BLOCK UNSAFE WI-FI NETWORKS
Stop them INVADING your home **page 56**

FAKE YOUR IDENTITY

ON THE WEB

STAY ANONYMOUS in 2018 to beat hackers and scammers p40

✓ Block nuisance calls
✓ Stop spam
✓ Avoid online fraud
✓ Erase photos of yourself
✓ Prevent junk mail
✓ Disguise your location

£2.20

9 771473 709165

50>

PLUS

Software That Closed In 2017 – WHAT TO USE INSTEAD page 48

REMOVE 45GB OF JUNK FILES MICROSOFT DUMPED ON YOUR PC
They've been hiding since the last update! p54

Yule never be yourself again

Poor Father Christmas! Not only does his long night of globetrotting consist of intense, unpaid labour, but people can't even decide what to call him: Santa Claus in America, Grandfather Frost in Russia and Yule Goat in Finland – so many different guises to adopt as he dishes out gifts. Still, there are advantages to adapting your personality based on where you are – in Norway he gets a bowl of hot rice pudding, while Australians give him a nice cold beer.
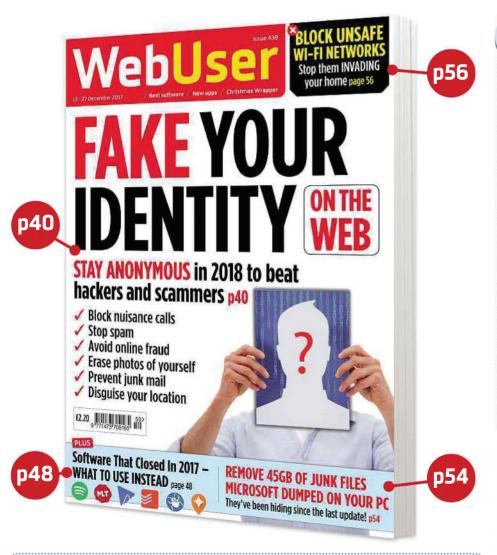
As we explain in this issue's cover feature, there are benefits to changing your identity online, too, even if just means adopting a pseudonym, using a disposable email address or disguising your real location. Not only does withholding personal data protect you from spammers, scammers and advertisers, but it also maintains your privacy in the real world. Follow our advice and you'll never be yourself again.

I hope all *Web User* readers have a wonderful Christmas, whoever you choose to be!

Robert Irvine, Editor
robert_irvine@dennis.co.uk
#webuser

5 Things you'll learn this issue

1 How to track Father Christmas as he delivers presents across the globe
page 6

2 How to run your favourite Android apps and games on your PC Desktop
page 28

3 How to redesign websites to suit your taste using a new Firefox add-on **page 33**

4 How to share files wirelessly and securely without an internet connection
page 35

5 How to clear out detritus that's clogging your phone's internal speaker **page 69**

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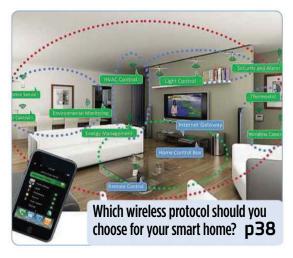
abc Average sales, Jan-Dec 2016, 28,298 copies per issue

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North Pole

COVER FEATURE

FAKE YOUR IDENTITY ON THE WEB

Protect your personal data by staying anonymous on the web

p40

Which wireless protocol should you choose for your smart home? **p38**

Don't despair if your favourite tools have shut down **p48**

Stop wasting time on annoying trailers and ads **p50**

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Workshops, tips, projects and problem solving

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What's New Online

Track Santa's round-the-world trek

To deliver all our presents, Father Christmas has to fly for 34 hours non-stop around the globe at 2,924,100mph. It's quite some feat, as you can imagine, but you can keep a close eye on the bearded one as he makes his mammoth annual journey by checking out not one but two amazing Santa trackers.

The first is the Official NORAD Santa Tracker which follows a tradition going back 62 years. Created by the North American Defence Command, the tracking part kicks in on Christmas Eve. But in the meantime, it invites you to explore the North Pole, where you can watch movies about Santa and NORAD, check out the library to learn about holiday traditions and play a new game every day. There's even a selection of festive tunes.

Not to be outdone, Google has a colourful tracker of its own. Again, the 'sat-nav' section won't appear until 24 December but each day unveils a new surprise. As with NORAD, you can learn about holiday traditions and play games, and also explore the North Pole airport and try your hand at the Santa maker. There's a Code Lab, too, that lets you create some simple Scratch-like programs. Ho ho ho!
www.noradsanta.org
santatracker.google.com

Find out which companies own England

whoownsengland.org
This interesting map takes advantage of a decision by the Land Registry for England and Wales to release the details of 3.5 million land titles owned by UK companies and corporate bodies. It plots the location of each piece of land in the listings that contains a postcode, which equates to just over half of them – but it's a sizeable number nevertheless. To view the map, you have to enter your name and email address. The site then shares your details with the Land Registry and you need to re-enter them on the site to gain access. Once you're in, you can search by town or postcode, zooming in and out of the map to see the various dots (red for freehold, blue for leasehold). Clicking a dot shows the owner, the title address, the price paid and when it was added. You can also view the source file by visiting bit.ly/registry438, but again you need to provide some information about yourself.
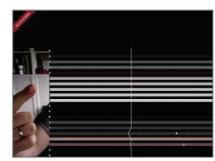
Turn your webcam into a musical instrument

bit.ly/webcam438
Grant this Chrome experiment access to your webcam and you can use your movements to make music in real time. Created by JeongHo Park, Scan Sequencer JavaScript is a virtual keyboard that picks up on any colour in your image. It then produces a trigger signal which takes into account your movement and the colour changes before sending circles towards a threshold in the centre of the screen.

Once the circles reach this line, a musical note is played. You can then experiment with different movements to produce something tuneful. The more you play around, the more you realise how effectively you can control the sounds that are made. We were able to accurately push specific circles towards the centre and we can only assume that the more musical among you will achieve even better results. It's just a shame there are no built-in recording or share functions.

We pick the 10 best things you must do on the web this fortnight

Send 4K images via Messenger

www.messenger.com

The days of having to squint at lo-res images have long gone so it's good to see that the latest version of Facebook's Messenger app lets you send and receive images at 4K resolution (up to 4,096 x 4,096 pixels per image). Just open a conversation, tap the camera-roll icon, choose a hi-res photo from your phone or tablet and tap Send.

Travel to visa-free countries

bit.ly/visa438

If you're planning a holiday but aren't sure whether you'll need a visa, then this beautifully animated map should be the first step of your journey. Click any country in the world to open a colour-coded list of the nations open to its residents. You can then select any of those countries to see exactly what is required, with the information stretching to territories that ask you to apply for a visa on arrival. The details are pulled from Wikipedia and our quick tests show they are accurate and up to date. As a bonus, you can view each country's GDP and population, too.

View Instagram Stories anonymously

bit.ly/insta438

When you have a nose at someone's Instagram Story, the person who has put it together is told that you are looking. But you may not always want them to know, which is why the Chrome IG Story extension is proving very popular. Working only in the Desktop version of Instagram, it places an eye icon next to your own stories. When you click it, the Anonymous Viewing mode is activated, which ensures your name is hidden when you look at someone's story. It also prevents the other person from knowing that *anyone* is looking, which is perhaps a bit creepy!

See the locations of road accidents

bit.ly/accidents438

Enter a start and end point on this map and it will not only show you the route but how many vehicle accidents have occurred along the way. You can also see how long the journey will take – assuming you get there in one piece.

Skip restaurant lines

maps.google.co.uk

Feel peckish but don't fancy waiting ages for a table? Then find an eatery on Google Maps and click to see its most popular days and times. It won't work for every restaurant but the numbers are growing.

Shop with your face

www.ebay.co.uk

By supporting Face ID on the new iPhone X, the latest version of the eBay app (version 5.16 upwards) lets you log into your account using only your face. We expect to see more of this as the technology becomes more widely used.

View Europe's eBay seller hotspots

bit.ly/ebay438

Apparently, Europe has more than 2,000 eBay millionaires but what are they selling and where are they located? To answer that, eBay has produced this interesting report that shows the size of each market, the top categories for new business sellers and the seller hotspots within the UK and elsewhere. It also gives tips on setting up your own online business and the perfect eBay listing.

Tell us your favourite new things at forum.webuser.co.uk

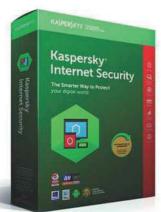# UK government warned against using Russian antivirus software

What happened?

The UK's National Cyber Security Centre (NCSC, www.ncsc.gov.uk) has warned government officials about using Russian-made security software on their PCs, namely Kaspersky Labs' antivirus, amid concerns that the Russian government will use the company's software to spy on rivals.

There have long been questions surrounding Kaspersky's security software, not because of anything suspicious spotted in the code, but because of the company's Moscow headquarters and its founder Eugene Kaspersky's career in the Soviet military intelligence services.

US government officials recently issued warnings, advising their own departments to avoid Russian-made antivirus, while US-based tech retailer Best Buy went as far as pulling Kaspersky's software from its shelves. NSA files were reportedly extracted by Kaspersky antivirus after a contractor for the American spying agency brought their work home with them, sparking concerns that the Russian company was looking for specific files. However, it now appears that the antivirus was merely doing its job of hunting for malware.

These repeated rumours have raised the question of whether it's wise to trust foreign-made security software, which is why the NCSC is warning all government departments against using Russian antivirus. Barclays bank has also announced it will stop offering free Kaspersky software to its customers as a "precautionary decision".

Kaspersky (both the company and the founder) have repeatedly disputed claims that the software developer is working for the Russian government, offering a variety of "transparency" measures, such as examining its code, as proof.

The NCSC's warning against Kaspersky antivirus doesn't include home users

How will it affect you?

If you're a Barclays banking customer, you may soon be offered a new free antivirus package, but the bank stressed that it isn't asking users to uninstall Kaspersky or stop using the software. Instead, it's simply no longer offering Kaspersky as a free option.

The NCSC noted that the guidance for government users is based on a "threat model", rather than any specific knowledge of wrongdoing by Kaspersky or other Russian developers. The NCSC is actually working with Kaspersky to see if there's a way to check the code to ensure it's safe to use.

For home and business users, the NCSC said there's no reason to stop using Kaspersky software, stating that there's nothing to suggest it's a danger for average users. Indeed, our sister title *Computeractive* recommends Kaspersky Internet Security 2018 in its latest issue and is offering an exclusive 50% discount on the software (bit.ly/kaspersky2018).

What do we think?

Security is all about understanding your threat model. Even if it's risky for the government and spies to use Kaspersky and other foreign-made antivirus, that doesn't mean it's a problem for the rest of us. That might sound blasé, but it's unlikely that most of your data is of interest to what's referred to as 'nation-state actors', which is to say countries and the administrations running them.

Instead, your biggest threat is likely to be online criminals, who are pumping the web full of ransomware and malware in the hope of stealing your data for cash or nabbing your credit card details or bank logins. To protect against such threats, you need the best anti-criminal antivirus, regardless of where it's made.

Where an attack will come from depends on you: journalists and activists may want to use extra levels of security with their logins, while someone worried about in-person threats needs to consider their personal security, such as not leaking their own address online. That's the idea of a threat model: consider what you need to keep yourself safe and act accordingly. For most of us, antivirus along with up-to-date software and a bit of common sense are all you need to stay safe.

Of course, if the constant warnings and rumours around any one brand alarm you, there are plenty of alternatives available including Norton and Bitdefender. But if you are using Kaspersky, there's no reason to panic and uninstall it – unless you're an MP or work in government.

Jaggat Rashidi / Shutterstock.com

What we think of this fortnight's top tech news stories and rumours, and how they affect you

Apple patches security flaw in MacOS

What happened?

Apple was caught out by a serious zero-day security flaw in the latest version of its MacOS operating system, High Sierra. A Turkish developer tweeted about the vulnerability spotted by his colleagues that allowed anyone to take control of a MacOS laptop or computer simply by typing root in the user name, leaving the password blank and pressing Enter multiple times. The bug did not affect previous versions of MacOS.

How will it affect you?

Apple immediately responded with a workaround – setting a password for "root" users – and released a full patch within a day. If you have a device running MacOS High Sierra that hasn't been updated lately, take the time to make sure it's received this patch. However, Apple is pushing the fix out to all affected devices, so you probably already have it.

The flaw meant anyone with access to your machine could unlock it to get at your files and data, and have extensive administrator-level permissions to do as they pleased with your computer. Some security researchers suggested it could also be leveraged by hackers to take over your system, though you'd have to be infected with malware first.

What do we think?

The developer who went public with the flaw was criticised for not telling Apple first – a practice known as responsible disclosure. However, it was later revealed that Apple was indeed notified five days before the vulnerability was tweeted. Given that the patch appeared in a day, it's not clear why Apple failed to respond to the initial warning or why it didn't rush out the fix before it received public pressure.

Regardless of the debate around responsible disclosure, at least Apple responded quickly. The flaw shows Apple isn't immune to security bugs, as is often assumed, but it's hard to fault the company's speedy response.

Chrome to block tools causing crashes

He's Dead, Jim!

Something caused this webpage to be killed, either because the operating system ran out of memory, or for some other reason. To continue, press Reload or go to another page.

Learn more

What happened?

Google said Chrome will prevent programs that cause crashes from interacting with the browser. Software such as antivirus can inject code into Chrome to protect you during browsing, but this technique leads to more crashes – users with this type of setup experience crashes 15% more often than those who don't.

Chrome now has better systems in place to allow the browser and third-party tools to interact so, as of July 2018, Google will block software from injecting code into Chrome.

How will it affect you?

In extreme cases, your antivirus or other software may stop working with Chrome but Google is giving developers plenty of time to avoid such problems. Warnings will appear before the ban is fully implemented and from April 2018, Chrome 66 will show a warning after a browser crash caused by injected code.

If the software you use triggers such a warning, consider looking at the developers' website to see if they're working on a solution or else start looking for an alternative.

From July 2018, Chrome will block all third-party software from injecting code in the browser. If that means Chrome can't start, it will shut down and restart, this time running the injected code but warning you that it's done so. From January 2019, Chrome will simply not run any such injected code, which leaves a full year for developers to change the way their software operates with the browser.

What do we think?

Google is giving plenty of advanced warning to antivirus makers and software developers so they can update their programs to meet this new demand. In its announcement, Google focused on stability issues, but it's worth noting that the use of code injection provides hackers with a route to target Chrome, so this should make the browser safer, too. It's good news for users, and hopefully third-party developers are willing and able to get on board.

Google admits to tracking users' locations

What happened?

Android phones have been collecting information about their users' whereabouts and sending it to Google since the start of 2017, according to news site Quartz (qz.com). The site reports that even when location services were disabled, locations of nearby mobile phone masts were logged and sent to Google by the system Android uses to manage messages and push notifications.

"Even devices that had been reset to factory default settings and apps, with location services disabled, were observed by Quartz sending nearby cell-tower addresses to Google," it explains. "Devices with a cellular data or Wi-Fi connection appear to send the data to Google each time they come within range of a new cell tower. When Android devices are connected to a Wi-Fi network, they will send the tower addresses to Google even if they don't have SIM cards installed," it continues.

When approached by Quartz, Google admitted to collecting location data, but claimed that it had not used or stored any of it.

How will it affect you?

The discovery has significant privacy implications for Android users, who might reasonably have expected not to be tracked if they turned off location services and had no SIM in their phones. However, as Quartz highlights, a quick read of Google's privacy policy about location sharing does appear to cover the company's behaviour:

"When you use Google services, we may collect and process information about your actual location. We use various technologies to determine location, including IP address, GPS and other sensors that may, for example, provide Google with information on nearby devices, Wi-Fi access points and cell towers."

Google said that by the end of November, Android devices would no longer send phone-mast information to the company.

What do we think?

We're not that surprised that Google is tracking users whether they like it or not, but slightly unnerved that it's now doing so in the real world as well as online. Of course, if you've ever enabled Google Location History, Google will continue to log your whereabouts even after it addresses this latest controversy. To disable this feature, open Google Maps on your phone and select 'Your timeline' in the main menu. Tap the three-dot button, then Settings and swipe down to the option 'Location history is on'. Tap this to toggle which devices log your location. To remove your location history, tap back once and select 'Delete all Location History'.

👁 FIRST LOOK

Google Pixel Buds
bit.ly/pixel438

Using Google's Pixel Buds sometimes feels like gazing into the future. When you press your ear, ask how to say something in Russian and Google Assistant chirps back a phrase, it's hard not to be impressed. However, the trouble with things feeling like the future is that, by definition, they're demonstrably not cut out for the present, which is the case with Pixel Buds – at least in their current form.

The design of these wireless earbuds is inoffensive enough, but they're on the chunky side and built from hard plastic. They also sit on the outside of your ears rather than being properly inserted and this leads to soreness after an hour or so of use.

On the plus side, the sound quality is surprisingly good and audible over the outside world.

But the real magic happens thanks to Google Assistant. And, just to be clear, this isn't built into the earphones; instead, the Pixel Buds work as a go-between for your ears and smartphone (on Android, at least –

it doesn't work at all on iOS). With that in mind, £159 feels a bit steep – your phone is doing all the work, after all.

To use the Pixel Buds, you hold your finger on the right earbud and when you speak, Google Assistant will listen. Release your finger and Google Assistant will promptly come back with an answer – telling you the weather, putting on some music or answering any question you might pose. Battery life is very good, too: on medium volume, with light Google Assistant usage, we were able to get six hours of battery life on a single charge.

Pixel Buds may well become brilliant in 2018 when the next version arrives, but in 2017 you're buying a slightly disappointing product with only the occasional wow factor, and for £159 that's just not good enough.

WHAT'S THE RUMOUR

Is the Bitcoin bubble about to burst?

The value of Bitcoin has reached an all-time high – more than $11,395 (£8,443) a piece – prompting some commentators to predict the beginning of the end for the cryptocurrency. At its current trajectory, Bitcoin may well hit $12,000 (£8,890) before 2018.

However, the bigger the bubble grows, the higher the likelihood it will burst. In September, after Bitcoin soared beyond the then record-breaking $5,000, the cryptocurrency dropped by more than 16% from its peak. This also follows the collapse of Bitcoin2X, a new cryptocurrency created from the original Bitcoin blockchain and Bitcoin technology.

In September, China outlawed initial coin offerings (ICOs), stating that they have "seriously disrupted the economic and financial order". As part of this ban, China also ordered all ICOs to return funds to investors, creating instability around how much Bitcoin is worth when smaller ICO tokens are converted back. A drop in the market can always be expected after a government strikes out against a cryptocurrency, but China's actions are likely to have a greater effect due to the number of cryptocurrency exchanges based there.

Ironically, the market is also fragile because of the growth of public interest in Bitcoin, following the fork of the Bitcoin blockchain destabilising the market. An influx of spending saw the price of Bitcoin and other cryptocurrencies inflate in September, and the market was forced to readjust as it began to cool and settle once more. This has the potential to happen again, but on a larger scale because of the more dramatic rise.

LIKELIHOOD RATING
✓✓✓✓✓

Although 2017 has been a sterling year for Bitcoin, we think there's only so high the value of the cryptocurrency can rise before it hits a plateau. China's attitude towards cryptocurrency also suggests that not everyone thinks Bitcoin is the bees' knees, and its growth may ultimately be limited by further restrictions.

What's new on Kickstarter
Our favourite new project on the crowdfunding site

Novo
bit.ly/novo438 | From £45

Smart thermostats let you control the heating in your home remotely, but you can't set different temperatures for each room. The Novo smart radiator valve solves this by letting you control the temperature and humidity of each room individually. Simply attach the valve to a radiator and use the Novo app to adjust the heat, set timers, calculate your energy spend and more. The valves link with their other smart devices via the supplied Novo SuperHub and harvest heat energy to recharge internal batteries. The Novo team has already far exceeded its £25,000 target.

WEBOMETER

WE LIKE…

⬆ **Edge launches on Android and iOS**

Microsoft's Edge browser is now officially available for Android and iOS devices, following a 'test phase'. This means Windows 10 users can now access their Favourites on the move and resume browsing where they left off on their PCs.

⬆ **4G internet coming to the Tube**

Following a successful trial, TfL has announced that 4G is coming to the London Underground in 2019. Currently, Wi-Fi is available at every station, but the change means you won't have to wait for the next stop to get online.

WE DON'T LIKE…

⬇ **Google 'stole data' from Safari users**

Millions of UK iPhone users are suing Google in a class action lawsuit. The group claims that the tech giant unlawfully harvested personal info by bypassing default privacy settings in the Safari browser and then used the data for advertising.

⬇ **Crypto-miners get more persistent**

Researchers at Malwarebytes have discovered a new crypto-mining technique that lets websites continue to use your PC's processing power to mine for the cryptocurrency Monero, even after you've left the site and closed your browser.

Stay Safe Online

News about the latest threats and advice from security experts

SECURITY ALERT! | What's been bothering us this fortnight

Serious security flaws found in Intel chips

Bugs in the firmware of Intel chips have left laptops, servers and storage devices open to a number of security vulnerabilities, the company has admitted. The silicon giant has confirmed reports from third-party security researchers that flaws in its chips' management and administration functions could potentially allow hackers to execute code, access confidential data and more.
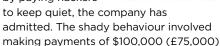
Intel launched a full internal review of its source code after it was alerted to the problem, finding that bugs in affected systems could allow attackers to "load and execute arbitrary code outside the visibility of the user and operating system [and]

cause a system crash or system instability".

The flaws affect a wide variety of chip families, covering everything from laptops and 2-in-1s, all the way up to high-end servers and storage appliances. Intel has released a free detection tool, which users and administrators can run to identify vulnerable machines, as well as patches (see bit.ly/detection438) that it says should be installed as a matter of urgency. **bit.ly/intel438**

Uber paid hackers to conceal data breach

Uber reportedly tried to cover up a massive data breach that affected 57 million users and drivers by paying hackers to keep quiet, the company has admitted. The shady behaviour involved making payments of $100,000 (£75,000)

to the hackers, according to Bloomberg, which broke the news.

The breach, which leaked names, email addresses and phone numbers of more than 50 million users globally, is said to have occurred in October 2016. Seven million drivers were also affected.

Following the revelation, Uber set up pages for drivers and riders who may have been affected by the hack. These emphasise that the company has seen no evidence for fraud. It mentions that Uber will offer drivers free credit monitoring and identity-theft protection, but doesn't extend this to customers of the service.

According to Bloomberg, two hackers managed to access a private site for Uber software engineers. They were able to grab login credentials from there, which allowed them to access driver and user information, and blackmail the company. **bit.ly/uber438**

picture: Nor Gal / Shutterstock.com

Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT: Marty P Kamden, CMO of NordVPN (www.nordvpn.com)

Q How can we stay safe when Christmas shopping online?

Tiny Tim,
A Christmas Carol

A This Christmas, online fraud is expected to be bigger than ever. To stay safe when doing your

Christmas shopping online, follow these simple steps:

• The first thing to look at when making an online payment is whether the payment gateway has an 'https' URL. The 's' means that it is a secure protocol and your data is encrypted properly.

• Stay away from public Wi-Fi networks. The dangers of sharing personal or financial information with any website or person over the internet while using a public web connection cannot be stressed enough. Public Wi-Fi networks are common hunting grounds for hackers and data snoopers who try to access your personal

information. Because these networks have negligible security, you should avoid using them when making online payments.

• Being vigilant helps you a lot in making sure you are shopping online securely. Whenever a website requests more information than is usually required, or any other kind of personal data, it usually spells fraud. You should always be cautious before giving your personal or financial details anywhere on the internet [see our feature on page 40 to learn how to fake this data].

• Use a VPN (virtual private network) to encrypt all the data you share across the internet on any website. They are the best security mechanism you can employ to make sure the data you share over the internet is safe from prying eyes and remains confidential.

• Finally, the most basic requirement for setting up any online account is to use a strong password. Weak passwords make it easy for hackers to break into your account and wreak havoc.

✚ Email us your security questions at webuser@dennis.co.uk

Best New Websites

HOLIDAYS · RELAUNCH

Center Parcs
www.centerparcs.co.uk

Rather than squeezing everything into its homepage, the new Center Parcs website gives its content room to breathe. The site has reduced its main navigation options from six to just two. The first lets you explore accommodation, locations, activities and facilities, and the second concentrates on the types of breaks on offer. There's also an improved search engine, more photos and videos, and a new personal account where you can save details of breaks you're interested in. With all this and a calendar that offers a wider range of dates, it's never been easier to book a holiday. The new site also works better on phone screens.

