

**Q** I've been an Amazon customer for 10 years, paying for Prime so that I can get unlimited ebooks. I also use the Amazon service to listen to free music through my desktop PC, which I've been doing successfully for some months now. Suddenly, when I try to select songs I like, an ad pops up for unlimited music but at a cost of £7.99 a month. I refuse this offer, but I then can't play the songs I want. Can you tell me of a way around this?

Peter Kenny

**A** Amazon's music-streaming line-up can be rather confusing. There's the 'free' tier that you're using, which is included with any Prime subscription – so you are in effect paying something for it, because Prime itself is not a free service. Then there's the 'premium' Unlimited service, which itself has multiple plans to cater for individuals, families, students and more. To add a little more confusion, Amazon sometimes refers to the free tier as Amazon Prime Music, but at other times it calls it Amazon Music Prime. To keep things simple, it's best just to think of them as Amazon Music Prime or Amazon Music Unlimited.

There are numerous differences between these two tiers. However, the

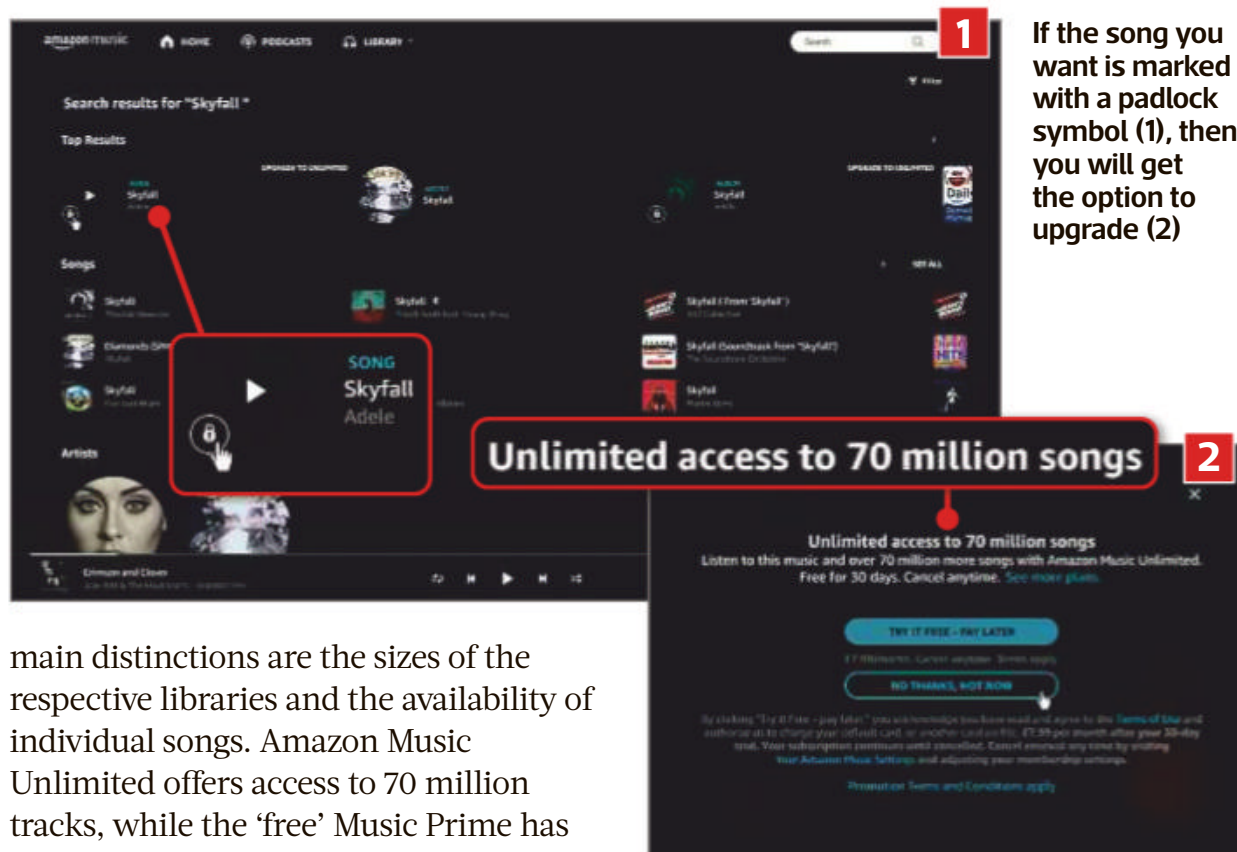
main distinctions are the sizes of the respective libraries and the availability of individual songs. Amazon Music Unlimited offers access to 70 million tracks, while the 'free' Music Prime has just two million.

Licensing arrangements mean that individual tracks might come and go from either library at any time but – and this is key – with Unlimited you have access to all 70 million tracks, all the time. With Prime, Amazon 'rotates' the two-million-track library, meaning songs or whole albums that you listened to just yesterday might no longer be available.

That's why you're seeing this message: songs you like have been rotated out of the current Prime library. They might one

day come back, or might not. Either way, it's likely to be a long wait. Until then, tracks you're unable to play will be marked with a padlock (see screenshot **1**) to indicate that they're available only with an Unlimited subscription. If you click to play them, you'll see the advert you describe **2**.

The only solution is to cough up for Unlimited or accept that this is a frustrating limitation of the Prime service.

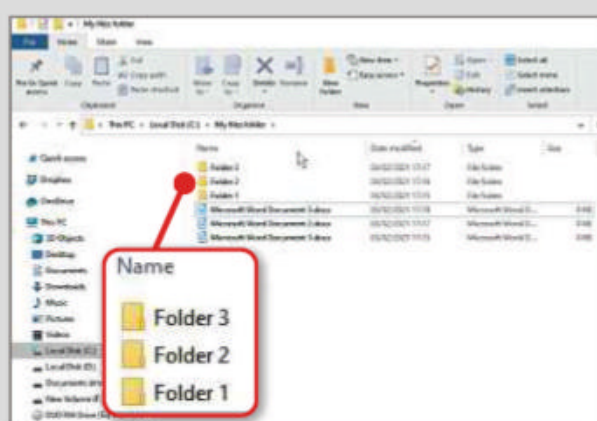


## How do I stop my Windows folders dropping down?

**Q** In Windows 10 File Explorer I like to keep my most recently changed files at the top of the list. However, when I sort this way, any subfolders within my documents folder drop down, appearing at the bottom of the list. Is there a way to have the subfolders at the top, followed by the most recently altered files?

