

MAKE YOUR
OWN VPN p58
Stay anonymous on ALL
your devices (not just your PC)

RECORD WHAT YOU WATCH ONLINE

- Capture and keep TV & FILMS that you can't download p38
 - Record TV on any device
 - Remove all adverts
 - Set TV series links
 - Keep webcam footage
 - Save Netflix to watch anywhere
 - ♣ Record live TV using Kodi p38







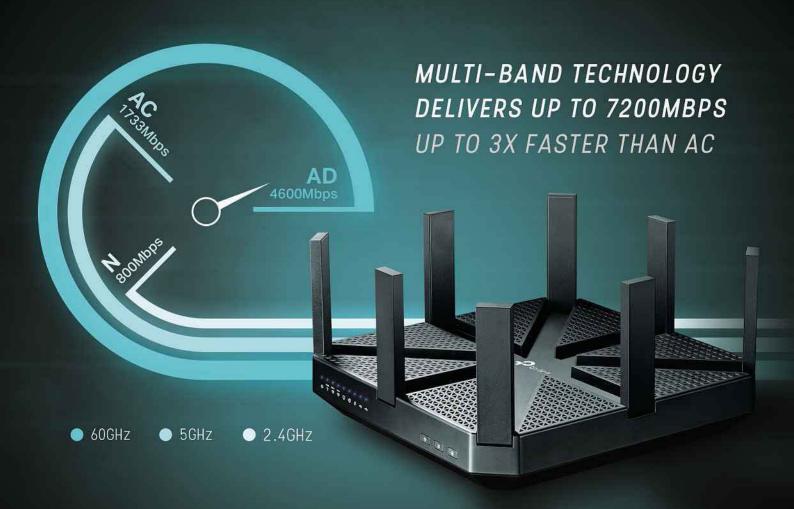
AUTO-REMOVE YOUR PC JUNK

The secret Windows setting that keeps your PC fast p54



REDEFINING HOME ENTERTAINMENT

TALON AD7200 | THE WORLD'S FIRST 802.11AD WIRELESS ROUTER



- Multi-User MIMO serves multiple devices simultaneously.
- 1.4GHz Dual-Core Processor delivers outstanding performance in a

busy connected home.

32 Antennas form an array to ensure that Wi-Fi signals are concentrated towards your in-room devices.

Wireless Performance

60GHz: Up to 4600Mbps | 5GHz: Up to 1733Mbps 2.4GHz: Up to 800Mbps

Wired Connections

4x Gigabit LAN Ports | 1x Gigabit WAN Port 2x USB 3.0 Ports

Also Includes

Off-Line Downloads | Guest Networks Parental Controls | VPN







Record what you can't download

ack in the early Sixties, the only way to record a TV show was to point a cine-camera at your set. Considering the expense of a camera and the poor quality of the TV image, such dedicated pioneers should be praised rather than retrospectively accused of piracy, although the technical limitations of the time meant most recordings were silent fragments rather than full episodes. These days, we're rather spoilt for choice and convenience, what with our catch-up services and streaming devices, but not all online video content is available to download. In this

issue's cover feature (page 38), we reveal how to beat this restriction by recording anything that streams – be it a TV programme, film, webcam video, radio broadcast, online game or Skype call – so you can keep and enjoy it forever.

We've chosen the best free tools for capturing content from the web, and none of them involve propping up a heavy old film camera!

Robert Irvine robert_irvine@dennis.co.uk #webuser







Subscribe to Web User!

Never miss another issue — subscribe at subscribe.webuser.co.uk



FREE MINI TORCH!

SUBSCRIPTIONS

Turn to page 62 for special subs offers

88a

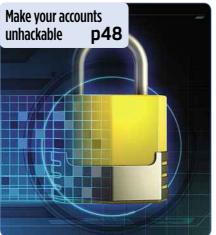
ISSUE 425

14 - 27 JUNE 2017

RECORD WHAT YOU FEATURE WATCH ONLINE

Capture streaming video on your computer, phone or tablet to keep forever







IN DEPTH Articles on the latest tech topics

36 FA0

Google Fuchsia

38 COVER FEATURE
RECORD WHAT YOU WATCH ONLINE

Capture and keep streaming video

44 Expert tips for InstagramDo more with the popular photo-sharing service

47 Windows 10 gesturesImprove your control of Windows 10 at a stroke

48 Make your accounts unhackableLock down Google, Microsoft and Facebook

REVIEWS Apps, sites and products on test

14 Best New Websites

Get help finding a bargain with HotUKDeals

20 Group Test

We test six multifunction inkjet printers to find the best quality and the lowest running costs

26 Best Free Software

Build your own video surveillance system

30 Best New Browser Tools

Turn offensive online comments into emoji

32 Best Free Apps

Edit video and audio files on your phone







FAVOURITES Must-read regulars

What's New Online Discover Amazon's live TV channels

Need to Know This fortnight's top tech news stories

13 Stay Safe Online Security advice for PC and mobile

18 Build a Better Site Expert tips, tools and practical help

24 Best Buys Our pick of the best new products

50 Broadband Deals Find the best-value package for you

51 Take a Screen Break Guess the films from the emoji



71 Inbox

Tell us your views and opinions

74 Page 404 Who's to blame for the NHS's IT? EDITORIAL

Group Editor Daniel Booth Deputy Editor Robert Irvine Technical & Reviews Editor Andy Shaw Staff Writer Edward Munn Art Editor Laurence Hallam Production Editor Miki Rereny Editorial Tel: 0203 890 3890 Visit forum.webuser.co.uk for technical and buying advice

ADVERTISING

Tel: 0203 890 3846 Group Advertising Manager Charlotte Milligan Deputy Advertising Manager Alexa Dracos

ADVERTISING PRODUCTION

Group Production Manager Stephen Catherall, 0203 890 4050 Production Executive Lawrence Brookes, 0203 890 3794

Marketing Manager Rachel Hare Marketing Production Manager Gemma Hills

MANAGEMENT

Tel: 0203 890 3890 Managing Director John Garewal MD of Advertising Julian Lloyd-Evans Commercial and Retail Director David Barker CFO/COO Brett Reynolds Chief Executive James Tve Company Founder Felix Dennis

SYNDICATION AND USE OF LOGOS

Syndication Senior Manager Anj Dosaj-Halai Tel: +44 (0)203 890 3816 Email: anj_dosaj-halai@dennis.co.uk

INTERNATIONAL LICENSING

Web User is available for licensing overseas. Licensing & Syndication Assistant Nicole Adams Tel: +44 (0)203 890 3998 Email: nicole_adams@dennis.co.uk

CHRCCDIDTIONS

Tel: 0844 322 1289

Email: webuser@servicehelpline.co.uk You can manage your existing subscription through www.subsinfo.co.uk. This should be your first port of call if you have any queries about your subscription. Fax: 01795 414555. A subscription to Web User for one year costs £52 for UK subscribers, £90 for Europe and f146 for the rest of the world. Call 0844 322 1289 to get the next issue, delivered free to your door.

Printed by Wyndeham Bicester, Oxon Distributors Seymour 020 7396 4000

PERMISSIONS

Material may not be reproduced in any form without the written consent of the publisher. Please address such requests to: John Garewal, Dennis Publishing. 31-32 Alfred Place, WCIE 7DP

While every care was taken preparing this magazine, the publishers cannot be held responsible for the accuracy of the information or any consequence arising from it. All judgments are based on equipment available to Web User at the time of review. 'Value for money' comments are based on UK prices at time of review. Web User takes no responsibility for the content of external websites whose addresses are published in the magazine

© Copyright Dennis Publishing Limited. Web User is a trademark of Felix Dennis.

A DENNIS PUBLICATION

Web User is published fortnightly by Dennis Publishing Ltd, 31-32 Alfred Place, WC1E 7DP. Company registered in England. Material may not be reproduced in whole or part without the consent of the publishers ISSN 1473-7094

WEB USER PRINTED IN THE UK

Practical WebUser

Workshops, tips, projects and problem solving

52 Workshop 1

Mix and match online maps to create your own with Map Puzzle

54 Workshop 2 Take control of your PC's storage

56 Workshop 3 Create user profiles in Chrome

57 Workshop 4 Customise Windows 10's colours

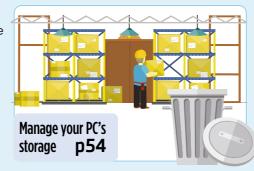
58 Weekend Project Build your own VPN server

64 Web User Masterclass Unlock your browser's secret tools

66 Ask the Expert All your technical questions answered

68 Readers' Tips The best tips from our readers

70 Readers' Helpdesk Answers from our reader forums







What's New Online

Watch live TV channels on Amazon

ed up with paying for television channels that you don't watch? Then you may want to cast your eyes over Amazon's latest offering for Prime members. In a bid to take on Sky, BT and Netflix, Amazon now lets you subscribe to a mix of more than 40 live and on-demand channels, which you can watch via Amazon Fire TV, smart TVs, games consoles, phones, tablets and laptops. It includes big names such as Eurosport, Universal and MGM,

and you can also stream programmes from the Discovery Network - the first time its shows have been aired outside the Sky platform in the UK.

Although there's no Sky Sports or BT Sports, there's a decent choice of categories. Reality shows are streamed on Hayu, for example, while horror can be found on Shudder and children's programmes on Ketchup



Kids. In truth, you'll probably dismiss most of the lesser-known packages but each is being made available individually as an add-on. Although these cost as much as £9.99 each month for Daily Burn, you can watch the food channel, Panna, for just £1.49. Whether you can justify paying £3.99 a month for the advert-free ITV Hub+ is another matter entirely, especially as



you will still need to fork out for a TV licence.

bit.ly/channels425

Explore world population trends

bit.ly/ population425

This intriguing map uses 14 sets of data from the United Nations to map population growth and show where the biggest increases

World population is never development

are occurring. Select the first number at the top of the screen to learn the life expectancy of people in different countries, before looking at population increases, natural growth, and birth and death rates. You can compare levels of healthcare spending and net migration, as well as how long it's likely

to take for a country to double its population. Zoom in and out or move the map selector in the bottom-right corner, and have a stab at answering the thought-provoking questions on each page, which encourage you to analyse the data in detail.

Find the perfect **Google font**

bit.ly/font425

Many of us stick to the

same old fonts: Times New Roman, Arial, Calibri. Helvetica and sometimes - to a collective shudder - good old Comic Sans. But there many more great typefaces out there, with Google alone offering a staggering 800 (fonts.google.com), and it's fun to experiment with them and broaden your writing horizons.

This new tool offers 70 Google

Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it. Explore the filters & Tap this text to edit it Explore Explore Web User Web User Web User

fonts, categorising them visually rather than using obscure names and terminology, which makes them much easier to choose between. This means you only need to click the filters that run down the left-hand side of the screen to browse the lot.

As well as increasing the weight of the fonts, you can enter your own text to get a better feel of the eventual look of your words. The developer says he may include other Google fonts over time if the site proves popular.

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

Find out if robots will take your job

willrobotstakemyjob.com

Robots streamline many work-related tasks, but could they one day put you out of a job? Type your occupation into this search engine and you'll soon discover how worried you should be. It shows the likelihood in percentage terms of your livelihood being outsourced, while looking at the overall growth of your particular sector. You can then share your joy or woe on social media.



Tour iconic **Beatles locations**

bit.ly/beatles425

It was 50 years ago today (plus a fortnight or so) that The Beatles released their groundbreaking album Sergeant Pepper's Lonely Heart Club Band. To celebrate its ongoing influence, Google Earth invites you on a whistletop tour of nine of the band's key locations and moments, from the famous Cavern Club and Penny Lane to the Abbey Road Studios and Hollywood Bowl. Click the left and right arrows to fly - like Lucy in the sky - from place to place and zoom in and out using your mouse. Each location is accompanied by an image and a brief description.



Chat with friends on Facebook Live

live.fb.com

If you've ever watched a popular stream on Facebook Live, you'll have seen the endless deluge of viewer comments. which can become rather distracting. But if you only want to see the



reactions of those you know, you can now turn to Facebook's new Live Chat with Friends. It lets you launch a private chat room when you're watching a public live broadcast, allowing you to invite your friends and have a conversation entirely between vourselves. All you have to do is tap Chat when you see a friend is watching, or select the people icon in the top-right of the screen, and pick your pals to start a conversation with.

@essential

Essential - founded by co-creator of Android, Andy Rubin - has launched its first phone

TO FOLLOW ON TWITTER

@_FootyTalk

Stay up to date with the latest transfers over the summer

@ItalianComments

Italians getting angry at people cooking pizza, pasta and other dishes incorrectly

@LosFelizDaycare

A new TV show is about to be made about this popular parody Twitter account

@SirDavidButler

The election is over but we're still following the swingometer inventor

Blow bubbles across the world

bit.lv/bubbles425

Launch this fun experiment in Chrome on your phone and you can tap the screen to create bubbles to send around the world. Tap and hold the other bubbles that float by to see where they have come from.

Learn how to code the web

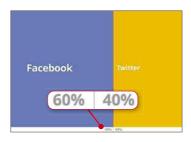
thimble.mozilla.org

Mozilla has updated its Thimble online code editor to let you choose snippets of code from a menu; bookmark and organise projects; import files; and remix and play with projects.

Create a data-based GIF

bit.ly/data425

Although this new tool is primarily aimed at data journalists, anyone can use it to make a visual comparison of two competing topics. Enter two data points in the left and right boxes, add some text and colours and explain what you're trying to show before clicking Launch Comparisons. The downloadable GIF shows the two blocks moving left and right before settling on the figures that you've entered.



See events from your birth

bit.ly/year425

Select a year to find out the average cost of a home, the typical salary and the price of many items then, adjusted for inflation. You can also check out the top films, football teams and TV shows.



Apple makes the iPad more like a computer

What happened?

Apple has unveiled a new version of iOS that will add to the iPad and iPhone certain tools and functionality more commonly associated with computers.

iOS 11 was revealed in early June at the company's annual Worldwide Developers Conference, along with new iPads and the HomePod (pictured, far right), a voice-activated smart speaker to rival the Amazon Echo and Google Home.

One of the best new features – for the iPad only – lets you drag and drop images, text, videos and other content from one app to another in a split-screen mode. Content can also be dragged into apps in the Dock along the bottom of the screen, making it easier to share an image in iMessage, or open one to edit in the Photos app.

Also new in iOS for iPads is a Files app that shows the files and documents stored on your device and in your cloud services. If you shell out for an Apple Pencil, your handwritten notes will be searchable, thanks to machine-learning technology that can decipher your scribbled words.

Alongside those features, iOS 11 includes an update to the camera software that reduces the amount of storage your photos consume but does so without affecting image quality, and optical image stabilisation in Portrait Mode to make your snaps sharper.

A beta of iOS 11 is already available, with the final release expected at the end of September. As always, the update is free.



iOS 11 lets you drag and drop content, as you would on a laptop



Aside from the iOS update, Apple also announced new iPad Pro models and a redesigned App Store, which will be split into games and apps to make it easier to find what you're looking for. New tools in Apple's browser Safari include options to block companies tracking you online, and to stop web adverts playing automatically.

The HomePod, which goes on sale in December, uses Siri to answer your questions and play music. However, at \$349 (around £270, although UK pricing wasn't revealed), it's much more expensive than Amazon's Echo (£150) and Google's Home (£129).

How will this affect you?

If you're an iPad fan but miss some of the functionality of your laptop, you'll love the new features in iOS 11 that make it more like using a standard computer.

The ability to drag and drop means you can simply drag an image into WhatsApp or iMessage to send to a friend, rather than fiddling with sharing tools. The Files app means you can find documents, images and everything else using a similar system as on a laptop.

As with all its updates, Apple is offering iOS 11 for free. However, it will only be available for the iPad 5th generation and newer, the iPad mini 2 and newer, and all iPad Pro devices. On the iPhone, you'll need at least an iPhone 5s. While that may disappoint users with older devices, it's worth remembering that those smartphones and tablets date back to 2013, which means Apple is offering four years of updates. That's longer than many phones and tablets normally last. If you do have an older device, it will continue to work – you just won't be able to get the iOS 11 update.

What do we think?

We're delighted that these muchneeded tools are coming to the iPhone and iPad – it's about time. Apple's hardware is already top of the range, but there are plenty of improvements that can be made to the software, and the move to include the tools and functionality that make computers so useful will certainly make phones and tablets feel less limiting. It marks a change from Apple's recent policy, which has been to grab headlines with innovations that sound hi-tech, but don't prove particularly useful.

As for the HomePod, its price will give it a narrower appeal than the equivalent devices from Google and Amazon, but Apple's diehard fans will probably think it's worth the money.

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

Android devices punched by Judy

What happened?

Android users, watch out for Judy. The innocuously named malware has infected as many as 36 million Android phones, according to security firm Check Point. Judy is adware, which means it infects your device and bombards you with adverts. It's spread by seemingly safe downloads of games based on a character called 'Fashion Judy' or 'Chef Judy', hence the name of the adware.

The 40-odd Judy apps have since been removed from Google's Play Store, but Check Point said its research suggested they'd been readily available for several years.

How will it affect you?

If you have any of these apps on your phone, delete them now. We've been taught to trust apps on Google Play, because the company has anti-malware tools in place to keep such threats at bay. However, these apps have figured out a sneaky way to dodge Google's protections, by appearing to be benign games that people actually want to download. When a

Judy app is installed, it connects with the criminal's server, downloading the malware.

Sadly, this means there's little you can do to avoid such malicious apps, short of only installing those you know come from trusted brands. Check Point advises installing mobile security software, to provide protection against malware on your phone – handily, the company makes just such a product.

What do we think?

This sort of activity isn't particularly damaging to users, and is more of an annoyance, but it highlights the problem with having millions of apps available – at the last count in March, the Google Play Store had 2.8 million on offer. Vetting all those games and apps is nigh on impossible.

Google is wise to have automated tools that catch the most obvious offenders, but perhaps it's time for additional manual checks or stricter rules, even if that limits the number of apps on offer. We'd rather have fewer 'Fashion Judy'-style junk apps and a safer marketplace.



'Liking' Facebook posts could cost you

What happened?

Most of us are unaware when we're clicking away on social media that even a 'like' or retweet can count as publishing.

One man in Switzerland found this out the hard way, after being found guilty of defamation and fined 4,000 Swiss

francs (£3,190) simply for clicking 'like' on other people's Facebook posts.

The case was brought by Erwin Kessler, the president of an animal rights group, who complained to the courts that he was being called racist, anti-Semitic and fascist in a Facebook group.

Even though the man in question didn't write the posts - which were comments written by other parties who have since been convicted - he clicked 'like', thereby helping to spread their content and ensure more people saw them, thanks to how Facebook's algorithm presents messages.