Our rating ★★★★★

VIEW ACCOMMODATION
Each Center Parcs location now has a full description, feature icons, photos and videos
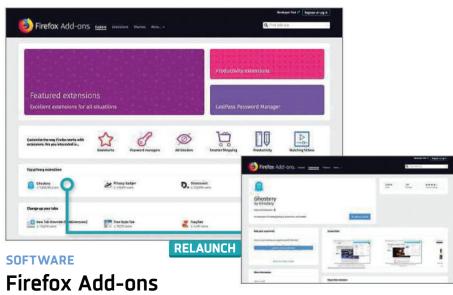
VILLAGE NEWS
Read news about various Center Parcs locations, with details of events and potential problems

---

SOFTWARE

Firefox Add-ons
addons.mozilla.org

Firefox may have fallen behind in the browser race, but you should still check out its souped-up new version, Quantum. While you're at it, visit the revamped repository for Firefox add-ons, too, because its clean layout and clear navigation options make discovering useful new extensions easy. The main page offers a choice of categories including ad blockers, productivity aids and themes. A tag cloud on the Extensions page then helps you find particular tools, and you can search by operating system, type and recent updates. The add-on pages are packed with descriptive information, screenshots and ratings, and we love how easy they are to install.

Our rating ★★★★★

ART
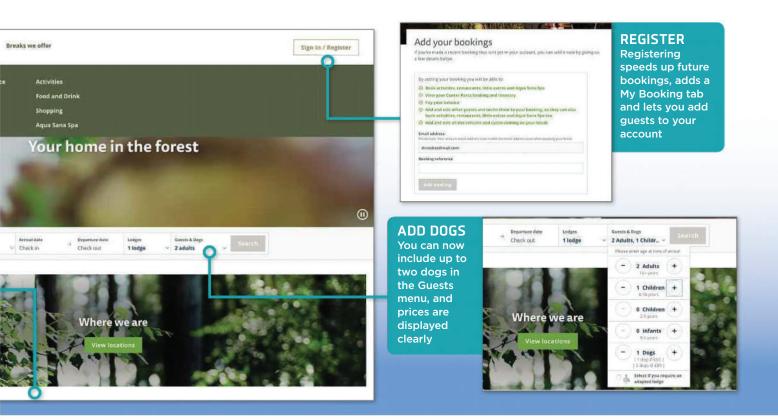
New Vintage Posters
www.newvintageposters.com

This well-presented site selling posters designed by artist Bill Philpott is a delight for fans of the art deco style. It showcases 25 artworks, which you can view in detail thanks to the large images and magnifier tool. You can also delve into the history of the events that inspired some of the posters and get a fascinating glimpse into Philpott's approach to his work. We like the fact that purchasers can leave reviews, and there's lots of information about sizes, paper quality and postage. There are a few dead links, which is a shame, but the checkout process is simple enough.

Our rating ★★★★☆

Reviews by David Crookes

We review this fortnight's best new and relaunched websites and rate them for content, design and features

REGISTER
Registering speeds up future bookings, adds a My Booking tab and lets you add guests to your account

ADD DOGS
You can now include up to two dogs in the Guests menu, and prices are displayed clearly

---

PROPERTY

Raffle My House

rafflemyhouse.com

Fancy paying a quid for a three-bedroom detached bungalow in Halesowen? Answer the easy question on this site correctly and you could be in with a chance. As long as the organisers sell 325,000 tickets before 8 February, the house will be offered as a prize. If ticket sales fall short, the winner will receive cash instead. The site does a good job of explaining all this in its FAQ, along with a six-step 'How to Play' guide. You can also find out more about the house and look at the photo gallery. It's entirely legal, but be sure to read the lengthy terms and conditions before you decide to join in.

Our rating ★★★☆☆

FOOD

Cloud Cookbooks

www.cloudcookbooks.ca/home

Canada is known for its poutine, butter tarts and macaroni cheese, but you'll find a much wider selection of cuisine by searching this online recipe database. Collating delicious dishes from 40 Canadian cookbooks, the site lets you look for particular ingredients, the type of recipe you're after and the region you'd like to explore. You can then filter by preparation time, difficulty and dietary requirements. Click the results to see a scanned page of a cookbook. Although this feels a little clumsy, the fact that you can pick and browse any of the books certainly makes up for it.

Our rating ★★★★☆

CLOCKS

Clocks of Leeds

clocksofleeds.com

Got some time on your hands? Then why not head to this gallery of clocks, all of which are located in the city of Leeds? The clocks have been recreated as graphic designs, and each has a page to itself. They even show the correct time and come with detailed explanations of the clocks' histories. You can share your favourite clocks on social media and buy a print from the online shop. All the money raised goes to the St Gemma Hospice in Leeds. The creative brains behind the site say they hope to add more clocks soon, which means the site is sure to improve as time goes on.

Our rating ★★★★☆ ➡

Christmas Wrapped Up

Give your loved ones a magazine gift subscription
to any of our technology titles, from just £19.99

RELAUNCH

EMPLOYMENT

Find Apprenticeships

www.findapprenticeships.co.uk

To bridge the UK's skills shortage, the government wants three million apprenticeships by 2020, so this search engine's relaunch has come at just the right time. You can find apprenticeships by industry sector and location, apply for the jobs online and set up email and RSS alerts for similar employment opportunities. The site offers permanent, temporary and contract jobs, and there's a handy facility to post your CV, along with a CV builder to help you create one if you haven't already. We liked the blog's case studies and tips, and found the whole site quick and easy to use, but it needs better job descriptions.

Our rating	★★★★☆

RELAUNCH

MOTORING

Good Garage Scheme

www.goodgaragescheme.com

After a few tweaks here and there, the Good Garage Scheme's new website has shifted up a gear. You can still enter your postcode or the name of a garage to see a list of vetted mechanics in your area, but as well as letting you filter the results by car manufacturer and the kind of service you need, it now offers polls, an improved look and a new smartphone app. To help you choose a garage, you can read user feedback and limit the options to those that allow online booking. You can also get a quote for a service plan, read motoring advice and receive emails to remind you when your next MOT or service is due.

Our rating	★★★★☆

RELAUNCH

RELIGION
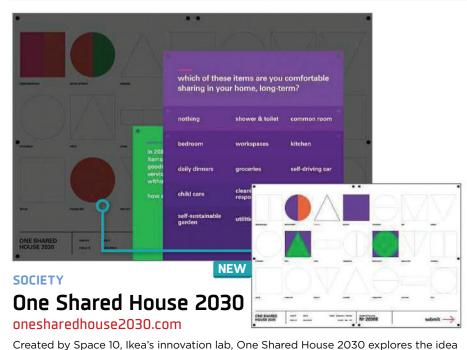
Church of England

www.churchofengland.org

It's perhaps something of a miracle that the Church of England has managed to overhaul its website completely in just seven months, but that's exactly what it has achieved with this new mobile-friendly relaunch. In streamlining the site, the designers have placed greater emphasis on images and video while better explaining what it means to be a Christian and the traditions involved, whether it's christenings, confirmations or funerals. They've also put prayer and worship at its heart, with a daily prayer, worship texts and even lessons in how to pray. The site is more engaging as a result, and looks more modern too.

Our rating	★★★★★

NEW

SOCIETY

One Shared House 2030

onesharedhouse2030.com
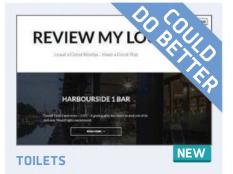
Created by Space 10, Ikea's innovation lab, One Shared House 2030 explores the idea that we will have to share our living spaces in the future. It begins with the suggestion that there will be 1.2 billion more people on the planet in 12 years, and then asks you to consider a range of questions about privacy, cooking, commuting, ownership, location, space, energy, furniture and more. Eerie music plays as you work your way through the anonymous, arty-looking survey, reading any explanatory pop-ups that appear. When you've finished answering the questions, you can submit your answers and see what others are saying. You may be surprised by some of the results.

Our rating	★★★★☆

COULD DO BETTER

NEW

TOILETS

Review My Loo

reviewmyloo.com

Review My Loo is a great idea. This website lets users rate the toilets of restaurants, pubs, shops and more, but sadly the execution sends it hurtling down the pan. You can leave replies to what is, in essence, a series of blog posts that focus primarily on Bristol loos, but there's apparently no way to start a review from scratch. The reviews also lack a sense of fun, both in the design and the writing: it could have used 'poop' emoji for its ratings, for example, and the reviews could have been more tongue in cheek. However, it's perhaps too soon to kick up a stink.

Our rating	★★★☆☆

✚ Tell us about your website via webuser@dennis.co.uk

Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

New free JavaScript courses

Codecademy (www.codecademy.com) has updated its brilliant JavaScript courses, so it's even easier to learn how to use this essential tool for making interactive websites. The new updates incorporate the latest elements of JavaScript to ensure your knowledge is bang up to date. The courses are aimed at everyone from professional developers to those just looking to learn a new skill in their spare time. You'll find the JavaScript course at bit.ly/jvsc438.

Major improvements in WordPress 4.9

The latest version of WordPress (wordpress.org) is out, so check whether your installation has updated to 4.9 and, if not, perform the update manually. There are lots of new tools to try, including the option to draft and schedule tweaks to its design, just as you can with posts. You can also lock design elements, if you share a site with someone and don't want them to change your site's appearance. The new gallery widgets let you insert pictures, videos and audio straight into your sidebar. See bit.ly/wp438 for more information.

Deal of the Fortnight

A2 Hosting (www.a2hosting.co.uk) has cut the cost of its Shared Hosting package from £7.25 per month to £3.55. Use the code `FLASH51` at the checkout.

Web-building Helpdesk

THIS ISSUE'S EXPERT: Hristo Pandjarov, WordPress and SEO Specialist at SiteGround (www.siteground.com)
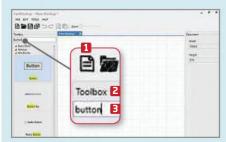
Q Google Analytics shows a decline in visitors to my site recently but it doesn't tell me why. Is there an easy way to find out?
Mike Beaumont, via email

A In such cases, I would start by going to Acquisitions, All Traffic, then Channels. There, you should be able to spot where the drop comes from – social media, organic searches or referrals. Depending on the case, you can keep digging. Organic search is the hardest to analyse because keyword information is no longer available. You can use 'Landing page' as a secondary dimension to see which page initially started to receive fewer visits. Again, whether you'll need further investigation depends on the results you get on the previous steps.

MINI WORKSHOP | Prototype your website before committing to HTML and CSS
Fast Mockup: fast-mockup.com | 20 mins | Windows 7, 8, 10

If you're using HTML or CSS to design your site, rather than WYSIWYG tools, it can be difficult to convert your ideas into the pixel-perfect positions you need on screen. FastMockup is a free layout tool that can help

1 Install and run the software and click the New Mockup button. **1** There is a range of prebuilt elements you can use in your design, which you can explore from the Toolbox. **2** Scroll through the available options or search for something specific by typing it into the search box. **3**

2 Double-click an element to place it on the mockup or drag it straight to where you want to position it. You can add your own images by clicking the images tab. **1** Click the 'Add new item(s)' link **2** and select images from your hard drive. Thumbnails of the pictures appear below and can be dragged onto the page like Toolbox elements. **3**

3 Use the handles **1** to resize items and reposition them by dragging. Elements such as scroll bars are automatically stretched in the middle, so the buttons on the end don't look distended. **2** To transfer your page to HTML and CSS, use the X, Y, Width and Height counters **3** to guide your layout and work out your positions.

Email us your website building questions at webuser@dennis.co.uk

KASPERSKY⁂

How to stay safe in the cloud

The cloud has brought a myriad of great software services to our fingertips wherever we want them, but with the immense benefit comes potential risk

One of the benefits of ubiquitous internet connectivity has been the rise of cloud services. From an experience that revolved around locally hosted data, a large proportion of our activities now involve information that resides primarily online. From email to multimedia, and even whole application suites, virtually any task can now be achieved with as little as a browser or internet-connected app.

It's truly liberating to be able to access your files and software anywhere you need to, on any device - notebook, tablet or smartphone, but this also poses a new set of problems for keeping your data secure. Cloud security is only as good as the way you use your apps and devices. Whether it's by hacking into your home network via an insecure router or having one of your mobile devices stolen, there are many ways that access can be obtained to your data on the cloud.
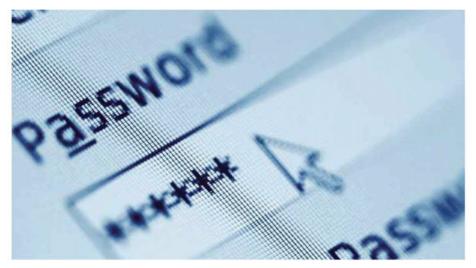
In mid-2017, routers from one of the UK's leading broadband vendors were found to have been shipped with a simple default password. Keeping the default router password is never wise, even if the default isn't so simplistic. You should also ensure that your router's firewall is turned on, although it should be automatically, and properly configured.

There are also good habits to get into when using any service that's internet connected - particularly when it comes to phishing emails. It's a good rule of thumb to never click on any email link unless you're sure it's legitimate. You can usually preview the URL of a link without following it by hovering your mouse over it, and if you don't recognise the website the email claims to be from, stay clear!

Smarter passwords

Password management is another area that's increasingly problematic. We now rely on umpteen different cloud services, each with their own login credentials. It's very tempting to write down passwords on paper, in locally stored files, or on cloud-based services. But they are potentially very insecure, particularly if you rarely change your credentials.

It's nearly impossible to remember complex auto-generated passwords. However, a great way to create passwords that you can remember is to use a memorable sentence and take the first letter or letters from each word, followed by a number sequence of your choosing. This will have similar strength to a completely random string, but much easier to recall.

Be safe outdoors

When you are using a mobile device, there will be many times when you're accessing cloud services in public spaces. It's a good rule of thumb to make sure your device isn't discoverable on a public network. Also, be very careful before you connect to public Wi-Fi. Criminals have increasingly been creating rogue access points with SSIDs that have been copied from ones nearby, so users unwittingly join them thinking they're the real ones - thereby giving access to their devices.

It's recommended practice to change passwords regularly, so having a system for creating passwords that are hard to guess but easy to remember is essential. You should also keep track of all the services for which you have supplied credentials, as having one compromised could mean someone has a means to impersonate you and gain access elsewhere. To help with this, Kaspersky's Security Cloud includes a secure vault where you can store all your passwords.

By keeping an eye on security news you can act quickly if a breach occurs with a service you use. You shouldn't put complete faith in a cloud backup, either, or your internet connection. It's a good idea to keep at least one local copy of your most important data on a home desktop or NAS device on your home network, and ensure it's as up to date as possible.

Cloud security

Fortunately, security isn't just about you and your cloud habits. There are tools to help you spot new dangers and provide protection for your devices automatically. For example, the aforementioned Kaspersky Security Cloud adapts to whatever you're doing and enables the protection you need, such as keeping your connection safe on public Wi-Fi.

Kaspersky Security Cloud also runs in the cloud itself, so doesn't put a heavy load on your device like some locally-based services. It includes a built-in advisor that provides context-sensitive advice about steps you can take to remain secure in your current environment. There's a portal for managing all your devices, too. A Personal account protects up to three or five devices, and a Family account can protect up to 20 devices from multiple users at once.

It's hard to stay out of the cloud these days, we live our lives online though one device or another, but by taking the right precautions and arming yourself with a safety net like Kaspersky Security Cloud, you can enjoy all those cloud-based benefits without worrying.

■ To Find out more about Kaspersky Security Cloud, and try it out for free go to:
https://www.kaspersky.co.uk/security-cloud

Pick of the fortnight

NETFLIX

Watch Netflix original *Bright*

From 22 December

Neflix original movies can be very hit and miss – for every *Okja* or *Mudbound* there's a *True Memoirs of an International Assassin* or *The Do-Over*. The same can pretty much be said for Will Smith's recent cinematic outings. *Bright* is a $100m blockbuster fantasy movie from Netflix starring Smith, and it certainly has an intriguing premise.

The movie takes place in an alternative version of Los Angeles, where elves and orcs live alongside humans. A 'bright', as we're sure you're dying to know, is someone with magical abilities – so that's elves, rather than humans.

Smith plays LAPD cop Scott Ward who gets partnered with Nick Jakoby, the first orc on the force, and together they must save a highly sought-after magical wand from forces of evil. There's lots of action, including car chases, magic and explosions, but the movie also addresses issues such as discrimination and class (elves, in Bright's world, are the upper class; humans the middle class; and orcs, the lowest of the low).

It certainly promises to be a spectacle, and you can find out more at bit.ly/bright438, where you'll find trailers to watch, too. In addition to Smith, *Bright* also stars Joel Edgerton and Noomi Rapace.

Watch *Ultimate Beastmaster* Season 2

From 15 December
Ultimate Beastmaster is an incredibly tough obstacle course. It's like ITV's *Ninja Warrior UK*, except the 600ft-long course is set inside a dragon-like monster (called simply The Beast), and the show is produced by Sylvester Stallone. *Ultimate Beastmaster* pits six countries against each other, and this season features competitors from Spain, France, Italy, China, India and the USA. Each of the 10 episodes consists of 12 competitors, two from each country.

You can watch the first trailer for Season 2 of *Ultimate Beastmaster* at bit.ly/beast438.

Go *Back to the Future*

From 14 December
One of the best loved films of the Eighties – *Back to the Future* – is coming to Netflix, and if that's not exciting enough, the two sequels will also be available to stream. We all know the original story – Marty McFly (Michael J Fox) travels back in time to the 1950s in a DeLorean time machine, where, with the help of madcap inventor Doc Brown (Christopher Lloyd), he must help his parents to fall in love, before finding a way to get 'back to the future' (1985 in his case). *Back to the Future II* sends McFly into the future (2015), while the third film in the trilogy lands him in the wild west of 1885. If you haven't seen any of the films in a while (or, heaven forbid, ever), now's your chance to enjoy all three.

Watch box sets for free on BBC iPlayer

From 16 December
Think again before you ask Santa for a box set of a BBC show this Christmas because iPlayer is taking on Netflix and Amazon over the festive season by

We reveal what's new on Netflix, BBC iPlayer, Amazon Prime Video and other streaming services

Make sure you're not streaming illegally

If you own a Kodi box – whether you bought it or made it yourself – and it's running third-party add-ons, then it could be what the government calls an ISD – Illicit Streaming Device. The Intellectual Property Office (IPO) has issued some guidance covering such devices (bit.ly/ipo438) in which it explains what "illicit streaming" actually is, which devices are commonly used and how you can identify one. It also explains why you should not buy these devices, what you should do if you already have one (remove the bad software) and how you can report sellers of such devices.

letting you stream and download complete series for free. Highlights include the Tom Hardy drama *Taboo*, the first three series of *Peaky Blinders* and the award-winning *Wolf Hall*. Every series of *Line of Duty* and *Happy Valley*, and series three and four of *Sherlock*, will be available, and fans of wildlife documentaries can enjoy the original series of *The Blue Planet*, *Planet Earth* and its sequel and 2011's *Frozen Planet*.

Additionally, there are themed box sets that include every regeneration episode of *Doctor Who* since 2005 and classic Christmas *EastEnders* episodes.

Browse UKTV Play channels with your voice

If you own a recent Amazon Fire TV device, you'll now be able to search for shows from UKTV simply by speaking into your remote. The broadcaster has become the first in the UK to add support for voice-activated universal search. Once you've spoken your request, you'll be taken to the UKTV Play app where you can watch your chosen programme.

The UKTV Play app, available to download from the Amazon Appstore on Fire TV, lets you watch catch-up and on-demand shows from Dave, Yesterday, Really and Drama.

Rent movies for less — if you act quickly

Amazon lets you rent the latest movies, and gives you 30 days to watch them. If you're an Amazon Prime member, then for a limited time you can rent them for much cheaper than normal – £1.99 instead of the usual £4.49. The available titles change all the time, and some – like *Pirates of the Caribbean: Salazar's Revenge* and *The Big Sick* – are only available for a limited period (and, unless they're included again, will have expired by the time you read this). This is a Prime Member Deal and runs from 20 November to 18 December. Provided you're reading this early enough, head to bit.ly/prime438 to browse the selection on offer.

Christmas classics you can stream online

Christmas is nearly here, which means all the streaming services have festive films for you to watch. There are plenty of new movies on offer, such as Netflix's *A Christmas Prince*, but if you're anything like us, nothing will get you in the mood for the holiday season faster than an old Christmas classic, and there are plenty of those to choose from.

Bing Crosby's most famous film, *White Christmas*, is available to watch on Amazon Prime Video, Now TV and Sky Go, as is *It's a Wonderful Life*, the perennial feel-good classic starring James Stewart and Donna Reed.

Bill Murray's *Scrooged* is to be found on Netflix, Amazon Prime Video, Now TV and Sky Go. *Miracle on 34th Street*, starring Richard Attenborough as Kris Kringle/Santa Claus, is on Netflix, while more recent favourite *Elf* is on Amazon Prime Video. Finally, *Frosty the Snowman*, the 1969 classic cartoon, is available to watch on Amazon Prime Video – as is the Christmas-set action classic *Die Hard*.

Keyboards

The right keyboard can make the time you spend at your PC and mobile devices more efficient and comfortable. Treat yourself to one of our top six

If you want to get the best experience from a keyboard, it's worth getting one that fits the way you use your computer and other devices. In this Group Test, we've looked at 16 keyboards and picked out our six favourites, covering options to suit different types of users and varying budgets.

If you spend most of your time typing at your PC, you'll probably want a solidly performing desktop model that connects to your PC via USB and will never miss a keypress. Alternatively, if you also spend a lot of time on mobile devices, a keyboard with Bluetooth options might be a better choice.

We've also picked out our favourite gaming keyboard, just in case you want to get ahead of the competition next time you find yourself battling through a multiplayer game.

BakkerElkhuizen UltraBoard 940 Compact Keyboard | £79
Buy from Wellworking: bit.ly/bakk438

FEATURES ★★★★★ PERFORMANCE ★★★★☆ EASE OF USE ★★★★★ VALUE FOR MONEY ★★★★☆

It's increasingly common to own more than one computer along with other devices, such as tablets and phones. As these devices become more powerful and sophisticated, it makes sense to use a keyboard that can switch seamlessly between them. This is exactly what the UltraBoard 940 Compact Keyboard from Dutch manufacturer BakkerElkhuizen is built for.

If £79 sounds expensive for a portable keyboard, bear in mind that it's been designed to stand head and shoulders above the competition. Its scissor-switch keys offer a crisp response and a decent amount of feedback, and the square, flat, tile-like keys make it feel like you're typing on a good-quality ultraportable laptop rather than cheaper portable keyboards.

The UltraBoard's compact size means that the Enter key is confined to a single row, rather than spanning the usual two, which took a bit of getting used to, as did the slightly stubby Backspace key. However, there's a full set of Function keys, and dedicated hotkeys for the likes of Home and Num Lock. It also has two USB 2 ports, so you can grab data off a USB memory stick or plug in a mouse.

Because the keyboard will work on any device, it hasn't been branded with OS-specific keys.

There's one labelled 'Start', which operates as a Windows key, but the whole idea is that you don't have to stick with Windows or Mac computers. Unplug the Micro USB cable, which charges a pair of removable, rechargeable AAA batteries, and you can connect up to five Android or iOS devices simultaneously, using the number keys to swap between them.

The only negatives we found are the flimsy fold-out legs and the fact that Bluetooth is disabled when you connect via the Micro USB cable, so if you're charging the keyboard through your main PC, for instance, you can't quickly switch to typing wirelessly on a nearby tablet. But in all other respects, the UltraBoard is worth the high price and it's a great space (and time) saver if you want to control a number of different devices from one keyboard.

WebUser GOLD AWARD

VERDICT
★★★★★

The versatile Ultraboard 940 is designed for all your computing needs – desktop, laptop and mobile. It's true that there are lots of Bluetooth keyboards that provide this functionality, at a much lower price, but most of them focus on the mobile experience, prioritising portability over the typing experience. The UltraBoard, conversely, sets out to bring the comfort of a desktop computer or laptop keyboard to your mobile devices, and by and large it succeeds. It's as light as a portable keyboard but with a much better build quality.