Brian Ward

**A** This is one of those little annoyances for which you'd think there'd be an easy solution. In fact, there is – but while the trick is simple in execution, its existence is far from obvious.



**Hold down Shift and click the Name header to list the folders first**

First, click the 'Date modified' column header in order to sort your files-and-folder list by that criterion. Clearly, you already know how to do that, but, for the

benefit of other readers, a first click on this will sort in ascending date order, while a second click arranges the list into descending date order. But here's the bit you'd never guess: if you now hold down the Shift button and then click the Name column header, this will keep the existing sort order (with the newest entries first) but change the display so that the folders are listed first (see screenshot).

That's all there is to it. However, there's a second half of this trick that might be useful later. To undo the folder-first sort order, hold down Control (Ctrl) while clicking the Name column header.



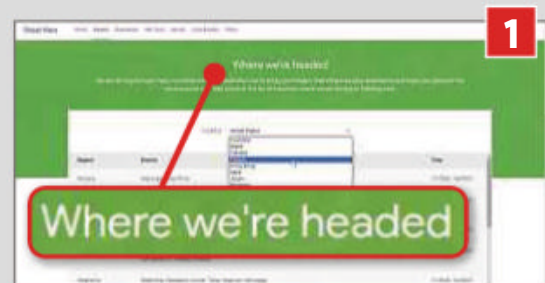
## Is Street View psychic?

**Q** When a relative asked recently where the entrance to Bath Racecourse was, the venue for his Covid jab, I referred him to Google Street View. I looked myself and was astonished to see the NHS sign clearly visible, just days after it opened. Was it coincidence that the Google car was passing? How often is it done?

Euel Lane

**A** Street View data collection is a never-ending process, with hundreds of Google's camera-equipped cars navigating the world's roads every day. You can follow it at [www.snipca.com/37301](http://www.snipca.com/37301) (see screenshot 1). Roads in major towns and cities are updated every year or two.

That said, checking the date on the photos near the Bath Racecourse entrance, we can see that they were captured in September 2020 (spot the date stamp at the bottom right 2, also at [www.snipca.com/37300](http://www.snipca.com/37300)). The site wasn't a Covid-vaccination centre then, but we do see a 'Thank you NHS' rainbow sign – of the sort that has been displayed in windows up and down the land for months. So, that's what you're seeing: a gratitude poster displayed by Bath Racecourse, rather than an official NHS sign for what is indeed now a vaccination centre.



Follow Google's Street View cameras (1). The date stamp on the Bath picture (2)

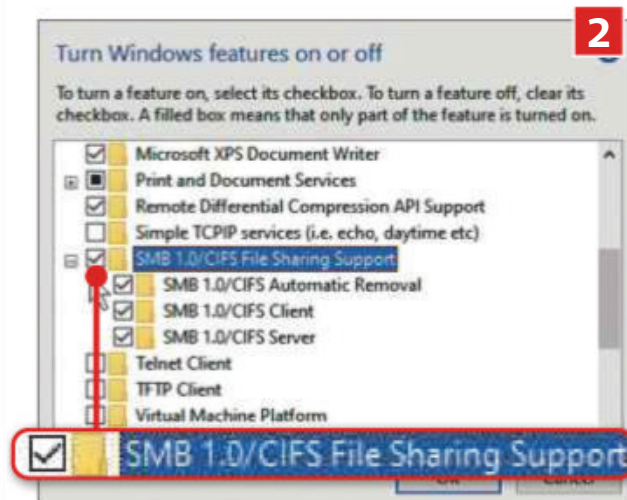
## Where do I get drivers for my old NAS?

**Q** I have an Iomega StorCenter ix2-200 NAS drive (pictured) and I'm looking to download the drivers for it in order to install the device, as I have lost the install disk. Can you help?

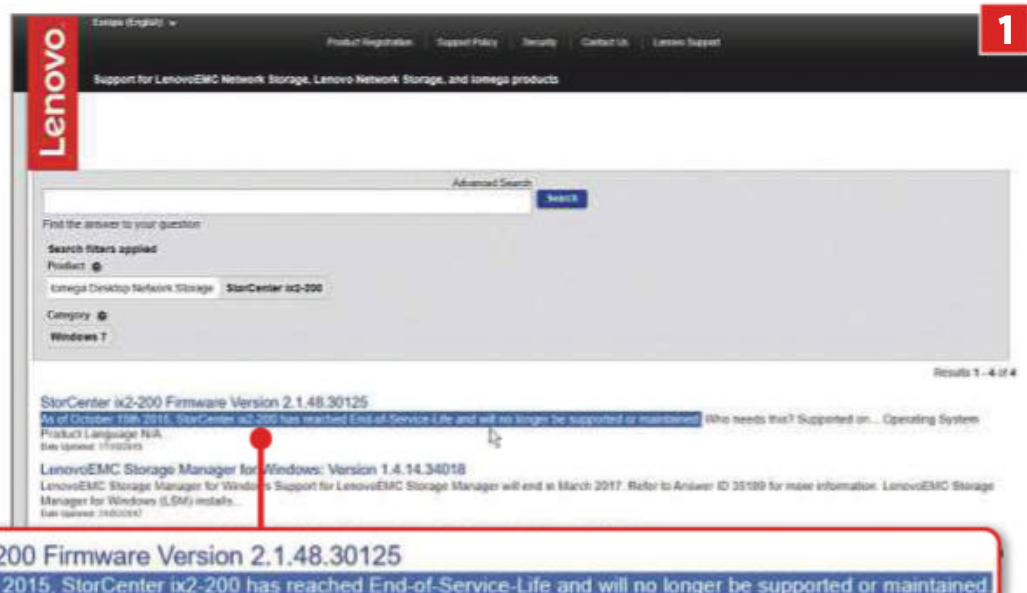
Mike Minshall



**A** You don't need drivers as such to 'install' a NAS as, once attached to your network, it'll appear under the Network heading in Windows 10 File Explorer. However, your drive is old and relies on the ageing Server Message Block (SMB) protocol, which Microsoft disabled in Windows 10 because of security flaws. Those flaws have been patched in Windows 10 but SMB remains disabled by default, because it could harbour other security holes yet to be discovered.