How will it affect you?

This case was very specific and happened in Switzerland, so don't panic and start 'unliking' ('disliking?') everything you've clicked recently. However, it's worth remembering that what you do online can have legal repercussions, and that the UK courts are

prepared to act. Columnist Katie Hopkins had to pay out £24,000 for tweets libelling author and cook Jack Monroe, while Sally Bercow, the wife of the House of Commons speaker, was slapped with undisclosed damages after a tweet defaming Lord McAlpine.

What do we think?

Social-media users aren't generally experts in media law or the technology behind such sites. This means that most people aren't aware of the finer points of defamation and libel, nor do they fully understand that simply 'liking' a post will help raise its profile.

While intent is a consideration, and the man convicted of defamation was indeed signalling his agreement of the negative and inaccurate posts, ignorance of the law is no excuse. The best advice is the same as in the offline world: just as you'd think before you speak, think before you tweet on Twitter or 'like' on Facebook.



Chrome to have a built-in ad blocker from 2018

What happened?

Following our lead news story in Issue 422 (bit.ly/webuser422), Google has

confirmed rumours that it will be building its own ad blocker into its Chrome browser, giving web publishers until next year to clean up their sites to avoid problems.

Over the past few years, ad blockers have increased in popularity, although that's levelled out to 22% of web users this year. As we reported, Google seemed likely to introduce a built-in ad filter similar to that offered by Opera, and that now looks set to happen in 2018. Chrome already blocks pop-ups, which are frequently used for advertising.

Sridhar Ramaswamy, senior vice president of ads and commerce at Google, acknowledged in a blog post (bit.ly/blocker425) that most online content is funded by advertising. "But the reality is, it's far too common that people encounter annoying, intrusive ads on the web - like the kind that blare music unexpectedly or force you to wait 10 seconds before you can see the content on the page," he said.

To help, Chrome will start blocking ads that "are not compliant with the Better Ads Standards starting in early



2018," Ramaswamy said, stressing that this includes ads that are "owned or served by Google". Conveniently, most of Google's ads already comply with that standard (bit.ly/coalition425).

How will it affect you?

If you use Chrome, this news means you'll be able to ditch your current ad blocker, such as Adblock Plus or uBlock Origin, and free up the memory guzzled by that extension. Bear in mind, though, that Google will still allow ads it deems acceptable and it isn't yet clear whether you'll be able to block those, too.

If you run your own website, you'll need to ensure that any ads displayed on it meet the required standard or else

they'll be filtered and you'll be deprived of revenue.

What do we think?

As we said in Issue 422, this turnaround in Google's attitude towards ad blockers seems to be motivated by its desire to have total control over online advertising. It's interesting to note that Google is also working on a tool that lets websites allow their visitors to use Chrome's new ad blocker if they pay a small fee - one that we suspect Google will take a cut of. However, we've always objected to annoying online ads, so we cautiously welcome Google's change of heart and look forward to seeing the blocker introduced in 2018.

FIRST LOOK

Nokia 3310 bit.ly/nokia425

The original Nokia 3310 was released in the year 2000 and, unfortunately, we think that's where it should have stayed. Although Nokia has managed to modernise the phone in a way that makes it feel exactly as you remember it (despite it being much lighter and thinner), £50 is a relatively high price to pay for nostalgia. Indeed, if you want a feature phone, basic models from Alcatel, Doro, Samsung and even Nokia start at around £10.

The original 3310's screen had a resolution of 84 x 84

pixels, which has been

upgraded to a full-colour 240 x 320 display.

> However, it isn't a touchscreen and you have to use the 15 buttons underneath the screen: 0-9, *, #, select, make call and end call. You navigate the menus by pressing the frame of the select button in the appropriate direction, which makes it a clunky experience for anyone who's grown used to touchscreens.

The handset lets you send text messages, but there's no support for WhatsApp, Facebook Messenger or Telegram.

There is a version of Opera Mini built in, but you won't want to use it much because the cellular data connection is limited to 2.5G. And no. you can't connect to Wi-Fi. In fact, the only real sign that you're even in 2017 is the microUSB port on the top edge of the phone, where the battery is charged. Battery life is the one area where the 3310 excels: it offers 22 hours of talk time and a month's worth of standby, according to Nokia's figures.

It might seem harsh to compare the Nokia 3310 - a deliberate throwback to 17 years ago - to the phones of 2017 but there's good reason to do so because most people will find this phone a chore to use. If staggeringly good battery life is what you want, there are alternatives available that are much cheaper than the 3310.





WHAT'S THE RUMOUR

Is Apple ditching the Home button on the iPhone 8?

Apple could be getting rid of its existing Touch ID Home button, replacing it with new optical fingerprint-sensor technology in the iPhone 8 that spans the entire display. This is according to a report from Chinese publication Economic Daily News, which references sources from Apple supplier Taiwan Semiconductor Manufacturing Company (TSMC).

According to the paper, as relayed by MacRumours (www.macrumours.com), news about "an optical fingerprint sensor to enable authentication directly on the screen" came during TSMC's annual Technology Symposium held in Taipei. This was not the only thing reportedly discussed at the conference. The sources also claimed that augmented-reality functions would be enabled in the new phone, thanks to "invisible infrared image sensors", which would also enhance camera functionality. They also claimed that the screen ratio would change from the iPhone 7's 16:9 to 18.5:9.

Apple is thought to have been developing on-screen fingerprint identification for the past couple of years. Indeed, the iPhone 7 was for a while expected to introduce the technology, but in the end it featured a standard Touch ID home button and a design very similar to the iPhone 6S.



LIKELIHOOD RATING

Considering that Samsung ditched a front-facing fingerprint sensor in favour of the Galaxy S8's edge-to-edge 'Infinity' display, we think it's highly likely that Apple will be looking to maximise display space on its new flagship phone. Indeed, the iPhone 8 has a huge fight on its hands when it arrives, because the Galaxy S8 features a brand new AI assistant along with its buttonless display. However, the S8 still includes a conventional fingerprint sensor on its rear, so on-screen fingerprint identification represents a perfect opportunity for Apple to introduce something revolutionary.

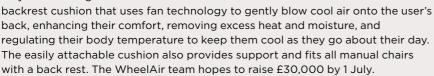
What's new on Kickstarter

Our favourite new project on the crowdfunding site

WheelAir

bit.ly/wheel425 | From £575

Wheelchair users often experience discomfort due to overheating, and the warm weather at this time of year only makes things worse. WheelAir is a wheelchair





WEBOMETER

WE LIKE...

Kodi announces 64-bit Windows app

Kodi has announced that a 64-bit version of the app will soon be available on Windows. Users should be able to install the new version over the top of the 32-bit version without any problems.



Twitter filters direct messages from unknown

In an attempt to tackle abuse, Twitter has introduced a feature that filters direct messages from people you don't follow to a 'Requests' inbox. From here, you can opt to accept or decline the messages.



WE DON'T LIKE...

Mother denied access to dead daughter's Facebook account

A woman had hoped to access her daughter's Facebook account to find clues as to whether her death was suicide or accidental, but a German court ruled that privacy laws outweighed her rights as a



in online games

A survey of 2,500 gamers aged 12 to 26 found that 57% had been bullied online, while 64% were victims of trolling. More than half (53%) of the respondents believed that online bullying

could be reduced by an increase in moderators.



WebUser



2016 BACK ISSUES DISC

Our **2016 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit **bit.ly/wudisc16** or search for 'webuser disc' on Amazon

You can still buy our 2015 Back Issues Disc from bit.ly/wudisc15



Stay Safe Online

News about the latest threats and advice from security experts

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

Kodi flaw lets hackers take control of your PC

Media players including Kodi and VLC have a flaw that could allow hackers to take control of your PC, according to security firm Check Point. Researchers discovered that a new form of attack involving malicious subtitle files could be used to take control of any type of device.

Streaming tools and media players treat subtitle databases as trusted resources, but Check Point researchers identified that they can be manipulated to spread malware. Antivirus software is unlikely to identify the true nature of these subtitle files, because they're normally perceived as harmless text files. This effectively leaves hundreds of millions of users exposed to attack.

Once an attacker has control of your device, they can steal private information, install ransomware and perform DDoS (Distributed Denial of Service) attacks, among other malicious behaviour. Check Point has reported all its findings to the affected media players. Some of the issues have been fixed while others are still under investigation. bit.ly/checkpoint425

375,000 PCs vulnerable to 'ExplodingCan' exploit

As many as 375,000 computers

worldwide could be vulnerable to an exploit that lets hackers take



remote control of your PC and install malware, according to researchers at Manchester security firm Secarma. The hack, known as 'ExplodingCan', affects PCs running Windows 2003 and targets a specific vulnerability in Windows

Server 2003. When exploited, the vulnerability triggers a memory flaw known as a 'buffer overflow', which enables hackers to take over a PC. The security firm identified that telecommunication, banking and insurance companies, along with educational and government institutions, are among those that could be affected.

Paul Harris, managing director of Secarma, said: "Ultimately this is in the same risk category as the WannaCry attacks. It's another way for cybercriminals and hacking teams to access your environment and, once they're in, the internal parts of these systems are wide open to a variety of different attack vectors".

To ensure protection against the vulnerability, Secarma recommends that organisations upgrade to a supported version of Windows server. bit.ly/ec425

Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT: David Emm, principal security researcher at Kaspersky Lab (www.kasperskv.co.uk)





Spencer Whitehead, **Twitter**

It's more crucial than ever to protect ourselves from malicious apps. Apps offer us entertainment, communication and

convenience, but they also put our data and devices at risk due to their everyday functionality. Technical findings and analysis from the Kaspersky Security Network (KSN) and an experiment into app performance by Kaspersky Lab found that of every 100 Android apps that users install, 83 have access to sensitive user data, such as contacts and messages, and some can even make calls and send text messages. This is worrying when we consider that 96 in 100 Android apps start working without users launching them.

The build-up of digital clutter makes it more important than ever to combat malware that uses

apps' vulnerabilities to penetrate devices. Here are a few simple steps for decluttering your apps and protecting your data:

- Have active and up-to-date software: use a reliable mobile-security app and allow automatic updates to run for all apps. These are in place to protect you from new security threats.
- Use a strong passcode: at least 12 characters, with a combination of letters. numbers and symbols. Use a password manager for accounts that do not store your financial information.
- Back up your data: making a regular backup of your data is a must, whether to an external hard drive or a cloud

- Change app settings: these let you manage how the app interacts with your device. For example, apps can get access to your sensitive information, track your location and share your data with third-party servers. Failure to manage these settings can result in unused apps gaining access to information on vour phone without you being aware.
- 'Spring clean' your device: spend some time getting your digital house in order by regularly clearing out data, uninstalling unused apps and refreshing information stored on your devices.



Best New Websites

Site of the Fortnight

RELAUNCH

HotUKDeals

www.hotukdeals.com

Members of this hugely popular website submit potential money-saving deals that are then voted as 'hot' or 'cold' by other users. This relaunch makes finding a bargain easier than ever and, thanks to infinite scrolling, you just keep moving down the screen to see them all. Aside from a better tile layout on a tablet and the ability to set keyword alerts, a major improvement is clearly displayed prices - where appropriate - above the Get Deal button. When posting a deal, you can embed video and use autosave and extra formatting; while bargain hunters have a greater choice of filters. The UK's best deals site just got even better.

Our rating







searchingforsyria.org

Did you know the top web search in Syria in 2010 was "Arab Idol" or that residents were mostly watching videos of FC Barcelona on YouTube? Such nuggets may not seem immediately important but, by revealing them, Google's sensitive yet enlightening site helps make better sense of a country torn apart by civil war. The site addresses the questions Google is asked most about Syria, and there's much to think about as you scroll through vivid images, videos and maps alongside charts, quotes and heart-wrenching stories. Take a 360-degree narrated tour of a lively market one minute, read the war-affected tweets of a seven-year-old the next, and click to donate.

Our rating ****



TECHNOLOGY

Apple Switch

www.apple.com/switch

Apple pioneered the smartphone as we know it today but Android is now the market leader. In an effort to take a bite out of those sales, Apple's colourful website explains how and why you should switch from Android to iOS. After promoting the 'Move to iOS app' available from Google Play, it launches into the merits of the iPhone's camera, its speedy chips, simplicity and privacy features, each accompanied by a fun animation, then presents the current selection of iPhones. It's reasonably persuasive but the explanations are rather brief and could do with links to further information.



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





NEWSPAPERS

The Northern Echo www.thenorthernecho.co.uk

Like most local papers, the Northern

Echo has seen a solid rise in online readership, and its lively package of hard and soft news, great sports coverage and lively reader interaction make it easy to see why. This revamp gives the site a cleaner, bolder appearance, while the streamlined drop-down menu makes it easier to navigate. We're not sure about putting times beneath the headlines (it can make stories feel old) but we welcome the greater emphasis on images and videos. The adverts can be distracting, but otherwise the site hits

the headlines for all the right reasons.

Our rating





TRAVEL

Arctic Kingdom

arctickingdom.com

If you've ever fancied a trip to the North Pole, then Arctic Kingdom's relaunched site may persuade you to finally fulfil your dream. Its dynamic, mobile-friendly design emphasises fun and exploration, showing amazing photo galleries of polar bears and marine mammals, info about the Northern Lights, inspiring tales from travellers and a clever search engine for planning your adventure. Video clips bring the destination to life and we loved the info-packed FAQ and downloadable digital brochure. A promised series of webinars about this stunning location will be the icing on the cake.

Our rating





FOOD

The Artisan's Choice

www.theartisanschoice.com

Serious cake-making requires a serious supply of ingredients, and the Artisan's Choice offers large quantities of fruit and nuts, flours, toppings, chocolate, colours and flavourings for batch baking, along with bulk supplies of cake boxes and a range of finishing touches. Each section displays classy photos and the overall design makes light work of navigation. Some of the products could do with more comprehensive descriptions and better attention to grammar but, on the plus side, you can add items to a wishlist or a compare list, share them on social media and download a colour brochure.





Best New Websites



Enjoy the Countryside

The great outdoors isn't so wonderful if

Countryside aims to keep you safe by

general safety advice. Clear pictures

you get stung by a bee, step on an adder

listing the "dirty dozen" dangerous plants

and animals, and offers both specific and

highlight what you need to watch out for

and there are details of how to recover

from an encounter but the navigation is

clumsy and some pages are poorly laid

out. Better priority of information would

video explaining how to remove ticks are

help enormously, especially on the

buried at the bottom of the page.

Our rating

homepage where bug profiles and a

enjoythecountryside.com

or catch Lyme disease. Enjoy the

COUNTRYSIDE

TICKETS

Twickets

www.twickets.live

Buying tickets for a sold-out event from a resale website can mean you pay far in excess of their face value. Twickets is a welcome alternative to these rip-offs, promising a low-cost fan-to-fan ticketselling platform for music, sport, the theatre and the arts. Although it slaps a 10% fee on tickets, sellers can only add a 15% markup - so you should still end up paying less than on rival sites. Finding tickets is easy, thanks to a comprehensive search engine and the ability to set alerts for non-listed events, while tickets can be delivered or picked up and you're covered for the full amount if something goes wrong.







COMMUNITY

NEW

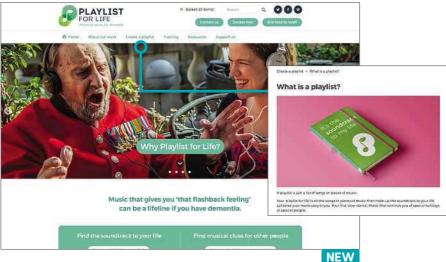
Your Hwb

yourhwb.com

Encouraging people living in North Wales to buy and shop locally, Your Hwb lets vou search for businesses, view local events and check out nearby activities. It certainly does a great job of promoting local enterprise, going as far as explaining how spending money in the community is more ethical, friendly and financially retentive. But it's not perfect. While we see the merit in charging to list businesses (running a website costs money, after all), we do wonder why the descriptions appear limited to just two or three lines. Some of the categories are also sparsely populated although we appreciate content takes time to build.

Our rating





HEALTH

Playlist for Life

www.playlistforlife.org.uk

It has long been recognised that playing personally meaningful music can improve the lives of people living with dementia, but you need to know which tunes to pick. Playlist for Life teaches you how to turn detective and find the right songs while guiding you through the practicalities of loading your tracks on an MP3 player. Suitable for professionals, carers and people with early signs of the illness, it's packed with hints, tips and resources including a journal and wall chart. You can listen to playlists created by others and upload your own, and there's an excellent blog that provides occasional podcasts. An app which connects to Spotify is due soon.

Our rating





חחח

Ridiculously Rich by

www.ridiculouslyrichbyalana.co.uk

Sweet success was all but guaranteed for Alana Spencer, last year's winner of *The Apprentice*. Her cake-making business's professionally redesigned website shows just how far she's come (there's a page highlighting her 'journey'), offering the chance to buy tasty-looking slices and the opportunity to sell the cakes on her behalf by becoming a brand ambassador. Ordering is easy and each page is full of high-quality images, mouth-watering descriptions, dietary data, top tips and clear pricing. You can take out a monthly or fortnightly subscription, and view a list of food events attended by the company.



YOUR PERFECT DOMAIN



Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

Get your 1&1 site to the top

Web host 1&1 is offering its customers the tools to get their site to the top of Google searches. 1&1 rankingCoach (bit.ly/rank425) costs £11.99 per month, but for that you get a range of step-bystep video guides that help you optimise your site for success with search engines. You can track your progress through the course and see how your ranking on search engines is improving as you go. The service works with any type of site, including those using a CMS (contentmanagement system) such as WordPress or Joomla, and it even works with other web hosts.

Charge for downloads

One way to make a bit of money from your website is to offer paid-for downloads. These could include an ebook with extra detail on your site's topic; audio or



video files; or anything else that people might be willing to pay for and can download. WordPress users can use plugins to control and charge for the downloads. Easy Digital Downloads (bit.ly/ edd425) is a good example - it does all the hard work for you, and lets you charge your visitors using PayPal or Amazon.

Deal of the Fortnight

Easyspace (www.easyspace.com) is offering 20% off the overall cost of any website if you secure it for 10 years. Register your domain at bit.ly/easy425.

Web-building Helpdesk

THIS ISSUE'S EXPERT: Lucas Kowalski. WordPress Developer, Wholegrain Digital



(www.wholegraindigital.com)



Should I scan my WordPress website for viruses? If so, how? Mark Briggs, via email



The popularity of WordPress makes it a target for hackers but I wouldn't recommend security plugins

because if your site is hacked, their integrity will be compromised. Instead, just harden your WordPress installation. Choose a good hosting company (with SFTP/SSH access, domain separation, the latest PHP version and good support), set up a strong password and username ("admin" is never the right choice), and use two-factor authentication - Google Authenticator (bit.ly/ga425) or Rublon (bit.ly/ru425). Keep your WordPress, themes and plugins updated, only download them from trusted sources, back up regularly and consider version control.