Filco Majestouch Convertible 2 | £126 |
Buy from Amazon: bit.ly/filc438

FEATURES ★★★★★ PERFORMANCE ★★★★★
EASE OF USE ★★★★★ VALUE FOR MONEY ★★★☆☆

WebUser SILVER AWARD

The Convertible 2 is an unremarkable-looking full-size keyboard but it has a secret trick – by detaching the USB cable and adding two AA batteries, you can switch freely between wired and wireless operation via Bluetooth.

Wireless mechanical keyboards are rarer than their cabled counterparts because they tend to be heavy and their increased performance can be lost over a Bluetooth connection, though this is more of a problem for gamers than typists. But the Convertible 2 is ideal if you need to do a lot of typing on a smaller device – we used it wirelessly connected to an Android phone and found it worked brilliantly.

Our only gripe is that the Caps Lock light doesn't operate when it's in Bluetooth mode, but it's a minor quibble. The price is high but if you want a luxury keyboard that doesn't compromise on size or comfort, we think it's worth it.

VERDICT ★★★★☆
A pricey but flexible mechanical keyboard, capable of swapping between wired and wireless modes. If you don't mind cables, there are cheaper options, but the Filco Majestouch provides the best of both worlds for PC and mobile devices.

AAJ Wireless Keyboard | £8.95 |
Buy from Amazon: bit.ly/aajwk438

FEATURES ★★★☆☆ PERFORMANCE ★★★★☆
EASE OF USE ★★★★☆ VALUE FOR MONEY ★★★★★

WebUser BRONZE AWARD

We can't all afford to pay top-end prices for luxury products, but just because you're after a bargain doesn't mean you're willing to settle for cheap rubbish.

The AAJ Wireless is available at an incredibly low price but it's a cut above other similarly priced compact keyboards. The design is clearly aping Apple's Magic Keyboard (bit.ly/appkb438), although its white tile keys sit on a grey plastic base, rather than an aluminium one. Its rubber feet stop it from sliding around and the battery compartment props it up at a comfortable angle. The keys are large and easy to type on, and it works with Windows, MacOS, Android and iOS. However, it only works with Bluetooth so there's no option to plug it in, either for connecting to a computer or for charging.

It doesn't come bundled with the AAA batteries you need to power it, either, so you'll have to buy these separately.

VERDICT ★★★★☆
If you're after a bargain, the AAJ Wireless is a compact Bluetooth keyboard that's comfortable to use and works with most mobile devices and desktop computers. It won't connect via a cable but at this price, who cares?

Razer BlackWidow Chroma v2
£169.81
Buy from Amazon: bit.ly/raze438

FEATURES ★★★★☆ PERFORMANCE ★★★★★
EASE OF USE ★★★★☆ VALUE FOR MONEY ★★★☆☆

The most expensive keyboard in our test, this top-of-the-range model is for serious gamers only. It offers a choice of keyboard switches – ours had the Razer Yellow – which we found quiet and well-suited to gaming. Other impressive extras include a luxurious detachable wrist rest and a bank of five programmable buttons, conveniently positioned down the left-hand side of the keyboard and easily reachable from the classic WASD key combination beloved of gamers. The F9 key also has an on-the-fly macro-recording tool, which you can use to create a keypress macro without having to open any other software.

VERDICT ★★★★☆
£165 is a lot of money but we think this is the best gaming keyboard out there. It'll certainly give you an edge on the competition!

Logitech K375s Multi-Device
£34.99
Buy from Argos: bit.ly/log438

FEATURES ★★★★☆ PERFORMANCE ★★★★☆
EASE OF USE ★★★★☆ VALUE FOR MONEY ★★★★☆

This is another keyboard that happily switches between devices, and is compatible with Windows, MacOS, Chrome OS, Android and iOS. It comes with a stand you can use to prop up a small device, and it will pair with up to three devices at once, switching between them via the buttons at the top-right. One device can connect via USB, while the other two simultaneous connections are restricted to Bluetooth. This meant we could tinker with a Word document on our main screen and then, with one button press, swap to our smartphone to reply to a message without minimising Windows or even taking our hands off the keys.

VERDICT ★★★★☆
The Logitech's rubber-dome technology doesn't feel as comfortable as a mechanical keyboard but this is a good muti-tasking model at a great price.

Unicomp Ultra Classic
£105.98
Buy from Amazon: bit.ly/unic438

FEATURES ★★★☆☆ PERFORMANCE ★★★★☆
EASE OF USE ★★★★☆ VALUE FOR MONEY ★★★☆☆

The IBM Model M keyboard is something of a classic, launched in 1984 with buckling-spring switches that make the most spectacular clacking noise as you type on them. This retro-styled keyboard offers the same type of switches, and it's a joy to type on. However, the racket it makes may not endear you to anyone sitting close by.

It's not a totally faithful recreation of the Model M because it's smaller and lighter (though still bulky compared to most of the other keyboards we've reviewed), and thankfully comes with a USB cable so you can connect it to modern computers.

VERDICT ★★★★☆
The sprightly spring-back and gentle resistance make these keys glorious to type on. No wonder it was so popular with touch-typists back in the day!

Group Test Keyboards

	BakkerElkhuizen UltraBoard 940 Compact Keyboard	Filco Majestouch Convertible 2	AAJ Wireless Keyboard	Razer BlackWidow Chroma V2	Logitech K375s Multi-Device	Unicomp Ultra Classic
WEBSITE	www.bakker elkhuizen.co.uk	www.filcokeyboards .co.uk	www.amazon.co.uk	www.razerzone.com	www.logitech.com	www.pckeyboard .com
PRICE	£79	£126	£8.95	£169.81	£34.99	£105.98
BUY FROM	Wellworking: bit.ly/bakk438	Amazon: bit.ly/filc438	Amazon: bit.ly/aajwk438	Amazon: bit.ly/raze438	Argos: bit.ly/log438	Amazon: bit.ly/unic438
FORM FACTOR	Compact	Full size	Compact	Full size	Full size	Full size
SWITCH TECHNOLOGY	Scissor-switch	Mechanical	Scissor-switch	Mechanical	Rubber dome	Buckling-spring
PROGRAMMABLE KEYS	✗	✗	✗	✓	✗	✗
MULTIMEDIA KEYS	Yes (function keys)	Yes (function keys)	Yes (function keys)	Yes (function keys)	Yes (function keys)	✗
USB PORTS	2 x USB 2	1 x Micro USB (cable connection only)	✗	1 x USB (with 3.5mm combo audio jack)	✗	✗
WIRELESS	✓	✓	✓	✗	✓	✗
BACKLIGHT	✗	✗	✗	Yes (RGB)	✗	✗
WRIST REST	✗	✗	✗	Yes (removable)	✗	✗
HEIGHT ADJUSTMENT	✓	✓	✗	✓	✓	✓
SUPPORTED OPERATING SYSTEMS	Windows, MacOS, Android, iOS	Windows	Windows, MacOS, Android, iOS	Windows	Windows, MacOS, iOS, Android, Chrome OS	Windows
DIMENSIONS	285 x 147 x 19mm	440 x 138 x 21mm	285 x 120 x 18mm	484 x 247 x 42mm	435 x 138 x 21mm	455 x 180 x 50mm
WARRANTY	Two-years return-to-base	One-year return-to-base	One-year return-to-base	Two-years return-to-base	Two-years return-to-base	One-year return-to-base

ALSO REVIEWED

Matias Quiet Pro	£138	★★★★☆
Matias Mini Quiet Pro	£119	★★★★☆
Filco Majestouch-2 Ninja Tenkeyless	£120	★★★★☆
Corsair Strafe RGB MX Silent	£150	★★★★☆
Logitech K830 TV	£90	★★★☆☆
Speedlink Ludicium	£16	★★★☆☆
Steelseries Apex M750	£150	★★★☆☆
Microsoft Surface Ergonomic Keyboard	£120	★★☆☆☆
Topre Realforce 88U	£210	★★☆☆☆
Tecknet X366	£13	★★☆☆☆

OUR VERDICT

We loved the BakkerElkhuizen UltraBoard 940 Compact Keyboard because it will work with any of your devices – up to five at the same time. It's comfortable enough to use as your full-time PC keyboard when you're sitting at your desktop but can also connect to your mobile devices, and it's light and compact enough to use while you're out and about. We gave it our Gold Award.

If you've got deep pockets, the Silver Award-winning Filco Majestouch Convertible 2 can also connect to several devices, both wired and wireless. It's a luxury model with a great feel, but its hefty price tag may put some people off.

If you just want a keyboard that you can use on the move, the AAJ Wireless is a fantastically affordable option. It only connects to Bluetooth and isn't ideal as a replacement for your desktop keyboard, but it's far better than you might think given that it costs less than a tenner. It wins our Bronze Award.
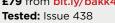
Web User's Best Buys

Web User and its sister titles test over 2,500 products every year

HARDWARE

KEYBOARD

BakkerElkhuizen UltraBoard 940

NEW!

£79 from bit.ly/bakk438
Tested: Issue 438

The Ultraboard 940 is designed for all your computing needs – desktop, laptop and mobile. It's very comfortable and has a much better build quality than most portable keyboards.

KEY SPECS
Compact form ■ Scissor-switch technology ■ Multimedia function keys ■ 2 x USB 2 ports ■ Wireless ■ Height adjustment ■ Windows, MacOS, Android, iOS ■ 285 x 147 x 19mm ■ Two-years return-to-base warranty

VOICE ASSISTANT

Amazon Echo

£89.99 from bit.ly/echo437
Tested: Issue 437

With its sophisticated speech recognition, Amazon's second-generation Echo proves that smart digital assistants have a bright future, and it keeps getting better and better.

KEY SPECS
Compatible with Fire OS, Android and iOS devices ■ 802.11a/b/g/n Wi-Fi ■ Line-out with 3.5mm cable or Bluetooth ■ 2.5in woofer, 0.6in tweeter ■ 148 x 88 x 88mm ■ 821g ■ One-year return-to-base warranty

HIGH-SPEED ROUTER

TP-Link Deco M5

£229.99 from bit.ly/tpl435
Tested: Issue 435

This is a finely balanced mesh system with good range, although it isn't the fastest router available. However, it's got great additional features including built-in antivirus and powerful parental controls.

KEY SPECS
Mesh-networking kit ■ 802.11ac Wi-Fi ■ Combined network of 2.4GHz and 5GHz bands ■ WPA2-AES security ■ 1 x WAN port ■ 2 x Gigabit Ethernet ports ■ 120 x 120 x 38mm ■ Three-years return-to-base warranty

BUDGET TABLET

Amazon Fire HD 8

£89.99 from bit.ly/fire433
Tested: Issue 433

Long battery life, superb build quality and decent performance make this an excellent 16GB tablet for the price. It's worth paying the extra £10 for this ad-free version, too.

KEY SPECS
Quad-core 1.3GHz MediaTek MT8135 processor ■ 1.5GB memory ■ 16GB storage (expandable to 256GB) ■ 8in 1,280 x 800 pixels screen ■ 2-megapixel rear camera ■ Fire OS ■ 214 x 128 x 9.7mm ■ 369g ■ One-year return-to-base warranty

BUDGET PHONE

Samsung Galaxy J5 (2017)

£219 from bit.ly/sams432
Tested: Issue 432

Samsung's updated Galaxy J5 does everything you could ask of a budget phone. Battery life is top-notch, the screen is rich and vivid, and its camera quality is excellent.

KEY SPECS
Octa-core 1.6GHz Exynos 7870 processor ■ 13-megapixel front and rear cameras ■ 2GB RAM ■ 16GB storage ■ 5.2in 1,280 x 720-pixel screen ■ Android 7 ■ 146.2 x 71.3 x 8mm ■ 160g ■ Two-years return-to-base warranty

HYBRID LAPTOP-TABLET

Lenovo Yoga Book

£548.97 from bit.ly/lenw431
Tested: Issue 431

The Yoga Book laptop-tablet hybrid genuinely feels like a step forward, with its virtual keyboard and fantastic writing surface that makes it an exceptional note-taking device.

KEY SPECS
Quad-core 2.4GHz Intel Atom x5-Z8550 processor ■ 4GB memory ■ 64GB storage ■ 10.1in 1,920 x 1,200-pixel screen ■ 1 x Micro USB port ■ 802.11ac Wi-Fi ■ Windows 10 ■ 256 x 170 x 9.6mm ■ 690g ■ One-year return-to-base warranty

All prices correct at time of review

SOFTWARE & SERVICES

INTERNET SECURITY

Kaspersky Internet Security 2018

£19.95 from bit.ly/kaspersky2018
Tested: *Computeractive*
Issue 493

Kaspersky is rock solid at protecting your PC from the worst of the web, and has come top in nine of our most recent tests, blocking all malware with its robust defences. Use the URL above to save £15.04 on the software (normal price £34.99).

KEY FEATURES

Antivirus and firewall tools ■ Protects online shopping and banking ■ Identity and privacy tools ■ Dangerous-website alerts ■ New software updater ■ Secure-connection VPN ■ Advanced ad-blocking system ■ Multi-device version ■ Compatible with Windows 10

ONLINE STORAGE

Google Drive

From free from
drive.google.com
Tested: Issue 389

Google Drive is easy to use and has lots of free storage with the option to buy more if you need it. The Windows software integrates seamlessly with Explorer, so saving and syncing files is like keeping them in any other PC folder.

KEY FEATURES

16GB free storage ■ Web-based office software ■ Works with XP, Vista, 7, 8+ and 10 ■ Chrome browser add-on ■ Android and iOS apps ■ 100GB extra storage for £1.36 per month; 1TB for £6.01 per month; 10TB for £60.16 per month

Web User Gold Award winners

WINDOWS 10 FILE MANAGER

Metro Commander

NEW!

Free from bit.ly/metr437
Tested: Issue 437
Metro Commander is a smart-looking file-management tool that offers lots of great features in its free version, including a very useful dual-pane view.

NEW TAB PAGE

Momentum

Free from bit.ly/momentum436
Tested: Issue 436
Momentum fits an impressive number of useful tools into an attractive New Tab page for Chrome. It's a great way to make your day more productive.

ANDROID LAUNCHER

Microsoft Launcher

Free from bit.ly/microsoftl435
Tested: Issue 435
For all-round performance, usability and features, Microsoft Launcher is the best free launcher you can get. It's very fast and supports gestures.

VIDEO-EDITING TOOL

Microsoft Photos

Free from bit.ly/phot434
Tested: Issue 434
This tool is built into your Photos app and is very efficient at turning your home videos into professional-looking movies.
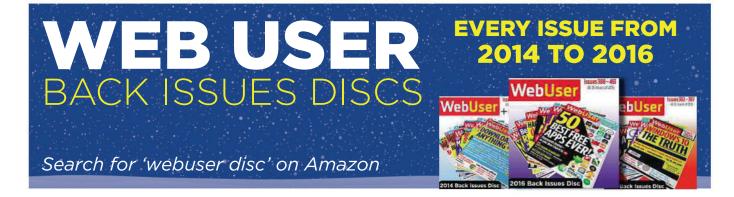
HOME-SURVEILLANCE SOFTWARE

Ivideon

Free from bit.ly/ivid433
Tested: Issue 433
Simple to set up and use, Ivideon is ideal for monitoring one or two cameras and lets you store footage for 24 hours.

Best Free Software

NoxPlayer 6

www.bignox.com
Min requirements: Windows XP/
Vista/7/8+/10
File size: 290MB

There are lots of great apps and games available for Android phones and tablets, but if you want to enjoy your favourite ones on a bigger screen, you can do so via an Android emulator running in Windows. There are a number of these available, including Bluestacks, MEmu and NoxPlayer.

NoxPlayer is arguably the best of the bunch, not least because it offers a superior and more speedy gameplay experience, way beyond what you'd get running the same app on your mobile phone. The emulator is based on Android 4.4.2 (KitKat) and although that's now quite an old version of Google's mobile operating system –

it's been superseded by Lollipop (5), Marshmallow (6), Nougat (7) and Oreo (8) – it offers good compatibility with most (but not all) Android apps. Like other, similar programs, NoxPlayer lets you change the model of the phone and tablet that it's emulating. You can do this by going into System Settings, then Property Settings.

The apps and games you run in NoxPlayer can be controlled using your keyboard or gamepad, and you can run multiple instances of each app and even record on-screen activity.

This new version of NoxPlayer includes upgrades to the software

engine, to provide better memory usage and improved performance. There's enhanced support for multiplayer games and a new 'synchronise multiplayer' function. It also includes full support for OpenGL3 games and fixes for some game compatibility problems.

NoxPlayer is easy to set up and use and, if you get stuck, the FAQ on its website can guide you through trickier topics, such as setting up multiplayer and using the keyboard-control settings. You can download new apps directly from the Google Play store or sideload apps you've downloaded in APK (Android Package Kit) format.

⚙ MINI WORKSHOP | Run Android games on your PC using NoxPlayer

1 When you run NoxPlayer, you'll be presented with a screen that mimics Android on a tablet. You can search for an app or game on Google Play, **1** or launch any of the included apps, such as the Browser, **2** Facebook Lite **3** or ES File Explorer. **4** Double-click an app to open it.
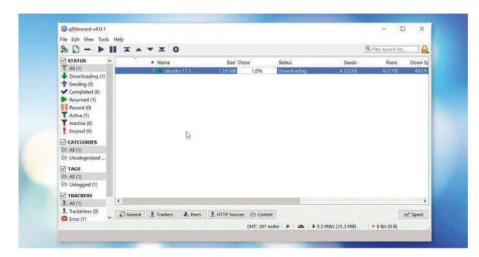
2 You need to sign in with a Google account (or create one) to use certain apps, and to download new ones from Google Play. There's a menu bar **1** at the top for new themes and settings, and a strip down the right-hand side containing icons for everything else. **2**

3 Installing a game from Google Play is the same as in Android. Once installed, you can run it from the main screen. NoxPlayer will automatically change the emulator orientation as required. There is a Rotate button available **1** and the bottom part of the sidebar contains the Android navigation buttons, **2** including Back.

This fortnight's top new software downloads to help you make the most of your PC, and they're all FREE

TORRENT DOWNLOADER
qBittorrent 4
www.qbittorrent.org
Min requirements: Windows XP/Vista/7/8+/10, MacOS or Linux
File size: 21.1MB
If you still download torrents rather than streaming video online, there are plenty of clients to choose from. The versatile qBittorrent is designed to be an open-source alternative to µTorrent, and is available for Windows, Mac and Linux. If you've used µTorrent before, you'll be right at home here. The latest version adds a number of new features such as a full portable mode, new icon themes, custom save locations for configuration files, support for environmental variables and better scaling on larger screens.
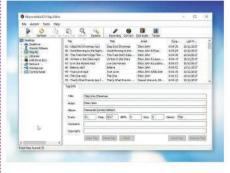
NOTEPAD
OnTop Notepad
bit.ly/ontop438
Min requirements: Windows XP/Vista/7/8+/10 **File size:** 7.7MB

Windows comes with both Notepad and WordPad installed as standard, but there are plenty of good alternatives available. OnTop Notepad can be set so it's always visible, on top of other windows (you can toggle it to behave like a normal window when required). You can snap it to any screen edge, and display or hide line numbers in the editor. Notes can be exported to PDF via the File menu.

TAG EDITOR
ID3 Tag Editor 3
bit.ly/tag438
Min requirements: Windows XP/Vista/7/8+/10 **File size:** 1.7MB

Tags are used by audio players to identify and catalogue songs. If you have a large music collection, with tracks downloaded, ripped and converted from numerous locations, the quality and format of the metadata they contain will vary. ID3 Tag Editor lets you add, edit and clear stored information, and the latest version automatically identifies unknown tracks using music-recognition technology.

New Windows Apps

BackgroundSwitcher
bit.ly/background438
Min requirements: Windows 10
File size: 35.4MB
BackgroundSwitcher is a simple app that regularly changes the Windows wallpaper or lockscreen image on your device. It pulls and cycles content from your PC's default Pictures folder.

Animation Desk
bit.ly/animate438
Min requirements: Windows 10
File size: 42.1MB
This app lets you create your own animations and cartoons. It's easy to use – just start by drawing on the screen. It comes with brushes, patterns and other tools.

Earth Wallpaper Changer
bit.ly/earth438
Min requirements: Windows 10
File size: 19.6MB
Earth Wallpaper Changer downloads current imagery from the Himawari8 weather satellite which is in a geostationary orbit over Australia. It can set these downloaded images as your Desktop or lockscreen background automatically.

PARTITION MANAGER
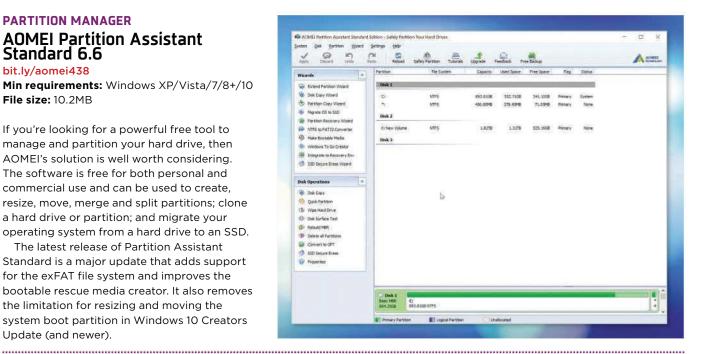### AOMEI Partition Assistant Standard 6.6
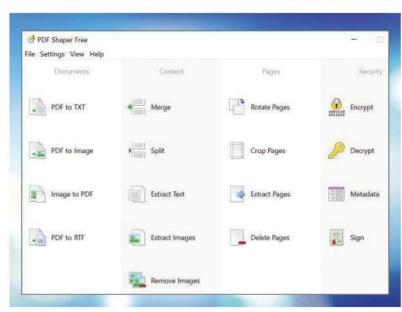bit.ly/aomei438
Min requirements: Windows XP/Vista/7/8+/10
File size: 10.2MB

If you're looking for a powerful free tool to manage and partition your hard drive, then AOMEI's solution is well worth considering. The software is free for both personal and commercial use and can be used to create, resize, move, merge and split partitions; clone a hard drive or partition; and migrate your operating system from a hard drive to an SSD.

The latest release of Partition Assistant Standard is a major update that adds support for the exFAT file system and improves the bootable rescue media creator. It also removes the limitation for resizing and moving the system boot partition in Windows 10 Creators Update (and newer).

PDF TOOLKIT
PDF Shaper Free 8
www.pdfshaper.com
Min requirements: Windows XP/Vista/7/8+/10
File size: 7.6MB

PDF Shaper is a collection of useful tools that let you do various things with PDF files, such as creating them from images, splitting and merging them, extracting text and pictures, rotating pages, signing PDFs, and encrypting or decrypting them. The latest version of the program adds a paid-for premium edition that you can upgrade to for $19.95 (£14.97) if you require additional features. It also gains a new look, and brings support for OCR (optical character recognition). You can now protect the contents of a PDF document and there are some new merge options, too.

Be sure to decline the bundled junk when installing the free version.

WEBSITE CREATOR
BlueGriffon 3
bluegriffon.org
Min requirements: Windows 7/8+/10, MacOS or Linux **File size:** 40.1MB
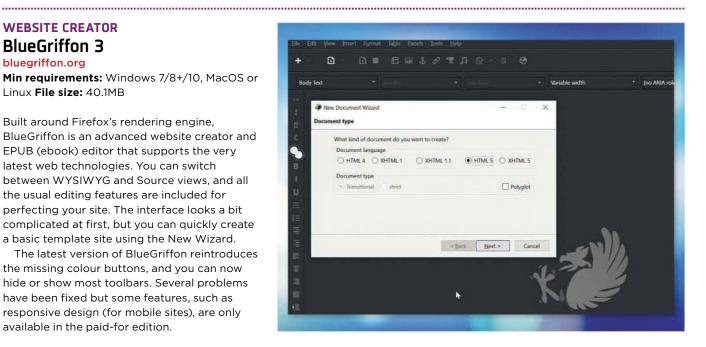
Built around Firefox's rendering engine, BlueGriffon is an advanced website creator and EPUB (ebook) editor that supports the very latest web technologies. You can switch between WYSIWYG and Source views, and all the usual editing features are included for perfecting your site. The interface looks a bit complicated at first, but you can quickly create a basic template site using the New Wizard.

The latest version of BlueGriffon reintroduces the missing colour buttons, and you can now hide or show most toolbars. Several problems have been fixed but some features, such as responsive design (for mobile sites), are only available in the paid-for edition.