Lenovo ended support for the StorCenter ix2-200 in 2015 (1). Download the most recent firmware and then open a Run box and select 'SMB 1.0/CIFS File...' (2)



StorCenter ix2-200 Firmware Version 2.1.48.30125  
As of October 15th 2015, StorCenter ix2-200 has reached End-of-Service-Life and will no longer be supported or maintained.

**Q:** Has BBC News hijacked my iPad?

**A:** Issue 589, page 69 – find it on our 2020 Back Issue CD

Buy it from  
[www.snipca.com/37026](http://www.snipca.com/37026)





## Why is my Gmail Compose window so small?

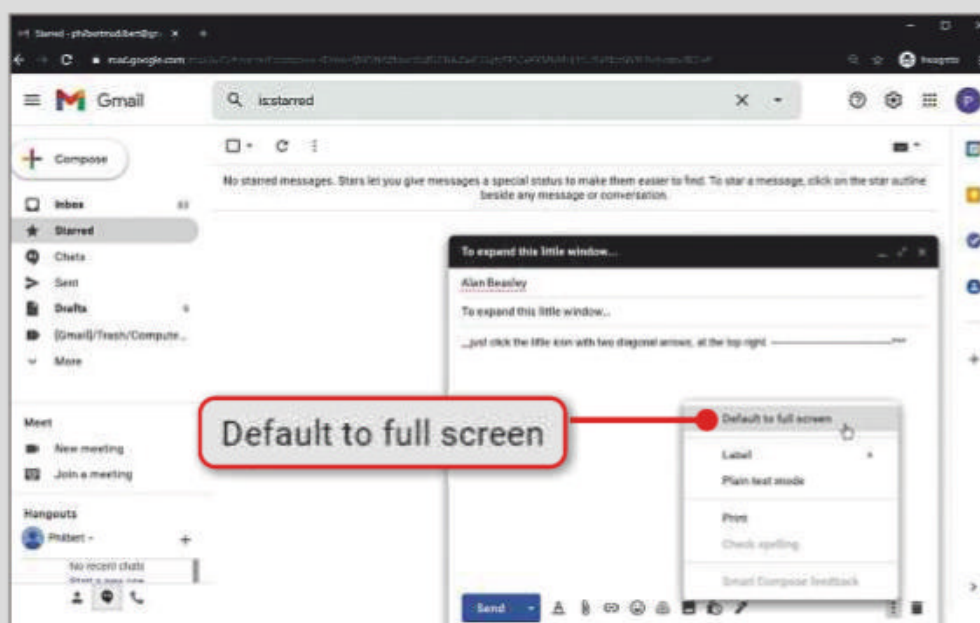
**Q** Although I haven't used Gmail for quite a while, I seem to remember that the Compose box used to occupy most of the screen – much like other email tools. Coming back to it recently, I find that Compose is now in a box less half the page width, which I find very inconvenient in comparison.

Is it possible to enlarge the Compose format? I can't find anything relevant in Settings.

Alan Beasley

**A** You must have been away for a good period because this has been the default for at least three years, with the new-style interface rolling out in early 2018. For a while Google allowed people to switch back to the original view, but the company removed that freedom by the end of the same year.

However, while you can't now revert to the old style, there are actually a number of ways to resolve this particular annoyance – but none of



You can set Gmail to enlarge the Compose window by default

them are to be found in Settings. Instead, in the Compose window itself, at the top right, you can expand the view to near full-screen by clicking the little icon with two diagonal arrows.

To make this the default style for Compose, again open the Compose window itself, click the menu button (three dots, bottom right) and then click to tick 'Default to full screen' (see screenshot above).

Finally, as a bonus tip, you can actually open Compose in its own browser window by holding down the Shift key as you click the Compose button. Moreover, you can make this window truly full-screen – as opposed to the *nearly* full-screen view in Gmail itself – by clicking the normal window-maximise button, which is the square icon at the top right of the window (just to the left of the cross).

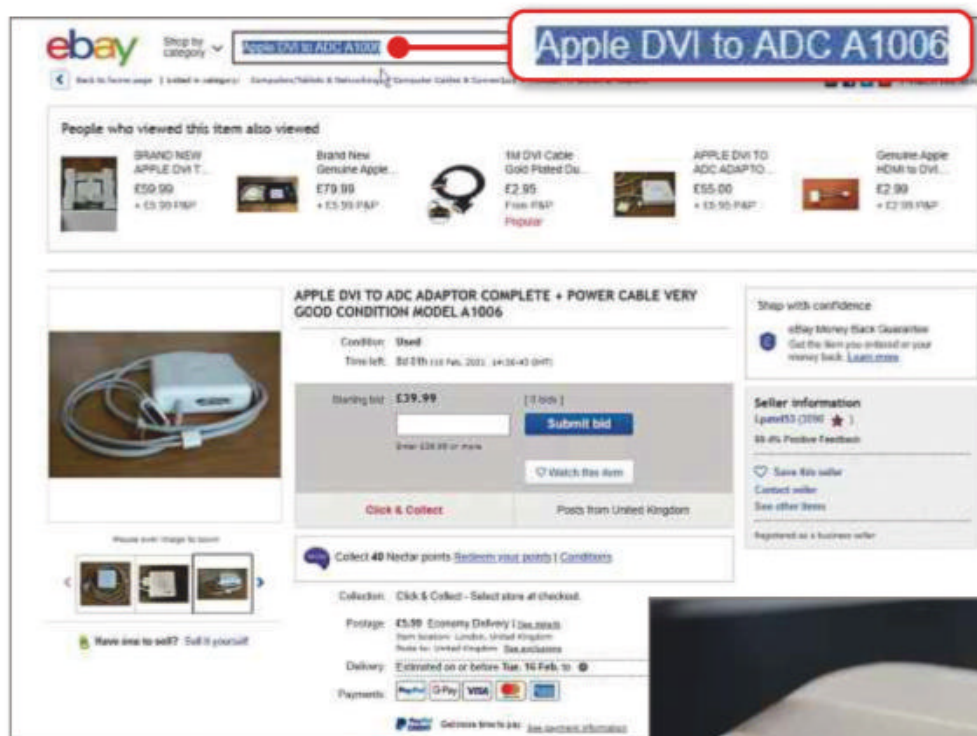
## How do I connect my old Apple monitor?