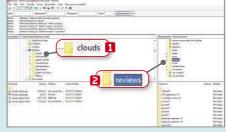
MINI WORKSHOP | Get a professional-looking cover video for your website

Coverr: www.coverr.co | 🕒 10 mins | Any website

You don't have to have great video-making skills to get a stylish-looking video on your homepage. Coverr has lots of royalty-free videos you can download, send to your site and add to your HTML code



Go to www.coverr.co and browse through the available videos to find something you like. Click a thumbnail to open a preview box. Click 'See it as a Coverr' 1 to load the video into Coverr's site so you can see what it looks like. If you're happy with your choice, click Download. 2



Unzip the files to a folder, then open your FTP software. Find the files you've just downloaded 1 and the folder on your website that you want to keep them in, 2 then drag and drop the files from one to the other. Make a note of the folder they've moved to because you'll need it in the next step.



Use the Copy button 11 to select the code from the three tabs - HTML, CSS and JavaScript. 2 Paste the HTML and CSS into your existing HTML and CSS files, replacing the blue-highlighted text with the files' location on your site. Copy the JavaScript into the HTML in <script> headers or keep it in a separate file.

SITELOCK.COM

python

SiteLock SECURE

NEW! NEW! NEXT LEVEL HOSTING!

NEW: Full performance scalability! Customise your web project's performance level yourself, according to your own needs. Easily adjust your website's performance levels to match increasing traffic from, for example, newsletters, blogs, adding an online shop or resource intensive applications.

√ Next Level Performance

- **NEW**: 2.5 GB RAM
- **NEW:** Simple scalability with up to 19 GB RAM in just a few clicks
- Performance monitoring in the 1&1 Control Panel
- Change your performance level with no downtime

√ Next Level Speed

- **NEW:** Faster load times with HTTP/2
- NEW: PHP 7.1 + OPcache
- 1&1 CDN
- 24/7 Support

✓ Next Level Security

- SSL certificate included
- DDoS protection
- Geo-redundancy







C 0333 336 5509

Starting at
£ 0 99
//month*
Excl. 20% VAT

1&1

PHP///

1and1.co.uk



We test and compare the latest products

Inkjet printers

We've reviewed six multifunction inkjet printers, testing and comparing them for speed, quality of printing and running costs

nkjet printers have become increasingly affordable, with PC retailers and even supermarkets piling them high and selling them cheap. However, the bargain you take home might not seem such great value for money when you realise how often the ink needs to be replenished and how much that costs.

In this Group Test, we've reviewed six multifunction inkjet printers, including two older models that are currently available at heavily discounted prices. As well as looking at how well the printers perform, both in speed and print quality, we also scrutinised how much ink the printers consume and the cost of replacing their cartridges.

HOW WE TESTED

We ran each printer through a barrage of timed printing tests, including a five-page colour report, a 20-page monochrome text document and a full-colour photomontage. We then compared the output of each printer to assess quality, checking the clarity and definition of blacks and colours. We also compared the print capacity and price of each manufacturer's cartridges, to work out and compare the total cost of running each printer.

Brother MFC-J5330DW | £125.78 |

Buy from Amazon: bit.ly/brot425

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

This Brother inkjet is the largest printer in this test, so you need to make sure you've got enough room to house its bulky 530 x 398mm footprint. It's bursting with features, though, and is the only printer in

this round-up to offer A3 printing.

It was the fastest in our tests at producing mono prints, managing 16.7ppm (pages per minute), and it's no slouch at colour printing, either - only the HP Envy 4520 was faster. Print quality is also respectable: black doesn't have the definition you'd expect from a more expensive device but it's adequate, while photo prints are excellent, showing vibrant colour and good contrast between light and dark shades.

Given its great performance, you'd expect the Brother inkjet to charge a premium for its cartridges, but at 1p per mono print and 4.2p per colour print, the total cost of printing 5,000 pages came second only to the Epson.

VERDICT

This Brother inkiet is a beast of a printer, but if you've got the space for its sizable bulk, you'll find it has a lot going for it. It produces great-looking prints, both double-sided and A3, and excellent photos – and doesn't take ages doing it. Best of all, it's reasonably priced and cheap to run.



Buy from Amazon: bit.ly/ep425 FEATURES ★★★☆ PERFORMANCE ★★★☆☆

EASE OF USE *** VALUE FOR MONEY ***

Epson has taken a stand against the exorbitant running-costs of inkjet printers by switching cartridges for a system of internal ink tanks, refilled using cheaper bottles that hold enough ink to print 6,500 pages. The results speak for themselves: mono prints cost just 0.24p per page; colour prints cost 0.5p.



If value for money is your priority, the Epson is the ideal option. On the downside, refilling the cartridges can be messy and the printer has to 'charge' the ink after you've filled the tank, which can take 20 minutes. It's also slow: only the super-cheap Canon Pixma MG4250 took longer to print than the Epson's 9.9ppm mono speed. Quality isn't perfect, either: text suffers from ragged edges, while our test photos on plain paper were dull and lifeless, though they perked up considerably when printed on glossy paper.

VERDICT



This isn't the fastest or most capable printer, but if you print a lot and are willing to compromise on speed and quality, the low running costs are very attractive indeed. It also produces hardly any waste because there are no cartridges to throw away.

HP Envy 7640 | £100 |

Buy from Amazon: bit.ly/hpenv425

For a relatively low price tag, the Envy 7640 has a surprising number of additional features. A sheet feeder on the top of the device means you can dump a pile of stuff to copy or scan without having



to manually carry out each one, and it also comes with fax capabilities, if you're still sending and receiving them.

The quality of printing is good enough, particularly on photos and colour documents, but the black isn't as sharp as we'd like. Running the printer is expensive, too, because you'll have spent £359.97 by the time you've printed your 5,000th sheet.

Canon Pixma TS9050 | £219.99 | Buy from John Lewis: bit.ly/cants425

This unassuming box is well designed and has a large 12.6cm screen, which makes it slick and simple to operate.

If photo quality is your priority, this is definitely the



printer to go for. It wasn't that brilliant on plain paper but it comes into its own when printing on glossy paper.

However, it's expensive to buy and run, and by the time you've printed out your 5,000th page, you'll have spent £411.61. Most of this cost is due to its colour printing, which costs 8.7p per sheet. Mono printing come out at a more reasonable 1.4p per sheet.

VERDICT



Web∪

BRONZE



HP Envy 4520 | £52.85 |

Buy from Amazon: bit.ly/hpaoi425

The HP Envy 4520 has the same stylish, compact design as more expensive printers, despite being a couple



of years old. It has a touchscreen interface that makes it easy to control and was one of the fastest printers in this group, managing 16.3ppm in mono and 9.8ppm in colour. Even the print quality was reasonable, if not brilliant.

However, its running costs make it less appealing. At 5.3p per sheet when printing in mono, it's a pricey option that will have cost you more than £350 by the time you've printed your 5,000th page.

Canon Pixma MG4250 | £44.37 | Buy from Amazon: bit.ly/canmg425

The Canon Pixma MG4250 is an older model from 2012, but it's still available at a very cheap price. It has a built-in flatbed scanner, 802.11n Wi-Fi and a colour display, though this isn't a touchscreen and uses



buttons to control it. The printer is the slowest of the models we tested, printing at 8.8ppm in mono. We also found the print results disappointing because it laid down too much ink on colour prints, while mono printing lacked finesse. It was reasonable at printing photos on glossy paper, though our prints were a little grainy and the colours were muted.

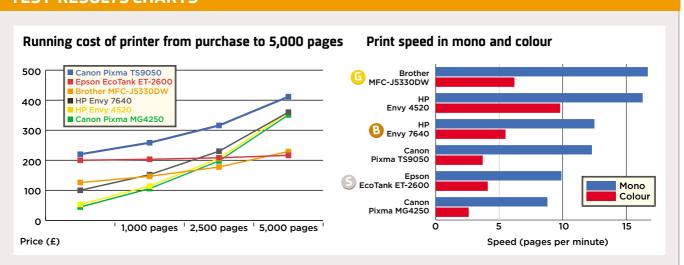
VERDICT



VERDICT

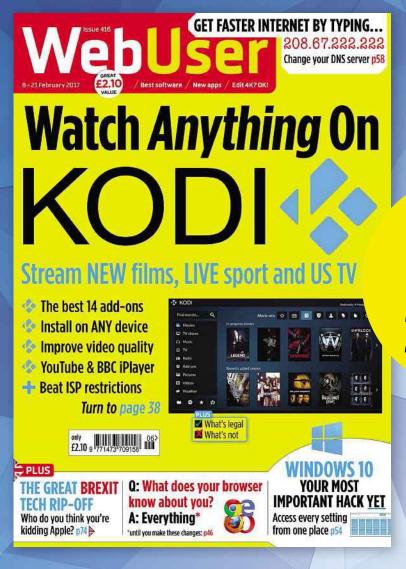


TEST-RESULTS CHARTS



DOES YOUR DAD LOVE TECH?

13 ISSUES FOR £19.99



SAVE up to 27%

Does your dad love getting the best out of the web? Web User would be the perfect gift this Father's Day from just £19.99.

Subscribe today: visit dennismags.co.uk/webuser or call +44 (0)330 333 9493 quoting code P1708PFD

Inkjet printers Group Test



	GOLDAWARD	SILVER	BRONZE	Drine 3
	Brother MFC-J5330DW	Epson EcoTank ET-2600	HP Envy 7640	Canon Pixma TS9050
WEBSITE	www.brother.co.uk	www.epson.co.uk	www.hp.com	www.canon.co.uk
PRICE	£125.78	£199.99	£100.00	£219.99
BUY FROM	Amazon: bit.ly/brot425	Amazon: bit.ly/ep425	Amazon: bit.ly/hpenv425	John Lewis: bit.ly/cants425
MAXIMUM PRINT RESOLUTION	4,800 x 1,200	5,760 x 1,440	4,800 x 1,200	9,600 x 2,400
MAXIMUM SCAN RESOLUTION	1,200 x 2,400	1,200 x 2,400	1,200 x 1,200	2,400 x 4,800
INPUT CAPACITY	250 sheets	100 sheets	125 sheets	120 sheets
OUTPUT CAPACITY	100 sheets	30 sheets	25 sheets	30 sheets
DOUBLE-SIDED PRINTING	1	X	X	1
DISPLAY	6.8cm resistive LCD	X	8.9cm capacitive LCD	12.6cm capacitive LCD
WIRELESS	802.11n	802.11n	802.11n, NFC	802.11n
DIMENSIONS	530 x 398 x 304mm	445 x 304 x 169mm	454 x 410 x 193mm	372 x 324 x 140mm
WEIGHT	16.9kg	4.6kg	7.7kg	6.75kg

OUR VERDICT

We awarded our Gold Award to the Brother MFC-J5330DW because it's got what it takes in all the right places. Crammed with features, from a sheet feeder to A3 printing, it's excellent at printing photos, prints at a very reasonable speed and offers good value for money, both in the asking price and the long-term cost of printing.

Anyone looking for an affordable, waste-free printer should seriously consider the Epson EcoTank ET-2600, which is significantly cheaper to run than the other printers we reviewed here. However, it's not as quick or as good at printing as the Brother.

Our Bronze Award goes to the HP Envy 7640, because it produced great-looking prints and has many of the extras you'll want from a multifunctional printer and scanner. However, it's not ideal if you print a lot because the running costs are high.



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

HARDWARE

INKJET PRINTER

Brother MFC-J5330DW

£125.78 from bit.ly/brot425 Tested: Issue 425



Provided you can find space for this bulky printer, you won't be disappointed, because it's very reasonably priced, cheap to run and produces great-looking prints - especially photos. You won't have to wait long for them to print, either.

KEY SPECS

4,800 x 1,200dpi maximum print resolution ■ 1,200 x 2,400dpi maximum scan resolution ■ 250-sheet input capacity ■ 100-sheet output capacity ■ Double-sided printing = 802.11n Wi-Fi = 530 x 398 x 304mm = 16.9kg

TABLET

Apple iPad

From £339 from bit.ly/ipad424 Tested: Issue 424

Apple has reduced the price of its new standard 9.7in iPad, making the tablet the cheapest it's ever produced. Battery life is excellent, performance is swift and the screen and build are top quality.

KEY SPECS

Tri-core 1.5GHz processor ■ 8-megapixels rear camera ■ 9.7in 2,048 x 1,536 pixels-resolution screen ■ 1.2-megapixels front camera = 32/128GB storage = 2G RAM = iOS 8.1 = 240 x 169.5 x 6.1mm ■ 437g ■ One year return-to-base warranty

SMART ASSISTANT

Google Home

£129 from bit.ly/home422

Tested: Issue 422

Google Home is a remarkable home helper and we can't recommend it more highly. It can already control a variety of apps and services, with more to come, and has a good-quality speaker. It's simply designed to enrich your life.

KEY SPECS

High-excursion speaker ■ Supports HE-AAC, LC-AAC, MP3, Vorbis, WAV, FLAC and Opus ■ Far-field voice recognition ■ microUSB, DC power ports ■ Android 4.2+ and iOS 8+ ■ 477a ■ 142.8 x 96.4mm ■ 802.11b/g/n/ac Wi-Fi (2.4GHz/5GHz)

GRAPHICS CARD

Asus AMD Radeon R7 250

£78.59 from bit.ly/250amd416 Tested: Issue 416



This graphics card provides enough power to make less challenging games run smoothly in 1080p resolution with high-detail settings enabled. It's very cheap and benefits from plenty of speedy stream processors.

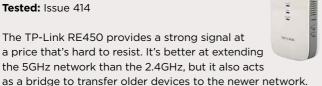
KEY SPECS

2,048 stream processors ■ 128 texture-mapping units ■ 32 render-output units ■ 926MHz GPU frequency ■ 4GB RAM Supports up to six displays 4,096 x 2,160 pixels resolution ■ DisplayPort, DVI-D and HDMI video connectors

WI-FI REPEATER

TP-Link RE450

£44.99 from bit.ly/tpl414



2 x 60mm, 1 x 42mm antennae ■ 3.8W power consumption ■ 2.4GHz (450Mbps) and 5GHz (1,300Mbps) ■ 802.11ac Wi-Fi ■ WPS button ■ Repeater and access point modes ■ 163 x 76 x 37mm ■ Three-year return-to-base warranty

MONITOR

AOC Q2781PQ

£299.99 from bit.ly/aoc412

Tested: Issue 412



This good-value monitor offers impressive image quality, a lovely design and 178-degree horizontal and vertical viewing angles. You won't need to calibrate it, either. If you're after a monitor with a resolution of 2,560 x 1,440 pixels, buy this.

27in flat screen = 2,560 x 1,440 pixels resolution = 1,000:1 contrast ratio ■ 350cd/m² brightness ■ 60Hz refresh rate ■ DisplayPort, HDMI, VGA inputs ■ 330 x 180mm base ■ Three-year collect-and-return warranty

SOFTWARE & SERVICES

CLOUD BACKUP

CrashPlan

£49 per year from www.crashplan.com

Tested: Issue 420

CRASHPLAN (

If you've got a substantial archive of data, CrashPlan is an impressively versatile and cost-effective way to keep it safe.

KEY FEATURES

\$59.99 (around £49) per year for 1 PC • Unlimited storage • Back up external drives ■ Compatible with Windows 7/8+/10, MacOS 10.9+, Linux, Android 3.2+ and iOS 7+

INTERNET SECURITY

Kaspersky Internet Security 2017

£19.95 from bit.ly/kaspersky2017 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. Use the URL above to save £15.04 (normal price £34.99).

KEY FEATURES

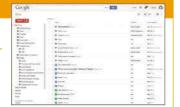
Antivirus and firewall tools ■ Protects online shopping and banking Identity and privacy tools Advanced ad blocking

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, 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 ■ Extra paid-for storage available

Web User Gold Award winners

TO-DO LIST TOOL

Todoist

Free from todoist.com

Tested: Issue 424

Todoist is the ultimate to-do list tool.

Adding new tasks is simple, whether

you're managing small projects or complex ones.

NEW

PRIVATE BROWSER

Epic Browser

Free from www.epicbrowser.com

Tested: Issue 423

For total privacy online, Epic

Browser is fast, easy to use and

offers all the tools you need to stay anonymous.

epicbrowser.com



VIDEO-CALLING APP

Google Duo

Free from duo.google.com

Tested: Issue 422

Google Duo is designed to put you at your ease. Calls are smooth and it's very easy to set up and use.



REMOTE-DESKTOP SOFTWARE

TeamViewer

Free from www.teamviewer.com

Tested: Issue 420

This powerful free remote-desktop program has an impressive array of features.



chrome

SCREEN RECORDER

oCam

Free from bit.ly/ocam419

Tested: Issue 419

Record for as long as you like, in any

format, and use great extras such as picture-in-picture video.

INTERESTED IN MAGAZINE STANDARDS?



If so, IPSO, the regulator of magazines and newspapers, is looking for people to join their Readers' Advisory Panel. The panel - which will meet three times a year - will support IPSO's work and give readers the opportunity to share their views on media issues. No experience is required, just an interest in editorial standards. IPSO will cover travel expenses and pay you £200 for every meeting you attend.

If you are interested, please go to: www.ipso.co.uk/about-ipso/vacancies/

Best Free Software

SURVEILLANCE SOFTWARE

ContaCam 7

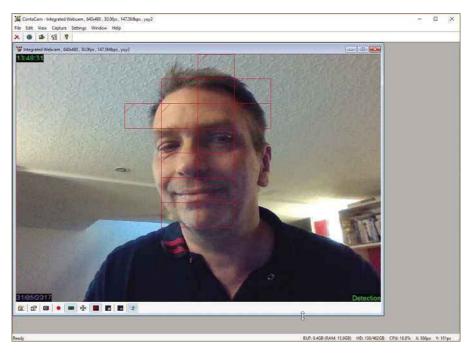
bit.ly/conta425

Min requirements: Windows XP/

Vista/7/8+/10 File size: 16.4MB

If you're looking for capable videosurveillance software that does the job for free, ContaCam is the perfect tool. It's been around since 2010 and supports almost any type of camera you're likely to own, including webcams, WDM and DV devices, and Network cameras. The best thing about ContaCam is that it can handle video from multiple cameras, which means you can monitor your entire home with a single program. It's highly configurable, too, so you can set it up to suit your exact needs.