GAME

Midnight Scenes: The Highway
bit.ly/midnight438

Min requirements: Windows XP/ Vista/7/8+/10 or MacOS
File size: 28.9MB

Midnight Scenes is a point-and-click adventure game heavily influenced by cult TV series *The Twilight Zone*. This single episode, set on a deserted road in the middle of the night, features cool black-and-white pixel art and some suitably creepy sound effects. It's very short, but well worth a play.

✗ Don't install...

EasyBoot
bit.ly/easy438
Min requirements: Windows XP/Vista/7/8+/10
File size: 3.3MB

Easy it may be, but at $29.95 (£22.49), this tool for creating bootable CDs and DVDs is far from cheap, especially when you consider that there are plenty of much better free alternatives available. Its website looks like it hasn't been updated for 15 years – it even makes mention of Windows 98 – and the program itself looks ugly.

...Install this instead ✓

Rufus
rufus.akeo.ie
Min requirements: Windows XP/Vista/7/8+/10 or Linux
File size: 939KB

Most operating systems, including Windows and Linux, are available to download in ISO format. You can write these image files to CD or DVD, but it's often more practical to create a bootable USB flash drive instead, which is where Rufus comes in. Select a USB drive, choose your ISO file, click Start and this simple, speedy program will do the rest. Rufus also supports Windows to Go, the portable version of the operating system included in business editions. This lets you run Windows directly from a memory stick, turning it into a portable PC you can take on your travels.

↻ **UPDATED** | New tweaks and fixes for your favourite free programs

SYSTEM CLEANER

System Ninja 3.1.9
singularlabs.com
Min requirements: Windows XP/Vista/7/8+/10
File size: 2.3MB

System Ninja removes junk from your PC, including temporary files, internet cookies and history, thumbnail caches and more. This update adds a Back button to the Duplicate Finder options page, and lets you save the list of running processes to a text file.

SPACE MONITOR

TreeSize Free 4.1
www.jam-software.com
Min requirements: Windows 7/8+/10
File size: 7.6MB

TreeSize Free can tell you where all the free space on your hard drive has disappeared to by revealing the space hogs. This latest release allows forward and back navigation among recently selected items, and it can hide empty folders from view, so you don't waste time deleting them.

SYSTEM CLEANER

CCleaner 5.37
www.piriform.com/ccleaner
Min requirements: Windows XP/Vista/7/8+
File size: 10.3MB

The hugely popular system-cleaning tool (now owned by antivirus firm Avast) gets updated on a monthly basis. This latest version includes only a minor update, improving session cleaning in Microsoft Edge and preventing the accidental deletion of favicons in Firefox.

BROWSER

Vivaldi 1.13
vivaldi.com
Min requirements: Windows XP/ Vista/7/8+/10, MacOS or Linux
File size: 42.3MB

The latest version of this Chrome-based web browser introduces a Window Panel to manage multiple tabs at once. It also adds a number of improvements to file downloading. We'll explain more in our next issue. ■

GET FREE SOFTWARE FIRST subscribe to Web User at **subscribe.webuser.co.uk**

Best New Browser Tools

CHROME

Find secret new Chrome experiments more easily

Chrome's 'chrome://flags' page, where you can enable experimental features that "may bite", has always been the most unwieldy part of the browser – a cramped list of options that's far too long to browse and can only be searched by pressing Ctrl+F to open the Find bar. So it's like Christmas come early to discover that Chrome 63 (released 5 December) introduces a completely redesigned 'flags' page, which is now more logically titled 'Experiments'. Not only does this look smarter, with a clearer, more spacious layout, but it's much easier to use. A large search box now sits prominently at the top of the page and experiments can be enabled or disabled with a single click, rather than through a fiddly menu. You can also instantly restore all settings to their default if you experience any performance problems.

The redesign manages to shorten the list of experiments by only showing those that are currently available. It's a massive improvement on the old page (see right).

NEW

OLD

Convert nasty comments into nice ones

During this season of peace and goodwill, the last things you want to see online are abusive comments and offensive language. You can maintain your festive cheer by installing a new Chrome extension called #ChooseKind (bit.ly/choosekind438), which has been created to promote the new film *Wonder*, starring Julia Roberts and Owen Wilson. In keeping with the anti-bullying theme of the feel-good drama, the add-on automatically detects nasty comments on Facebook, Twitter and YouTube, and converts them into pleasant ones, with three levels of 'kindness' to choose from. These positive substitutions include statements such as 'All you need is love', 'You can do anything' and the somewhat self-promoting '#I am a Wonder', with the option to show the original word or phrase if you're feeling brave.

Annoyingly, you have to sign in with your Google account to use #ChooseKind, and we found it failed to filter certain swear words. Ah well, it's the (kind) thought that counts.

Add an Android calculator to Chrome

It's always useful to have a calculator to hand when you're browsing the web, even if only to make sure you're not overspending on Christmas presents. Android Calculator (bit.ly/androidcalc438) is a simple, speedy option that resembles – as you've probably guessed – the calculator app on Android phones and tablets. Its pleasingly chunky buttons make it easy to operate using your mouse, and you can also perform calculations by pressing the number and symbol keys on your keyboard. All the necessary functions are available and the calculator's large screen allows for lengthy, complex sums.

Apply a Christmas theme to YouTube

From Christmas music videos to classic Yuletide TV shows, YouTube is packed with festive entertainment, so why not complement your viewing with some seasonal decoration? YouTube Christmas Mode (bit.ly/ytchristmas438) applies a pleasant light-blue theme to the video site, which includes illustrated snowmen, presents and a wintry landscape in which Santa is for some reason enjoying a jacuzzi in a large mug of tea. Complete with the cheery message 'Warm Christmas and Happy New Year', it's far less garish than many of the festive themes we've seen.

This fortnight's most useful tips and add-ons to help you get the most from Chrome, Firefox, Opera and more

FIREFOX

Redesign the web using different styles

Even your favourite websites start to look tired if you visit them every day. To make things more aesthetically interesting, why not redesign them using the brilliant WebExtension Stylus (bit.ly/stylus438)? This update to the popular add-on Stylish lets you apply user-created themes and skins – or 'styles' – to hundreds of websites at the click of a button, turning Amazon black, displaying BBC News as text-only and viewing YouTube videos in 'real cinema' mode.
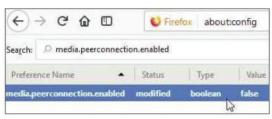
To use Stylus, simply visit a site, click the extension's 'S' toolbar button and select 'Find more styles for this site'. Browse the available options until you find one you like, then click Install Style. You can store and switch between several styles for the same site, and easily disable them to return to normal. If you're feeling creative, you can even design your own styles.

Stop Firefox leaking your IP address

Virtual private networks (VPNs) provide one of the most secure ways to browse the web, but your anonymity can still be compromised by WebRTC (Web Real-Time Communication). This built-in browser feature lets you stream audio and video without installing additional software, but it also reveals your real IP address, despite your VPN's protection.

Fortunately, it's easy to disable WebRTC in Firefox. Just type `about:config` into the address bar, press Enter and accept the 'dragons' risk. Find the entry named 'media .peerconnection.enabled', and double-click it to change the value to 'false'.

Alternatively, if that sounds too fiddly, install Disable WebRTC (bit.ly/webrtc438), which performs the tweak for you and is compatible with the new media-streaming technology in Firefox 57 (Quantum).

View the date and time instantly

Is it Christmas yet? Well, what date is it? How long until the shops close? You can get the answer to all these questions and more using the new WebExtension Date Today (bit.ly/date438), which provides the current time, date and day of the week in your browser. Unlike similar tools, it offers lots of customisation options: you can change the colour and font of the text, switch between 12-hour and 24-hour format, rearrange how the information is displayed and place a miniature clock on your toolbar.

Usefully, Date Today lets you switch to a darker night mode between certain times of the day, and copy the date to your clipboard with a single click. The add-on is also available for Chrome, Safari, Opera and more. Just be sure to close the annoying 'Recommend on Facebook' bar that appears when you first install it.
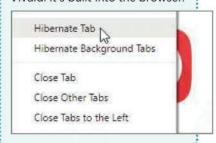
OTHER BROWSERS

Limit yourself to nine tabs

How many open tabs do you think you can have in your browser before it becomes too cluttered? If you answered "nine", you'll love the wittily named new Opera add-on Nein Tabs (bit.ly/nein438), which automatically decides "nein" ('No' in German) when you try to open more than that number of tabs. Every tab you try to open after you reach that limit will launch in a new browser window instead. When you reach nine in that window, any subsequent tabs (from nineteen onwards) will open in yet another window – until you learn to streamline!

Free up memory in Vivaldi

Vivaldi supports 'manual hibernation' for both individual tabs and Tab Stacks, which lets you save memory by freeing up resources for specific pages. Just right-click a tab or Tab Stack and select Hibernate Tab or Hibernate Tab Stack. The browser will then discard the tab, ditch its content and replace it with an 'empty' tab. When you revisit the hibernated tab, it will refresh and reload the page. This significantly reduces Vivaldi's memory usage without you needing to close tabs altogether. It's similar to the popular add-on OneTab (www.one-tab.com) for Chrome and Firefox, but with Vivaldi it's built into the browser.

App of the Fortnight

MUSIC

NEW

SoundForest
bit.ly/soundforest438

 7

What do cute animals, pop music and staring at phone screens for extended periods have in common? The answer is they're all things that kids love. SoundForest cannily combines all three elements into a brilliant app that turns composing music into a fun, creative game.

Kind of like a kiddies' version of GarageBand, SoundForest gives you a blank canvas and a selection of samples to play with, each denoted by a shape, plant or animal. You can arrange these into any combination you like in the main composition area to create funky beats and poppy harmonies.

Though it's possible to create surprisingly complex compositions, SoundForest is very easy to get the hang of – and your initial explorations are aided by a mysterious

yet helpful alien who guides you through the basic composition process. An example song is also provided for inspiration. The free version of SoundForest comes with a limited number of samples, as well as restricting the number of available slots for saving your compositions. For £1.99, you can unlock the full selection of samples and slots, which is well worth paying if you enjoy the app, although it's still fun to have a noodle for free.

The art style deserves particular praise – the simple, colourful animal icons are all beautifully drawn. That's not to say there's no room for improvement: it would be great to have some way to sustain samples for more than one beat, for example, as well as a tool for copying and pasting sections of your tracks; and there's currently no easy way to export your finished tunes.

But as a means of introducing children to the concept of composing their own music, SoundForest is fun, colourful and utterly charming, and should keep all ages entertained over Christmas.

MINI WORKSHOP
Create your first tune in SoundForest

1 Swiping left or right on the main screen reveals four different coloured screens of circles. Each screen represents a different animal environment, with its own unique musical palette; and each empty circle **1** represents a slot that's available in that environment for you to create compositions in. Only two environments are available in the free version, with a limited number of slots available in each. To start composing, tap a circle.

2 The main part of the composition screen **1** is called the song grid – this is where you'll arrange your musical notes. Swiping right to left will make your song longer. Swiping the strip at the bottom **2** reveals more icons, each one representing a different musical instrument or percussion sample. Samples that show a padlock sign are only available to users of the full app. Tap an icon to select it and to hear what it sounds like.

3 With a sample selected, tap in the main song grid area to place it. **1** The position in which you place the sample horizontally determines the point in your song at which the note comes in; and where you place it vertically determines its pitch. Continue to select and place samples to arrange them into a simple tune. Tapping the strip of sky at the top **2** starts or stops playback; double-tapping it adjusts the tempo of your tune.

Our rating ★★★★★

This fortnight's top free and paid-for apps for Android, iOS and Windows phones and tablets

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GAME
NEW

Animal Crossing: Pocket Camp
bit.ly/animaldroid438
bit.ly/animalios438
🤖 4.2 🍎 9

Following Super Mario Run and Pokémon Go, Animal Crossing is the latest game to make the leap from Nintendo consoles to mobile handsets. Pocket Camp is an impossibly cute kids' simulation game, where your character is put in charge of a campsite and tasked with helping out animals in different areas of the map – fishing, collecting insects and so on – while building up your campsite to encourage visitors. It's engaging and fun, and the only downside is that it needs an internet connection to run.

Our rating ★★★★☆

KEYBOARD
UPDATED

Gboard
bit.ly/gboarddroid438
bit.ly/gboardios438
🤖 (varies) 🍎 9

Google's alternative keyboard has had an update for Android that makes it even more of an essential tool. For those who haven't tried it, Gboard supports both gesture typing (where you slide your finger from letter to letter) and voice typing, as well as providing a handy Google search option directly from the keyboard – just tap the G button. It also allows for multilingual typing and is able to translate as you type. The new version adds support for 40 more languages, including Japanese, and provides more sticker packs.

Our rating ★★★★★

FASHION
NEW

Adidas – Sports & Style
bit.ly/adidasdroid438
bit.ly/adidasios438
🤖 5 🍎 9

Whether you're in the market for some classic Gazelles or after a performance-enhancing pair of Predators, you need this app installed on your mobile device. It's effectively just a store front for Adidas products, providing access to the company's entire clothing range. But it goes beyond basic click-and-checkout apps by offering regularly updated features on fashion and fitness while keeping you abreast of the latest offers and discounts. It helps that the app is stylish and simple to use, too. Sports & Style doesn't put a foot wrong.

Our rating ★★★★☆

FILE MANAGER
NEW

Google Files Go
bit.ly/filesgo438
🤖 5

Part clean-up tool and part file manager, Google's brand new Files Go app lets you browse, rename, share or delete documents, images, downloads and more by tapping the Files button. If you tap the Storage button, you'll be presented with a series of cards offering ways to free up space by deleting duplicate files, removing apps you never use and so on. There's also a Send and Receive option, which allows you to share files wirelessly and securely with other nearby users, without the need for an internet connection. Files Go is still in beta, but it's a great tool and worth getting early.
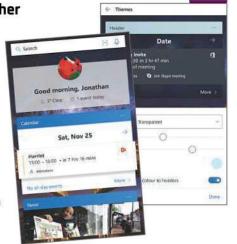
Our rating ★★★★★

LAUNCHER
NEW

Microsoft Launcher
bit.ly/launcher438
🤖 4.0.3

Microsoft seems to have a surprise hit on its hands with its Android launcher (winner of our Gold Award in Issue 435) – which is somewhat ironic, given the dwindling relevance of its own Windows 10 mobile OS. Previously known as Arrow Launcher, Microsoft's highly customisable launcher recently hit a new milestone, with more than a million active users. The latest version (4.2) introduces a Transparency theme with a slider that lets you adjust the level of opacity. Fresh features are imminently incoming, too. Version 4.3 is already in beta and supports more than five apps in the dock, new app grid options and more besides.

Our rating ★★★★★ ➡

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⑤ NEW APPS WORTH PAYING FOR

GAME
Simulacra
bit.ly/simuldroid438
bit.ly/simulios438
Price: £4.29 (Android), £4.99 (iOS)
🤖 4.4 9.3

If you played the creepy game Sara is Missing, you'll want to try this follow up, which involves you sifting through the contents of a person's phone to unravel a terrifying mystery.

ARCHIVE TOOL
Passport Size Photo Maker
bit.ly/passport438
Price: 84p
🤖 4.1

Save yourself a trip to the photo booth with this handy new tool for taking and printing selfies that you can use for passports, driving licences, visas and other official documents.

GAME
Chuckie Egg 2017
bit.ly/chuckdroid438
bit.ly/chuckieios438
Price: £1.79 (Android), £1.99 (iOS)
🤖 4.4 8

Relive your wasted youth with this mobile reimagining of the 1983 Spectrum classic. Guide Hen-House Harry through 25 levels (plus one hidden one) to collect golden eggs, while avoiding enemies.

EDUCATION
Hey Duggee: The Counting Badge
bit.ly/duggeedroid438
bit.ly/duggeeios438
Price: £2.99
🤖 2.3 7

This new app based on the CBeebies show puts an educational spin on things with a series of fun maths tasks, such as counting alligators and putting characters in size order.

HEALTH
HabitMinder
bit.ly/habit438
Price: £4.99
 10

Improve your mind and body by setting yourself healthy tasks and achieving daily goals. Habits include exercises, such as stretches and walking, as well as relaxation, hydration and self improvement.

Simulacra	Passport Size Photo Maker	Chuckie Egg 2017	Hey Duggee: The Counting Badge	HabitMinder

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✗ Don't install...

Radio FM offline 2018
bit.ly/radiofm438

We'd love to be able to criticise this app's outdated design or its lack of features. But the sad truth is that we weren't able to get it to do anything beyond spamming us with a full-screen ad on launch and then instantly crashing again. Don't be fooled by this or any of the other useless radio apps that seem to litter Google Play. It's a complete waste of time.

...Install this instead ✓

Radioplayer
bit.ly/radiodroid438
bit.ly/radioios438
🤖 4.1 8

There are several brilliant radio apps available for both iOS and Android. TuneIn was once our favourite, but it now suffers from bloat, lumping in podcasts, sports coverage, audiobooks and other content alongside actual radio stations. Our current radio app of choice is Radioplayer, which lets you listen to hundreds of local and national UK stations for free, including everything from BBC channels to community and student stations. It's reliable and easy to use, and lets you save favourite stations and shows, and access catch-up programming as well as live broadcasts. The latest version improves Chromecast performance, too. ■
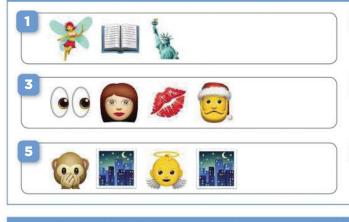
Give your eyes a rest from your browser by taking our fiendish fortnightly challenges. Can you guess our Christmas-song emoji and solve our word puzzle?

CAN YOU GUESS THE CHRISTMAS SONGS FROM THE EMOJI?

1 🧚 📖 🗽

2 🚗 🏠 🎄

3 👀 👩 💋 🎅

4 🎸 ↩️ 🎄

5 🙊 🌃 👼 🌃

6 👀 🛳️ 🛳️ 🛳️

WEB USER WORD PUZZLE

Enter the answers in the grid to reveal a tech-related term in the highlighted column

1 Capital of North Korea
2 Character from Greek myth who fell in love with his own reflection
3 Winner of the 2017 Nobel Prize for Literature
4 Lead vocalist of The Kinks (3,6)
5 Home of Arthur's Seat, The Royal Mile and Greyfriars Bobby
6 Role played by Orson Welles in the 1949 film *The Third Man* (5,4)
7 Old British coin valued at a quarter of a penny
8 UK tennis player, four-times Wimbledon semi-finalist (3,6)

COMPETITIONS

WIN 1 OF 5
Vaux speaker for Amazon Echo Dot
Easy to set up, the battery-powered Vaux speaker from Ninety7 is the first to be built specifically for the Amazon Echo Dot. Once it's charged, you don't need to worry about being near an electrical socket. To enter, email your address to webusercomp@dennis.co.uk with 'vaux' in the subject line. For more information visit www.ninety7life.com and follow @Ninety7Life on Twitter.

WIN 1 OF 5
Corel AfterShot Pro 3
The great new tools in the third edition of Corel's exceptional photo-editing software include comprehensive watermarking, lens correction and an image-preset library, plus enhanced blemish removal. To enter, email your address to webusercomp@dennis.co.uk with 'AfterShot' in the subject line. For more information, visit www.aftershotpro.com and follow @corelsoftware on Twitter.

Zigbee and Z-Wave

Are you warming to the concept of a smart home? **David Crookes** checks out the two wireless protocols that rule the connected roost

What are Zigbee and Z-Wave?

They may sound like cartoon robots but Zigbee and Z-Wave are actually competing wireless protocols that are used by the vast majority of hub-based smart-home devices – you may have seen their names on the box of such products. They let you monitor and control your connected devices remotely and are seen as the perfect fit for home automation. But although anyone who has a connected thermostat, light, camera or sensor probably uses one of these wireless standards already, you might want to think about which system you should fully buy into.

So I have to pick sides?

You'll recall the videotape wars between Betamax and VHS; the face-off between HD DVD and Blu-ray; Sega and Nintendo's battle for supremacy – and we're still witnessing the tussle between Apple, Microsoft and Google, so it's hardly a surprise that the smart-home space has become a similar gladiatorial arena. In fairness, it's not a simple two-sided fight – there are also smaller players including Thread and WeMo – but to avoid

Control the heating in your home remotely using a Z-Wave thermostat

complicating things further, we'll stick with Zigbee and Z-Wave for now.

Fair enough. So how do they work?

Both protocols operate in a similar way, setting up mesh networks that allow tiny amounts of data to be sent from one connected device to another. This means that each product within the network can act as a 'remote node' – similar to a radio transmitter. When the data reaches it, the signal can be repeated to boost the overall wireless range. This ensures that even devices that are far away from the hub eventually receive a signal and if one device drops, the signal can find another route, keeping the system online and making it more reliable.

But where do hubs come into it?

Zigbee and Z-Wave hubs are connected to the internet, typically sitting between

Zigbee and Z-Wave hubs sit at the heart of your smart-home network

the outside world and the created mesh network. They take information from the web – such as an instruction from your phone to turn off a light – and send it to your compatible smart-home devices. At the same time, they prevent your gadgets from connecting directly to Wi-Fi, forcing the products to use the intended wireless protocol instead. This allows them to communicate using a single common language.
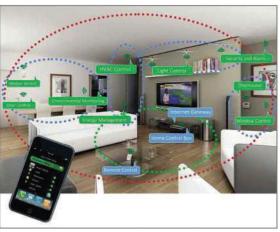
What sort of range do they have?

For Z-Wave, the maximum recommended distance between the nodes in the mesh network is 40m, but since a data packet can jump between four of them, the distances reached can be vast. Zigbee's typical range is between 10 and 20m indoors but its 'scalability' (capacity to adapt in size and scale) means it also works well when devices are hard to reach.

Wouldn't it be easier just to use Wi-Fi?

You'd think so, but Wi-Fi is too powerful for the basic needs of most smart-home products: indeed, it only takes a tiny amount of data to switch on a light and connected devices don't need the speed that Wi-Fi offers. Not only do Zigbee and Z-Wave networks use less energy, lasting for many years on a single battery, but they can reach products that Wi-Fi may struggle to access.

Wi-Fi is too powerful and resource-hungry for many smart devices

The Zigbee Alliance has hundreds of members and certified products

Ikea's smart lightbulbs use the Zigbee wireless standard, not Z-Wave

So how do they differ from one another?

Zigbee is based on a radio communications link called 802.15.4. It's faster than Z-Wave – up to 250Kbps as opposed to a cap of 100Kbps – and is an open technology, so it isn't owned by a single person or company. Z-Wave, on the other hand, uses lower frequencies and is a closed technology operating under the control of Sigma Designs.

Generally, an open protocol like Zigbee is more likely to have longevity because a closed system can be easily shut down by the company that owns it. However, Z-Wave isn't likely to disappear any time soon and it is also more secure: although both protocols use AES-128 symmetric encryption, which is the same as that used by banks, Z-Wave goes further and assigns its network and devices unique identifiers that are used during communication with the hub.

Another advantage of Z-Wave is that it's simpler, which results in shorter development times than Zigbee.

Which companies us them?

The non-profit Zigbee Alliance (www .zigbee.org) has 400 members including Huawei, Philips, Hive, Amazon, Ikea and Samsung, and currently offers 600 certified products. Meanwhile, the Z-Wave Alliance (z-wavealliance.org) has 250 members including Honeywell, Yale and ADT, and 1,300 certified products, including lighting controls, security, smoke detectors, door locks and smart electric meters.

But which one should I use?

Well, Zigbee lets you control and monitor devices on your smartphone or via a remote, and works particularly well in commercial properties. The beauty of Zigbee is that up to 65,000 devices can be connected in a single network – sheer overkill for the majority of us, for sure, but a good indication of its scalability.

Z-Wave is more restricted since it can "only" support 232 devices but being a closed system, the products tend to use the same components; most Z-Wave

devices use an Intel MCS-51 microcontroller, for example.

Can I connect Z-Wave and ZigBee products?

In theory, you can, but connecting them in practice may be a bit fiddly due to the way the products are set up by the manufacturers – try sticking an Ikea bulb in a Philips Hue network and it'll be lights out! One way of connecting the two standards is via a task-automation tool such as IFTTT (ifttt.com) or Stringify (www.stringify.com), which let you create recipes that get your apps and devices talking to each other.

Am I going to have to choose one or the other?

Well, since you're not buying the wireless protocol but the product that uses it, you should go for the devices that best suit your smart-home needs. There's nothing stopping you having two sets of mesh networks running side by side in your home and, as we've said, you can use tools such as IFTTT to tie them together.

Can I buy a hub that uses both protocols?