**Q** I've been given an Apple Power Mac G4 computer. I already have a good monitor but the Apple one beats it hands down, as it is far bigger than the one I have. The Apple monitor plug has a rounded shape to it, and the plug has buttons that you have to press to release the plug. I want to try and get the correct adapter for it but am totally lost with them. Can you please help and tell me where to get one?

Peter Holmes

**A** From the photos you sent us we can see that you have a monitor with an Apple Display Connector (ADC). In technological years, this is now an ancient connector that Apple stuck on to some of its monitors for a couple of years from around the turn of the millennium.

It was basically Apple's version of the



These days you have to look on eBay (left) to find an Apple AVI to ADC Adapter A1006 (below)

DVI standard, which remains a feature of many desktop graphics cards today. However, Apple being Apple, the two plugs are physically and electronically incompatible.

The fix for that frustration was also from Apple – its AVI to ADC Adapter (product code A1006, see screenshot above). That was all well and good when Apple still made them, but it stopped a



long while ago. Second-hand units crop up regularly on eBay, though, so that's where you'll need to go to find one. Expect to pay £50-£70.



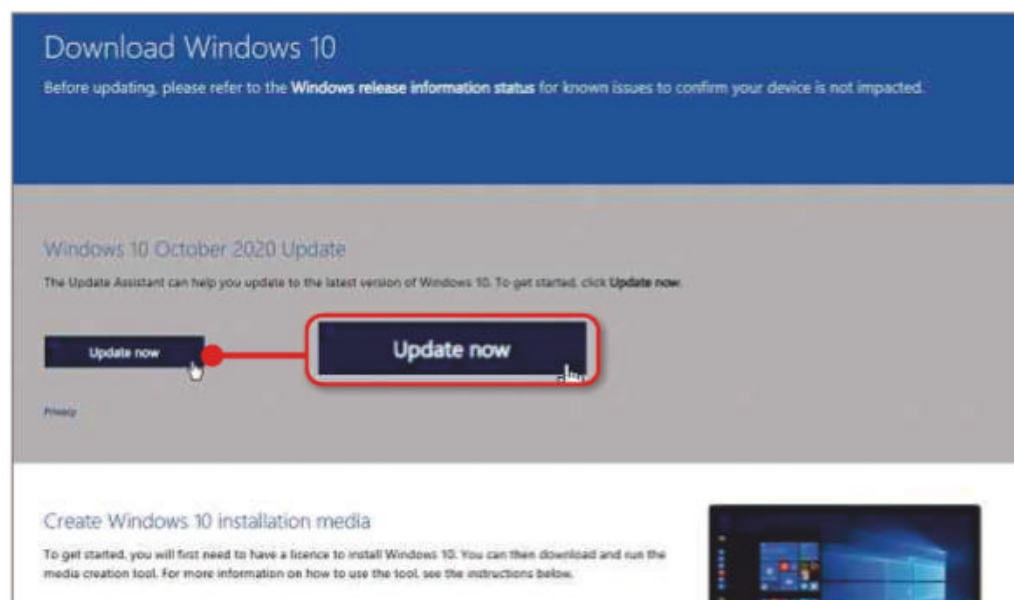
# Problems Solved

## Should I manually install May 2020 Update?

**Q** I've read with interest your articles on the various Windows 10 updates and the additional tools they contain. When I check my Windows Update page I see a message telling me that the May 2020 Update is on its way. I'm also told that once it is ready for my device, I'll see the update available on the Windows Update page. My PC is an HP Envy 27 all-in-one. I believe I can manually load the latest Windows 10 version, but should I wait and let the update install automatically?

David Torrance

**A** Generally, our advice would be to wait until waiting itself poses a risk – meaning the point at which a particular version of Windows 10 is about to fall out of support. For the version of Windows 10 you're still on, which is 1909, that date is 11 May this year (see screenshot right). So, you are now indeed very close to the point where



To install the latest version of Windows 10, visit Microsoft's download page, then click the 'Update now' button (left). Microsoft will stop supporting version 1909 in May (below)

we'd suggest pressing ahead regardless.

First, though, check the support page for your particular computer to see if HP has issued any **firmware** (BIOS) updates: it's possible that out-of-date firmware is what's stopping Windows 10 from updating you to the May 2020 (20H2) Update. We don't know your exact model, but you can search for updates at [www.snipca.com/37295](http://www.snipca.com/37295). With that done you should then install the latest Windows 10 manually. Visit Microsoft's download page at [www.snipca.com/37296](http://www.snipca.com/37296), then click the 'Update now' button (see screenshot above) and follow the instructions.

Release	Start Date	End Date
Version 1909	29/07/2019	14/10/2021
Version 20H2	12/11/2020	14/10/2022
Version 21H1	21/05/2021	14/10/2023
Version 22H2	13/11/2022	14/10/2024

## Can I edit iPad's Hosts file to block adverts?

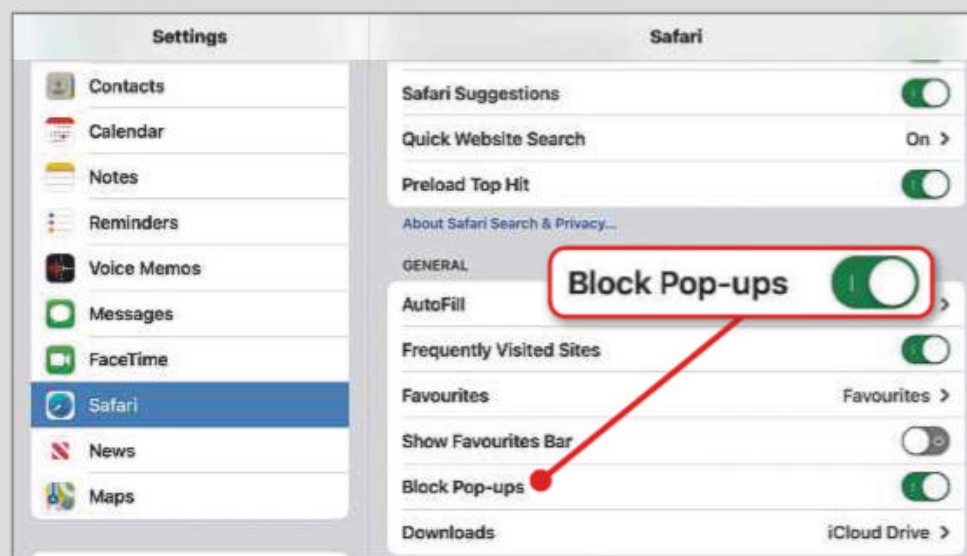
**Q** Back in Issue 588's How To (page 35) you explained how to block adverts from popping up on your PC by editing the Hosts file. I'm now wondering if there's a similar file lurking inside Apple iPads. If so, is it possible to edit it in a similar manner?