We found its motion detection reliable, but you can tweak its performance by adjusting the sensitivity and the size of the detection area. You can also schedule times when the program is active, which means you can disable detection while you're at home and awake, and turn it back on when you're out at work or in bed. When the software detects motion, you can opt to view the event as animated thumbnails in your web browser, have the footage



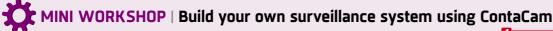
uploaded via FTP, receive email notifications or trigger a specific action.

You don't have to wait for an alert, however, because ContaCam lets you watch live footage from your cameras whenever you like. You can view it remotely by enabling port forwarding or using Dropbox, set up 24-hour digitalvideo recording and view past captures.

The latest version of ContaCam introduces native support for Real-Time

Video Streaming Protocol (RTSP) cameras and updates the internal web server. It can now obscure the video source from the web interface - which is handy if you don't want people to know where your cameras are - and capture audio from a custom source.

To download the program from the Contaware.com website, go to the Download page, click 'latest', 'english' and then ContaCam-7.0.0-Setup.exe.

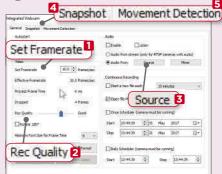




Make sure all your cameras are connected, then open ContaCam's Capture menu 11 and select a camera from the list. A video window will open, 2 along with a Basic Settings screen. 3 From here, you can set the usage mode: movement-detection surveillance, snapshots with or without history, or manual record. 4



You can change the name of your camera 🚺 and choose a format for saving captured video (MP4 by default, or AVI), as well as how long to keep recordings, and the amount of harddrive space to reserve for recorded footage. 2 You can also set up email notifications. 3



Click Settings and select Camera Advanced Settings. From here, you can set the framerate 11 and recording quality, 2 and manage the audio, which includes the option to add a custom source. 3 Click the Snapshot tab 4 to customise the parameters, and the Movement Detection tab 5 to configure those settings.

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

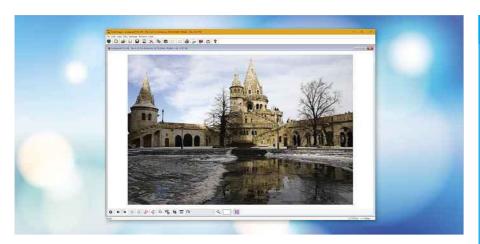


IMAGE VIEWER

FreeVimager 7

bit.ly/freev425

Min requirements: Windows XP/Vista/7/8+/10 File size: 1.7MB (installer)/4.7MB portable

FreeVimager's developers have packed an amazing number of features into its tiny file size. This free, speedy image viewer and editor lets you resize and crop your images; adjust the brightness, contrast, saturation, hue and gamma; remove red-eye; edit EXIF data; export images to PDF; display photos in slideshows; burn them to disc and more. The latest version of FreeVimager introduces numerous fixes, and there are standard and portable editions of the program available.



WEATHER FORECAST SterJo Weather Forecast

www.sterjosoft.com

Min requirements: Windows XP/ Vista/7/8+/10 File size: 634KB

This simple floating widget displays the current weather and a five-day forecast for your area or a location of your choice. The weather information, which it draws from Yahoo, includes the current 'feels like' temperature, humidity, visibility, wind speed and sunrise and sunset times. You can refresh the weather details at any time, and switch between Celsius and Fahrenheit at the click of a button.



IMAGE BURNER

Etcher

etcher.io

Min requirements: Windows 7/8+/10, MacOS, or Linux File size: 73.1MB

Etcher simplifies the process of writing disc images, such as ISO or IMG files, to USB drives and SD memory cards. To use it, simply load your image, select the drive to which you want to save it and click the Flash button. It also stops you accidentally overwriting a fixed drive. Version 1 of the program is much more stable than previous beta releases, and an early command-line version is : also available to download.

New Windows Apps

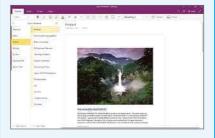
Send to OneNote

bit.ly/onenote425

Min requirements: Windows 10

File size: 28KB

This app from Microsoft lets you 'print' from any app to a OneNote page so you can access the note's content on all your devices. You'll need to have OneNote for Windows 10 installed to use it.



Gravit Designer

bit.ly/grav425

Min requirements: Windows 10

File size: 152.4MB

Gravit Designer is a free vectordesign app that you can use to create flyers, marketing materials, websites, icons, presentations and more. You can also edit SVG files and import and export PDFs.



InstaFollow

bit.ly/insta425

Min requirements: Windows 10

File size: 19.6MB

If you're an Instagram user (see our feature on page 44), this app will help you keep track of your followers. See who has stopped



following you, find out which people don't follow you back, and more.

Best Free Software

IMAGE VIEWER

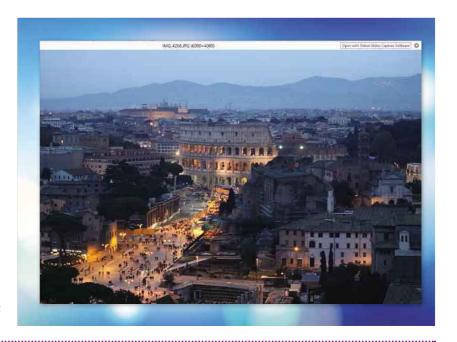
QuickLook

bit.ly/qlook425

Min requirements: Windows XP/ Vista/7/8+/10 **File size:** 56.2MB

MacOS has a useful feature called Quick Look that lets you preview a file instantly by highlighting it and hitting the spacebar. QuickLook brings this same feature to Windows. Once it's installed, you can preview a file by going into File Exlorer, highlighting the file and hitting the spacebar. It works with a wide range of file types, including images, videos, archives, PDF files, HTML documents, Office documents (provided you have Office installed) and text files, among others.

Press the up, down, left and right arrow keys in QuickLook to preview another file, and use your mouse wheel to zoom in and out of the preview.



Westment Westment Westment Williams Westment Williams Willia

WORD PROCESSOR

Jarte 6

www.jarte.com

Min requirements: Windows XP/Vista/7/8+/10

File size: 3.49MB

This free word processor is based on the WordPad program that's built into Windows. The software can open TEXT, RTF, DOC and DOCX files, and lets you work with images, tables, hyperlinks and objects. Among its features, it offers tabs, a clipboard manager, support for templates, paragraph-formatting options, a spell-checker, screen-capture tool and auto-save.

Jarte's interface may take some getting used to, but it offers all the tools you need. Buttons on the left and right provide access to different menus, and four buttons in the middle let you customise the interface, display document information (number of pages, lines, words and characters), manage tabs and zoom in or out.

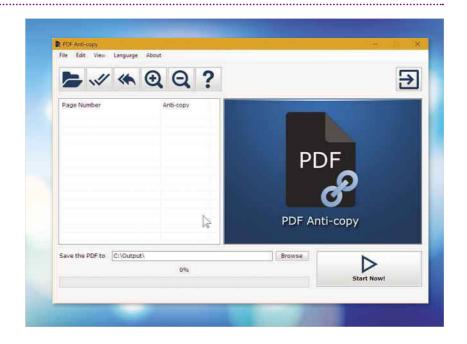
PDF TOOL PDF Anti-Copy

pdfanticopy.com

Min requirements: Windows XP/ Vista/7/8+/10 File size: 18.3MB

Turning a document into a PDF file used to require expensive software, but these days it's free and very easy to do. Windows 10 comes with its own built-in Print to PDF feature, and there are plenty of third-party tools available for free. If you're worried about people copying text from a PDF you've created, this program offers a simple solution that will foil their efforts.

Simply open your PDF, choose to protect either individual pages or the entire document, and click the Start Now button. This replaces all the text on the pages with vector graphics that can't be copied as easily as text can.







GAME Tracks

bit.ly/tracks425

Min requirements: Windows XP/

Vista/7/8+/10 File size: 201MB

This fun virtual train set lets you lay down tracks for an engine to follow. You can place and remove pieces of track, change the direction of travel and create crossings and bridges. When your track is complete, switch to Train mode and you can ride your wooden creation in 3D.

Don't install...

...Install this instead

iTunes

apple.com/uk/itunes

Min requirements:

Windows 7/8+/10 or MacOS File size: 247MB

iTunes gets a lot of stick for being bloated, sluggish and difficult to work with, and despite recent versions improving its interface, it's still a bit of a monster. We really like the Library, which has a streamlined design and makes it easy to manage your music, but its Radio and Store sections are so slow and buggy, even on a brand new laptop, that they're barely functional.



MusicBee

getmusicbee.com

Min requirements: Windows Vista/7/8+/10

File size: 11.6MB

MusicBee is our favourite audio player, thanks to a winning combination of performance and features. It uses FLAC - the most popular lossless audio format - by default, and provides an equaliser, volume normalisation and gapless playback to enhance your listening. As well as ripping music from CDs and creating playlists, you can listen to internet radio, podcasts and audiobooks. It syncs with your Android device, too, so you can start listening to something on your PC and continue on your mobile device. It's very easy to use and has an appealing interface.





UPDATED | New tweaks and fixes for your favourite free programs



MEDIA CENTRE

Kodi 17.3

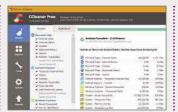
kodi.tv

Min requirements:

Windows XP/Vista/7/8+/ 10, MacOS or Linux

File size: 80MB

As you're no doubt aware, Kodi is a popular media centre that can play all types of audio and video file, whether saved locally or streamed over the internet. This update solves a problem with binary add-ons, and fixes a bug that made Kodi crash on old Linux distributions.



SYSTEM CLEANER

CCleaner 5.30

www.piriform.com/ccleaner

Min requirements: Windows

XP/Vista/7/8+ File size: 9.1MB

This hugely popular system-cleaning tool is updated every month. This latest version improves cookie cleaning in Edge and updates history cleaning for Internet Explorer 10 and 11. The tool's SSD detection algorithm has received some improvements, too, and its update checking process has also been optimised.



FOLDER HIDER

Wise Folder Hider 4.17

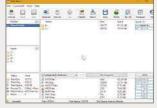
www.wisecleaner.com

Min requirements: Windows

XP/Vista/7/8+/10

File size: 3.4MB

If you have a particular file, folder or USB drive that you'd prefer to keep private, this handy tool will help you conceal it from prying eyes. The update improves support for 32-bit versions of Windows and USB devices. It can also hide parts of the system directory. and various translations have been updated.



DRIVE TOOL

DiskSavvy 9.7

www.disksavvv.com Min requirements:

Windows XP/Vista/7/8+/10

File size: 5.6MB

DiskSavvy lets you analyse your hard drive and other drives to see how they're being used and find out where all that free space has vanished to. The latest version adds options to the dialogue box to show the largest files, so you can view reports about those files and export more information.

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



Best New Browser Tools



CHROME

Turn offensive online comments into emoji

It's a sad fact that many social-media sites serve as a magnet for idiotic and obnoxious comments, which can spoil your enjoyment of otherwise interesting posts and videos. Rather than avoiding comments sections altogether, why not turn those unpleasant 'opinions' into harmless emoji? That's the idea behind Behave (bit.ly/behave425), which automatically hides "toxic comments" on YouTube, Twitter and Reddit and replaces them with cute faces and objects, including the ever-popular 'poop'. The add-on lets you specify the toxicity level you're willing to tolerate, from 'I'm too



young to die' to 'Doomed'. You can click comments to reveal them if you dare, and help Behave choose the right emoji for any future comments it filters by clicking 'Improve score' and selecting an icon. It's a fun way to make the web a nicer place.



Discover new books on your New Tab page

Want to find something new to read that isn't just Amazon recommending something based on your past purchases? Then try 100 Million Books (www.100millionbooks.org), a new Chrome extension that selects good reads and displays them on your New Tab page. For each book, the add-on provides a description, a short extract and a link to reader reviews on Goodreads. There's also a link to see the book on Amazon although, annoyingly, this takes you to Amazon.com rather than the UK store – however, most of the choices can also be found in both.

With 100 million titles to stumble upon (in theory, at least – we didn't browse them all), you'll never be stuck for reading inspiration again, and you can even submit your own quotes from favourite tomes.

Save and reopen multiple tabs in one go

Chrome lets you bookmark all your open tabs at once, either by pressing Ctrl+Shift+D or by right-clicking a tab and choosing 'Bookmark all tabs'. The main drawback to this is that you end up with loads of bookmarks and need to select each one individually to restore a previous session. To make things easier, install the new add-on BetterMarks (bit.ly/better425), which lets you save all your open tabs as one group and reopen them with a single click. Just click the add-on's toolbar button, enter a name for the 'task' and click Save. You can create as many groups as you want, merge them all into a single collection and restore the lot by clicking Open. Your tabs remain stored even when you restart your browser.



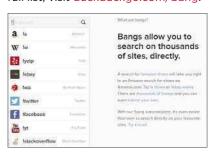
Use DuckDuckGo 'bangs' in Google and Bing

Hide Improve score

Aside from keeping your searches private, one of DuckDuckGo's best features is its support for 'bangs' – quick commands that let you search thousands of sites by typing, for example, !w for Wikipedia, !twit for Twitter or !azuk for Amazon .co.uk, followed by a search term.

A new extension called !Bang Quick Search (bit.ly/bang425) adds this functionality to Chrome so you can use bangs with Google and Bing, whichever is your default search engine. Type your bang into the address bar, followed by your search term (or the other way around), press Enter and you'll be redirected to the relevant site to view matching results. Alternatively, type the bang to open the website's homepage.

!Bang Quick Search works with all DuckDuckGo's bangs - to see the full list, visit duckduckgo.com/bang.



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



FIREFOX

Set website cookies to delete automatically

Cookies are useful for remembering your logins and preferences for websites, but there's no reason to keep them for sites you don't plan to revisit, especially because they could be used to track you around the web. Cookie AutoDelete (bit.ly/cookie425) is a new Firefox WebExtension, which - as you may have guessed from the name - deletes all the cookies set by a site as soon as you close its tab. It works automatically in Active Mode, or you can clear cookies manually by clicking its toolbar button and choosing Cookie Cleanup (to blitz all stored cookies)



or Clear All Cookies For This Domain. Adding a site to your whitelist prevents its cookies from being deleted, which is worth doing for your favourite online destinations. Additionally, Cookie AutoDelete's toolbar icon shows you how many cookies a site has implanted in your browser, to flag up the worst offenders.



Download any video from Facebook

If you want to keep for posterity that amusing cat video or interesting news report shared by a Facebook friend, you can do so in a couple of clicks using Facebook Video Downloader (bit.ly/ facebook425). This new tool adds a Download button to every video on the social network, directly below the main window to the right of the Comment and Share options. Click this and the clip will be converted to MP4 format in a new tab, so you can download it to your hard drive or Dropbox folder. Unlike similar downloaders, the add-on also lets you crop the converted video to focus on the best bit, so you can remove adverts and other irritations. See our cover

feature on page 38 for more advice about capturing video from the web.

Strip the EXIF data from your photos

All cameras, including the one on your phone, record EXIF (Exchangeable Image File) data containing details such as when and where a picture was taken, which could compromise your privacy if you share your snaps online. Some photo-sharing services, including Facebook and Instagram. automatically strip the EXIF data from images you upload, but Google Photos and Flickr don't, which is where Picture Exif Cleaner (bit.ly/exif425) comes in. Browse to a JPEG image on your hard drive that you want to share and this add-on will find and remove the EXIF data. You can then right-click and save the stripped result.



OTHER BROWSERS

Fill in form data automatically If you ever get tired of

entering the same information over and over again when you register with a website or make an online purchase, you'll appreciate a new Opera add-on called Form Filler (bit.ly/ form425). This collects and saves

the data you type into online

forms so you can re-enter it instantly with a single click. The extension detects the number of



input fields on any page and captures the data (offline) accordingly. You can easily turn off its Auto Collect and Auto Fill features when required, and delete any personal info you don't want stored.

Add printing options to Edge

Slowly but surely, Microsoft's Edge browser is gaining some useful add-ons, the latest of which is its version of the popular Chrome extension PrintFriendly (bit.ly/print425). This helps you save ink and

paper when printing web pages by removing adverts, navigation bars and other unwanted

Simply hover your mouse over an item and click to delete it from the printed page. You

can also

elements.



change the size of the text and images, and avoid using any ink or paper at all by printing the page to a PDF file instead.



Best Free Apps

App of the Fortnight

AUDIO & VIDEO

Timbre

timbre-app.com 4.1

This excellent editing app offers a small but wellselected set of tools for chopping your media files down to size - for example, to trim your messy mobile videos for easier sharing. or extract your favourite clips from songs and audiobooks.

Besides trimming your files, Timbre can also convert between formats; remove sections from files, then seamlessly join the gap; speed up audio;

extract sound files from videos; add audio to your videos; and even change their bitrate so they take up less space.

CΞ

(1)

Speed

■ Video

CΞ

All these features are very easy to use and, broadly, work well. We get the impression that Timbre was originally designed for editing audio files, and then added support for video simply because it could. Audio tools are presented at the top when you launch the app - full name 'Timbre: Cut, Join, Convert mp3' - and Video is stuck lower down. And indeed, we found the tools worked better with smaller files, such as songs, and somewhat less well with large video files. Timbre is not a big app - at 20.9MB, it's a sixth the size of Twitter - and it struggles when converting videos or joining a number of clips together. The limited memory of our budget Moto phone probably didn't help.



Timbre's default save settings made us a bit nervous. If you edit a file (trim it,

remove a section, remove its audio and so on), Timbre doesn't offer to save a new version - instead, it overwrites the original. You can avoid this by changing the filename when saving (as we explain in our Mini Workshop, right) but it's easy to lose the original files by accident. Ouch.

Still, we love that Timbre does for free what most apps charge money for - and it

doesn't include a single advert or in-app purchase.





Ð

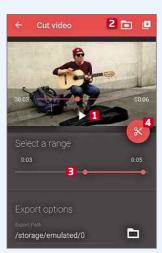
罿

4

13

MINI WORKSHOP Trim a video and join clips together using Timbre

Install and launch Timbre. Swipe up to the Video section, then tap Cut to go to the Recent screen of your video library. Tap a video to open and play it in Timbre. 11 The icons at the top-right of the 'Cut video' screen take you to other media folders. 2 To trim the video, drag the ends of the 'Select a range' slider **1** to your desired start and end points, then tap the scissors to save. 4



By default, Timbre will overwrite your old, longer video with the new trimmed one. To avoid losing the original, edit the filename or path before you tap the scissors. Swipe up to File Name then add a suffix, such as '-trimmed', 11 or change the Export Path folder 2 and create a folder just for trimmed videos. The 'Cut audio' tool works in just the same way.