Yes. A good example is the Samsung SmartThings hub, which works with a wide range of connected devices. The Wink Hub 2 (www .wink.com) also supports Z-Wave and Zigbee, allowing you to bring devices together. As you connect more smart-home products to build a complex system, it's worth considering a hub that isn't limited to one protocol.

Samsung's SmartThings hub brings Zigbee and Z-Wave together in sweet harmony

ALEXA'S ROLE IN THE SMART HOME

Amazon's Echo range of voice-assisted devices provide a convenient channel for controlling smart devices within your home. With its new Echo Plus, however, Amazon has gone a step further by incorporating a Zigbee hub, which makes it easier to add compatible bulbs, sensors and more.

This means that if you enjoy Hive's smart-home products, for example, or have a house full of Philips Hue lights, you can dispense with their separate hub and use the Echo Plus instead. Frustratingly, though, it doesn't work with Z-Wave products, which means a huge chunk of the market is effectively cast adrift.

Many reviewers have been quick to pick up on this, pointing out that a
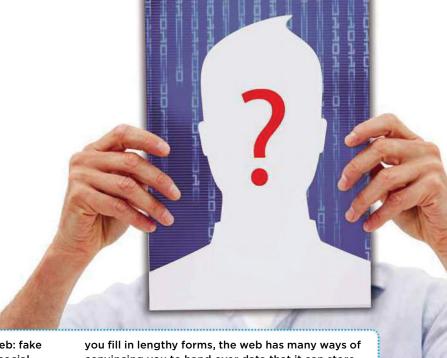
It's a tragedy when smart devices won't play nicely with each other

smart-home hub should be compatible with both protocols – after all, the SmartThings and Wink hubs certainly are (see last paragraph, right). At this early stage of the technology, when most people are taking their first tentative steps with smart-home devices, such restrictions are incredibly frustrating.

FAKE YOUR IDENTITY

ON THE WEB

How are you supposed to protect your personal info when websites insist you share it? By faking it, that's how. **Robert Irvine** explains how to stay anonymous online by spoofing your data

It's been a big year for fakes on the web: fake news in the media, fake accounts on social networks, fake apps in the Google Play store – so what better way to see out 2017 than by faking a new identity online? We aren't suggesting you start forging documents to con money out of people or dodge paying tax, but there's nothing wrong with protecting your privacy by withholding information – especially from sites and services that have no need or right to claim access to your details.

From pinpointing your whereabouts to making you fill in lengthy forms, the web has many ways of convincing you to hand over data that it can store, share and analyse however it likes. As we explain in this feature, you don't have to give in to this unwarranted intrusion.

Over the next six pages, we reveal how to generate false details at the click of a button, remove your photo from emails and avoid disclosing more data than you need to. We also look at the pros and cons of using a fake identity, and have some fun along the way!

Pretend to be someone else

If you've ever yearned to be someone else, the web can make your pseudonymous dreams come true. Here, we reveal the best tools for concealing your real identity and other personal info online

Create a fake name and personality

There are times when you can't avoid using your real name online – for example, when you're paying for a product or service, or joining Facebook (see next tip). For other sites, it's both practical and advisable to adopt a pseudonym as an effective means of preventing online fraud, unwanted communication and intrusions into your privacy. However, coming up with a fake name – let alone additional details – can be surprisingly tricky (and copying someone else's could land you in legal trouble) so we'd recommend turning to the brilliant Fake Name Generator (www.fakenamegenerator.com).

This ingenious site not only creates bogus monikers for your preferred gender and name set – from American to Vietnamese – but generates a host of other info for your fictional alter ego including a realistic address and postcode (or ZIP code, for US names); a fake phone number that will be deemed valid by automated site tests; a birthday and astrological star sign; physical characteristics such as height, weight and blood type; a job and car; and even your favourite colour. We're now called Jordan Thomas, an 83-year old bibliographer from Low Crosby.

For even faster access to fabricated personal information, try the Chrome extension Name Generator (bit.ly/name438). At the click of its toolbar button, this pulls random details from

the websites Name Fake Generator (namefake.com) and Random User Generator (randomuser.me), including first and last names, email addresses and passwords, which you can then copy into registration boxes.

Use a different name on Facebook and Twitter

Facebook insists that you use your real name and email address when you sign up for an account; its terms and conditions state explicitly that "you will not provide any false personal information" and "you will not create more than one personal account" (bit .ly/terms438). The social network's reasoning for its 'real-name only' policy is to prevent people from setting up fake accounts for nefarious purposes, but it has still proved controversial.

Two years ago, a coalition of human-rights groups pointed out the difficulties the policy poses (and has caused) for the LGBTQ community, Native Americans and members of persecuted groups, and Facebook promised to introduce a workaround, but this has yet to materialise. Until it does, the only way to use an alias on Facebook is to specify a nickname. Go to your profile and click About, 'Details about you'. Under Other Names, click 'Add a nickname, a birth name' and enter the nickname you want to use. Select 'Show at top of profile' and click Save Changes.

This won't stop people seeing your actual name, but at least it allows for a twist on your real identity.

Facebook lets you specify a nickname but you can't use a pseudonym

Ironically, earlier this year, Facebook was forced to admit that up to 60 million of its accounts are fakes, so clearly it doesn't enforce the real-name policy too rigorously! It also now offers a Tor version (www.facebookcorewwwi .onion) for users concerned about

their privacy.

Twitter is much more lax about its members using fake names, which is why celebrities are obliged to verify their accounts against imposters having 'a bit of fun'. This means it's also easy to sign up under a pseudonym or to change your existing username without needing to open a new account. Simply click your profile icon in the top-right corner, choose 'Settings and privacy' from the drop-down menu and enter an alternative handle in the Username field. Before you click 'Save changes', note that if your account has a blue-tick verification badge, you'll lose it by changing your name.

Twitter makes it easy to change your username even after you've registered

Sign up with a disposable email address

Websites and apps often require you to register using your email address, not only so they can confirm who you are but also to potentially pester you with marketing messages – or "keep you informed of our latest offers" – if you forget to opt out. You can sidestep this intrusion of privacy and deluge of unwanted 'grey mail' by creating a fake, temporary address using a disposable-email service. Sign up with this address, click the link in the confirmation message that arrives in your alternative inbox and you'll gain access to the site without giving away your real identity or anything else.

There are dozens of free disposable-email services of which our favourite is MailDrop (maildrop.cc). This couldn't be easier to use: just enter the fake handle you'd like to use in the box on the homepage and click Go. MailDrop will then create your temporary address and accompanying inbox, which you can log into by entering your chosen handle. Unlike similar services, MailDrop has its

Create an alternative online identity using the brilliant Fake Name Generator

MailDrop lets you withhold your real email address to avoid scams and spam

Keep your inbox clear by registering with sites using a fake email address

own spam filters, so even your fake account isn't swamped by junk mail, and provides an unguessable alias for your address for extra security. Usefully, it also suggests false addresses if you can't think of one yourself.

Alternatively, try Mailinator (www .mailinator.com), which offers shared public email accounts that let you (anonymously) see which services other users are registering with.

You can also use a browser extension to create a disposable email address on the fly. CrazyMailing for Chrome (bit.ly/

crazy438), which generates accounts that expire after 10 minutes, and Temp Mail for Firefox (bit.ly/temp438) are both worth installing to keep your real inbox uncluttered and untroubled.

Fill in online forms using fake information

Entering your real name, address and

contact details when you fill in online forms is not only tedious (unless you have the info saved in your browser, which can be a security risk), but places your personal data one step closer to spammers and scammers. You can protect your real information by entering bogus details instead using the excellent Chrome extension Fake Data (bit.ly/fakedata438). This generates random but real-looking personal and contact information and enters it in web forms without you needing to type anything.

Simply right-click a form field and choose the bogus details you want to enter from the side menu – be it a first or last name, email or postal address, password, phone number, company name or location. Fake Data even generates 'Lorem Ipsum' dummy text, for example "Amet iure rerum rerum reiciendis optio", which is handy for online surveys that insist you answer every question. By default, the add-on is set to use US data, but you can change this to 'en_GB' in its Options to get UK

Conceal your real location

Geo-location might not sound worrying in itself but when combined with other information, it allows websites to build a picture of you. Here, we outline the best ways to hide your current whereabouts

Tweak your browser to block geo-location

Most browsers have a setting that lets you stop websites tracking your physical position using geo-location. In Chrome, click the menu button and choose Settings, then Advanced. In the 'Privacy and security' section, click Content Settings, then select Location and either switch the slider to Blocked to disable geo-location completely or leave it set to 'Ask before accessing' and decide on a site-by-site basis.

In Firefox, type `about:config` into the address bar, press Enter and agree to the 'dragons' warning. Search for the entry `geo.enabled` and double-click it to change its value to 'false'.

Block geo-location in your browser to stop sites knowing your real location

For Microsoft Edge, you'll need to disable the feature through Windows 10's Location settings. Go to Settings, Privacy, Location and scroll down to 'Choose apps that can use your precise location', then set Edge to Off.
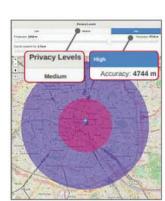
Use Location Guard to disguise where you are

If you'd prefer not to turn off geo-location altogether, which may prevent you from viewing useful maps, local news, relevant search results and accurate weather forecasts, you can disguise it using Location Guard (bit.ly/guard438) instead. Available for Chrome, Firefox and Opera, this nifty extension adds 'noise' to your location so that it can't be pinpointed with any accuracy by a website.

Location Guard offers three levels of noise that can be adjusted on a site-by-site basis – depending on how far from your real position you want to pretend to be. Unlike a VPN (see opposite page), your spoofed location won't be in another country but up to 7,116m (about 4.5 miles) away, so you can still get relevant local information and updates

at regular intervals.

Alternatively, you can set a fixed fake location – by default, this is tiny Manra Island in the Pacific Ocean. Location Guard also stops sites using JavaScript to identify your location from your IP address. Its noise is applied automatically in the background until you either pause it or switch to allowing your real location.

Location Guard lets you make your location less exact

Browse the web anonymously using Tor

As we explained in Issue 432's cover feature (bit.ly/webuser432), Tor (www .torproject.org) provides one of the most effective ways to stay anonymous online by routing data from your computer through a series of 'nodes' so that nobody can see who or where you are. Tor gives you a different IP address

Enter randomly generated personal info in online forms using Fake Data

phone numbers, British places and postcodes rather than ZIP codes. You can also save custom data, to enter it in forms instantly by right-clicking. Note that, unlike disposable email services, the fake addresses created by Fake Data aren't linked to an actual inbox, so you shouldn't use them when you need to confirm your registration via email.

Fake Data is also available for Firefox (bit.ly/fakefire438) and Opera (bit.ly/fakeopera438).

Use a fake phone number ethically

Do you ever get annoyed by websites that force you to provide your phone number when you register, especially if there's no obvious reason why they need it? We know we do, and although you can use one of the fake-data tools we've already mentioned to generate a fake number, there's a risk it might actually be valid and cause misery for the unsuspecting real owner.

One way around this is to visit Fake Number (bit.ly/fakenumber438) to get a number that's guaranteed not to work – except for fooling online forms that it's valid. That's because this "ethical service" suggests 01632 and 0770 numbers, which are reserved for use in British films and TV shows. Amusingly, in 2008, a reported 2,500 *Doctor Who* fans were left disappointed when they dialled the 0770 number the Time Lord's companions used to contact him (bit.ly/who438). You can copy an entry directly from Fake Number, which also warns you not to answer if you receive

Be smart like The Doctor and use a fake 0770 number to avoid unwanted callers

a potential scam call from one of those codes.

There are also mobile apps that assign you a disposable 'burner' number that lets you make and receive calls, and send and receive text messages, without sharing your real phone number, of which the best known is Hushed (hushed.com). However, these tend to be US-based, require a monthly subscription (after a free trial) and seem ripe for abuse, so we're hesitant to recommend them unreservedly.

Tor is like an onion that uses layers to protect your real identity online

every time you send or request data, and comes with NoScript and HTTPS Everywhere preinstalled to protect you from malicious scripts and hackers who may try to steal your personal information.

Despite its reputation as a tool for accessing the Dark Web, the Tor Browser (bit.ly/torbrowser432) is completely legal to use and unlikely to expose you to disturbing content unless you expressly seek it out.

Pretend to be in a different country

If Location Guard doesn't go far enough in disguising your real location, a VPN (virtual private network) will relocate you to a completely different country – which is why many people use one to beat geographical restrictions. There are dozens of VPNs to choose from but the free options tend to restrict the speed of

Windscribe's free VPN gives you an impressive monthly data limit of 10GB

your connection, the amount of data you can use each month and the number of countries you can pretend to be browsing from. Good free VPNs include TunnelBear (www.tunnelbear.com), which has a low data limit of 500MB per month, but is very easy to use and has a handy stealth mode that evades VPN blockers; Windscribe (windscribe.com), which has a very generous data allowance of 10GB per month and 11 international servers; and Hide.me (hide.me), which is faster than most free options, with a 2GB monthly cap.

We'll be taking a closer look at the best VPNs in a forthcoming issue of *Web User*.

Buy from the US with an American address

If you want to register with a site that insists on a US address and/or phone number, the Fake Name Generator tool we recommended on page 41 provides all the details you need. But what if

you're looking to buy a product from a store that doesn't "ship" outside the US? This could be because the item won't work properly outside America or the company doesn't want the hassle of sending orders overseas and potentially having to deal with returns. The solution is to use a 'reshipping service' such as BundleBox (www.bundlebox.com), AmForward (www.amforward.com) or Borderlinx (www.borderlinx.com). These provide a US address to which items you buy are sent, and then forwarded to you. Usefully, if you purchase products from several stores, the services will combine them into a single delivery.

You can use calculators on the sites to work out the total cost of a delivery based on weight and value, including import duty. There are special offers, too – BundleBox offers $15 (£11.33) off your first shipment, AmForward uses sales-tax-free Oregon addresses and Borderlinx will shop for you if the store won't accept your UK card details.

BundleBox lets you buy products from America using a US delivery address

Cloak your communication

The technology you use reveals more about who you are than you might realise. Here's how to prevent hardware and services from telling the web and other people your real identity and details

Hide or change your profile photo in emails

Google's desire to interconnect all its services means that a profile photo you once added to your YouTube, Hangouts or Google+ account may also appear in messages you send in Gmail, so recipients can see exactly what you look like. Have a quick browse of your inbox and you're bound to see a few examples of other people's pictures in the top-left corner of messages, next to the senders' names. To stop your countenance appearing in correspondence, click the cog icon in Gmail, choose Settings and, on the General tab, scroll down to 'My picture'. Click 'Change picture' and either upload a non-copyrighted image that doesn't show your real face – such as a flower, a pet or a shoe – or select No Picture and choose Apply Changes.

To remove your photo from all Google services, go to your About Me page (aboutme.google.com), click your profile picture and either choose an alternative, less personal shot or opt for 'No photo' altogether.

Outlook.com makes removing your photo from your account and other Microsoft services much easier – just click the profile icon in the top-right corner of your inbox, choose 'Change picture' and either click 'New picture' or Remove.

Turn off Caller ID on your mobile phone to stop people seeing your real number

press 141 to withhold your number from the caller you're about to dial, but there's also a similar feature built into your smartphone. On an Android device, launch the Phone app, press the three-dot icon at the top and choose Settings. Tap Calls, 'Additional settings', Caller ID and select the option 'Hide number'. On an iPhone, go to Settings, choose Phone and move the Show My Caller ID slider to 'Off'.

Send email from a fake account

Most of us use at least one of our real names in our email name and address as

Adopt a different name and reply-to address when sending emails in Gmail

a means of stamping our identity on it. However, in circumstances when you don't want to reveal your real details, such as when contacting someone anonymously or for a one-off message, you can use a fake name instead. In Gmail, click the cog icon in the top-right corner, choose Settings and click the 'Accounts and Import' tab. In the 'Send mail as' section, click 'Edit info' and choose an alternative name to use. You can also enter a different 'Reply-to address' to prevent replies from arriving in your standard inbox. Click 'Save changes' to confirm, but remember to change these settings back again for normal communication!

Remove your profile photo from Gmail to stop it appearing in emails you send

Don't give away your mobile number

Caller ID is an invaluable feature for deciding whether or not to answer a phone call, but there are times when you might want to avoid the person or company you're ringing knowing *your* number – for example, in case they phone back at an inconvenient time or if you don't want your contact details to be logged. On a landline phone, you can

FAKE YOUR OWN NEWS STORIES

There's been so much talk about 'fake news' over the last 12 months – Collins Dictionary even chose the term as its official word of the year (bit.ly/collins438) – that it seems unfair for the mainstream media, social-media bots and Russian government officials to have all the misinformative fun. There are plenty of

Breaking news as we went to press – fake, alas

online tools for generating fake news for the amusement of your friends. We particularly like Break Your Own News (breakyourownnews.com), which lets you mock up a Sky News-style screen grab containing the headline, photo and news ticker of your choice, and share or download the result. Then there's Newspaper Generator (newspaper.jaguarpaw.co.uk), which creates a downloadable PDF of a fake broadsheet article using your headline, text and picture; and Prank Me Not, which lets you create images of fake Twitter tweets and Facebook posts (www.prankmenot.com). Please, only use these for fun, rather than to trigger diplomatic incidents or to troll people!

WHY FAKE YOUR ONLINE IDENTITY?

There are plenty of legal benefits to pretending to be someone else online, as well as illegal – or at least unethical – pitfalls to avoid. Here, we outline the important points to bear in mind.

● With so many big security breaches in recent years, using a fake name and disposable email address to register with an online service prevents your personal details from falling into criminals' hands. This is especially true if you use the same password on several websites because a determined hacker will inevitably try your email address and login on as many other sites as they can. If one of those contains sensitive information such as bank details, then you could be defrauded. A quick check at Have I Been Pwned (haveibeenpwned .com) will tell you if any of your accounts have already been compromised.

● Giving your real email address and phone number to a website you might never visit again leaves you open to spam and marketing messages and calls, which may be difficult to unsubscribe from. Faking details when registering with such sites – unlike, say, Amazon or eBay, which need to know who you really are –

is therefore not only harmless, but a sensible precaution.

● Sharing too much genuine information about yourself online allows potential stalkers and criminals to build a profile of you that could be used to track you down in the real world. Why create an account that contains your real date of birth, unless you want to be wished many happy returns every year? And why does any site aside from an online store need to know your exact postal address? Even if you're uncomfortable creating a completely fake online identity, a few fictional details are in most cases unlikely to cause problems.

● Spoofing your location using a VPN or the Location Guard add-on helps maintain your privacy, and can easily be paused when you want to share your location. There is no legal obligation to let online services know precisely where you are, although Pokémon Go blocks GPS tools that let players cheat by spoofing their locations!

WHAT YOU MUST NEVER DO

● Creating a fake profile on a dating service or social network to fool people into befriending you, trick them into sharing information with you or harass them from behind the pseudonym is both immoral and potentially illegal. Last year, the Crown Prosecution Service confirmed it will advise lawyers to prosecute people who create fake online profiles deliberately to target others, saying: "This may amount to an offence, such as grossly offensive communication or harassment". Dating

sites such as Tinder are increasingly clamping down on fake profiles that are used to 'catfish' their users (a means of discrediting former partners or attracting new ones under false pretences) and, as we mentioned earlier, Facebook forbids people from registering under different names.

● We've deliberately steered far away in this feature from such obviously illegal activities as forging a birth certificate or passport, but you should also never provide fake information where financial transactions are involved, such as selling goods on eBay, opening a bank account or applying for a credit card or loan. This constitutes fraud, and the advice we've provided is intended to help you avoid being defrauded rather than becoming a fraudster yourself.

● If you see a fake account on social media that you suspect is impersonating a real one for malicious purposes, don't just ignore it. On Facebook, click the three-dot icon on the imposter's cover photo and select Report. Follow the on-screen instructions for impersonation to file a report. If you're not on Facebook and someone has opened an account as you, fill in the form at bit.ly/reportfake438. ■

Best free cloud-storage services

Whether you're backing up, collaborating with others or just making use of the free space offered, cloud-storage services can be very handy indeed. But which one is best? **Jonathan Parkyn** finds out

Microsoft OneDrive | onedrive.live.com | ★★★★★
FEATURES ★★★★★ **PERFORMANCE** ★★★★★ **EASE OF USE** ★★★★★

WebUser GOLD AWARD

What we liked:
Sign into Windows 10 with a Microsoft account and OneDrive is right there – a free online drive available directly within File Explorer. There's no extra software to install and OneDrive integrates well with both iOS and Android, with apps available for most popular devices. Its web interface also acts as a platform for Microsoft's free Office Web Apps, including Word and Excel.

Fast and easy to use, OneDrive's killer feature is its ability to let you fetch files not just from the cloud, but also from other PCs you're signed into. This functionality has been perfected by recent Microsoft updates. For instance, versioning used to work only with Office documents, but now you can view and restore previous versions of any file types, including photos, PDFs and more. Right-click a file on onedrive.live.com and select 'Version history' to view available versions.

Even handier is the recent addition of Files On-Demand (see our Workshop in issue 437 – bit.ly/webuser437), which lets you view all the files stored in your OneDrive folders without physically having to sync them all with every device you own. This is particularly useful if you have a laptop or tablet with limited storage because you can just download individual files as you need them. You'll have to upgrade Windows 10 to the recent Fall Creators Update for this but once that's done, you'll find a selection of new icons next to items in your OneDrive folder indicating their sync status.

How it can be improved:
Data is encrypted in transit but your files remain unencrypted on Microsoft's servers, unless you're a OneDrive Business user. Generosity isn't OneDrive's strong suit – Microsoft ruthlessly slashed free storage from 15GB to 5GB back in 2015, and there's an individual file-size limit of 10GB. Paid-for plans aren't particularly flexible, either: £1.99 per month boosts storage up to 50GB but if you need more, you'll have to subscribe to Office 365, which starts at £5.99 per month and provides 1TB of OneDrive space.

OUR VERDICT
If you use Windows 10 or Microsoft Office, OneDrive is a no-brainer because it's already integrated into your PC. Recent improvements have brought some great features, though we wish Microsoft would increase its free storage allowance.

Google Drive | drive.google.com | ★★★★☆
FEATURES ★★★★☆   PERFORMANCE ★★★★★   EASE OF USE ★★★★☆

WebUser SILVER AWARD

What we liked:
Just as OneDrive is built into Windows, Google Drive is seamlessly integrated into all Android devices. Productivity is the main focus for Drive, which is tightly integrated with Google's free and collaboration-centred online office apps, such as Google Docs.

Google Drive supports versioning although, annoyingly, it isn't consistent across all file types. You can select 'Manage versions' by right-clicking most files, but with Google Docs, Sheets and Slides files, you'll need to open them and click File, then 'Version history'.

Paid-for storage is similar in price to OneDrive (£1.59 per month for 100GB and £7.99 per month for 1TB), but Google Drive's most obvious advantage over Microsoft's cloud storage is the amount of free capacity it provides – currently 15GB, and Google Docs files don't even count against this. If you opt to upload photos in Google's 'High-quality' upload quality, you can avoid these eating into your quota, too.

How it can be improved:
Google uses slightly less powerful encryption than Dropbox when storing files – 128-bit AES, rather than 256-bit. While Google's recently updated Backup and Sync desktop tool (bit.ly/buas438) offers selective sync, it doesn't work as well as OneDrive's Files On-Demand. You can't see placeholders for files or folders you haven't synced, for example.

OUR VERDICT
Google Drive is great if you're an Android user and is generous with its free space, but it's now lagging behind OneDrive in features and is not as intuitive, either.

Dropbox | www.dropbox.com | ★★★★☆
FEATURES ★★★☆☆   PERFORMANCE ★★★★★   EASE OF USE ★★★★★

WebUser BRONZE AWARD

What we liked:
For security, ease of use and sophistication, Dropbox continues to rule the roost. Following a recent redesign, its web interface remains simple and uncluttered, and its desktop-syncing tool is equally unfussy. Clients are available for just about any platform you can think of, including Linux.

Dropbox recently added some interesting new tools, such as Dropbox Paper – a type of document designed specifically for collaboration. While it's no substitute for the native office apps offered by OneDrive and Google Drive, it makes it easy to share and work together on documents that you create and edit using other software.

Your files are encrypted and Dropbox includes versioning. However, if you want to view previous versions or deleted files, you'll need to be quick because Dropbox only keeps them for 30 days, unless you're paying for its Professional service, which, at £16.58 per month for 1TB, is far from cheap.