Paul Bennett

**A** On Apple equipment you can do what Apple allows you and nothing more. As such, the short answer is that no, there's no way to access or edit the Hosts file on your iPad.

To be completely accurate, we should say that, theoretically at least, this would be possible if you decided to 'jailbreak' your iPad. This means installing unauthorised software that removes Apple's security systems, allowing you to then play with parts of the iPad you can't normally get to.

However, this is hard to do and



Stop pop-ups in Safari on your iPad by flipping the 'Block Pop-ups' switch to its on position

fraught with risk – both during the process and forever after when using your iPad without Apple's security.

So, unless you're a complete tech masochist, we can in no way recommend going down this route. If you are so inclined, then be aware that the process also changes all the while. You'll need to search on Google for **jailbreak ipad** to find the latest method for your particular model.

However, in your case this difficult and risky route would be pointless, because the Safari browser on your iPad has a built-in pop-up blocker.

To activate it, from your iPad's home screen first tap Settings and then, in the left-hand pane, scroll to find and then tap Safari. Finally, in the right-hand pane, under the GENERAL heading, tap to flip the Block Pop-ups switch to its on position (see screenshot above).





## WHAT'S THE DIFFERENCE BETWEEN...

### SMS and RCS?

**Q**

I've heard that RCS is overtaking SMS as a mobile texting app. Can you explain how it works? I understand there is an Android version, and an Apple version for the iPhone. I find it confusing so I would appreciate your explanation – particularly how it works with Wi-Fi.

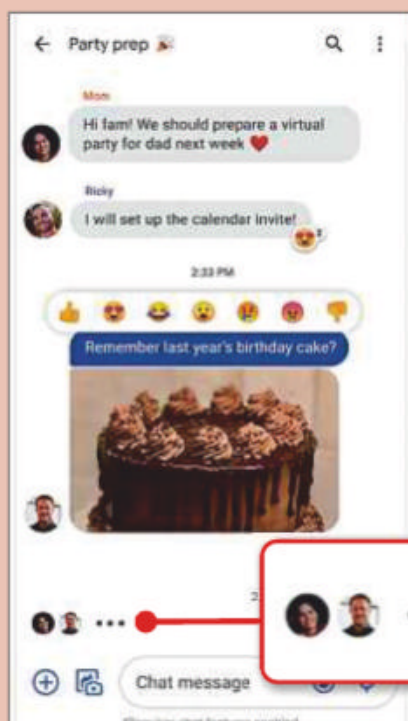
Rob Barnes

**A**

SMS, or the Short Message Service, was invented for the earliest mobile phones, allowing users to exchange 160-character text messages. Later, this evolved to become the Multimedia Messaging Service – or MMS – for the sending and receiving of photos and videos.

Both SMS and MMS are more or less 'universal': it doesn't matter if you send a text, photo or video from an ancient Nokia phone to a fancy new iPhone or vice versa – the content should get there, one way or another. All you need is a person's phone number.

But, traditionally, SMS and MMS work over a mobile connection only



RCS now has 'live' chat with the 'three-dot indicator', which shows when someone is replying to you

(be it 4G, 3G or even 2G). SMS texts are typically included in a mobile phone contract, but MMS messages are often charged individually (and usually exorbitantly, at 50p or more a pop).

The intention of RCS – or Rich Communications Services – is to bring phone-number-based universal messaging into the modern world, enabling text or media content to flow

over Wi-Fi or 5G/4G/3G data networks when available, reverting to mobile network-based MMS or SMS protocols when necessary. RCS also introduces new features, such as 'live' chat – so you can see a three-dot indicator when someone is typing a reply, for example (pictured left).

The trouble is, it's all a bit of a mess. Support from mobile networks is patchy and, yes, while Google Messages now offers RCS – which it calls 'Chat' – you're wrong about Apple. The company hasn't yet got on board with RCS. Its own iMessage service offers much the same, without RCS, albeit restricted to messages between Apple devices.

If your mobile phone network supports RCS, you can use it now in Google Messages. Using it on Wi-Fi (or 5G/4G/3G) will generally be cheaper and faster than relying on MMS or SMS. But it's too early to tell whether RCS will become as universally popular.

Want to know the difference between technical terms? Email [noproblem@computeractive.co.uk](mailto:noproblem@computeractive.co.uk)

## Why do our Dell laptops work differently?

**Q**

I bought a Dell G3 laptop last year and have been very happy with it. As my wife needed a new laptop also, I bought the same for her. They're both great, but I've noticed an odd little quirk. On my laptop, to change the brightness of the screen I have to hold down the Function (Fn) key and then tap F11

or F12. But on my wife's identical machine she doesn't need to hold down the Fn key.

So, she can just tap F11 or F12 and the brightness adjusts. Why would this be, given that the machines are literally identical models?

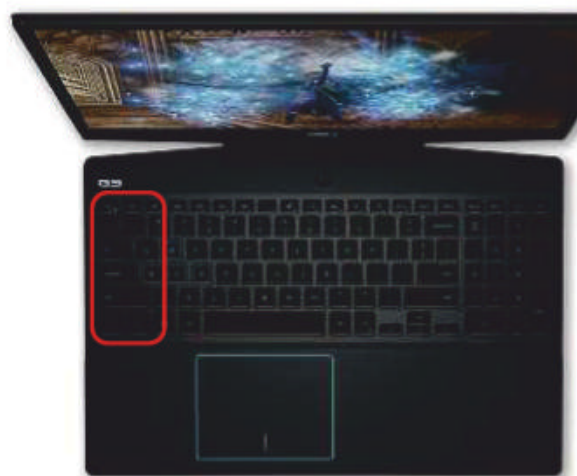
Bill Pearson

**A**

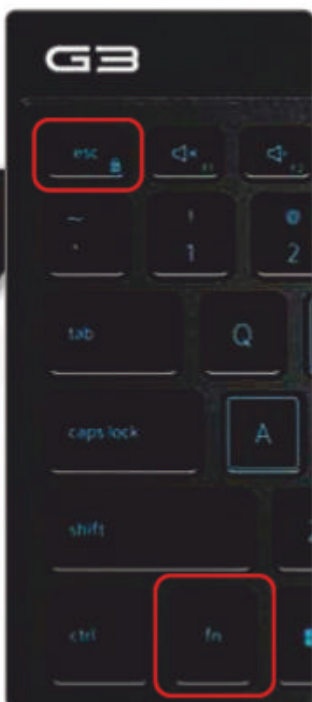
Simple – your wife's laptop has enabled a feature called Function Lock. This tells the keyboard to act as though the Fn key is permanently held down, so all the secondary, laptop-controlling functions on the Function keys activate without needing to hold

down Fn.