To join two or more clips together, tap Back, then tap Join. On the 'Join videos' screen, tap '+', 11 navigate to the first video you'd like to use and then press it firmly. Repeat for as many clips as you want, but be aware that Timbre struggles with large files. To remove a clip, tap its 'X'. 2 To export the clips as one seamless video, tap the arrow. **3**





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

DRIVING

Android Auto www.android. com/auto **1** 5

In the first of this fortnight's two Google updates, support has been added to its driving companion app for all types and make of car



- including older models. Android Auto takes the navigation features of Google Maps and adds what it calls "the key stuff" you need on the road, including music controls, text notifications and turn-by-turn directions. All features support voice-control ('OK Google') to discourage you from tapping your device while driving. Be aware that Android Auto will race

through your battery, so make sure you keep a USB cable in the car for long trips.



PHOTOS

Google **Photos**

bit.ly/ photosdroid425 bit.ly/ photosios425 🗰 (varies with device)



Google's automatic backup tool and

unlimited storage have made life much easier for prolific snappers and their over-clogged devices. Even so, your Google Photos view quickly filled up with thousands of images, and there was no Gmail-style Archive option - until now. Select a photo or photos, tap the three-dot icon and then tap Archive to hide them. To find your Archive, tap the menu. As well as clearing the clutter, the new feature is ideal for



Our rating

hiding sensitive photos

such as receipt scans.

LIVE VIDEO

Mixer

UPDATED

bit.ly/ mixdroid425 bit.ly/mixios425

4.0.3 8.2

Microsoft's relaunch of live-streaming service Beam boasts "faster than light stream



protocol" for super-smooth video, and adds support for collaborative streaming using a split screen to present videos side by side. It's mostly used by gamers broadcasting their Xbox Live triumphs, but we also found live football, art demonstrations and good old webcams featuring Siberian puppies - and it's free to add your own stream. There's also a beta

app for Android, Mixer Create (bit.ly/create425), which lets broadcasters interact with viewers.



Our rating



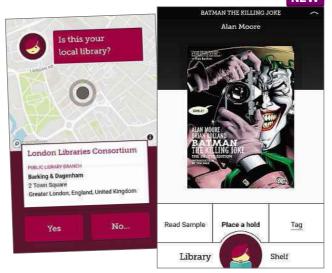
BOOKS

Our rating

Libby

meet.libbyapp.com 4.4 9

Your local library lets you borrow ebooks and audiobooks as well as paperbacks and hardbacks. Libby lets you browse their collections, then download content for offline reading, without having to visit the library in person which is handy if 'local' isn't particularly nearby. You will have



to join the library (or multiple libraries) first, however, and then sign into the app using your card. Libby helps you find public libraries near you and is very easy to use, even allowing you to sample books before borrowing. The app serves as an e-reader and audio player - or both at once, in the case of graphic novels and picture books with read-along audio - and supports streaming as well as downloading, to save space on your virtual shelves.



GET THE DEFINITIVE GUIDE TO ANDROID

Our updated Android MagBook is packed with 148 pages of apps, workshops and advice to unlock the full potential of your tablet and phone.



Discover how to:

- Master new tools in Lollipop and Marshmallow
- Stop apps leaking your personal data
- Record anything on your phone and tablet
- Prevent updates from wrecking vour device
- Remove hidden junk so it never comes back
- Switch from iOS without

Order it now from Amazon at bit.ly/androidbook2016



*Recommend free phone apps at www.facebook.com/webusermagazine



EMAIL

Astro

www.helloastro.com



Developers are jostling to drag email up to date with gimmicks such as AI (artificial intelligence) and voicecontrolled personal assistants. Smart email app Astro - which supports Gmail, Office 365 and cloud-storage services - automatically unsubscribes you from lists, archives old messages, chooses VIP senders and detects

questions in messages, all with one tap. Its Astrobot assistant can set reminders, find contacts and even toss a virtual coin on demand. Other features include scheduled sending, message tracking, customisable signatures and snooze buttons. There's currently

no support for Microsoft Exchange or IMAP, but both are due to be added soon.



Our rating



HEALTH

Echo

NEW





Take the pain out of prescriptions by using Echo to get medication reminders, order repeats from your GP and even have your medicine delivered to your door from a local pharmacist - all for free, including postage in secure,



discreet packaging. This superb app was designed by NHS doctors and patients, and they've really thought about potential concerns: AES encryption is used to protect your data, and the service only works with fully accredited UK-based NHS pharmacists. You don't even have to set up a link to your doctor because it works with your GP's existing system. Currently iOS-only, but coming soon to Android.

Our rating



APPS WORTH PAYING FOR

Next Chess Move

nextchessmove.com

Price: £2.79 (Android), £2.99 (iOS)



Improve your chess skills (or cheat) using this powerful new calculator. Drag the pieces into position and let the app reveal the strongest next move you can make.

PRODUCTIVITY

Things 3

bit.ly/things425

Price: £9.99



Ten quid for a to-do list may seem steep, but this redesigned app is a multi-purpose personal assistant capable of turning your messy life into a streamlined workflow.

SIMULATOR

Flight Simulator FlyWings 2017

bit.ly/flightdroid425 bit.ly/flightios425

Price: £2.99 4.1 8.1

Show British Airways how



当 里 鱼 图 台 ••• A < > ≡





it's done by piloting planes to more than 600 airports around the world. You can choose from 50 very detailed aircraft, but only fly from US cities.

TV & CAMPING

FreePoint 2

bit.ly/freepoint425

Price: £1.99



Caravan owners can stop wasting entire weekends trying to make the TV work. FreePoint 2 does it for you, with Freeview channel settings and even aerial directions at thousands of campsites across the UK.

PHOTOGRAPHY

GSimpleRelease

www.minaxsoft.com

Price: £1.69 (Android), £1.99 (iOS)

4.0.3 8.2

This app turns your phone or tablet into a remote control for Panasonic Lumix cameras, making close-ups and selfies infinitely easier to shoot. See examples on Flickr at bit.ly/gflickr425.





FreePoint 2

Next Chess Move

Flight Simulator FlyWings 2017



GSimpleRelease









Things 3

NEW



Best New Mobile Games

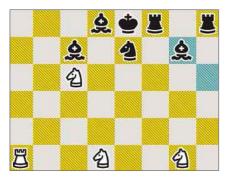
NEW

STRATEGY

Really Bad Chess

bit.ly/chess425





Even grandmasters will be baffled by this chess app. Rather than commanding a standard set of pieces, Really Bad Chess lets you play using a random configuration - say, eight knights, four bishops and only three puny pawns. By keeping the same moves as standard chess but mixing up the pieces, this version yields different tactics and outcomes. You can play against your phone or tablet for free in ranked, daily or weekly challenges, while a

on your friends. Our rating

£2.99 in-app purchase

removes all adverts

and lets you take

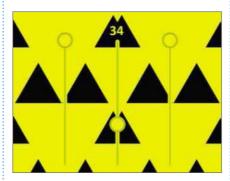


PUZZLE

Yellow

bit.ly/yellow425





This game doesn't sound particularly thrilling - press, swipe and drag the shapes until all the black is eliminated and the screen is completely yellow - but it's incredibly addictive. The solution to each of Yellow's 50 levels is different from the last, and although the game starts easy, you'll soon be scratching your head wondering what to do. You can get hints by tapping the light-bulb button in the bottomright corner - although, annoyingly, these are preceded by

ads - and you can play a browser-based version at the link above to get a feel for the game.



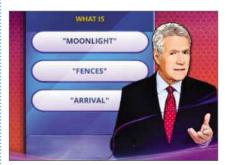


NEW : QUIZ

Jeopardy! World Tour

bit.ly/jeopardydroid425 bit.ly/jeopardyios425

4.4 9



Jeopardy! never took off in the UK but it's the most successful quiz show ever in the US and you can now play this international version on your phone or tablet. Choose from thousands of categories, guess the questions for the multiple-choice answers (that's how the quiz works) and win as much virtual money as you can, to climb the leaderboard. You can challenge your Facebook friends and make your way around the world to take on new competitors. Oh, and

an animated version of Jeopardy! host Alex Trebek fronts the game, too.

Our rating



X Don't install...

GPS Navigation Maps Traffic

bit.ly/gps425

This navigation app looks more like a children's game than a reliable way to find your way around, and in practice it's even less useful



than that. Tap one of the options on the home screen - oddly, these are Search, Restaurant and Hospital - and all it does is open Google Maps on your phone. It's also stuffed with ads - ironically, promoting superior mapping apps! Definitely one to avoid, or else you'll end up going round in circles.

...Install this instead

Here WeGo

wego.here.com

4.1 9

Although roaming charges are being scrapped in Europe this month, it can still be a hassle to use maps on your phone while you're on holiday, especially if you can't get a network connection. Here WeGo app solves this problem by letting you download maps of Europe, America, Australia and most other countries to use offline. These maps don't only guide you from A to B, but also provide details of hotels, restaurants, car parks, petrol stations, public

transport, cash points and much more. When online, you can get real-time traffic updates and turn-by-turn, voice-guided directions. It's an essential travel companion.







PACE Everything you need to know about the most interesting new technology trends and events



Google is working on a new operating system that could change computing forever. David Crookes takes a peek into the Fuschia

What is it?

Fuchsia is Google's third stab at an operating system following the success of Android and Chrome OS. Although it's still in the early stages of development and Google is keeping tight-lipped over its intended function, strong evidence suggests it will run on both mobile and desktop devices and could even replace Android and Chrome OS. Only time will tell if this is true but it's certainly getting tongues wagging.

When was it announced?

Google sneaked Fuchsia out last August when it posted some code on the two online repositories GitHub (github.com/ fuchsia-mirror) and Google Git (fuchsia

.googlesource.com). The only accompanying description was: "Pink + Purple == Fuchsia (a new Operating System)", which was immediately seized upon by tech blogs, some of which went as far as claiming that it could be the future of computing.

What do we know about Fuchsia?

We know it's open-source and is being distributed for free. It's also a 'real-time operating system', which means it processes data as it comes in, thereby slashing processing time requirements. Interestingly, Fuchsia is not being built on Linux as Android or Chrome OS are. Instead, the new operating system uses

a microkernel called Magenta, which has been developed by Google itself. A kernel is the core component of an OS, controlling how software is processed by a device's hardware, which suggests that the web giant intends to use its own building blocks this time around.

What's so special about this kernel?

It is based on a project called Little Kernel, which was designed for software that powers computers with a specific function, such as items that comprise the so-

Could these pink and purple fuschia have inspired the new OS? called Internet of Things (thermostats, lights, routers and the like). This gives some idea of the direction in which Google may be heading. What makes matters more intriguing is that Google has confirmed that Magenta is designed for phones and fast-processor PCs. This had led to speculation that Fuchsia will be an all-encompassing OS that can be the engine for just about anything.

But why is Google ditching Linux?

It is not ditching Linux in general, just for Fuchsia. Perhaps one reason is that Android is using outdated versions of the Linux kernel the recent Google Pixel smartphone, for instance, uses version 3.18 even though this was released almost three

vears ago -



Google Pixel looks smart but, internally, it's part of a bygone era

that's an eon in technological terms. It's understandable that Google wants to keep its products as up-to-date as possible and the only way to truly control that is to start from scratch with your own building blocks.



So Fuchsia could be in competition with Android?

Google experimenting with a completely new OS suggests this is at least possible, although it could just be a replacement for Android. As we've said, Fuschia could become an all-rounder phone, tablet, computer and Internet of Things OS.

What does it look like?

When Fuchsia first emerged, it had a command-line interface, which meant it could only respond to typed commands such as cd, cp and echo. Development



You can't really tell much about Fuschia from images like this

has moved quickly and Fuchsia now has a user interface called Armadillo. It's being dubbed "the default system UI for Fuchsia" and there's already enough to give you a good feel for the system. It has a vertical scrolling list of apps, as well as a card-style design similar to Google Now, A profile

card has your details and opens to reveal lots of settings such as battery life, Wi-Fi

information, brightness, aeroplane mode and orientation lock. While it's by no means the final product, it's already clear that it doesn't look much like Android.

How much of an improvement

There are some nice early touches, such as the ability to run split-screen apps.



Fuschia's keyboard has a QWERTY layout and is mostly black

By pressing down on an app window, you can drag it over another and then decide which one appears at the top or bottom of the screen. You can have as many as four apps on the screen at once, which will facilitate multi-tasking

and improve

productivity. Throw in a suggestions feature seemingly inspired by Google Now, and the beginnings of a new keyboard, and you have the makings of something rather exciting.

Will it use apps?

It certainly will. Apps will be created via Google's Flutter Software Development Kit (SDK), which is already being used to make cross-platform apps for Android and iOS. Flutter itself is an alpha, open-source



On this evidence, the current Armadillo logo needs a bit of work

project that was used to create Armadillo itself, so the framework is already there for seamless app creation. When Fuchsia is officially released, app developers will surely clamour for a piece of the action.

When will Fuchsia be released?

That's the big question. The truth is that no one other than the brains working for Google can tell you the answer and, as we've said, they're maintaining an air of mystery over the project. It may emerge that Fuchsia is simply a testing ground for a user interface that will never see the light of day on mass-market phones, relegated instead to a side project that runs alongside Android and ChromeOS. But Fuchsia developer Travis Geiselbrecht told the public Fuchsia IRC channel that the operating system "isn't a toy thing" and he stressed that it will be worked on for some time to come. One thing's for sure - you won't see the fruits of Google's labour appear on devices being sold this year.

ALTERNATIVE OPERATING SYSTEMS

Android, iOS and, to a lesser extent, Windows Phone, dominate the mobile market, but that hasn't stopped these others from having a go



Firefox OS

Commercially released in 2013, Mozilla's mobile operating system was officially discontinued in September last year. Built using HTML5 and the Linux kernel, it looked similar to Android and its free, open-source platform used web apps. Attempts to direct the OS towards connected devices such as TVs ultimately failed to gain traction.



Tizen

This open-source OS is designed to work on smartphones, tablets, netbooks, smart televisions and in-car infotainment systems. Backed by Intel and worked on as an open-source project within the Linux Foundation, it merged development with Samsung's Bada OS. It is used in Galaxy Gear smartwatches and the Samsung Z2 smartphone.



Ubuntu Touch

Created for touchscreen tablets and phones in 2011, Ubuntu Touch was axed in April this year before being picked up by a team of developers called Upports. It is a mobile version of the Ubuntu OS and it is navigated by swiping from the sides of the screen to access different parts of the system. There are apps for Facebook and YouTube.

Can I not test a preview on my current phone?

If you download and compile the Fuchsia System UI into an Android APK, you can install it on an Android device. It's not worth doing this on your current handset

point, there's not much you can do with it. A better idea is to check out the Flutter Gallery app, which you can download from Google Play (bit.ly/ flutter425). This shows widgets and behaviours built with Flutter that at least give an indication of how Fuchsia apps will look.

because, at this



Fuschia is still shrouded in mystery, just like this gloomy screengrab

REC RECORD WHATY



If you can't download a web video, record it instead. **Wayne Williams** reveals the best ways to capture and keep streaming media to watch whenever and wherever you want

Best Streaming-Media Recorders

There are lots of free programs for recording streaming video from the web, but you only really

ActivePresenter | bit.ly/active425

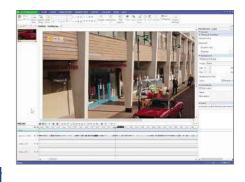
*** FEATURES **** PERFORMANCE **** EASE OF USE ****

WebUser GOLD AWARD

What we liked:

Most screen and videocapture programs let you record what's on your screen and then watch it back. ActivePresenter goes further by providing all the

tools you need to edit the recorded content after you've captured it. You can trim the start and end points; cut out any unwanted sections; copy and paste clips; reorder captured videos; blur part of the footage; split and join audio and video; change the playback speed and volume; add captions; and drop in transitions between clips, such as fade-in, fly-in and wipe. You can also superimpose shapes and comments on the video, highlight or spotlight specific moments, and use gesture effects



ESSENTIAL TIPS FOR ACTIVEPRESENTER

When in the Capture New Project window, double-click the Record Movie/Streaming Video entry to bring up the Capture Profile Editor. This lets you customise various settings, including changing the video codec, frame rate, quality and audio settings.

· To configure the software, click the

green ActivePresenter button in the top-left corner and select Preferences. From here, you can set how often you want the software to back up your project, and even edit and create your own hotkeys.

- Right-clicking anywhere in the program brings up a context menu of tools, which makes it much easier to navigate the program and find important features.
- Look carefully and you'll see a small square underneath the red record button. Clicking this displays

a menu from which you can access the audio and video settings, calibrate the audio input, toggle the capture area on or off, and show or hide the recording toolbar. such as single tap, double tap and swipe up. And if that's not enough, you can apply zooms and pans, and insert screenshots, audio and other videos. All this may seem like overkill if all you want to do is record some online video, but it's good to have these options to hand for when you need them.

ActivePresenter also lets you change the size of the video, its frame rate and quality, and adjust the sample rate and bitrate of the audio. Your edited videos can then be exported in a range of formats, including MP4, FLV, AVI, WMV, WebM and MKV.

There are paid-for Standard and Professional editions of ActivePresenter available for Windows and MacOS, which cost from \$149 (about £116), but all the features you'll need as a home user are included for free.

) U WATCH ONLINE

ownloading content from the web isn't so difficult; in most cases, you just click a link or a big Download button. But not everything on the web can be downloaded. What if, rather than grabbing a static file, you want to record something while it plays in

your browser, so you can watch or listen to it again and again?

In this feature, we reveal the easiest free ways to capture streaming content to keep - from live broadcasts and catch-up services that don't offer free downloads, to video calls, radio streams and online games - and select the best tools for the job.

Over the following six pages, we rate and review the top streamingmedia recorders, looking at their strengths and weaknesses. We also look at tools for recording specific content, such as Skype calls, webcam video and legal Kodi streams.

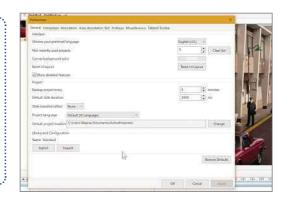
y need to install one. Here, we compare six leading contenders

How it can be improved:

Although ActivePresenter works very well, and is packed with a dazzling array of features, the interface could be better designed. The ribbon at the top gives you access to the many tools but it's not always obvious where to find each one, which makes the learning curve quite steep. Also, the editing features above the timeline are tiny, which makes cutting, trimming and rearranging content irritatingly fiddly.