How it can be improved:
Dropbox's main downer is its measly 2GB limit on its free service. You can bump this up by recommending friends or pay £6.58 per month for 1TB, but some features, including Smart Sync (Dropbox's equivalent to OneDrive's Files On-Demand) are limited to the Professional version.

OUR VERDICT
Dropbox is great to use, but meaner than its rivals. The free version is hamstrung by its meagre capacity, while many of the features that OneDrive and Google Drive offer for free are locked behind a paywall.

BEST OF THE REST

Amazon Drive
bit.ly/ac438
Amazon's £7.99 Prime Service provides a 5GB drive plus unlimited storage for photo files on top of Prime's other benefits. If you own one of Amazon's Fire devices, free storage increases by another 5GB. You can get an Unlimited Storage plan for an extra £55 per year, and there are apps available for Windows, Mac, iOS and Android. Overall, it's easy to use but basic, and not brilliant for collaborating on projects.

iCloud
www.icloud.com
Most Apple users probably have an iCloud account already. You get 5GB free and paid-for plans start from just 79p a month for 50GB. The web interface hosts some useful apps, including Pages, Photos, Mail and Calendar. iCloud is also integrated into iOS 11's new Files app and there's a recently updated tool for Windows users. By and large, though, there's not much point for non-Apple users.

Box
www.box.com
You get 10GB free with Box, but there's a strict limit of 250MB on individual files. The web interface looks and works remarkably like Dropbox, but Box's focus is its corporate customers, so many of the features you might expect are missing from the free and paid-for non-business (£7 per month for 100GB) versions. Meanwhile simple tasks, such as PC syncing, are often far from intuitive.

✚ Discuss cloud-storage services at forum.webuser.co.uk

Best alternatives to tools we lost in 2017

Lots of useful tools were discontinued this year.
Wayne Williams recommends the best free replacements
for programs and services that shut down in 2017

WINDOWS MOVIE MAKER

When did it close?
10 January

Why did it close?
It hadn't been updated in years, and Microsoft introduced a replacement called Story Remix in the Windows 10 Fall Creators Update.

What's the best alternative?
Searching Google for "Windows Movie Maker" brings up some scam versions of the software, which you should avoid at all costs. Microsoft wants you to use Story Remix, which is part of the Windows 10 Photos app, but if you'd prefer not to (or you don't have Windows 10), then Shotcut (www.shotcut.org) is a great, free, open-source alternative. It has a familiar-looking interface and all the features you could wish for. It supports all the popular file formats and can handle 4K-resolution video, too.

GOOGLE MAP MAKER

When did it close?
31 March

Why did it close?
Google launched its online Map Maker tool in 2008 and invited users to submit updates to Google Maps. Almost a decade later, however, the feature was getting a little long in the tooth and on more than one occasion, it was even the cause of some controversy: in 2015, someone used the tool to create an image of the Android mascot urinating, which briefly found its way into Maps.

What's the best alternative?
Many of Map Maker's features have simply moved into the desktop and mobile versions of Google Maps. If you're keen to contribute your local knowledge to Google Maps, you can do so through Google's Local Guides program (bit.ly/local438).

OPERA MAX

When did it close?
14 August – although at the time of writing, Android owners who have the app installed can still use it.

Why did it close?
Launched in 2014, Opera Max was a service that helped Android users manage and reduce data usage on their devices. While announcing the closure on the Opera blog, the company (which is now owned by a Chinese consortium) explained that: "The product had a substantially different value proposition than our browser products, and represented a different focus for Opera. We, therefore, focus on our browsers and other upcoming services."

What's the best alternative?
Keeping a close eye on your data usage is a better idea than using an app to do it for you. However, Google Data Saver for Chrome (bit.ly/googleds438) offers a similar service that uses Google servers to optimise the pages you visit. Android users can find out more about Data Saver at bit.ly/datasaver438.

YOUTUBE VIDEO EDITOR

When did it close?
20 September

Why did it close?
One of the easiest ways to trim and polish your videos before sharing them on YouTube used to be the site's online video editor. Sadly, it seems few people bothered with it – either because they didn't know it existed or because they preferred to use something different – so Google has decided to pull the plug on the tool.

What's the best alternative?
You can use the simple video-editing program Shotcut (www.shotcut.org) or, if you prefer to edit online, there's WeVideo (www.wevideo.com), which offers all the features of similar Desktop tools. However, the free version limits you to 1GB of cloud storage and five minutes of video time a month.

AOL INSTANT MESSENGER (AIM)

When did it close?

Most people probably didn't realise that AIM was still going, but the once-popular messaging tool actually shut down on 15 December.

Why did it close?

After 20 years of providing a simple way for users to chat with one another over the internet, AOL decided to close its messaging app because it was no longer relevant. As Michael Albers, communications products VP at Oath (the Verizon company that now owns AOL) explained: "AIM tapped into new digital technologies and ignited a cultural shift, but the way in which we communicate with each other has profoundly changed".

What's the best alternative?

Take your pick. There are plenty of excellent tools and services you can use to communicate with friends and family these days, including WhatsApp (www.whatsapp.com), Facebook Messenger (www.messenger.com) and Snapchat (www.snapchat .com) to name just three. The chances are that you switched from AIM to one of these a long time ago.

GROOVE MUSIC

When will it close?

31 December

Why is it closing?

Microsoft renamed its Xbox Music streaming service Groove Music two years ago in an effort to broaden its appeal, but it was simply unable to compete with more established rivals such as Apple Music, Spotify, Deezer, Google Play Music and Amazon Music.

What's the best alternative?

Rather than leaving Groove Music users high and dry, Microsoft has partnered

with Spotify (www.spotify.com/uk) to make it easy for users to move their playlists to the popular rival streaming service, so this is the best solution for most people. Of course, there's no shortage of similar alternatives, including those we've mentioned.

MALWAREBYTES JUNKWARE REMOVAL TOOL

When will it close?

Malwarebytes made an announcement on 26 October that it will discontinue the tool on 26 April 2018.

Why is it closing?

The tool, which Malwarebytes acquired in 2015, removes junk such as unwanted programs, browser extensions, toolbars and adware from your PC. The company has integrated many of the program's features into its own Malwarebytes Anti-Malware software, but it also acquired a similar tool, AdwCleaner, in 2016. There's no need for the company to offer more than one tool of this type.

What's the best alternative?

Malwarebytes may eventually discontinue AdwCleaner (bit.ly/ adwc438), too, because its features will be incorporated into the company's other software. Until then, AdwCleaner is the obvious choice. It also detects and removes junk from your system, and has a more user-friendly interface than the program it replaces.

WUNDERLIST

When did it close?

To be announced

Why did it close?

Microsoft acquired the company behind the popular Wunderlist to-do app in 2015, and announced in April that it would discontinue the software, but it hasn't yet removed it from circulation. Microsoft released its own version, called To-Do, in April.

What's the best alternative?

Obviously, Microsoft would suggest that To-Do (todo.microsoft.com) is the perfect replacement for Wunderlist, but there are other (arguably better) alternatives, including the superb Todoist (todoist.com). This lets you create tasks, access them anywhere on any device, and share and collaborate on them, too. It's very easy to use and is available for the web, mobile devices, your inbox and more. There's also a paid-for premium version that provides even more features and is available from £27.99 a year. ∎

ONE THAT GOT AWAY

Microsoft announced in July that, after 32 years of being an integral (if rarely used) part of the Windows operating system, Microsoft Paint would be dropped. This prompted an outcry from fans – accompanied, of course, by images created in the rudimentary illustration tool – which led Microsoft to clarify its position. Although the software giant plans to retire Paint from a future version of Windows 10 in favour of the more modern Paint 3D, you'll still be able to download and install a version of Paint as a free app from the Windows Store.

Skip to the best bits on streaming services

Don't waste time on annoying ads and tedious trailers. **Robert Irvine** reveals how to cut to the chase when streaming videos and music

▶ Avoid all annoyances on YouTube

We're sure you already know that certain ads on YouTube videos can be skipped after a certain number of seconds, while others make you sit through the whole thing. One way to avoid them all is to install an ad blocker, but there's another less heavy-handed option that also removes other irritants such as user comments and 'Up next' recommendations, *and* plays videos full-screen. It means using a site called Yout-ube.com (www.yout-ube.com) and inserting a hypen between the 't' and the 'u' of the 'youtube' section of the video URL. So, for example: www .youtube.com/watch?v=EFiJfQmZzig becomes www.yout-ube.com/ watch?v=EFiJfQmZzig.

This redirects you to an ad- and distraction-free version of the video that plays full-size in your browser.

Another common YouTube annoyance is having to sit through several minutes of dull footage before you get to the

Add a hyphen to YouTube URLs to view videos without adverts

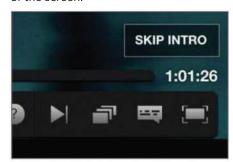*Skip boring bits in YouTube videos by jumping 30% of the way in*

interesting part of a video. There's even a theory called the Wadsworth Constant (bit.ly/wadsworth438), which states that the first 30% of every YouTube video is unnecessary and can safely be skipped to save viewing time. You can apply the Wadsworth Constant and jump past the boring bits of a video by clicking within the YouTube player and pressing '3' on your keyboard. This takes you straight to the 30% point in the clip; pressing '4' or '5' skips to 40% or 50% in.

Additionally, as we explained in Issue 435, many music videos now begin with tedious spoken introductions. You can fix this audio annoyance using a Chrome extension called Skipper (bit.ly/ skipper435), which skips the talking at the beginning of music videos to take you straight to the tunes. The add-on works automatically, and even keeps track of how many seconds of waffle you've skipped.

N Skip the credits on Netflix TV shows

When you're binge-watching the latest series of *Stranger Things*, *The Crown* or *Danny Dyer's Deadliest Men* on Netflix, having to sit through the opening credits of each episode can try your patience and impede your enjoyment. Fortunately, the streaming service introduced a feature earlier this year that lets you jump past the titles at the beginning of TV shows to get straight to the action. Simply click, tap or select with your remote the Skip Intro option that appears in the bottom-right corner of the screen.

Don't waste time sitting through the opening credits on Netflix

You can also avoid waiting around at the end by enabling Netflix's Post-Play feature. This automatically plays the next episode of a show when you finish watching the current one, skipping the closing credits unless you expressly choose to see them. To turn on Post-Play, go to the Netflix website, click your name in the top-right corner, select Your Account and click 'Playback settings'. Under Preferences, select the option 'Play next episode automatically' and click Save. This setting will also be applied when you watch Netflix on your mobile device or smart TV.

Mute the ads between Spotify songs

Although it's not possible to skip adverts in the free version of Spotify – which would deprive both the streaming service and artists of revenue – you can at least silence them to prevent these loud, repetitive annoyances from interrupting your listening pleasure. A sneaky free tool called EZBlocker (bit.ly/ezblocker438) automatically detects when an ad begins in the Spotify Desktop app and mutes the volume for the duration, without affecting other sound on your PC. The program can also block banner ads and mute video ads, although it can't stop them playing.

EZBlocker mutes annoying adverts in the Spotify Desktop app

When you're streaming with the web-based version of Spotify, you can filter ads using an ad blocker such as uBlock Origin (bit.ly/ubo438). However, you'll need to add specific ad-serving domains to your filter list – Spotify users on uBlock Origin's Reddit page recommend URLs to block at bit.ly/blockads438, but Spotify is constantly finding ways to circumvent such blocks and protect its business model.

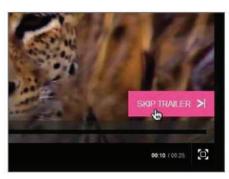Of course, the best way to remove Spotify ads is to pay for a Premium

Try Spotify Premium for free to enjoy listening without ads

subscription. There's a 30-day free trial – visit bit.ly/premium438 to see what offers are currently available.

Skip annoying trailers on BBC iPlayer

Compared with some broadcasters, the BBC is relatively restrained when it comes to promoting its own programmes, but as we head into Christmas you can expect to see more trailers appearing for 'highlights' such as *Doctor Who*, *Call the Midwife* and the *Strictly Christmas Special*. If you're watching the Beeb live, you can't avoid these promos, but on iPlayer –

Unlike live TV, BBC iPlayer lets you skip trailers for programmes

where they appear before the show you've selected begins – they're easy to banish by clicking the pink Skip Trailer button in the bottom-right corner of the player. There are no trailers on programmes with audio description or sign language.

Dodge the adverts on ITV Hub

The most common complaint about ITV's streaming service concerns the length and frequency of its commercial breaks. Sadly, there's no way to skip the ads – after all, they're ITV's bread and butter and keep its content free – but there are a couple of workarounds that don't involve ad blockers (which won't work, anyway).

The first is to cough up £3.99 per month for ITV Hub+ (www.itv.com/hub/plus), but even this isn't guaranteed to be ad-free. "Due to licensing restrictions some shows will contain ads", says ITV in small letters at the foot of the Hub+ homepage, and also: "live channel stream will still contain ads". What a swizz!

For a monthly fee, ITV Hub+ offers ad-free viewing – except it doesn't!

The second ad-dodging method is free, but not particularly sophisticated. Select the programme you want to watch, start playing it and then either go off and do something else or let it run in the background, muted. When the show has finished, replay it and, because all the ads have already been screened, they're removed from playback and you won't have to sit through them. This 'trick' also works with All 4.

Skip promos on Amazon Video

If you're fed up of being subjected to trailers for *The Grand Tour* or promos for the Amazon Fire TV Stick every time you try to watch something on Amazon Video or Prime Video, there is a simple solution. Pause the ad in your browser or the app, then resume playback and you'll see a Skip option appear in the bottom-left corner. Click or tap this to abandon the advert and start playing the film or TV show immediately. ■

JUMP TO THE RUDE BITS IN AUDIOBOOKS

Recognising that nobody read *Fifty Shades of Grey* for the boring stuff about office politics, the Amazon-owned audiobook store Audible (www.audible.com) has introduced a new feature that lets fans of erotic novels skip straight to the steamy bits. Called 'Take Me to the Good Part', the option is part of the new Audible Romance package (bit.ly/romance438) and uses machine learning to identify moments in the book that meet certain amorous criteria. Listeners can then select a category such as Flirty Banter, First Kiss or the no-holds-barred Hot Hot Hot to jump straight to relevant scenes. 'Take Me to the Good Part' covers 100 books, but until Audible Romance launches outside the US (where it costs $14.95 a month for unlimited listening) you'll just have to sit patiently through the rest of the story!

Master Audacity's best new tools

Popular free sound editor Audacity has been redesigned with attractive new themes and more. Here's how to use the updated version

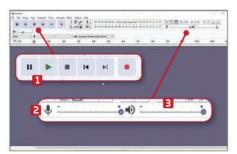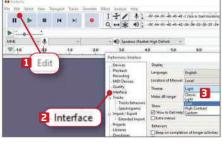**Audacity 2.2:** www.audacityteam.org | ⏱ 10 mins | 🪟 🍎 🐧

This first major update to Audacity in over two years offers a slicker interface and some welcome new tools. The free multi-track audio editor already offers a wealth of advanced features and effects, and can be used to import, improve, enhance and mix music files. It converts files from one format to another, applies effects and fixes problems, such as removing unwanted background noise and boosting low volume. Support for themes is the most obvious change, but much of Audacity's code has been rewritten, making it faster and more stable overall. The software works on Windows, Mac and Linux, and supports plugins, so you can expand its capabilities even further if you want.

GENERATE
Audacity can generate various sounds from scratch, including chirps, tones and noises, as well as silence

GAIN AND STEREO
You can adjust the gain (relative volume of a track) and alter the stereo using the sliders
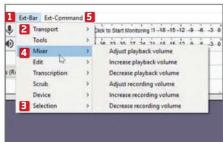
1 If you've used Audacity before, you'll find the new version looks familiar but has a cleaner interface, with the Light theme installed by default. The playback buttons are now square, **1** and the microphone **2** and volume controls **3** have also had a makeover. It all looks much more polished.
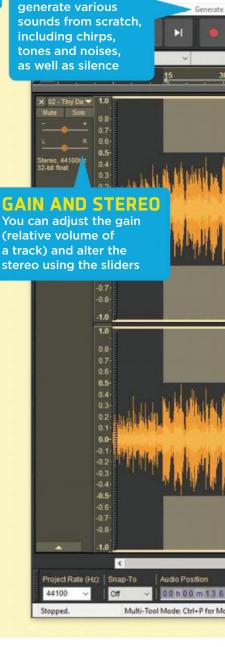
2 Audacity comes with a choice of four themes in addition to Light. To change to a new skin, go to Edit, **1** Preferences. In the window that opens, select Interface. **2** Use the Theme drop-down menu **3** to pick a different skin – Classic, Light, Dark, High Contrast or Custom.

3 The Custom theme is the same as Classic, but you can create your own template for it (see bit.ly/audc438). Click OK. The Preferences window closes and the selected theme is applied instantly. Our screenshot shows the new Dark theme. **1** Note, however, that the menus don't changes colour. **2**

4 The new Extended Menu Bar and Extended Command menu aren't enabled by default. To switch them on, go to the View menu **1** and click 'Extra Menus (on/off)' **2** or enable them from the Edit menu by selecting Preferences, Interface, then Extra Menus. They appear at the right of the menu bar. **3**
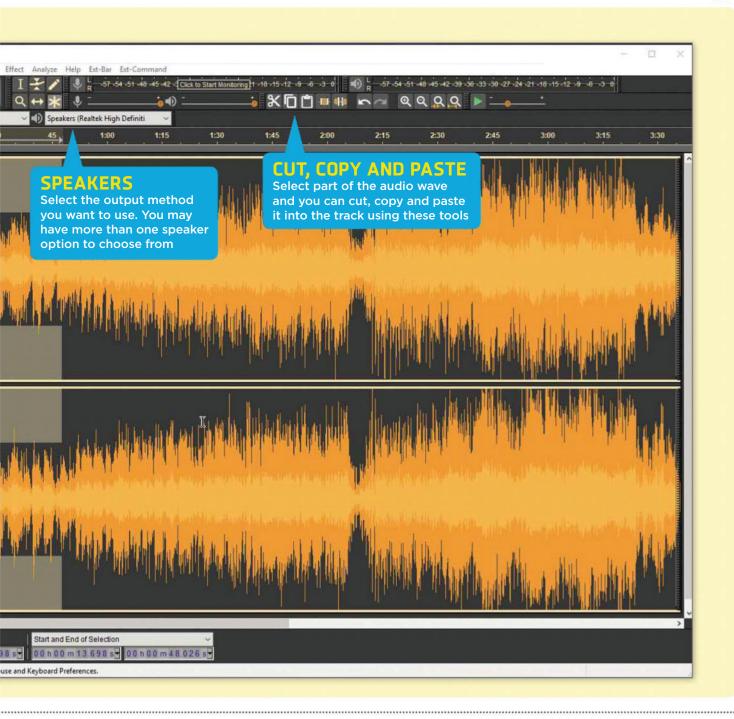
5 The Ext-Bar menu **1** provides some Transport (Play) options; **2** access to selection, draw and zoom tools; **3** and mixer functions. **4** The Ext-Command menu **5** has Focus, Cursor, and Track menus, and provides access to Full Screen mode (which you can also activate using F11, as you would in a web browser).
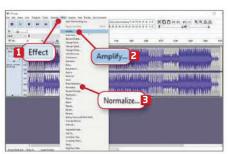
SPEAKERS
Select the output method you want to use. You may have more than one speaker option to choose from

CUT, COPY AND PASTE
Select part of the audio wave and you can cut, copy and paste it into the track using these tools

6 To edit some audio in Audacity, drag a track to the program window. The software can handle most common audio formats, including WAV, MP3 and OGG. The track will appear as a waveform. **1** You can zoom in or out, **2** start playback and adjust the speed of the track. **3**

7 You can apply a wealth of effects to some or all of your audio track. Click Effect **1** and select the option you require from the list. Amplify **2** and Normalise **3** can be used to boost a weak track, for example. Each effect has settings you can tweak to get the exact result you require.

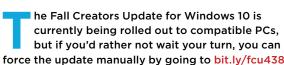**8** You can easily convert a track from one format to another. Once you've made your changes to the audio, go to File **1** and select Save Other. **2** Choose the format you want to save as. **3** Before you can export a file in MP3 format, you need the LAME MP3 Encoder plugin. Download this from bit.ly/lam438.

Reclaim 40GB+ of space after the Fall Creators Update

Windows 10 Fall Creators Update | 🕐 30 mins | 🪟 Windows 10

The Fall Creators Update for Windows 10 is currently being rolled out to compatible PCs, but if you'd rather not wait your turn, you can force the update manually by going to bit.ly/fcu438 and clicking 'Update now'.

Any upgrade carries at least some risk so, during the process, Windows 10 saves a copy of the old operating system to your PC so you can roll back to it if you have problems. However, these leftover files can take up a huge amount of space, usually between 30 and 45GB.

Reclaiming the space is easy to do, but make sure you're happy with how Windows is running before you proceed.
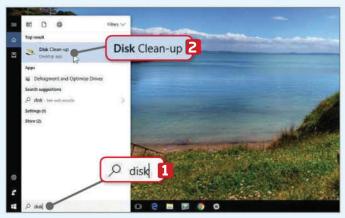
EXPERT TIP

Wayne Williams says
To save yourself a little time, you can skip the first couple of steps in this Workshop by having the Clean-up tool automatically open in the elevated interface, with the 'Temporary Windows installation files' option ready for you to select. To do this, type `Disk Cleanup` into the Windows search box. Hold down the Shift+Ctrl keys and click Disk Cleanup, then follow the rest of the guide.

1 Check that you've got the latest update installed. Open Settings (Windows+i), click System and select About from the left-hand panel. **1** Check the number next to Version. **2** If you have the update, the number will be '1709'. This PC hasn't been updated yet (it's showing 1703), so it doesn't need to be cleaned.

2 If you already have the update installed, you can use Windows' built-in tools to remove the old version of the operating system that's stored on your PC. Type `Disk Cleanup` into the Windows 10 search box, **1** then click Disk Clean-up. **2**

3 Make sure your system drive (C:) is selected in the window that opens and click OK. Disk Clean-up will calculate the amount of space that can be freed up, including space reclaimed by clearing out temp files and the contents of your Recycle Bin. Ignore this for now and click the 'Clean up system files' button. **1**

4 Disk Clean-up restarts. Once more, select your system drive and click the OK button again. The tool recalculates your space savings, but this time it includes some additional options, such as 'Previous Windows installation(s)'. **1** This includes the files created by installing the Fall Creators Update.

5 The exact amount of space you can reclaim varies depending on your PC and the version of Windows 10 you're running, but it should be somewhere between 30 and 45GB. Tick the 'Previous Windows installation(s)' box, **1** as well as any temporary files entries in the list. **2**
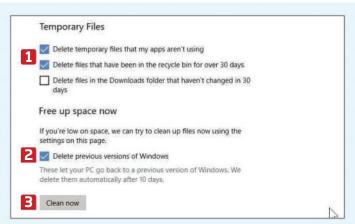

6 Click OK, and you'll be asked if you're sure you want to go ahead. Select the Delete Files button. A message warning you about the consequences of deleting previous Windows installations appears. **1** Click Yes **2** and the Disk Cleanup tool goes to work removing those backed-up files, thereby freeing up lots of space.
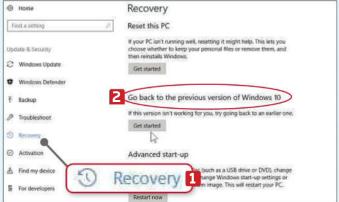

7 Steps 1-6 in this Workshop show the main method for removing files left over from an upgrade, but the Fall Creators Update also offers a slightly different way of doing the same thing. Open Settings and go to System, then Storage. **1** This area shows the state of any drives in or connected to your PC. **2**

8 You'll see a section called Storage Sense. **1** This is designed to free up storage when your PC starts running out of hard-drive space, although you can still run a manual clean-up at any time. Leave that feature off for the moment, however, and click 'Change how we free up space'. **2**

9 There's a selection of items you can delete, including temporary files, the contents of the Recycle Bin and old downloads. **1** You should also see an option to 'Delete previous versions of Windows'. **2** Tick this (and any other entries you require), then click the 'Clean now' **3** button.

10 As we mentioned earlier, these files are used to allow you to roll back Windows 10 to the previous version if you run into problems. Check they've been deleted by opening Settings, 'Update and security', then click Recovery. **1** If you removed the old files, the option to 'Go back to the previous version' **2** will disappear.