Turning this mode on or off just required holding down the Fn key and then tapping Escape (Esc – pictured below left). Because the Esc key is right next to F1, this is something that's all too easy to do by accident, so that's probably what happened.



Hold down the Fn key and then tap Escape (Esc) to activate Function Lock



## Next Issue

ONSALE  
Weds  
24 Mar

- Why can't I activate Microsoft Office?
- How do I stop my icons scattering?
- How do I cancel a Facebook vote? ...And many more

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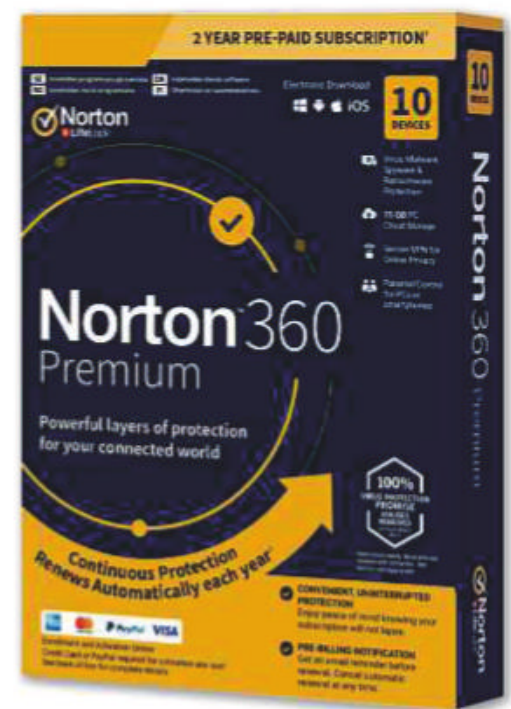
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# Problems **Solved**

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### Did you print an incorrect website address?

**Q** I refer to page 69 of Issue 598's Problems Solved page and the question from Maurice Seamons, about his Lenovo laptop that's still running Windows 10 1909 (the November 2019 update). My laptop, with Windows 10 Home, is also still on 1909. Your reply to Maurice suggested checking for unresolved problems with 1909 via the Microsoft website at [www.snipca.com/36913](http://www.snipca.com/36913). However, while that link does show a Microsoft page in my browser, it comes with a '404 – Page not found' error. So, was this a misprint or are there now no known issues with 1909?

Derek Saffell

**A** It wasn't a misprint but it was certainly a misdirection. In other words, while [www.snipca.com/36913](http://www.snipca.com/36913) was the correct shortcut address, we messed up with the long URL it points to. If you look at the top of your browser you'll notice that we accidentally directed our shortcut to the Microsoft status page for 1903 – not 1909. As 1903 is now out of support, Microsoft has since removed this page. That's why you're seeing an error.

Fortunately, through the magic of digital editing we've been able to change the URL that our original snipca link leads to, so if you – or another reader playing catch-up with old issues – now visit [www.snipca.com/36913](http://www.snipca.com/36913) it should work just fine. Sorry for any confusion caused by our error!

### Is Edge any safer than Chrome?

**Q** Back in Issue 580 you recommended switching to Microsoft Edge. Having read the feature, I followed your suggestion. Then, in Issue 597, the cover feature told us to stop using Google stuff. Again, I read this and thought it sounded like a great idea. However, I'm now confused. If I'm using Microsoft Edge then doesn't that use



Microsoft Edge's 'About' page makes clear it is based on Chromium's open-source software

Google's Chromium platform? And isn't it Microsoft collecting our data instead of Google? So isn't that just defeating the object? I'm sure I'm not the only one who is getting confused with all of this!

Lisa Mooring

**A** It is a confusing old business, right enough – and we're afraid there are often no simple answers in computing. Still, we'll try!

In response to your first question, yes, Edge is based on Chromium, which is indeed the same technology that underpins Chrome. That's why Edge and Chrome share many features that look, feel and, indeed, work much the same.

However, while Google came up with Chromium, the code project itself is **open source**, which means anyone is free to adapt it. Microsoft has taken it to make Edge. You or anyone else, if they were so inclined and capable, would be free to take the Chromium code and create a web browser of your own. That, too, would look a bit like Edge or Chrome but, the moment you made some changes to the code, it would be your own web browser – not Google's.

So, yes, if you use Edge instead of Chrome, you are to an extent putting trust in Microsoft rather than Google.

We're not going to pretend that Microsoft plays saint to Google's sinner, but nor did we suggest in our Issue 580 Cover Feature that this was the case. Rather, we said that Chrome has become

bloated and that Edge, as a relative newcomer, was streamlined – but with the benefit of working with tools that already work in Chrome. That remains the case.

Add in the fact that Edge has some built-in privacy tools that we believe are easier to use than those in Chrome, then we still feel confident in saying that Edge is the better, safer browser. If or when that changes, we'll let you know.

### Why can't I find Plex?

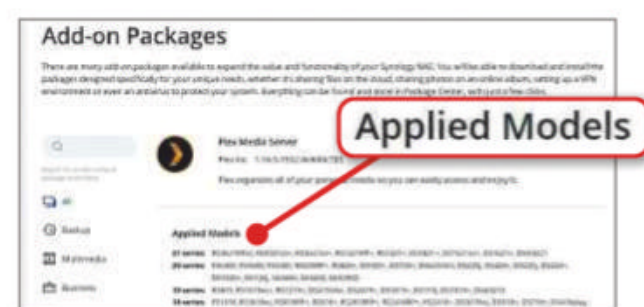
**Q** I was interested in your article about using Plex on a Synology NAS, as per the 'How to' in Issue 597. However, when I tried to download Plex from the Synology Package Center, it was not found. I checked all packages. Is there something I am doing wrong?