OUR VERDICT

ActivePresenter does an excellent job of capturing streaming video, and provides an exhaustive selection of tools to trim out adverts and make edits. Unlike similar free tools, you can save your video in a variety of popular formats.



Ö

MINI WORKSHOP | Record streaming video using ActivePresenter



Click New Capture 1 in the main
ActivePresenter window, then enter
a name for your project 2 and a save
location. 1 There are four capture
profiles available. Select Record
Movie/Streaming Video 1 and click
OK. 1 The Capture New Project
window will open so you can define
the area that you want the software
to focus on.



You can choose between full screen and a custom area. If you select the latter, the section to be recorded will be framed in green. Move the frame over the video window and resize it by clicking and dragging. You can also change the window's dimensions using the Size boxes and lock the frame to the application.



ActivePresenter records your system audio (all the sounds your computer makes), but this can be disabled for silent recordings. You can choose a microphone for capturing external audio and adjust its volume. Begin recording by clicking the red button. Double-click the system-tray icon to pause, stop or discard the recording.

BEST OF THE REST

oCam

bit.ly/ocam425

Winner of our Gold Award in Issue 419 (bit.ly/webuser419), oCam can capture everything that happens on your PC's screen, including any



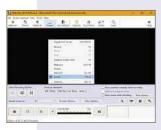
video vou stream from the web. It's packed with features and offers unlimited recording time, with no annoving

interferences such as watermarks. It's completely free for personal use, although slightly hampered by an unattractive interface and poor documentation.

Debut

bit.ly/debut425

This versatile video-capture tool records streaming content in a choice of formats, including AVI, FLV, MOV, MP4 and WMV. You can



also select the device vou want to watch the video on. for example iPhone, Xbox 360 or PlayStation 3. It's very

intuitive with loads of advanced features, but it's a paid-for product and after the 14-day trial expires, it will cost you £23.43 to buy.

Ezvid

www.ezvid.com

Ezvid lets you record on-screen activity, including web videos, with or without narration. You can capture the full screen or just a portion of it, but you're limited to



recordings of up to 45 minutes. Finished screencasts can be edited and uploaded directly to YouTube and

like other, similar tools, it lets you draw on your videos. Ezvid is entirely free, but you're encouraged to make a donation to the developers if you like it.

VSDC Free Screen Recorder | bit.ly/vsdc425

FEATURES **** PERFORMANCE **** EASE OF USE ****

What we liked:

This video-capture software is easy to use and comes with plenty of advanced features. The interface has two tabs along the top: Settings and 'Video and Audio Sources'. The former

lets you choose a video format and frame rate (you can stick with the recommended default), and change the recording and playback hotkeys. On the 'Video and Audio Sources' tab, you can tweak audio settings and choose what to record - so, for example, if you have more that one monitor, you can specify the one you want to record from.

VSDC lets you set the exact area you want to capture, and you can draw on the recording using a pencil, lines and shapes. Tapping the small arrow on the left opens a handy preview panel that shows you exactly what's being recorded.

If you're not happy with the recorded quality of your TV show or film, you can try different 'render' settings.



How it can be improved:

A modern, more appealing interface wouldn't go amiss and it could be made more intuitive for beginners. We'd like to see some post-recording editing tools, too. Sound is recorded from external sources (speakers to mic or line-in) rather than using the system sound.

OUR VERDICT

VSDC is a very good video-capture tool, but you need to play around with the software to get the most from its features and find the settings that work best for your setup.

Any Video Recorder | www.any-video-recorder.com FEATURES **** PERFORMANCE **** EASE OF USE ****

What we liked:

This software lives up to

its name by letting you BRONZE record any playing AWARD video - including web streams. It's very easy to use and offers all the basic features you're likely to need. You can set the temporary and output directories, as well as the output file name, and adjust the target frame rate and video bitrate. Simply click Record Now and adjust the red border to cover the area you want to capture, then click the Rec button to start and stop recording. You can control the capture with a hotkey (Ctrl+F7), set recording to stop after a set time (three minutes by default) or have it end automatically once the video finishes playing. During recording, you're shown how much hard-drive space the video takes up.

Recordings are saved in the popular MP4 format, which can be played in any media player.

How it can be improved:

On our test PC, with a high-resolution



screen, the interface didn't display properly, so we were unable to change the output file name and couldn't record anything without going into the save folder and renaming/removing the previous recording. We'd also like to have options for saving video in different formats.

OUR VERDICT

Display problems aside, this is a very good screen/video-recording tool that requires zero technical knowledge. Just click a few buttons and enjoy the recording afterwards.

......



Other Ways To Record Streams

If you don't need a full-featured video-capture program, there are plenty of free tools that perform specific recording tasks. Here we round up our favourites

On Your Computer

Record video streams in Windows 10

Capturing web streams in Windows 10 is remarkably easy because the operating system has a built-in screen recorder called Game Bar. This is designed to let gamers take screenshots and record gameplay footage, so they can boast about their high scores, but it can be used to record anything on screen, including videos. To use Game Bar, press the Windows key+G. A box will appear asking if you'd like to open Game Bar. Select 'Yes, this is a game' (even if it's not - Microsoft won't know!). Click the Record button to start and stop recording, and the Settings button to configure the settings.



Record web content in Chrome

Although you can't install traditional video-capture software in Chrome OS, you can use Screencastify (www .screencastify.com) to record any content that's playing in a tab, on your Desktop or via your webcam on your Chromebook and in the Chrome browser. The recordings can be saved locally or in Google Drive, and uploaded to YouTube to share with the world. Screencastify supports offline recording and offers a selection of drawing tools for annotating your videos.

The free (Lite) version has some restrictions - your videos have to be under 10 minutes long (with an embedded Screencastify logo) and you are limited to 50 recordings a month - but that should be enough for most quick-capture needs (and you can always save a longer stream as separate files). If not, the Premium version of Screencastify costs \$24 (£18.75) a year.



Record online games

If you want to share your gaming prowess with the world, give OBS Studio (obsproject.com) a try. This free, open-source software is available for Windows, Mac and Linux and lets you capture the action directly from your graphics card, then edit and share the results. You can change the recording quality (Indistinguishable Quality is the recommended default) and use hotkeys to start and stop the capture.



Turn your PC into a digital video recorder

NextPVR (www.nextpvr.com) is a brilliant, full-featured video recorder for your computer that's entirely free for personal, non-commercial use. You can use it to watch and record live TV, set series links and use it in conjunction with Kodi - provided, of course, that you only do so with legal streams. NextPVR can also stream music, play local videos and display photos, and has apps for iPhone and iPad. The catch is that to watch and record TV shows, NextPVR requires you to have a tuner card or similar video-capture tool installed. A good-quality tuner, such as those manufactured by Hauppauge (www .hauppauge.co.uk), will set you back between £50 and £100.



Record directly from your webcam

If you want to capture yourself on your webcam - perhaps for a presentation or a birthday message - you can use the incredibly versatile VLC Media Player (www.videolan.org) to record the footage from your webcam. To do this, open the software, go to Media, Open Capture Device and set 'Capture mode' to DirectShow, if it isn't already. Use the drop-down box to change 'Video device name' to your webcam, and 'Audio device name' to your microphone. Click 'Advanced options' and change the video-input frame rate to 30 or tick the box next to 'Device properties.'

You can then watch a live feed, right-click it and either hit the Record button to start capturing or click the arrow next to Play and choose Convert. When you're done, hit Stop and the recording will be saved.



Record web-radio streams

The excellent free tool StreamWriter (streamwriter.org) lets you record broadcasts from internet radio stations to keep for as long as you want. It can capture multiple streams at the same time, and automatically records songs from your wishlist when it detects them playing in a stream. Ads can be skipped - something of a godsend when you're listening to local radio - and recordings scheduled, so you don't miss your favourite shows when they're broadcast.



MINI WORKSHOP Record Kodi streams using



Once you have both Kodi and VLC Media Once you have both the copied script in Player installed, with the copied script in on the the Kodi folder (as detailed in our tip on the right), open Kodi, and launch any previously installed streaming add-on - we're using iPlayer WWW (bit.ly/iplayer425). Find and right-click a stream to watch or record, then choose 'Play using...' 11 and select VLC.



Your iPlayer stream should open in the external media player. It may be minimised to the system tray, in which case open it from there. Go to Tools, Preferences and click Input/Codecs. 11 Click the Browse button 2 next to 'Record directory or file name' and navigate to the folder you want to store your iPlayer recordings in. Click Save. **B**



Go back to the iPlayer stream and when you're ready to begin recording, right-click the screen and select Record in the menu. 1 There's no obvious way to tell it's recording so don't worry if it looks like nothing's happening. To stop recording, right-click and select Stop. Your recording should appear in the folder you specified in Preferences.

Record your Skype video calls

Skype doesn't provide tools for non-business users to natively record video chats, but that doesn't mean it can't be done. Skype's support page (bit.ly/skype425) offers a list of links to Windows, Mac and Linux software that you can use for the task. One of the easiest ways is to use ShowMore (showmore .com) - a free, online screencapture tool that lets you manually record anything on your computer screen, including Skype chats. Just visit the ShowMore website, click the Start Recording button and install the launcher. The tool can save recorded video in a range of formats, including MP4, WMV, AVI, MOV and MPEG. Just remember to ask the other person's permission before you record the call!



Record legal streams from Kodi



There are several ways to record streaming content in Kodi, but one of the easiest is to switch the output from Kodi's own internal player to VLC. When you find something

you want to record on Kodi, you simply select VLC as the player and use the built-in tools to record the video in that media player instead.

The first step is to download the playercorefactory.xml script from bit.ly/kodisc425 and copy this to the Kodi folder at

%APPDATA%\kodi\userdata

You may need to change the path inside the script. Open the playercorefactory.xml file in Windows Notepad and look to see where VLC.exe is listed (it's likely to be C:\Program Files\VideoLAN\ VLC), then check where the program is installed on your PC. If it's in:

C:\Program Files (x86)\ VideoLAN\VLC

change the path in the script to that destination and save the file. You can now follow the steps in our Mini Workshop on the left to record the desired streams.

You should make sure that you stick to recording and streaming content that's available legally, rather than through some of the more dubious Kodi add-ons. We've chosen the add-on iPlayer WWW to illustrate our instructions, which streams live and catch-up content from the BBC. This appears in Kodi's official Add-ons section and is legal to use provided you have a valid TV licence.

Record short YouTube videos

Although the programs we recommended at the beginning of this feature let you record YouTube videos as they play, a more lightweight alternative is Icecream Screen Recorder (bit.ly/ icecream425). This offers a clever trick for capturing videos from YouTube: open the clip you want to capture, then click the 'Capture video' button in the top-left corner and choose 'Area auto detection'. This automatically snaps the recording to the borders of a YouTube video, so you don't capture extraneous parts of the page. When the area is selected, click the orange logo of the program or press the F1 button to confirm the selection, then click the Rec button to begin recording.

The catch is that the free version of Icecream Screen Recorder limits you to a recording time of five minutes. If you want to record longer clips, you'll have to pay £20 to upgrade to the unlimited Pro version.



Record music from Spotify



On mobile devices, Spotify has an offline mode that lets you continue listening to music when you lose

your connection. To achieve similar flexibility on your Desktop, you can record streaming audio from the Spotify Web Player using Spotify Recorder (bit.ly/spotify425). This captures songs in MP3 format and saves them to your hard drive so you can listen to them whenever you want.

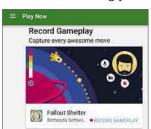
Record What You Watch Online



On Your Phone Or Tablet

Record mobile games on Android

Google Play Games (bit.ly/ googlepg425) is Google's official gaming companion for Android devices. As well as letting you compete against



friends, track vour gaming achievements and pick up from where you left off on any device, a recently added feature lets you

record your gameplay and share the results on YouTube, so you can prove you're the champion.

Record radio on Android and iOS

If you enjoy listening to the radio on

your phone, you might also want to record it. Radio Player from Audials lets you tune into more than 80,000 radio stations

- including BBC Radio 2 and 4, Heart, Capital FM, Classic FM and more - and

save anything you want to listen to again. Just click the Record button to save the stream to your device.

The free app is available for both Android (bit.ly/audand425) and iOS (bit.ly/audios425)



Record Netflix videos on your phone

PlayOn Cloud for Android (bit.ly/ playon425) lets Netflix subscribers record TV shows and movies and store them in the cloud for watching and downloading anywhere. It also offers the ability to skip adverts in recordings. The catch, however, is that the app

charges you to store recordings in the cloud at a cost of 40 cents (30p) per video, but there are offers available.

Of course. vou can also now download Netflix series and movies to



view offline on mobile devices, but this only applies to selected content on the streaming service, whereas PlayOn Cloud lets you record anything and access it from anywhere.

IS IT LEGAL TO RECORD WEB CONTENT?

You can legally record audio and video streams from the web, although the site that's doing the streaming may prohibit this in its terms and conditions, so check this to be on the safe side. The important thing to remember is that the law only covers you if you're recording streaming content for your own personal use, to watch or listen to later. You're expressly forbidden (unless a streaming



site states otherwise) to share recordings with friends or upload them for others to watch, because this breaches copyright.

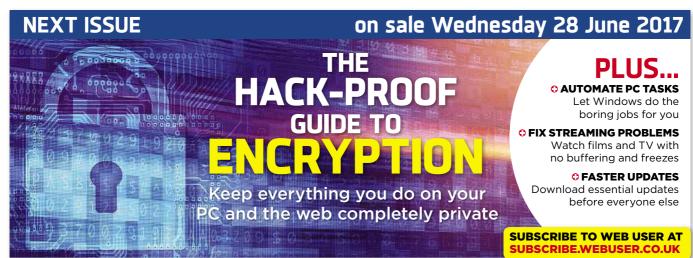
That said, you probably won't get into legal trouble if you privately share recordings with people you know, so long as they don't do anything questionable with them, such as try to profit from them or redistribute them without official permission. You can't keep your recordings forever, either fair use says you should delete them once played - but there's no official legal time restriction in place, so you don't need to worry too much about this.

Finally, if you're recording live British TV programmes or radio shows regardless of which channel or station they are broadcast on - you must have a valid TV licence, following the change in the law last year.

Record video at maximum quality

The free app Mobizen Screen Recorder (bit.ly/mobizen425) lets you record any activity on your Android device. Tap the Record button in the app, then use the button that appears on screen when you're ready to start capturing the action. Recordings can be saved to an SD card in full HD (1080p) at 60fps (frames per second), and you can edit the video afterwards.







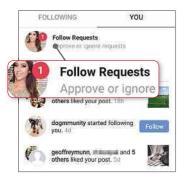
CUSTOMISE YOUR INSTAGRAM SETTINGS



Make your Instagram profile private

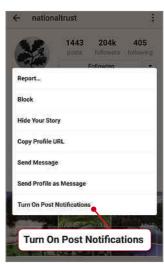
Instagram (www.instagram .com) lets you share your life with the world, but if you'd prefer to hide your account from public view, just tap your profile image in the bottom-right corner of the app, then tap the three-dot button and swipe up until you see 'Account settings'. Check that the Private Account option is enabled so only people you approve will see your photos and videos.

When someone asks to follow you, you'll receive a notification and you can then approve or decline their request. If you ignore the requests, they'll simply pile up behind the scenes. To find them, tap the Activity button (a heart), then select You. The number of pending requests is indicated at the top of the page. Tap the Follow Requests link and choose whether to Confirm or Delete each one.



Get notified when your favourite accounts post

If you don't want to keep checking Instagram, you can still make sure you never miss any posts from your favourite accounts. Navigate to the profile you want to receive notifications for, make sure you're following it, then tap the three-dot button and select Turn On Post Notifications. You can also opt to receive notifications about future posts from an account, when you see one of its posts in your feed. Tap the post's three-dot button and select Turn On Post Notifications.



Stop people tagging you in photos

Tapping the tag button (the one that looks like a person

INSTAGRAM ACCOUNTS

@wimbledon

The world's oldest tennis tournament takes place from 3 to 16 July

@britishbakeoff

Watch highlights from the popular TV cookery show

@nationaltrust

See stunning images of the UK's protected places and

take part in photography challenges

@Bailey studio

Explore the life and work of British photographer David Bailey

@wildlifeplanet

View incredible shots of animals and landscapes, updated daily

in a folder) on your profile lets you (and your followers) see photos you've been tagged in. To protect your privacy, you can hide photos from this section by tapping the three-dot button and choosing Hide Photos. Select the photos that you want to hide, then tap the Hide button (an eye with a line through it).

Bear in mind that doing this doesn't remove the tags from the photos altogether.



To do this, open an image, tap it and select your username. Now, along with the option to disable 'Keep in Photos of You', there's the option to Remove Tag.

To ensure that photos you're tagged in don't appear on your profile without your permission, tap the three-dot button from 'Photos of You' and choose Tagging Options. Select Add Manually and you'll now receive a notification when someone tags you in a photo, so you can choose whether to add it to your profile. Note that this just means the image won't be found from your profile the tag will still show on the photo unless you follow the instructions to Remove Tag, as described above.

Expert tips for Instagram

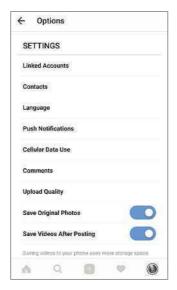
MANAGE YOUR INSTAGRAM PHOTOS



Save photos captured with Instagram

You can use any camera app to take photos to post on Instagram, but there's a built-in snapper to make things even more convenient. To open this camera, tap the '+' button and choose Photo instead of Gallery. There are buttons to turn on flash and choose between the front and back cameras, along with the shutter release. Its features are very basic and you can only shoot in square format, but it can be set to save a copy of the original image before you make any changes to it (such as adding filters and effects). This image is also uncropped (rather than square format), making it more versatile for use elsewhere.

To set Instagram to save original photos, just tap the three-dot button in your profile to open Options, then swipe up to Settings and switch on Save Original



Photos. There's a separate option for saving your Story content, which you can read more about in our last tip on page 46: 'Stop people seeing your stories'.

Organise favourite photos into collections

Last year, Instagram introduced the option to save your favourite photos and, more recently, it also added the option to organise them into 'Collections', much like Pinterest. To save a post. simply tap the bookmark icon below it. Tapping and holding this button lets you add it to a collection (you'll be invited to create one if you don't have any). To find your collections, tap the same bookmark button from your profile. The tabs let you



choose between the All or Collections views. When you save a post in this way, its owner will not be notified that you have done so, unlike when you 'like' a photo.

Hide photos from your timeline

Archiving is another handy new feature that lets you remove images from your Instagram timeline without deleting them permanently, so you can change your mind if you want to post them again at a later date. To archive an image, simply tap its three-dot button and select Archive. You can review your archived photos by tapping the archive button (which looks like the reflection of a Refresh button) on your profile.