Block offensive, defunct or unsafe Wi-Fi networks

People often give their wireless networks unusual names, usually to make them easy to recognise but sometimes purely in an effort to be amusing. If a neighbour has an inappropriately named Wi-Fi network name or there's a nearby network without security that you're worried about family members connecting to, this is how to remove unwanted entries from Windows 10.
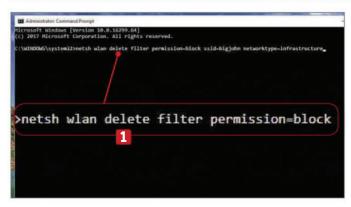
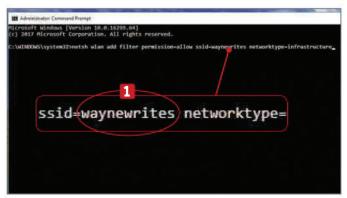**Command Prompt | 🕐 10 mins | ⊞ Windows 10**

1 To remove entries from your Wi-Fi list, you'll need to open a command prompt. In the Windows search box, type `cmd` **1** and right-click the entry that appears, **2** then select 'Run as administrator'. **3** In Windows 10, you can also right-click the Start button and select Windows PowerShell (Admin).

2 Carefully note the precise name of the network you want to block. In Command Prompt, type: `netsh wlan add filter permission=block ssid=wireless_name networktype=infrastructure`, replacing `wireless_name` with the actual SSID name. **1** Press Enter.

3 Repeat the process to add more names. To undo the action, type: `netsh wlan delete filter permission=block ssid=wireless_name networktype=infrastructure`. **1** Again, replace `wireless_name` with the actual name and press Enter.

4 If your PC always connects to the same networks, you can block all others. The command to use is `netsh wlan add filter permission=allow ssid=wireless_name networktype=infrastructure`. Replace `wireless_name` **1** with the allowed network.
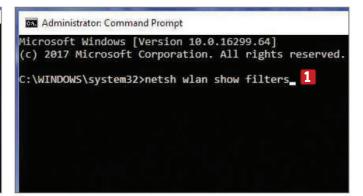
5 To whitelist more networks, repeat the process. Once that's done, you'll need to block other networks. In the command window, type: `netsh wlan add filter permission=denyall networktype=infrastructure`. **1** To undo the action, replace `add` with `delete`.

6 Once you've blocked some wireless networks, you'll probably want to see the filters you've created. In the window, type: `netsh wlan show filters` **1** and press Enter. You can easily remove filters. Just run the command you originally used, replacing `add` with `delete`.

Group sites for bookmarking and sharing

Managing your browser bookmarks becomes unwieldy when you have lots of them, and you can spend ages finding and opening the sites you need for a particular task. The Chrome add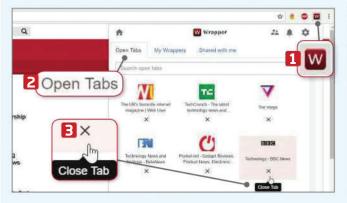-on Wrapper is a bookmarking tool designed for creating groups of sites, so you can reopen them later or share a collection with other people.

Wrapper: bit.ly/wrapper438 | ⏱ **10 mins** | 🌐 **Chrome**

1 Install Wrapper, then click its button in the top-right corner. **1** You can either log in with Google or register for a new account. Once you're signed in, Wrapper displays all your open tabs. **2** Clicking the X under one **3** will close that page.

2 You can find any tab by searching for it, **1** which is handy if you have a lot of them open. The list of matching tabs will change as you type. Click a tab for options to switch to it **2** or to highlight it in the tab bar, **3** so it's easier to find.

3 To 'wrap' some tabs (create a group of them), click My Wrappers. **1** In the window that opens, click the orange plus button. **2** You'll be shown all your open tabs. Use the tick boxes to select the tabs you want to include (or Select All), then click the blue Create button at the bottom.

4 Give your wrapper a name **1** and a brief description. **2** You can pick a background colour for it, so it's easy to recognise. **3** The tabs contained in that wrapper are displayed below it. You can remove any you don't require. **4** When you're happy with your selection, click Save. **5**

5 All your wrappers can be accessed from the My Wrappers tab. Use the buttons to the right of a wrapper to open the tabs it contains **1** or to share your group of tabs with someone **2** via email or as a link. You can expand it to see the tabs **3** and search for a particular wrapper. **4**

6 A wrapper's menu button **1** lets you edit or delete a wrapper. The 'Shared with me' tab **2** contains wrappers sent to you by friends. Use the buttons at the top to invite people to sign up and view notifications. **3** The settings cog **4** lets you view your account and contacts.

Weekend Project
Get to grips with some serious PC DIY
to boost your computer's performance

How to...

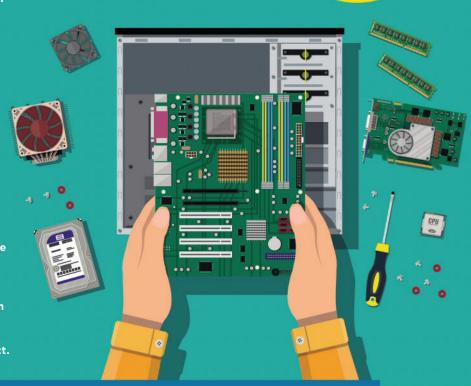# Build your own PC from scratch

Ben Hardwidge guides you through the first steps of constructing your own PC

**Part 1
Building
Your PC**

Constructing a PC from scratch sounds like a mammoth task. From sourcing the right components and assembling everything to create a working computer, it's no mean feat, especially if you've never done it before and don't have an instruction manual.

That's where we can help. Whether you're building your first PC or looking for tips to improve your skills, we'll show you which slots to use, how to install components, where to put your cooling gear and how to hide that big nest of cables. The tools you need are listed below and we guide you through installing the basic components, opposite.

Building a PC is a big job so in this issue, we'll take you through the first few steps. Be sure to get our next issue (on sale 28 December) to complete the project.

TOOLS YOU'LL NEED

No. 2 Phillips/crosshead screwdriver
This is the tool you'll use the most, whether you're securing the motherboard in place or simply tightening up thumb screws. Get a short one that can be used in tight spaces and a long one that can reach between components that are already mounted in your case

Mini screwdrivers
For the smaller screws used on the mounting systems of CPU coolers and M.2 SSDs

Needle-nose pliers
Particularly handy for unscrewing troublesome thumb screws

Cable ties
Get a big bag to keep your wires neatly tucked away. This allows adequate airflow and easy access to components

Plastic cutters
For snipping the ends off cable ties

SHOPPING LIST

Here's a list of the essential components you'll need to buy:

Processor
This is manufactured by Intel or AMD. For an all-purpose PC, AMD's new Ryzen CPUs (with an AM4 socket) offer fantastic value and performance, from quad-core processors to 8-core chips for heavy-duty work. For a gaming PC, try Intel's Core i7-7700K, which we're using in our example.

Motherboard
Your motherboard must match your chosen processor's socket and have a chipset that supports it. We recommend Intel's Z270 chipset for LGA1151 CPUs, and AMD's B350 and X370 chipsets for AM4 CPUs. We're using an Asus Maximus IX Formula Hero Z270.

Memory
You'll need DDR4 dual-channel memory kits with two matched modules for the motherboards we've mentioned above.

CPU cooler
Your processor may come with one but there are better models available that are quieter and more efficient. Check it's compatible with your motherboard's CPU socket and that you have enough room in your case. We're using a Cooler Master MasterLiquid 240.

Graphics
You could use the integrated graphics in an Intel LGA1151 CPU for free, as long as you're not pushing the latest games to their limits. Otherwise, you'll want a graphics card. We're using an Asus Strix GTX 1080 Ti card for our gaming PC. You may be able to make do with something less extreme.

Storage
We recommend installing Windows 10 64-bit Home and commonly used software on a solid state drive (SSD), while using a hard drive to store data, such as large media files. An M.2 NVMe 4x PCI-E 3 SSD will be much quicker than a 2.5in SATA drive, while also cutting down on cable clutter.

Case
We heartily recommend buying a case with a cover over the PSU area, and with rubber-lined cable-routing holes around the motherboard tray. We're using a Phanteks Enthoo Primo Full Red/Black case from Overclockers (www.overclockers.co.uk).

Power supply (PSU)
A 550W model is fine for a standard PC with a CPU and single graphics card, while a 750W model (or above) allows for a dual-graphics setup. We recommend paying extra for a modular or semi-modular PSU, so you don't clutter your PC with a nest of power cables you don't need. We're using a Corsair HX750 with a Corsair red and black paracord set.

Install the processor
Before you open your processor's packaging, be warned that you need to be especially careful with the pins on the bottom of AMD CPUs, and in Intel CPU sockets. They're very delicate and you only need to bend a couple of them out of alignment to make your kit effectively unusable. Hold an AMD CPU carefully by the edges, and don't touch the pins in an Intel CPU socket.

Before handling any computer components, you need to earth yourself to avoid static. Wearing an anti-static wrist strap is the best option.

With an Intel system, remove the CPU socket protector, **1** push down on the front of the handle on the motherboard's CPU socket and lift up the handle. **2** Lift the socket cover and check the notches on the side of the processor and socket to line them up. Lower the CPU into the socket, gently slotting it into place. **3** Close the cover, sliding it under the screw in front of the socket, and push the handle back into place to lock it. **4**

If you're installing an AMD processor, the CPU's correct orientation is revealed by the pin arrangement, as well as a triangle on both the socket and the underside of the CPU (pointing to Pin 1). Lift the handle next to the socket to open up the holes for the pins, then gently lower the CPU into the socket. When the processor is firmly in place, push down the handle to secure it.

Install memory
Most motherboards have four memory slots so make sure your memory is installed in the correct slots to enable dual-channel mode. Your motherboard manual will tell you which slots to use.

Memory modules have a notch in the bottom edge so there is only one correct way that they can fit. Flip up the clips on the side of the memory slot, put the module in place and push firmly on the top until the clips on the sides flip back up again and grip the module.

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If necessary, push any unsecured clips properly into their notches to secure the memory. Do the same with any other modules. **1**

Install CPU cooler mount

Most good quality coolers, including the Cooler Master MasterLiquid 240 that we're using, require a backplate that sits underneath the CPU socket. This custom mount will secure the cooler tightly to the processor, ensuring thermal contact at all times. Whatever cooler you use, follow its instructions carefully. For the moment, just install the backplate on the rear of your motherboard, **2** along with any basic mounts that go around the CPU socket on the front. Don't install the cooler yet.

Apply thermal paste

Processors may look flat but on a microscopic scale, they're pitted with imperfections that will block the transfer of heat to your cooler. You can effectively fill these with thermal interface material

(TIM), also called thermal paste. Your cooler may come with a coating of TIM imprinted on the cooler's contact plate, ready for you to install; or you may be provided with a syringe to apply it yourself. **3** In the latter case, apply a thin cross shape from corner to corner on the heatspreader. **4** The pressure from the mounting mechanism will spread the TIM across the rest of the CPU.

Install the cooler

This is often the fiddliest stage of the build process. If you're installing an all-in-one liquid cooler, start by test-fitting it to get your head around how it fits together. The radiator section (the big black box with a grille on either side) needs to be screwed into a fan mount, usually at the top or rear of the case, which may require you to remove an existing case-mounted fan. Test-fitting gives you an idea of the right way to mount the pump in the motherboard without stretching or squeezing any tubing. **5** In our case, there's space for the radiator inside the top panel, with the fans sitting underneath it in the motherboard section, in which case the fans need to be fitted after the radiator has been installed. **6** In most cases, though, you'll need to fit the fans to the radiator first, **7** following your cooler's instructions.

Remove any protective film or plastic from the cooler's base, install any necessary mounts listed in the instructions, then line up the holes with the cooler's mounting bracket. Hold the cooler block in place, attach the thumb screws and tighten them with your fingers. **8** Start by tightening the screw in one corner a bit, then going to the opposite diagonal corner. Keep tightening each corner a little at a time until the cooler is secured in place. You can then hook up the fans' power plugs to your motherboard's CPU fan headers, **9** and connect any of your cooler's other power connectors to the corresponding

sockets on your power supply.

If you're installing a traditional air cooler with a large tower heatsink, position it so that the fan pushes air towards the rear of the case. As a general rule, the rear of the fan (with the plastic bars in front of the blades) should face the rear of your case, and the front should face the front. If this configuration isn't possible, then point the fan's airflow towards the top of the case instead. ◼

NEXT ISSUE
How To... Test your fledgling PC and fit it inside the case

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Web User Masterclass

Explore beyond the Google Play Store and **sideload apps on your Android device** by following our expert tips

Enable unknown sources

The default setting for Android devices is to only allow the installation of apps from the Google Play Store. However, there are lots of other places that offer apps to download, some of which aren't available from Google. To get them, you have to first enable 'Unknown sources'.

Open the Settings app on your Android phone or tablet, then open 'Lock screen and security' or Security. Set the switch labelled 'Unknown sources' to On so you are no longer restricted to the Google Play Store. A warning appears, pointing out that you are now able to install external apps that haven't been verified by Google. It's now up to you to check that the apps you install are safe. Make sure you are extra careful and double-check everything you download.

The 'Unknown sources' switch is in the Security settings

Install security software

Apps outside the Google Play Store may contain malware, so you need to be careful what you install. Having said that, Google's own store hasn't managed to stay completely free of malware either, so there's no absolute guarantee that sticking with the official channels will keep your device safe.

It's a good idea to install antivirus software on your device so you can scan the files you download. You can use the same security company you trust with your PC, such as Kaspersky (www.kaspersky.co.uk) or Norton (uk.norton.com).

Save money with Amazon on any Android device

Amazon Fire tablets and phones run a customised version of Android, with apps supplied by the Amazon Appstore rather than the Google Play Store. The interface may look different to

other Android phones and tablets, but underneath it's the same old Android operating system running Android apps.

Once you've unlocked your Android device so it can load apps from unknown sources, you'll be able to access and install any of the 600,000 or so apps that are available from the

Amazon Appstore. These are selected by Amazon and purport to be as safe as those from the Google Play Store. It's worth keeping an eye on its special offers because Amazon sometimes provides apps for free that you would have to pay for in the Google Play Store.

After you've enabled unknown

If you see words that `look like they've been typed in a typewriter`, **follow the instructions and type them exactly as they appear, paying close attention to spaces and punctuation.**

Download Amazon Appstore direct from Amazon's website

Earn coins from Amazon's free and paid-for apps to redeem on future purchases

sources on your device, download the Amazon Appstore app by opening a browser and going to bit.ly/aa438. Tap the button in the middle of the page to get the app and save the file. Pull down from the top to see the notification that a file has downloaded and tap it to install. Alternatively, go to Settings, Device Maintenance, Storage, then Documents or Downloads.

After it's installed, you can open the Amazon Appstore by tapping the icon and signing in with the same username and password you use when shopping on the Amazon website. If you have other Amazon apps installed, such as Kindle Reader, you may not even have to log in because it will use the details from those apps.

Most of the apps in Amazon Appstore are exactly the same as those in the Google Play Store, but there are some unique features. For example, you can earn Amazon Coins (tap Coins at the bottom of the screen) when buying certain items, which can be redeemed when purchasing other apps.
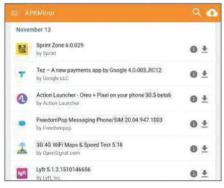
Get apps early

APKMirror (www.apkmirror.com) is a website that lists the latest Android app releases and provides download links so you can gain access to them before they make it to the stores.

This popular site works hard to make sure all its apps are legitimate and verified prior to publishing, making it one of the safest alternatives to Google Play Store. In fact, if you install an app from here and a newer version appears in the Google Play Store in the future, it will auto-update from Google in the usual way.

One of the best things about APKMirror is that it lists apps by date, so you can see which apps are new today, yesterday, last week and so on.

Download links are provided for the APKs (the app's installable file) and apps are installed by opening the download on your Android device. Tap the notification when it pops up.

APKMirror provides a list of the latest app updates and links to download them

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TAKE IT TO THE NEXT LEVEL
More advanced tips for when you're feeling brave

Try the F-Droid store

F-Droid is another Android app store, which specialises in free and open-source software. You can run installations directly from the app and it keeps track of updates.

Install it by going to the F-Droid site (f-droid.org) on your Android device and pressing the Download button. Find the download in your device's storage or pull down from the top and tap the Download Complete notification. It will then install.

Tap the icon to run the app. Almost immediately, we got a notification for an update (pull down from the top of the screen to see such notifications). Tapping it downloaded and installed the latest version of F-Droid.

F-Droid is an alternative Android store full of free and open-source apps

Navigate the F-Droid store

F-Droid has a different interface to the Google Play Store but it works in a similar way. The home screen displays highlighted apps you might like. When we visited, the recommendations were OpenMoneyBox budget management, Gallery for viewing photos, Music Player and several alternatives, a battery-charge limiter, a calendar file manager and more.

Press Categories at the bottom of the screen to view apps sorted into categories including Development, Games, Graphics, Internet, Money, and Multimedia. Unlike Amazon Appstore, where most apps are duplicated on the Google Play Store, F-Droid apps are unique.

A Nearby button at the bottom of the screen lets you connect directly to other local F-Droid users to share apps. This is useful if you want to get an app from a friend who has recommended it or if you want to download an app from F-Droid but don't have a web connection.

Open the app's Settings and enable the option to only update apps over Wi-Fi to save using phone data. Clear the 'Ignore root' option so that apps that require a rooted device are greyed out. They will not work unless your phone or tablet is rooted (you will know if it is). Press Repositories to see additional sources of apps. We advise you to stick with F-Droid apps, but expert users can try some of the others by flicking the switches.

Apps to make your device even better

Apps that aren't in the Google Play Store are often omitted for good reason. They may – like apps that let you save YouTube videos, or stream TV and movies illegally – break certain rules, use functions that are not permitted, require a rooted device or inhabit a legal grey area.

For example, the Google Pixel 2 phone has a great camera that takes amazing photos and this is partly because it uses HDR+ technology to enhance the image. The camera app only works on the Pixel 2, but someone has modified it to work on other top-end phones such as the OnePlus 5, Samsung Galaxy S8 and LG G6. There's a link to download it at bit.ly/hdrp438.

Add extra sound tools to your Android device by side-loading Viper4Android

Viper4Android (bit.ly/va438) is an audio driver for Android that offers superior sound quality. It provides configuration settings for adjusting the audio that aren't normally present on Android phones and tablets. Go to the Downloads section on your phone, grab the Android file and click ViPER4Android, then Settings Explained for instructions and help.

Ask the Expert

Roland Waddilove, computer programmer and PC journalist since 1981, answers all your technical questions. Email us for help at webuser@dennis.co.uk
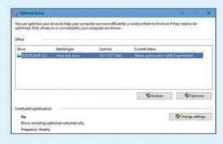
GENERAL PC

Set your hard drive to defrag automatically

Q How important is it to defragment a hard drive and how frequently should it be done?

Philip George, via email

A A solid-state drive (SSD) is faster and more power efficient than a mechanical hard drive but can only be written to a set number of times. Because defragging involves rewriting a hard drive, it actually reduces the life of an SSD, so don't do it! PCs that contain a hybrid drive, which is part SSD and part hard drive, should not be defragged either.

If you have a desktop or laptop computer with a mechanical hard drive, Windows will automatically defrag it in the background when it's idle, so you don't notice it happening. But it's a good idea to check that it's working. In Windows 10, go to Start, then Windows Administrative Tools and 'Defragment and Optimise Drives'. In Windows 7 go to Start, All Programs, Accessories, System Tools. The drives are listed at the top. Click Analyse to see the fragmentation status. Defrag the drive by clicking

Windows can be set to defrag the hard drive automatically

the Optimise button if it is over 10%.

The bottom half of this window shows the schedule: it should be switched on with the Frequency set to Weekly. Click Settings and find the option to schedule daily defrags, which is even better.

Defragmentation tools from other companies that have been designed specifically for the job have extra options and perform more thoroughly, which may speed up your computer. A couple of free ones to try are Defraggler (bit.ly/defr438) and Smart Defrag (bit.ly/sma438). Pay attention during installation and opt out of any extras offered.

SECURITY

Reclaim files from ransomware

Q Two weeks ago, I took what I thought was a call from OpenReach telling me that my computer had been hacked. The caller showed me the number of hacks I had suffered and I only became suspicious after I had sent them a scan of my driving licence. I was told that OpenReach would not let me use the computer or access the internet, then my computer shut down and he hung up.

Now I am being told that I have to pay £200 to recover my files and be able to use the computer again. Is there a way that I can perform the recovery and remove the ransomware myself?

Name Withheld

A All the major security software suppliers have rescue CDs – just use another computer with a CD/DVD-writer or ask a friend to create one for you. Examples are Kaspersky Rescue Disk (bit.ly/kas438); AVG Rescue CD (bit.ly/avgr438), which can be installed on a USB memory stick if your computer doesn't have a CD or DVD drive; Trend Micro Rescue Disk (bit.ly/tren438), which also works from USB sticks; and Bitdefender Rescue CD (bit.ly/bitd438).

If none of them work, try accessing files on your hard drive with a Linux live CD. This is a version of Linux that runs from a CD or USB memory stick. It can be downloaded for free and burnt to CD or written to a USB stick. Some are specifically aimed at rescuing PCs,

such as SystemRescueCd (www.system-rescue-cd.org). There are instructions on the site but you do need some technical knowledge.

Any call claiming to be from a well-known company such as Microsoft, that says your computer has a virus or has been hacked, is a lie. They are after your money, so just hang up. If you let them have access to your computer, they will install malware or ransomware and it can be very difficult to undo their actions. Don't pay them because they will take your money and they may still not unlock your files.

Download a rescue disc, right-click the file and burn it to CD

GENERAL PC

Hunt down random crashes

Q My Windows 7 PC with 8GB of memory was crashing occasionally and I thought the hard drive might be about to fail, so I cloned it. Windows still crashes sometimes, but more often I get an 'unable to display' fault when browsing in both Chrome and Internet Explorer. Reloading often restores the page. Thunderbird also crashes. What is the likely cause?

Peter Kelson, via email

A Random crashes are hard to solve because there are many possible causes. Web pages not displaying could be due to a problem with the web connection but could also be related to the computer – if it's busy doing something, the browser can timeout while waiting for a page to load.

General maintenance tasks often help, so open the Control Panel, go to 'Programs and Features' and look closely at the list of programs installed. Uninstall any you can live without or that you don't recognise.

Check the drive for errors if Windows or any applications crash

Go to Start, All Programs, Accessories, System Tools and run Disk Cleanup. After scanning, click 'Clean up system files'. After the second scan, tick all the boxes and clean the hard drive, then open Explorer, right-click the C: drive and select Properties. On the Tools tab, click Check to check the drive for errors. You have to restart the PC to start this.

Next, check for driver updates. Open Device Manager in the Control Panel and expand Batteries, 'Display adapters', Human Interface Devices, 'Mice and other pointing devices', Monitors and 'Network adapters'. Right-click each item in these sections and click 'Update driver'. This checks for new drivers and installs them if they're available.

Go to Start, All Programs, Accessories, right-click Command Prompt and select 'Run as administrator'. In the command prompt window, type `sfc /scannow`.

HARDWARE
Recapture a disappearing Buffalo drive

Q I have an intermittent problem with my Surface Pro 3, which I normally use on a Microsoft docking station connected to a 24in monitor, with a Bluetooth keyboard and mouse. When I open File Explorer, it should show my OKI network printer, my wife's home-built PC and our Buffalo NAS (Network Attached Storage) drive.

The problem is that the NAS drive doesn't always appear, even if I refresh File Explorer. It's the same on both Wi-Fi and Ethernet. However, if I try to access the NAS using the Buffalo software on my Surface Pro 3, I can see and access all the files without any problems.

If I remove the Surface Pro from the docking station and then put it back, it sometimes works again. I'm not sure if this is relevant or just a coincidence. Using my wife's PC, I can always access the NAS drive without any problems.

I have tried uninstalling and reinstalling the Surface Pro network adapter, and have disabled and re-enabled file sharing, but this doesn't make any difference.
David Ewles, via email

A Buffalo's software is optional and your NAS should work without it. Open File Explorer and select This PC in the sidebar, then click Computer and 'Map network drive'. Select an unused drive letter, such as Z: and click the Browse button. The NAS drive should appear in the Network box and you can select a shared folder.