Steve Tann

**A** You didn't tell us your Synology NAS model number, but our gut feeling is that you're using one that's incompatible with Plex.

We've created a link to the Synology Package Center's Plex page at [www.snipca.com/37314](http://www.snipca.com/37314). Visit this and then check the list of supported drives, under the Applied Models heading (see screenshot below). If your NAS isn't displayed here, then we're afraid you're out of luck – your drive just doesn't support it.

Otherwise, feel free to send us another message, letting us know your specific NAS model and detailed information about the error message you're seeing and we'll take another look.



See under 'Applied Models' to check whether your NAS drive works with Plex



# Jargon Buster

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

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

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

**3GP** A type of video file recorded by many mobile phones.

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

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

**802.11ax** Wi-Fi standard with speeds up to 10 times faster than 802.11ac. Also called Wi-Fi 6.

**AAC** Advanced Audio Coding. A type of music file.

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

**ADSL** Asymmetric Digital Subscriber Line. A technology that converts a standard phone line into a broadband internet connection.

**Aspect ratio** Measurement of the shape of a screen. Traditional computer screens are 4:3. Widescreen ones are 16:9 or 16:10.

**Benchmarking** Comparing software and products with an accepted standard.

**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.

**Bricked** To damage beyond repair a device, making it completely unusable.

**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.

**cd/m<sup>2</sup>** Candela per square metre. Standard unit of brightness.

**Chiclet** Small, flat, square keys with rounded corners. Named after a brand of US chewing gum.

**Codec** Short for Compressor/Decompressor. A file that tells a computer how to record or play a type of media file.

**Contrast ratio** A measure of the difference between the darkest and lightest possible shades shown by a screen. Screens with higher contrast ratios are good for watching movies or playing games.

**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 applications.

**Dark web** Websites that can only be accessed using the Tor privacy program.

**Deepfake** A video that superimposes a fake voice over a clip of someone talking, a fake face on someone's body, or makes a static photo move. The results are becoming increasingly realistic.

**DisplayPort** A new socket for connecting monitors.

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

**Dual-band router** A Wi-Fi router that operates on two bands: 2.4 and 5GHz. Wireless networks working at 2.4GHz have longer range, but are more prone to interference. Wireless networks working at 5GHz have shorter range, but are less prone to interference and therefore tend to be faster than 2.4GHz networks.

**DVI** Digital Visual Interface. A common type of display connector that can carry a digital signal.

**E2E** End-to-end encryption. Ensures that messages can be seen only by the sender and recipient.

**Firmware** Basic software stored on hardware, such as a processor, to control its operation.

**Fps** Frames per second, normally used to indicate gaming performance.

**GHz** Gigahertz. A measure of how many instructions a chip can process per second. 1GHz is equal to 1,000MHz.

**Gigabit** Internet connection offering speeds of at least 1Gbps (1,000Mbps).

**GPU** Graphics Processor Unit. A chip designed to create 3D graphics, but which can also be used for other computing tasks.

**Hardware acceleration** Using a graphics card to radically improve video and games performance.

**GHz** Gigahertz. A measure of how many instructions a chip can process per second. 1GHz is equal to 1,000MHz.

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

**Hyperlink** A clickable link that takes you to a new document or website.

**IDE** Integrated Drive Electronics. An interface used to connect some hard drives and optical disc drives.

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

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

**IR sensor** Measures and detects infrared radiation nearby.

**ISO file** A type of image file that contains all the data from a CD or DVD.

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

**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.

**M4A** An audio format often used on mobile devices.

**MAC address** Media Access Control. A unique code that identifies any router. A laptop PC might have one MAC for its wired network socket and another for wireless.

**Macro lens** Lets you take sharp, detailed, close-up photos of small objects.

**Metadata** A set of data that gives information about a file.

**Micro HDMI** A miniature version of HDMI often found on smartphones and tablets.

**Mini HDMI** Smaller version of the HDMI cable and connector to accommodate smaller devices.

**MKV** Matroska. An open-source type of video file. Matroska is a container format so it can contain many types of audio, video and even text for subtitles.

**MOV** A type of video file that can be played using Apple's QuickTime software.

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

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

**OGG** A free alternative to the MP3 file standard for compressing digital audio.

**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.



**Phishing** A form of internet fraud that tries to trick you into revealing personal details.

**POP3** Post Office Protocol 3. A system for remotely accessing and retrieving email from an ISP. Most email applications and ISPs use POP3.

**Q-LED** Quantum Light-Emitting Diode. Screen technology that uses nanoparticles called quantum dots to boost brightness and colour.

**QR code** Quick Response code. A square barcode that can be read using smartphones and dedicated QR-reading devices.

**RAM** Random-access memory. The computer's working area, used for data storage while the PC is switched on. Its capacity is measured in megabytes (MB): the more memory your PC has, the more things it can process simultaneously and the faster it will seem.

**Script** A short program stored on a web server to control part of a website. For example, a script could check that a date you have entered is valid, or move words across the screen.

**SD card** Secure Digital card. A popular type of memory card.

**SIM** Subscriber Identity Module. The smart card used by all digital mobile phones. The SIM card carries the user's identity and phone number for accessing the network.

**Simulator** A video game that simulates real-world activities.

**SLC** Single layer cell. Fast flash memory.

**SMB** Server Message Block. A protocol for providing shared access to files, printers, and ports.

**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.

**SSID** Service Set Identifier. A name used to identify a wireless network.

**Switch** Allows more than one PC to be connected to a wired network.

**TIFF** Tagged Image File Format. A standard file format used to store graphics images.

**Travel** The distance the keys of a keyboard have to be pressed before the keystroke is recognised.

**UEFI** Unified Extensible Firmware Interface. A modern replacement for the BIOS, designed to get a PC into a state where it can launch an operating system.

**USB 2.0/3.0/3.1** Faster successors to USB.

**USB-C** A new connector that's reversible, letting you plug it in upside down.

**Vega 8** Radeon's built-in graphics card for laptops.

**VGA** Video Graphics Array. An older standard socket for connecting a monitor to a computer.

**VPN** Virtual private network. Keeps all internet communication safe and private.





**WAV file** Also known as a Wave file and saved with a .wav extension. An audio file, used for recording music and other sounds. Because they are uncompressed, WAV files can be very large.