To restore a photo to its original position on your timeline, open it from your archive, tap the three-dot button and choose 'Show on profile

SEARCH FOR IMAGES ON INSTAGRAM



Search for photos by keyword or location

Instagram is a fantastic resource and has photos of almost anything you can think of. Indeed, if you want to find images of a particular thing or place, it's an excellent alternative to Google Images. Perhaps the easiest way to find images is



to use the hashtag search function. Tap the search button (magnifying glass), then tap the search bar. Select Tags and enter a hashtag that describes the type of image you want to find, for example '#daffodils' or '#fordmustang'. You'll then see the number of posts that use that hashtag along with a list of other popular, associated tags. Tapping a tag displays its Top Posts and Most Recent posts.

Instead of using the search function, you can find an image on your timeline, tap any of its tags and use this to browse for similar content.

Another way to search is by using locations. To do this, tap Places instead of Tags and either enter a location name (businesses, towns and postcodes are all accepted) or select Nearby Places to see a list of suggested places in the local area.

As with the tags options,

when you select a location, you'll see both the Top Posts and Most Recent posts, and whether any Stories have been captured there (indicated by a round button next to the place name.

It's worth pointing out that not everyone uses geotagging on their posts, so if you want to see photos



of a place, it's worth searching for the tag for example, '#cambridge' and also by using the location function.

See content 'liked' by vour friends

On its Search page, Instagram suggests posts and stories you may like based on what you've already liked and interacted with. However, another way to discover new content is by looking at what your friends have liked and commented on. To do this, open the Activity page and select the Following tab. Here, you'll see a summary of all activity by the accounts you follow.

It's important to remember that all your followers will be able to track your own activity in this way, so be careful not to 'like' or comment on anything that you'd prefer others not to see.



Expert tips for Instagram

ENHANCE YOUR IMAGES



SHARE IMAGES ON INSTAGRAM



Use Instagram's editing tools without sharing

To use Instagram as a photo editor without making your images publicly visible on your timeline, set your device to Airplane or Flight mode. Make your adjustments to the image, then tap Next and Share. The image or video will be processed and saved to your gallery, but because there's no network connection, you'll see the message 'Photo Wasn't Posted'. Tap the three-dot button next to this and select Discard Post to delete it, then disable Airplane Mode. On Android devices, you'll find the edited version of the image in the Instagram folder.



Unlock more photo filters

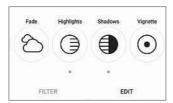
When Instagram introduced a range of new filters a while back, some of the older ones were hidden. To restore a hidden filter, swipe all the way to the left through the available filters and tap the Manage button. You can now enable and disable filters,



and change their order so the ones you use most often are easier to find. If there's an effect you don't like, just remove it altogether.

Enhance badly lit snaps

If you've taken a landscape photo without enabling the HDR function on your phone (it may not even have this option), you can enhance it using Instagram's excellent editing tools. The Highlights and Shadows functions let you replicate the effect of HDR by making dark areas brighter and dull areas lighter. To make your photograph even more vivid, try using Structure. This handy tool brings out even the subtlest of details in your image, which can transform the way it looks.



Share photos privately

To share a photo with friends without posting it to your timeline, press the '+' button to add the image and, after editing it, tap Direct (instead of Followers), then tap the names of the contacts you want to share it with. You can still add a caption, as if you were posting to your timeline, but once you tap Send, the photo will be sent as a private message.

To review your messages, open the homepage and tap the paper-plane icon to view your inbox. To share an image that someone else has already posted to their timeline, tap the plane icon directly below the post. Swipe left to scroll through the list of suggested recipients or tap the appropriate button to search by name. For even faster sharing, tap the comment



button and type the handle of the recipient you want to send it to. The account holder won't be told if you share their post in this way.

Stop people seeing your stories

Instagram Stories lets you share photos and videos but set them to expire (see our Mini Workshop below).

You can choose not to share your **Stories** with specific followers: tap the Camera button on the Home screen, tap the Settings cog and



select 'O People' to set who you want to hide stories from. Note that on this page, you can also choose who can reply to your stories. The option to 'Save Shared Photos' works independently of the setting that saves your original photos, as we described in our 'Save photos captured in Instagram' tip.

MINI WORKSHOP | Create your own Instagram Story

From the 1 homepage, select Your Story. The mode is set to Normal by default. 11 Tap the shutter to take a photo, or press and hold to record video. Swiping right lets you shoot 'Live video' 🔁 and a



left-swipe lets you pick from other modes including Boomerang, E Rewind and Hands-Free.

There are buttons to switch cameras. enable flash and add live filters (such as bunny's ears!). After capturing your image, you can draw on it, 11 and add stickers 2 and text. El When you're happy with the results, tap Your Story 4 to upload it. Tap the Save button 5 to keep

a copy after it expires.



After posting your story, tap Your Story 1 to view it. An icon appears showing how many people have viewed it. Tap this to see who they are. The three-dot button gives you options to Delete, Save



Photo or 'Share as Post'. To post another story, use the Camera button On the home screen.

Control Windows 10 using gestures

Windows 10 offers many advanced gestures that you can perform using your laptop's touchpad. Edward Munn rounds up the most useful controls



Swipe to scroll

Swiping two fingers up or down your touchpad lets you scroll down and up the page you're viewing. You can also swipe left and right with two fingers if the program allows for it. To change the direction in which a two-finger swipe scrolls, open Settings, Devices and Touchpad. If you don't see the option to change scroll direction on this page, try clicking 'Additional settings', then open the touchpad driver's menu to change it.



Double-tap to drag

Tapping the touchpad once selects an object, while double-tapping it lets you drag and drop it. On the second tap, just leave your finger on the touchpad and move it to drag files, folders and web elements. In Chrome, for example, you can drag and drop a link to the New Tab button to open the URL in a new tab.

Hide all apps/show Desktop

You can hide all apps and reveal the Desktop by clicking the button at the right end of the Windows taskbar, but

Switch applications

Instead of pressing Alt+Tab to switch between recently used apps, you can do so by simply swiping three fingers left or right. Swiping left automatically selects the last app you opened and opens it when you lift your fingers off the touchpad. Swiping right works in almost exactly the same way, but makes it easier to open other recently used apps (rather than the last-used one).



it's much quicker to simply swipe three fingers downwards. Immediately swiping these three fingers up again will bring hidden windows back into view.

Swiping three fingers up at any other time, including after clicking anything on the Desktop, opens Task View, which displays all your virtual Desktops and open apps (you can also click the button next to Cortana to open Task View). You can then select one of these apps with the cursor to open it. Alternatively, swipe left and right with three fingers (as described in 'Switch applications quickly') to open a recently used app.

Switch between Desktops

Swiping up and down with four fingers works in exactly the same way as the three-finger swipes detailed above. However, swiping left and right with four fingers can be used to switch between virtual Desktops.

Tap with more fingers

Tapping the touchpad performs different functions in Windows 10

Zoom in and out

Pinching your fingers or moving them apart lets you zoom in and out, respectively. This feature isn't exclusive to Windows 10 or precision touchpads, but it's particularly useful when making small text on web pages more



depending on how many fingers you use. A two-finger tap, for example, simulates a right click; a three-finger tap opens Cortana; and a four-finger tap opens Action Center.

On some PCs, you can customise the functions for three- and four-finger taps. Open Settings and Devices, then select Touchpad and 'Advanced gesture configuration'. You can assign threeand four-finger taps to perform a range of actions including pausing the current track in a music player and stepping backwards and forwards in your browser. Note that you can also change the actions for three- and four-finger swipes from this menu.

A NOTE ON TOUCHPAD COMPATIBILITY

Some of the gestures we've recommended are only compatible with laptops equipped with precision touchpads, so don't worry if you can't get them to work. Our Dell laptop is equipped with a precision touchpad but its driver would override the standard Windows settings, which meant some of the gestures we tried failed. To access the touchpad driver's settings, try clicking 'Additional settings' in the 'Touchpad settings' menu, as described in our first tip. Alternatively, you should be able to find the manufacturer's touchpad settings from the System Tray.

Make Your Acco

Standard passwords aren't enough to protect against today's data breaches. Robert Irvine reveals how to lock down your security

Turn on two-step verification

Sometimes you have to put up with small inconveniences to enjoy peace of mind, and that's certainly the case with two-step verification - also known as two-factor authentication. This adds a second layer of protection to your online accounts, and is much more secure than relying solely on a username and password - as we've seen from the massive 'data dumps' following hacks of major sites. This second security layer involves linking your phone or another email address to your account. When you try to sign into the account from a new device - or after being logged out on your current one you'll be sent a security code that you need to enter alongside your password to regain access.



Google encourages all its users to turn on two-step verification



To set up two-step verification in Google, go to bit.ly/2step425, click Get Started, then sign into your Google account and click 'Start setup.' Enter your mobile number and whether you'd like the verification code to be sent by text or voice call, then choose Send Code. When you receive the six-digit code, enter it in the box and click Verify to add your phone number to your account. Alternatively, you can use Google's Prompt feature, which saves you having to receive and type a code every time. Instead you just tap Yes to

confirm that you're trying to sign in from another device. Because this method isn't as secure, Google recommends it's only used on phones and tablets with the screen lock activated.



Avoid the hassle of typing codes by using Google Prompt instead

Google also has options for when two-step verification via your phone isn't possible, including one-off backup codes that you can download and print to use at your convenience, and an Authenticator app (bit.ly/

authenticator425) that lets you access

codes offline on Android and iOS devices.

To turn off two-step verification, click your account picture in the top-right corner of a Google page and choose My Account. In the 'Sign-in and



Print and keep backup codes for when you can't use your phone

security' section, click 'Signing into Google', then 2-Step Verification and select 'Turn off 2-Step verification'.

Microsoft

To set up two-step verification for your Microsoft account, go to the 'Security settings' page (bit.ly/security425) and sign into your account. Under 'Two-step verification', choose 'Set up two-step verification' to turn on the feature, then follow the instructions. You can receive your verification codes via text message, phone call or to an alternative email address, or generate them using

an authenticator app, such as Microsoft Authenticator for Android, iOS and Windows Phone.

If you grow tired of entering two forms of authentication, you can add your device to the list of trusted devices by ticking the option 'I sign in frequently on this device.

Don't ask me for a code'. Or just turn off two-step verification altogether by selecting that option on the 'Security settings' page.



Microsoft Authenticator generates instant verification codes

facebook

Facebook also offers two-factor verification, to prevent unauthorised people from nosing through your Timeline and trolling your friends. To turn it on, click the down arrow in the top-right corner and choose Settings, Security. Click Edit next to 'Two-factor authentication', choose 'Set up' and click Enable. As with Google, you have a choice of account-verification methods: a code sent by text message, a code generator within the Facebook mobile app and the option to print recovery codes to carry with you. You can also use a USB stick or the NFC function on your phone as a security key to log into your account. Additionally, Facebook offers 'login alerts' that notify you when anyone tries to sign into your account from an unrecognised device or browser.



Facebook gives you a choice of accountverification methods

Make your accounts unhackable



Other services that use two-step verification include Instagram, Dropbox, Twitter, Apple, PayPal, WordPress and LinkedIn, and most are compatible with the Google Authenticator app.

Force websites to use secure connections



Use HTTPS Everywhere to ensure secure access to your accounts requires
you to
create an
account
should use
HTTPS to
encrypt
your data
both
during
registration
and when

Any

that

website

you browse its content. Sadly, many still don't bother and either default to their unsecure HTTP versions or use

a combination of encrypted and unencrypted pages, which leaves your account vulnerable to hackers.

To ensure you always get the safest connection possible, install the excellent HTTPS Everywhere extension for Chrome, Firefox and Opera (bit.ly/https425). This forcibly switches thousands of sites to HTTPS, whether they like it or not, and is regularly updated with new 'rules' to safeguard you against account hijacking. You can create your own rules so that specific sites always use their encrypted versions, and block all unencrypted requests.

For extra protection, Chrome now warns you if the site you're viewing is using an unencrypted connection, by displaying an 'i' (information) icon or a red triangle in the address bar – instead of a reassuring 'Secure' padlock. Click the icon to find out why Google has flagged a site as 'not secure' and to what degree you can trust it – for example, it may be fine for browsing but not for entering personal information such as passwords and card details.

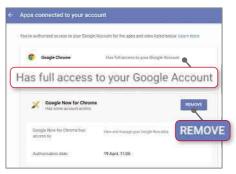


Chrome now warns you if the site you're viewing is not secure

Disconnect third-party apps from your accounts

Granting a third-party app or service access to your Google, Twitter or Facebook account means you get to try exciting new tools, but it also opens a potential backdoor to your personal data. You may not even remember which apps you've connected to your accounts over the years, which puts you at risk if they 'turn rogue' and start abusing that privilege.

To prevent this from happening with your Google account, go to your My Account page (myaccount.google.com) and click the 'Connected apps & sites' link under 'Sign-in & security'. Here, you'll see a list of tools that you've granted access to your account, including details of precisely what they can access. Select an entry and click Remove to revoke that app's access.



Stop forgotten apps continuing to access your Google account

To disconnect Facebook apps, go to Settings, Apps and click the 'X' (remove) icon next to all unwanted entries; for Twitter, go to 'Settings & privacy' and click 'Revoke access'. You'll be surprised how many apps you tried once and instantly forgot about!

CREATE IMPOSSIBLE-TO-GUESS PASSWORDS

You can't completely avoid using passwords on the web, but thinking of long, strong logins that don't include your name, consecutive numbers or the word 'password' can be a challenge. Fortunately, there are plenty of free tools that generate secure passwords. These include password managers such as LastPass (lastpass.com) and Dashlane (www .dashlane.com), and websites including GRC Perfect Passwords (www.grc.com/passwords .htm) and Strong Password Generator (strongpasswordgenerator.com). Chrome has a built-in password generator that suggests (and saves) randomly created logins when it detects you signing up for a website.

Strong Password Generator

Strong Password Definition / Requirements

A strong password has:

A strong password has:

I streat \$\frac{1}{2}\$ the strong password has:

I strong Password

A strong password

A strong password

To generate password

Show cotions.

I strong password

To turn on this feature,
type chrome: flags into
your address bar, press

Enter, then find the
entry 'Password

generation' and click Enable.

Security experts believe passwords will be phased out completely in the near future, to be replaced by biometrics such as finger scanning and facial recognition, which are already being used by many services and devices. However, it's worth

bearing in mind that this technology isn't infallible, either - a German hacking collective successfully managed to fool both the iPhone's

> fingerprint sensor and the iris scanner on the new Samsung Galaxy S8 (bit.ly/ biometrics425).



Call FREE on 0800 083 2357 to switch your broadband

	Provider	Package name	Monthly price	Contract length	Broadband speed	Allowance	First-year cost*
1	sky	Sky: Broadband	£28.99 (£18.99 for 12 months)	12 months	17Mbps max speed	∞ unlimited	CHEAPEST £227.88
2	TalkTalk For Everyone	TalkTalk: Broadband	£25.50 (£20.00 for 12 months)	12 months	17Mbps max speed	∞ unlimited	£240.00
3	E	EE: Broadband	£28.50 (£21.00 for 18 months)	18 months	17Mbps max speed	unlimited	£252.00
4	Virgin media	Virgin: Broadband	£45.00 (£32.00 for 12 months)	12 months	100Mbps max speed	wunlimited	£384.00

Terms & Conditions apply - see ISP sites for details

Data supplied by www.broadbandgenie.co.uk. Correct as of 1 June 2017.



switching service

In the next issue of our sister title Computeractive... SNEAK

· CLEAN YOUR PC WITHOUT KILLING IT

What to uninstall - and what to keep

- Best 'real-time' apps and websites
- Share photo albums using Google's new tool
- Turn your life story into a podcast

PLUS: Unlock Windows 10's

hidden Start menu

On sale Weds 21 June

Subscribe at www.getcomputeractive.co.uk

^{*} Fair-usage or restriction policy applies.



Take a Screen Break

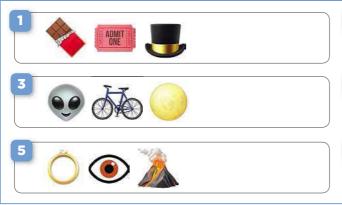
Give your eyes a rest from your computer by taking our fortnightly challenges. Can you guess our classic-film emoji and solve our word puzzle?

WIN A **WEB USER** MUG!

Be the first to send the correct answers to webuser@dennis.co.uk to win a Web User mug



CAN YOU IDENTIFY THE FILMS FROM THE EMOJI?











WEB USER WORD PUZZLE

Enter the answers in the grid to reveal a computer term in the highlighted column

- 1 1851 novel by Herman Melville
- 2 Chemical element used in the production of nuclear power
- 3 US Actor, nicknamed The Duke, who starred in 83 Westerns (4,5)
- UK department store
- Austrian F1 World Champion (4,5)
- 1746 battle of the Jacobite Rising
- UK comic known for deliberately inept piano playing (3,6)
- 8 Official language of China

_			1	i .	
1					
2					
3					
4					
5					
6					
7					
	8				

COMPETITIONS

WIN 1 OF 4

KitSound Harlem Wireless Headphones

KitSound's new Harlem Wireless Headphones have a 30-hour battery life and use Bluetooth to connect to your phone. They have a call-handling function, letting you answer calls as the music is paused, and buttons for skipping tracks and changing volume.

To enter, email your address to webusercomp@dennis .co.uk with 'harlem' in the subject line. For more info, visit www.kitsound.co.uk and follow @KitSoundUK on Twitter.

WORTH



WIN! **TP-LINK Archer** VR2800 router

When we tested TP-LINK's new Archer VR2800 (see Issue 424's five-star review) it produced the fastest close-range download



speeds of any router we've ever tested. It's the ideal alternative to the router supplied by your ISP. To enter, email your address to webusercomp@dennis.co.uk with 'archer' in the subject line. For more info, visit http://uk. tp-link.com and follow @tplinkuk on Twitter.

WORTH



Practical WebUser

16 pages of workshops, tips, projects and problem solving

Create your own super-detailed map mash-ups

Map Puzzle lets you combine a base and overlay to create a customised map. Here's how

Map Puzzle: www.mappuzzle.se | (1) 20 mins | 27 XP to 10

ap Puzzle tiles together sections of maps from popular online mapping tools, including Google and Bing, to create a larger, more detailed image. You can lay details from one map over another to tailor a map to an activity, such as taking a countryside walk, planning an excursion to a big city or just enjoying a bit of exploration from

the comfort of your armchair.

Once you've created a map, you can view or print it as you would any other picture on your PC or mobile device.