To always connect to this drive, tick the box 'Reconnect at sign-in'. This is useful if the NAS drive is always switched on when the computer is started. You may find File Explorer's connection more reliable than the Buffalo software.

On some Buffalo drives, the power

NAS drives can be added in Explorer without extra software

switch has an option for automatic power saving. This puts the hard drive into low-power Sleep mode when it's not being used. Perhaps the problem is that the drive isn't waking from sleep. If your drive has a similar power switch, try setting it permanently on.

HARDWARE
Remove flashing screen bubbles

Q My Windows 10 Lenovo desktop PC displays a flashing bubble at the top and bottom of the screen, and the picture shrinks to a 3in square in the top-right corner. The cursor keeps going to one of these bubbles.

The computer repair shop I took it to reinstalled Windows 10, which worked for a short while. The second time, they said it was the touchscreen, which they disabled. Again, this worked for a while, but the problem is now back again. I have connected a new mouse, as that seems to have been part of the problem, but again I've had no success.
David Peters, via email

A This could be a problem with drivers and replacing them has helped other people with a similar problem. Right-click the Start button and select Device Manager. Expand Human Interface Devices, right-click the touchscreen entry and select 'Uninstall device'. Close Device Manager and restart Windows. A new driver will be installed automatically.

BROWSERS
Recover from Yahoo takeover

Q Whenever I select Google search, I get Yahoo instead. I may have accidentally downloaded Yahoo to my PC but I can find no trace of it. I did a virus scan with Malwarebytes (www.malwarebytes.com) and checked with my free AVG antivirus (bit.ly/avgav438) to no avail. I also used `sfc /scannow` but it didn't show anything.
Paul Snelgrove, via email

A This is not a virus and is more likely caused by a program or extension altering the configuration settings in your browser. If you use Chrome, click the menu button, go to Settings and make sure Google is selected in the 'Search engine' section Just below is 'Manage search engines'. Click it and use the three-dot menu button next to each one to remove them. Go to the 'On start-up' section and click 'Manage on start-up pages'. Make sure that google.co.uk is the startup page and not Yahoo.

If this doesn't work, click Advanced, scroll down to the bottom and use the Reset option to restore Chrome's default settings.

Choose a search engine for Chrome to use when you type in the browser's address bar

This fortnight Roland has unsuccessfully attempted to bring order to his chaotic work day by trying PC organisers

Your Top Tips

Our pick of the best advice from our readers. To get help or offer it to others, visit forum.webuser.co.uk

TOP TIP

OFFICE
Dismantle Word documents

It feels like I've been using Microsoft Word forever, but there's always something new to learn. I recently discovered, for example, that when you save a Word document in the default DOCX file format, it's actually a Zip file!

Rename Word files to '.zip' to see a document's component parts

To see this for yourself, create a Word document containing text and images, then save it. Right-click the file in an Explorer window, select Rename and change the extension from '.docx' to '.zip'. Now, when you double-click the Zip file, it opens in Explorer, showing its component text and image files.

If you need to extract the images from a document, simply rename it as a '.zip' file, double-click it and locate the 'word' folder, where all the images will be waiting for you.

Daniel Babcock, via email

GENERAL PC
Make your keyboard type faster

If you press and hold a key while typing a document or entering a URL into a web browser, you'll notice that after a delay, the key starts repeating. You can adjust the length of the delay and the repeat speed – I always speed them up because it allows me to type faster.

Speed up the keyboard's repeat rate in the Control Panel

Open the Control Panel and click Keyboard (use the search box to find it). There are two sliders: one for the repeat delay and one for the repeat rate. I use the short and fast settings. Click the test box and hold down a key to check the speed. When you're satisfied, click OK.

Greg Wilson, via email

BROWSERS
Stop websites whisking you away

Version 64 of Chrome will include a new built-in tool that stops websites redirecting you to a different page without your permission. That's great, but what's even better is that the tool is already available in earlier versions – it just hasn't been switched on yet.

Type `chrome://flags` into the address bar, press Ctrl+F to open the search box and type `framebusting`. This should lead you to a setting called 'Framebusting requires same-origin or a user gesture'. Open the drop-down menu and select Enabled, then click the Restart Now button to restart the browser with the tool enabled.

F Torres, via email

GENERAL PC
See startup information

There's a Registry hack that makes Windows 7 display status messages as your PC starts up. I'm not exactly sure what this is for – perhaps it highlights problems during the process – but it's interesting to see the messages.

Press Windows+R to open the Run box, type `regedit` to open the Registry Editor and go to:

HKEY_LOCAL_MACHINE\
SOFTWARE\Microsoft\Windows\
CurrentVersion\Policies\System

Click Edit, New, 'DWORD (32-bit) Value' and enter `verbosestatus` as the name. Double-click it and set the value to 1. Save and close the Registry Editor, then restart Windows and watch for the messages as it starts up.

Ron Barnes, via email

SECURITY
Stop websites mining currency on your PC

Surreptitious cryptocurrency mining has been mentioned several times in *Web User* recently. If you want to stop websites secretly using your PC – and your electricity – for this, there are a few browser add-ons you can download that protect you from being exploited.

Opera and Vivaldi users should try Mining Blocker (bit.ly/mbo438), while minerBlock (bit.ly/mbc438) also works on Chrome. If you use Firefox, try Mining Blocker (bit.ly/mbf438) or NoMiner (bit.ly/nmf438) – although I can't confirm that they work with Firefox 57.
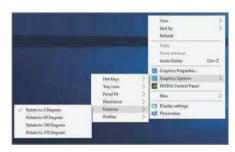
Madeline, Web User Forums

Stop websites using your PC to mine cryptocurrency by installing an add-on

HARDWARE
Rotate the screen

Modern monitors are wider than they are tall, which makes them ideal for watching

Stand your monitor on its side and rotate the screen to work in portrait orientation

TV and movies, but tasks such as word processing and browsing the web are better suited to portrait mode, with the display tall and narrow, because you can see more of a web page without scrolling.

Some monitors are designed to pivot on their stand so you can switch to portrait mode, but if yours isn't, find a way to position your monitor on its side and reorientate the screen by right-clicking the Desktop and selecting Graphics Options, Rotation. Choose from 0, 90, 180, or 270 degrees.

Alternatively, hold Ctrl+Alt+D and press the arrow keys to rotate the screen.

Stacey Cooney, via email

BROWSERS
See Android passwords in Chrome

Chrome on the PC lets you see your saved passwords, which is something I've found useful when I've forgotten them. This feature wasn't available on Chrome for Android until recently, but now you can see your passwords on your Android device, too.

Go to Settings and tap 'Save passwords'. This syncs your passwords across all the devices you use Chrome on. To see your passwords, tap the eye icon next to Passwords. Chrome will ask you to unlock your phone, after which it will show you your passwords.

Jason Long, via email

MOBILE
Clean out your phone's speaker

I wonder how many people have ditched their mobile phone because of a blocked speaker? Over time, the earpiece gets blocked with detritus and no longer functions. There's no software solution for this – the only cure is to unblock the speaker grille physically using a soft-ended but reasonably rigid implement to peck through each hole. Don't be tempted to use a pin or a needle, because you might damage the speaker with something that sharp. Some people have suggested using a bristle from a hairbrush with thick fibres.

This technique worked for me when I tried it on a Samsung phone I bought

from Tesco that still had £30 of credit on it, but was unusable due to the blocked speaker. Now it works again, and I intend to keep it going for some time yet.

H Scott, via email

MUSIC
Fix MusicBee's Windows 10 update problem

I recently updated Windows 10 to the Fall Creators Update, only to find that MusicBee (www.getmusicbee.com) wouldn't open. I tried downloading the latest version of MusicBee (3.1 Update 1), and it ran after the initial installation but wouldn't reopen after shutting down.

When I looked up the problem online, I found that Avast (www.avast.com) may be the problem and could be blocking MusicBee. The solution was to open Avast, click Settings, then open Exclusions. I located and copied the file path for MusicBee and pasted it into the Exclusion path.

Eric Page, via email

GENERAL PC
Hide all open windows

Here's a quick and simple tip. If you want to get a clear view of your computer Desktop or hide all the open windows on your screen, move your mouse to the far right of the taskbar, where you'll see a little vertical bar. When you hover the mouse over this, all the windows on the Desktop become invisible, leaving just a faint outline.
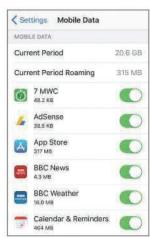
Chris Conway, via email

MOBILE
Save money on your mobile phone bill

I use Giffgaff, a pay-as-you-go mobile-phone network that lets you buy your calls and data in 'goodybags'. These cost as little as £5 and last for a month. Since signing up, I've made it my personal challenge to keep my phone bills down by sticking to a monthly £5 goodybag. This provides only 100MB of data but because I only use it to download emails to my iPhone and do a bit of gentle web browsing (everything else can wait until I'm within reach of a Wi-Fi connection), I did some research into how to switch off data on my iPhone, and found that I can do it on an app-by-app basis.

Select Settings, Mobile Data and swipe to scroll down the page. You'll see a long list of apps that currently have permission to access the web while you're using your mobile data connection. I found that I barely use any of these while I'm out and about, so I switched them off to save data.

James Philips, via email

To save money, disconnect apps that don't need web access

BLUNDER OF THE FORTNIGHT

ANDROID
Keep your phone out of reach

My grandchildren were constantly pestering me to let them play games on my Android phone, but the last time I let them use it, I spent the next two weeks undoing all the damage they'd done to various settings. I'm not sure how they manage it but I don't intend to find out by letting them use my phone again!

Instead, I've found a way to let them play Android games on a PC. I've set up a locked-down user account for them, and installed NoxPlayer (www.bignox.com). They can use this Android emulator to download any (free) games from the

Run Android games on your PC to keep the kids off your mobile

Play Store that catch their eye. In the meantime, I can keep my precious phone out of their reach.

Martin Farmer, via email

Have you managed to fix a PC-related disaster? If so, please send your story to webuser@dennis.co.uk
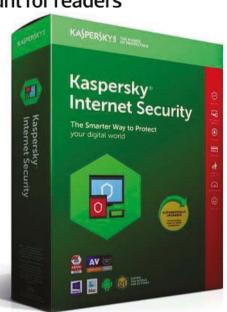
Readers' Helpdesk

Our pick of the best solutions posted on our reader forums. Visit forum.webuser.co.uk – it's friendly and free!

How do I fix a dying Samsung battery?

Q The battery on my 7in Samsung Galaxy Tab 2 only charges up to 20% and will not go any further. Is the tablet dead or can it be repaired?
johnckent, Web User Forums

A It sounds like your battery has died. When a battery starts to behave this way, there is normally nothing that can be done to rejuvenate it. The battery in a Samsung Galaxy Tab is not designed to be replaced by consumers. However, I've worked in electronics for more years than I care to count and I wouldn't hesitate to open a Tab to replace the battery. From pictures I've seen online, you don't have to do any soldering – there's just a small connector to unplug, though doing so would be at your own risk.

The price of a replacement kit is £8-25, depending on the model and capacity. If you don't fancy tackling this yourself, you should be able to get a repair shop to do it for a reasonable fee.

If you decide to buy a replacement and fix the problem yourself, you'll find plenty of kits on eBay (bit.ly/tab438). Check the discharge capacity, which is measured in mAh (milli Ampere hour). From what I've seen, 4,000mAh appears to be the standard. There may be 4,200mAh batteries available but the extra 200mAh will increase the price.

If you can't see the discharge capacity specified in the listing, zoom into the image. It should be printed on the label.

If you're feeling brave, you can buy a kit and replace a Samsung battery yourself

HARDWARE

How far back will a factory reset take me?

Q I've had my Acer Aspire E1-572 laptop for over three years and I'm thinking of resetting it back to its default settings with a factory reset before I install the latest Windows 10 update. It originally had Windows 8.1 installed but it's been upgraded to Windows 10. Will a factory reset take it back to Windows 8.1 or will it stay installed with Windows 10?
sjw, Web User Forums

A It's likely that a factory reset will take you back to Windows 8.1, if it uses a pre-installed backup of your original operating system, which often resides within a secret partition on the hard drive. If you performed the upgrade to Windows 10 more than 30 days ago, however, your Windows licence will have transferred from Windows 8.1 to Windows 10, so your original Windows version will be unlicensed.

If you'd prefer to clean up your existing Windows 10 installation, you could perform a Refresh, which will clean up Windows but save all your personal files; or a Reset, which will remove everything and take you back to a clean Windows 10 installation, much like a factory reset.

If you want to reinstall Windows 10 from a disc, you can still download the ISO file from bit.ly/wind438.
Cantrel and pete.i, Web User Forums

printed on the label.

As with any eBay purchase, check out the seller's rating before you buy.
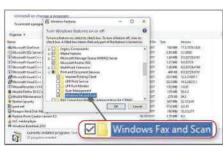**jak, Web User Forums**

GENERAL PC

How do I remove fax tools from my right-click menu?

Q Having read Readers' Helpdesk in Issue 435 (bit.ly/webuser435), I thought I might have at last found a tool in Glary Utilities (www.glarysoft.com) that can remove all the junk from my right-click menu. Sadly, however, while useless items like 'Send to Fax' appear in the removal script, the program doesn't actually remove it or other superfluous entries. I used to be able to do this with Windows XP but it seems Windows 10 is bulletproof. I haven't had a modem that could actually send faxes for 10 years now! Who has?
MeesterChris, Web User Forums

You don't have to reinstall Windows 10 to clean it up – try Reset or Refresh instead

A Open the Control Panel (by starting to type `control panel` into the search box, then selecting it from the menu when it appears). Select 'Programs and Features', then click the 'Turn Windows features on or off' link. Open the 'Print and Document Services' section and untick 'Windows Fax and Scan'. Restart the PC and the option should be gone.
Stewart40, Web User Forums

Remove unwanted fax tools from the right-click menu

Inbox

You can let us know your views via:
webuser@dennis.co.uk, www.facebook.com/webusermagazine,
www.twitter.com/webusermagazine and forum.webuser.co.uk

Mug winner WebUser

Star Email

We need to see clearly about myopia

Because our sight is vital to us and because it can be harmed by too much close-up work, especially on computer screens or mobile phones, it is important that your readers are not misled by the person's opinion expressed in Issue 436 ('Short-sightedness can be genetic') in response to my letter in Issue 435.

Although I explained briefly how myopia usually develops and worsens, and gave a website reference (endmyopia.org) where the matter is dealt with exhaustively, the response stated that "his claims are factually incorrect". A careful study of the website should have dispelled that belief. Clearly, some amplification for the benefit of others is appropriate.

Firstly, genes are not in themselves the determinant for behaviour but how they are expressed, which means

environment has an influence. Thus, having particular genes does not ensure a particular outcome. Families can influence lifestyle choices to produce certain outcomes, such as with obesity, diabetes, educational achievement and even cancer development.

Genetic changes take millennia yet there has been a huge increase in myopia

around the world. One study of the Inuit people of Canada showed myopia is common among the children but was rare among the grandparents. The cause was found to be the introduction of compulsory schooling with all its close-up work.

Scepticism about reversing myopia, or stopping it worsening, is understandable because optometrists don't want to know. They are really just sellers of expensive spectacles who benefit from prescribing stronger lenses and often advise that long-distance corrective spectacles be worn all the time, which will accelerate the deterioration. It is particularly important for computer users to understand this, to preserve their sight. So do study the web reference given, which is full of facts, not opinion.

Terry Sims, via email

Sky TV is old-fashioned and overpriced

I was so pleased to read Barry Collins' Page 404 column in Issue 436. He wrote much of what I'd been thinking for the previous month.

With the rise of internet TV, streaming and downloads, Sky's set-top box seems old fashioned. I've been with Sky for many years (since analogue days) and was happy to begin with, but the cost has crept up to the point where I now pay £71.50 per month.

My main reason for continuing is the Sky Sports channels. My two passions are tennis and F1 but I've heard that Sky's tennis contract is going to Amazon in 2019 and, for me, the shine has gone off F1 so, within the next 12 months, I'm dumping Sky.

Unlike Barry, I'm okay with paying extra for HD. Some people have said they can't tell the difference, but I certainly can. It's been suggested my colour blindness may play a part in this.

I look forward to the day when *all* live TV and *all* other content is on the internet. Why record anything if it's all

available to stream at any time? No more set-top boxes – bye bye, Sky TV.

Ron Hayward, via email

No 4K *Blue Planet* on iPlayer

Web User recently lauded BBC iPlayer for its streaming of *Blue Planet* in 4K. Not so, I'm afraid. The company is still developing delivery of 4K to selected brands of TV only and the trial includes

just seven minutes of *Blue Planet*. It seems that although the BBC has lots of 4K content 'in the can', it is waiting for the arrival of a complex iPlayer interface that requires multitudes of web developers, by which time we'll probably all have 16K TVs. Now I know why the Beeb couldn't

Quiz Answers: Issue 437

1. **Don't put all your eggs in one basket** ❌ 🥚 🥚 🥚 🗑️
2. **A bird in the hand is worth two in the bush** 🐦 ✋ = 🐦 🐦 🥦
3. **Don't look a gift horse in the mouth** ❌ 👀 🎁 🐎 👄
4. **Let sleeping dogs lie** ✅ 💤 🐕 🐕 🤔
5. **An Englishman's home is his castle** 🏴󠁧󠁢󠁥󠁮󠁧󠁿 👱 🏠 = 🏰
6. **Actions speak louder than words** 👱‍♀️ 🙅‍♂️ 💬 🔊 ➡️ 📜

WINNER! Well done to **Craig Burnett** who wins a Web User mug

WORD PUZZLE

Filetype

afford to keep F1 on terrestrial TV – all its money is going to web developers

jdoggy, Web User Forums

My problems dealing with PayPal

I read of Robert Taylor's PayPal problems (Issue 435) with interest. I would suggest that he seeks advice from the Financial Services Ombudsman.

I am currently experiencing problems with PayPal, too. I received a message that I should update my card, which I duly did and which PayPal acknowledged. Shortly afterwards, and despite my sending them a copy of their acknowledgement, they sent the same message again.

Each time I used the steps you outlined to Mr Taylor, PayPal did not recognise the authentication that they sent me and required 'further information' such as a telephone number, which I refuse to give, or some other avenue of authentication to remedy their incompetence.

I managed to find a forum of people who have experienced problems with PayPal and the consensus seems to be that when one contacts them by phone, the average wait time exceeds 40 minutes. No chance I am going to subject myself to that discourtesy.

Furthermore, there is no UK postal or email address that I can find whereby one can make formal complaints or resolve problems through a human with an IQ above that of a tree stump.

John Lockett, via email

Delivery the long way round

I had to laugh at Castman's email in Issue 436 about his online delivery woes. I'm sure we all have a tale to tell! I recently chose 'next day delivery' on an item, then watched the tracking in amazement. My parcel was sent from the retailer's depot in Edinburgh, where I live, through to the courier's depot in Glasgow for "processing". Duly processed, it was then sent back to Edinburgh to be loaded into the courier's van. The courier then chose to start his daily run in Glasgow, working his way back to Edinburgh. My 'next day delivery' arrived at 7pm, having traversed the 50 miles between Edinburgh and Glasgow four times!

John Nichol, via email

What you say...

WILL YOU SWITCH TO FIREFOX QUANTUM?

Nope! I'm Chrome through and through – but I will probably give it a whirl to see what it's like.

Sir Cumference @Gary_Olsen

It updated itself on my computer. Doesn't seem any faster despite Mozilla's claims and it shuffled my bookmarks and lost some of them.

Claudia Ridley

Nope. Chrome on my phone and Chromebook. It's too convenient to mess around with anything else.

Nat Grove

It grinds to a halt every few minutes. It also seems to really struggle with any pages featuring Flash animation or adverts. I'll be sticking with Chrome for the time being.

Phil Bowers

APPARENTLY, HALF OF BRITS SHOPPED ONLINE ON CHRISTMAS DAY LAST YEAR. DID YOU?

Yes, booked a holiday to The Lakes, and went in March. Had a nice time. More then likely will do the same this year for our spring holiday.

Chris Jalloal

I usually ask for a voucher for Christmas, as asking for an item leads to the wrong item being given. I buy what I want with the vouchers on Christmas Day because I hate having to wait any longer than needed.

Kev Hopwood

No, I get presents on Christmas Day so I don't really feel the urge to buy myself even more!

Isabel O'Brien

My wife won't let me on the computer on Christmas Day.

Colin Wallace

THE GOVERNMENT HAS WARNED ABOUT THE DANGERS OF USING KODI BOXES (bit.ly/kodi438). WILL THAT DETER YOU?

Who cares what the Government wants? I don't use one but those that do should carry on.

Kevin Barrow

The fact that this is "advice" screams that the Government has no way of policing "illicit" streaming.

Paul Mudge

Maybe the Government should have a word with Sky to ask them why they charge £40-£100 per month for Sports and Movies.

Phil Graham

I'm a good boy, I don't use one – but only because I don't know anyone selling one.

Anthony Higham

BROADBAND ADS WILL BE MORE HONEST FROM MAY 2018 (bit.ly/adverts438). WHAT DO YOU FIND MISLEADING IN BROADBAND ADVERTS?

The speed, or lack of it, and the hidden connection charge which is usually £50 just for someone to tap a few keys on a keyboard.

Brian Brown

They are all misleading as apart from Virgin none are 'true fibre'. Using the old phone lines isn't fibre.

Jason 'Boz' Bowyer

Anything containing the words "up to".

DiggerPop @drbellairs

Most broadband ads twist the facts to mislead customers. No other industry gets to make fraudulent claims about their products the way ISPs do.

Greg Talt

⚠ Page 404

Barry Collins despairs at another bungled broadband 'clampdown' by Ofcom

ISP compensation plans are no gift at all

You'll find me on Ofcom's Christmas card shortlist, somewhere between The Grinch and Ebenezer Scrooge. A few issues ago, I had a tear-up on the telephone with the Ofcom press office when I told you that its Broadband Code of Practice was about as strong as a homeopathic teabag. Now I'm here to tell you about another Ofcom clampdown on broadband providers that has fewer teeth than a premature baby.

The telecoms watchdog (a word I use in the loosest possible sense) earned itself plenty of headlines recently when it announced "automatic compensation for broadband and landline users". Broadband not fixed two working days after a fault first occurred? Here, have £8 per day for each further day of disruption. Engineer didn't turn up when they were meant to? Take £25 for your troubles, and a further £5 a day if it delayed the start of a new service. That all sounds pretty toothy, right? That is, as ever with Ofcom, until you start digging into the detail.

First, let's tackle the word "automatic". My dictionary (and us Collinses know a thing or two about those) defines automatic as "working by itself with little or no direct human control". Ofcom's system, on the other hand, is about as automatic as a Triumph Herald. If your broadband goes down for a week, don't expect £40 to be "automatically" shuttled to your bank account. The clock only starts when you report that your broadband or telephone line has gone down – and good luck getting through to your ISP's support desk if there is a major outage.

Even though the broadband providers have hugely sophisticated diagnostics equipment that can tell when lines are down, BT successfully argued that "it would be disproportionate for a customer to receive compensation

> **❝ I, for one, shall be ordering extra carrier pigeons, should BT ever need to spend a week fixing my broadband ❞**

if they are away from home" at the time of the fault and "suffered no harm". Because nobody here in the 21st Century has intern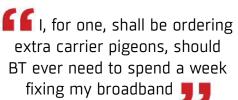et security cameras or television services or even internet doorbells that rely on the broadband working when they're away from home, right?

Then we come to the broadband equivalent of leaves on the line. The broadband providers argued that it would be unfair to punish them for any "planned outages". Given that compensation only kicks in after two working days, one might argue that a planned outage lasting that long wasn't very well planned at all. But once again Ofcom folded like a deckchair, stating that "customers can be notified in advance by their provider and are therefore able to rearrange any planned activities to mitigate the disruption caused by the loss of service". I, for one, shall be ordering extra carrier pigeons, should BT ever need to spend a week fixing my broadband.

Oh, and talking of time off – the broadband providers don't have to pay you any compensation for a missed appointment if they warn you more than 24 hours in advance. So, you can book the day off work to hang around for one of those 'can't possibly give you a time' appointments, get it cancelled the day before, and you won't get tuppence ha'penny for the inconvenience.

One last thing – the broadband providers have 15 months to work all this out, so none of these compensatory measures will kick in until the beginning of 2019. Merry next Christmas, everyone!

Illustration: Andrew Torrens

✚ Do you agree? Let us know at webuser@dennis.co.uk

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