**Wi-Fi 6** Wi-Fi standard with speeds up to 10 times faster than 802.11ac. Also called 802.11ax.

**ZIP file** A file that contains compressed documents or files.

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# Easy when you **Know How**

Tired of switching between multiple mailboxes for the past two decades, **Robert Irvine** tries to...



## Combine his email accounts

**M**y family is notorious for hanging on to old junk for long past its usefulness date: household appliances, clothes, magazines, ornaments and much more. My Dad still owns a vacuum cleaner that's older than I am, my Mum has kept every birthday and Christmas card she's ever received, and I have stubbornly clung on to hundreds of music tapes, despite having had no cassette player since 2001.

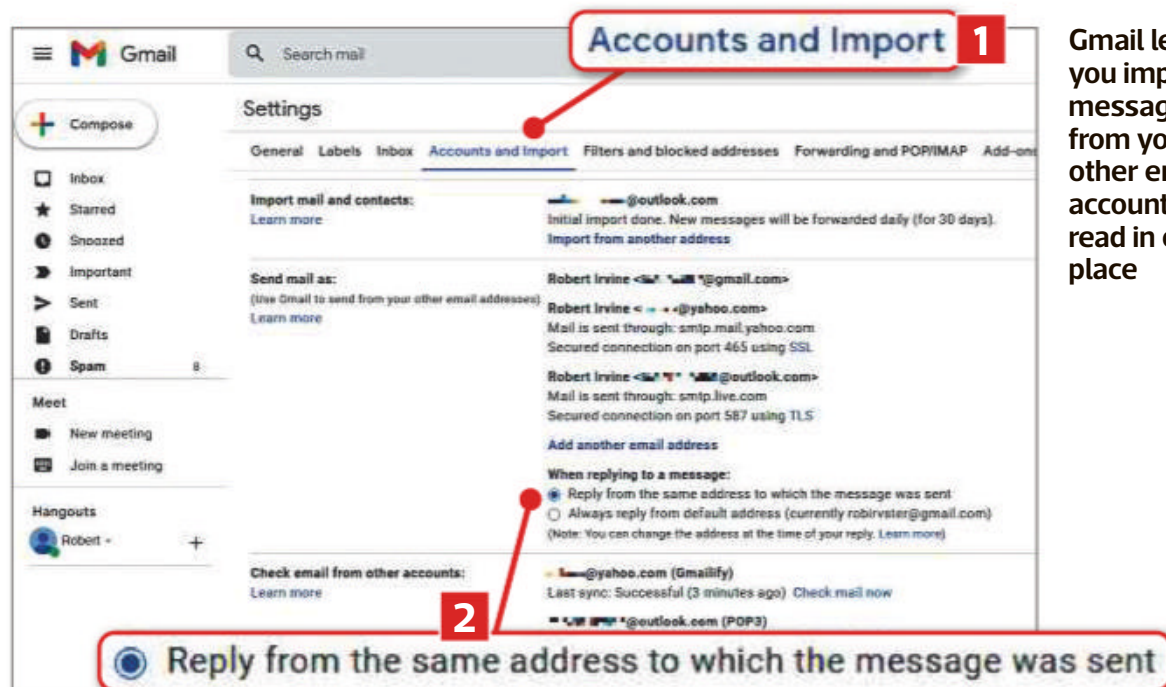
“

Some people regard using a Yahoo email address like wearing Garfield pyjamas

”

My hoarding tendencies extend to email accounts, having opened my oldest one – with Yahoo Mail – over 22 years ago. Some people regard using a Yahoo email address in 2021 like admitting to wearing Garfield pyjamas, but I'm not embarrassed about hanging on to the account for old times' sake. I've been more bothered by the hassle of constantly switching between Yahoo Mail and my other webmail accounts (all three of them) with Gmail and Outlook to check for personal communication, payment confirmations, tax reminders, job opportunities and discounts from takeaway services.

So I decided to address the problem by merging all my email accounts into one inbox. This would let me send and receive messages from and to my multiple accounts without having to log in and out



Gmail lets you import messages from your other email accounts to read in one place

of each of them.

I initially decided to use Yahoo Mail as my primary inbox, because adding your other accounts is a doddle. I went to Settings, 'More settings', Mailboxes, clicked 'Add mailbox' and chose Google from the list of providers, which also included Outlook, Office 365 and AOL. I then granted Yahoo access to one of my Gmail accounts and clicked Done. The Gmail inbox instantly appeared in Yahoo Mail and started syncing.

Before adding my other email accounts, I experienced a moment of doubt. Perhaps Yahoo was a poor choice for managing all my messages, considering the turmoil the company has been through in the last 10 years: security breaches, corporate buyouts, product closures. Technically, it doesn't even exist any more, as its remaining "assets" belong to Verizon. I might as well trust my emails to Ask Jeeves or British Rail. Surely Gmail would be a more reliable option for my merged mailbox?


Adding other accounts to Gmail wasn't quite as straightforward. I clicked the cog button above my inbox, selected 'See all settings' and clicked the 'Accounts and Import' tab (1 in our screenshot above) I then clicked 'Add an email account' next to 'Check email from other accounts' and entered my Yahoo Mail address. Gmail

gave me two options: to automatically import messages from Yahoo or to link the two accounts using Gmailify. The first option failed because the Yahoo server 'denied POP3 access', so I chose the Gmailify method. A few minutes later, a message sent to my Yahoo Mail address appeared in my Gmail mailbox. Success! Gmail also lets you click 'Import mail and contacts' to transfer *all* your old emails, but as this would entail importing two decades' worth of rubbish, I gave it a miss.

When I tried to add my other Gmail accounts, I got the **POP3** error again. I solved the problem by turning on POP in the two accounts I was importing from – go to the 'Forwarding and POP/IMAP' tab in Settings, select 'Enable POP for all mail' then click Save Changes.

Finally, I added my Outlook account, which required me to click a link in a confirmation email to verify the address. To ensure that I always reply to emails from the address they're sent to, I selected 'Reply from the same address to which the message was sent' (2).

The whole process was a bit of a faff, but at least now I have all my messages in one place. Praise the hoard!

 Need help with organising or merging your email accounts?  
Let us know: [noproblem@computeractive.co.uk](mailto:noproblem@computeractive.co.uk)





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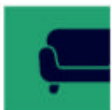
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