The software is portable, so you can run it without installing, but you may need to install a version of Microsoft's .NET framework - this will happen automatically the first time you run it.



On the main Map Settings tab, 1 click the 'Base (Required)' drop-down menu and choose a map service. 2 The first time you use it, you'll need to accept a disclaimer. 2 To start you off with something easy, we've chosen Google Maps - Satellite, 4 which should be familiar

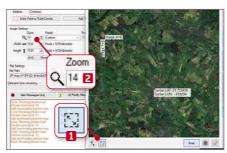


The easiest way to centre your map on a point is to enter an address, such as a town or postcode, in the Address field 1 and press Search. 2 This fills in the Latitude and Longitude fields, 3 and centres the map on them. Click the Preview button 4 to see the area that your map will cover. 5





You can customise the map from the preview window. With the Center Map button highlighted, 1 click a spot on the map to centre on it. Click the tick 2 to create a preview using these coordinates. If you make a mistake, use the cross button 1 to cancel the changes and revert to the previous view.



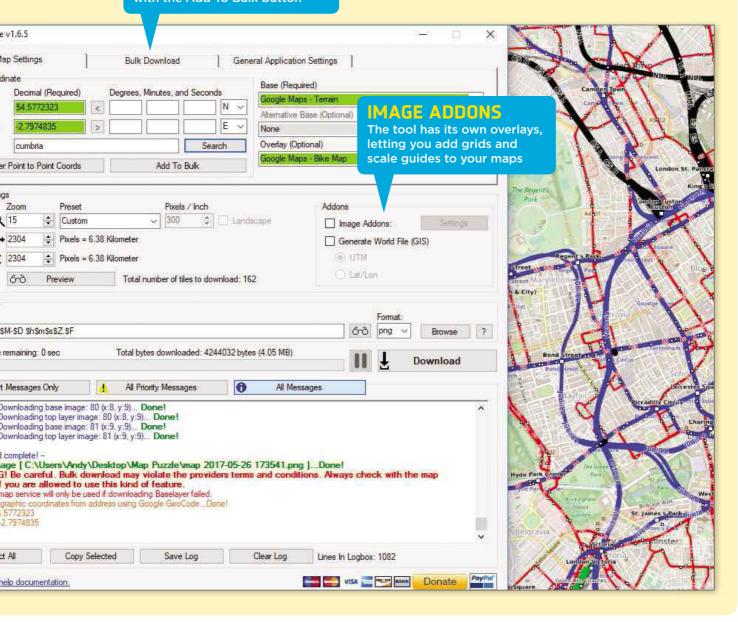
To expand or reduce the number of tiles, click the resize button. Place the cursor in the top-left corner of the area you want your map to cover, then click and drag to the bottom right. Use the tick and cross buttons as before. You can increase the zoom level to zoom in or decrease it to zoom out.



To add an overlay to a map, click the drop-down menu under 'Overlay (Optional)'. We've used 'Google Maps - Hybrid' to add Google's street names and landmarks to the satellite map. These don't appear in the preview, so click Download. By default, maps are saved to the folder you run Map Puzzle from.

BULK DOWNLOAD

Defer the creation of large maps or queue up multiple downloads with the Add To Bulk button





You can use the tools to create maps ofor leisure activities. Link Open Street Map ('OSM - Basic Map'), 11 which shows most public footpaths, with the 'Lonvia -Hiking routes' overlay 2 and you get a map showing hundreds of national walking trails. Preview what's available at hiking.waymarkedtrails.org.



You can create maps that show more detail than usual. For example, choose 'Stamen - Black & White Map' 11 as the base and 'OpenPtMap - Transport Map' 2 as the overlay, then centre it on a city. This creates a handy black-and-white street-level map with coloured transport links overlaid on top.



Maps don't have to be useful, they can just be aesthetically pleasing. We love the 'Stamen - Artistic map', 11 which turns your map into a watercolour painting. It looks great on its own but if you overlay the 'Google Maps - Hybrid' 2 option, you get useful information, too.



Automatically manage your PC's hard drive



Windows 10 Storage Sense | 🕒 20 mins | 🚟 Windows 10 (Creators Update)

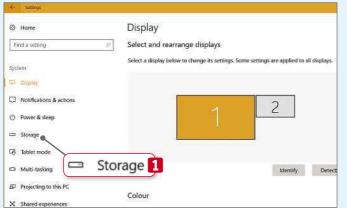
hances are that your computer is slower now than when you first got it. This is partly because your hard drive fills up with unwanted clutter, including temporary files, cached web pages, old installers and general junk. If left to accumulate, this build-up can slow down your PC even more or cause it to crash completely.

Thankfully, if you're running the Windows 10 Creators Update, you can use a feature called Storage Sense to get back on top of things. Storage Sense isn't new - it's been available in Windows 10 since the operating system launched in 2015 (and was included in Windows Phone 8.1 before that) but the Creators Update has revamped it, making it more useful. If you haven't tried it yet, now is the time to see what it can do for you.

EXPERT TIP

Wayne Williams says

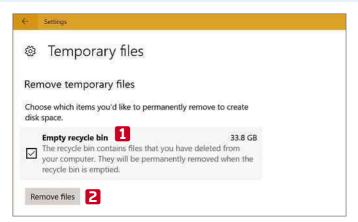
If you're part of the Windows Insider programme (insider.windows.com) and are running the beta version of the next big update to Windows 10, Storage Sense offers further options. The latest version can automatically remove files from your Downloads folder that haven't changed for 30 days. To set this up, go to Settings, System, Storage and click 'Change how we free up space'. It's likely that more features will be added in time.



You can customise the way Storage Sense works to tailor it to your specific needs, or you can enable the tool and trust the default settings. To switch it on, go to Start, Settings, click System and choose Storage 1 from the list on the left-hand side. Remember that you need to have the Creators Update installed.



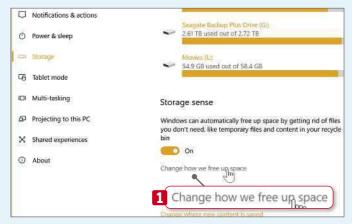
All your hard drives are listed under 'Local storage', 1 and you can see how much free and used space each one has. Click any of the drives to see a breakdown of how much space is occupied by temporary files, videos, pictures, music, documents, 'System and reserved' data, and more.



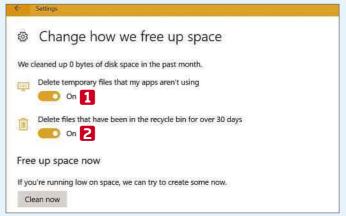
Click an entry, such as Videos, to see which folders those items are stored in. When you click the name of a folder, it opens in File Explorer and you can delete its contents manually. Choosing the 'Temporary files' entry in the list gives you the option to remove junk and empty the Recycle Bin. 1 Click 'Remove files'. 2



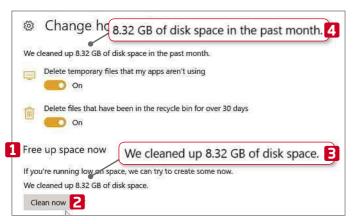
You'll see the 'Storage sense' option under the list of drives. 1 This is switched off by default. Flick the switch to On 2 and Windows will automatically delete any junk files from your PC, including temporary files, leftover junk from apps you've removed and anything in the Recycle Bin that's more than 30 days old.



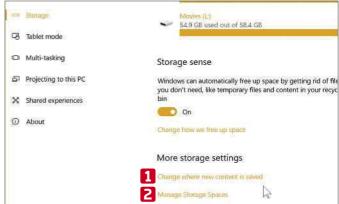
You can now leave Storage Sense to automatically manage your hard-drive space for you. However, if you want more control over how the tool works and what it removes, click the link to 'Change how we free up space' under the toggle switch.



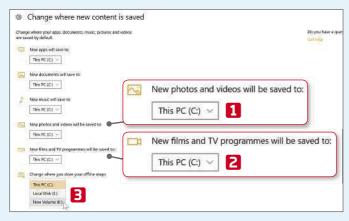
From here, you can choose whether or not to 'Delete temporary files that my apps aren't using' 1 and 'Delete files that have been in the recycle bin for over 30 days'. 2 Keeping both options switched on will free up significant amounts of space over time.



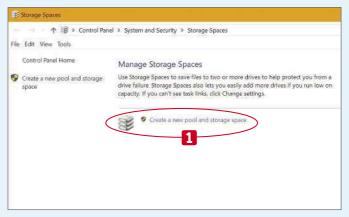
The same screen gives you the option to 'Free up space now'. 1 Click the 'Clean now' button 2 and Storage Sense will get to work, providing you with information on the amount of drive space it has cleaned up. 1 A running total showing how much space the tool has reclaimed over the past month appears at the top of the page. 4



Click the Back button to return to the main storage page (or go to Start, Settings, System and Storage). Under 'More storage settings', you'll see two links – 'Change where new content is saved' and 'Manage Storage Spaces'. Both are worth investigating. Click the first option to manage where Windows saves new content.



On the 'Change where new content is saved' screen, you can choose which drive your PC saves different types of content to. For example, if you want to store all your photos and videos 1 on one drive, and films and TV programmes 2 on another, you can set this up here. Click the drop-down box and choose a new location from the list.



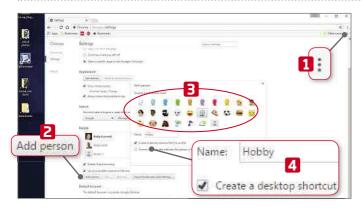
Storage Spaces protects your data from hard-drive failure by saving your files to two or more drives. This is a great solution if you have a spare hard drive. To set it up, click the 'Manage Storage Spaces' link. In the new window that opens, click the 'Create a new pool and storage space' link 1 and follow the instructions.



Speed up Chrome using profiles

hrome profiles are designed to let different people using the same PC keep their bookmarks and add-ons separate, but you can also use them to compartmentalise your tools depending on what you're doing. Keeping your bookmarks and add-ons for work separate from home, for example, means you only load the tools you need, which could speed up your browser and make it less cluttered.

Chrome: bit.ly/chr425 | ⊕ 10 mins | ❷ Windows 7, 8, 10 € MacOS 10.9+ ⚠ Linux



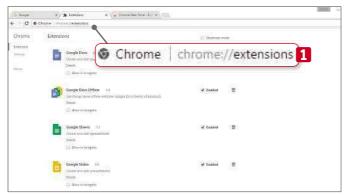
To set up a new profile, click the three-dot menu button and select Settings. Scroll down to the People section and click 'Add person'. In the box that appears, choose a picture, then type a name and choose whether you want to have a shortcut to the profile placed on the Desktop.

.....



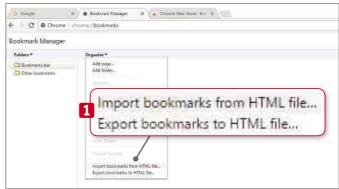
To switch between profiles, click the grey button and select the profile you want to use from the list. To remove unused profiles, click 'Manage people' and hover over a thumbnail. Click the menu button that appears and you can choose to remove them.

.....

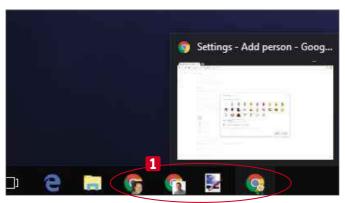


Add-ons you install in one profile are kept separate from your other browser profiles, so you could create a profile called Add-ons or Testing specifically to try out new add-ons from the Chrome store. You can manage add-ons in the usual way from the chrome://extensions tab.

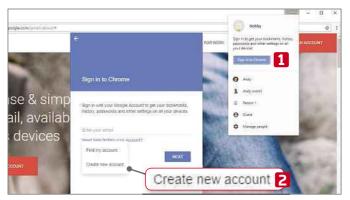
•••••



Keeping separate bookmarks for each profile means less clutter, so you can keep your regularly used sites permanently visible and immediately accessible on the bookmarks bar. To move bookmarks between profiles, import or export them from the Bookmark Manager.



When you have more than one profile open, each one will display a Chrome icon on the taskbar. 1 You can tell them apart by the superimposed icon you assigned in Step 1. Right-click an icon to pin it to your Taskbar if you want to dedicate a permanent link to a particular profile.



Your profiles can't carry their settings from one computer to another – they're stuck on the PC you set them up on. To use a profile's tools on another PC, create a Google account for it by clicking the profile name, then 'Sign in to Chrome'. Click 'More options', then 'Create new account'.



Customise the colours in Windows 10

ou used to be able to change the colour of almost any element of the Windows operating system until Microsoft removed the 'Color and appearance' tool in Windows 10. To get back this customisation, download

Classic Color Panel - a handy, lightweight tool that lets you make Windows look as plain or garish as you like.



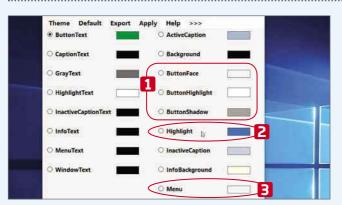
Classic Color Panel: bit.ly/classic425 | 🖰 10 mins | 💐 Windows 10



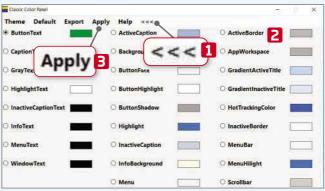
Download and run Classic Color Panel - there's no need to install it. It offers to save your default settings 1 as a Registry file, which you can restore if you want to get back to your current colour scheme. Click Yes 2 and save it somewhere sensible. The Classic Color Panel screen opens.



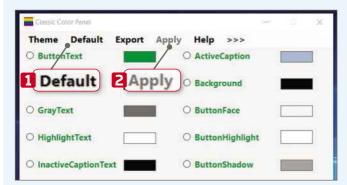
The left-hand column lets you set a colour for various text elements. 1 Hover your cursor over an element to learn more about it. Clicking an element opens a window from which you can choose one of the 'Basic colors' 2 or use the colour picker to select any colour you like.



Click OK to choose the colour, then repeat this process for any other text elements you want to change. In the right-hand column, you can change the colour for other elements, including buttons, 11 highlighted items 22 and menus. **B**



Clicking the three-arrow button 1 expands the menu to display even more elements. 2 You can change the colours for as many or as few elements as you want. When you're happy (or you just want to test a colour change), click Apply 3 and OK.



Your PC logs out to apply the changes. Log back in to inspect the new colour scheme. If you don't like it and you want to restore the original configuration, open Classic Color Panel, then click Default 11 and Apply. 2 You can also double-click the Registry file you saved in Step 1.



If you want to switch between your new and original settings, export your colour configuration before reverting to the default setting. Click Export and save the configuration as a Registry file. 11 You can export a configuration even if you haven't applied it.

Weekend Project

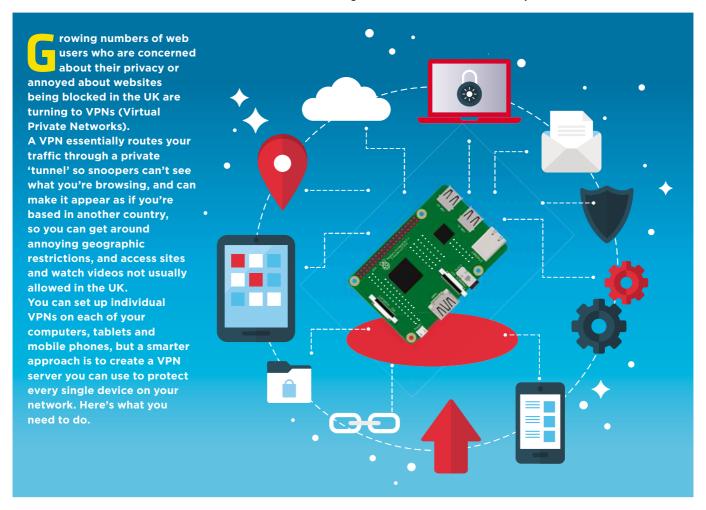
Get to grips with some serious PC DIY to boost your computer's performance





Use a VPN server to protect devices on your network

Wayne Williams shows you how to use an old or cheap PC to set up a VPN server so all the devices on your network are protected



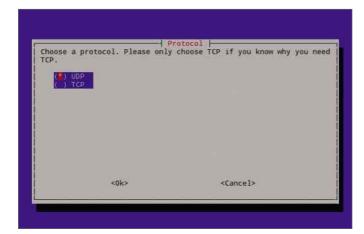
What you need

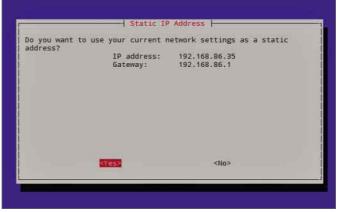
The key component for a VPN server is a computer. This can either be an old PC you no longer use or a cheap computer such as a Raspberry Pi. We'd recommend running this project on a Pi, preferably a Raspberry Pi 3 Model B (bit.ly/rapi425) which costs around £33. These mini computers have all the networking hardware you'll need built in; use very little power to operate; run silently; and

barely take up any room. In this feature, we'll take you through the steps to set this up, but it's worth noting that the encryption process can take a long time, so you may not want to start this until you know you can leave your computer to get on with the job, possibly overnight.

The project will work just as well on an old PC. You'll need to install Ubuntu Server (bit.ly/ub425) as the primary operating system to run PiVPN, so you can follow the same steps as you would for the Pi (see our Mini Workshop, right).

If you're installing the VPN on a new Pi, you'll also need the following: a microSD card (at least 8GB); a screen (TV or monitor) and HDMI cable – though you only need this during installation; an Ethernet cable or Wi-Fi dongle to connect the Pi to your network and the internet; a USB keyboard and mouse; and a micro USB cable or power supply





Choose between UDP and TCP transfer protocols during setup. Opt for the former unless you have a particular reason not to

A static IP address is a handy tool that ensures your internal IP address won't change when you restart your Raspberry Pi

to power the device. You can buy kits with all the necessary bits and pieces but there's a good chance you already have some of the required cables and peripherals lying around at home. If you have an Android phone or tablet, the cable used for charging it will power the Pi just fine.

Your Pi needs to be running the Raspbian Jessie operating system (bit.ly/

ra425). It doesn't matter if you opt for the Lite or Pixel version because both work fine. We'll be using the Pixel build in this Weekend Project, but only because the screenshots look nicer.

You'll also need a copy of PiVPN (www.pivpn.io), which is a version of OpenVPN designed specifically for Raspberry Pi (see our Mini Workshop, below, for instructions on setting this up).

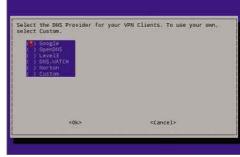
```
File Edit Tabs Help

oriting new private key to "/etc/openwpn/easy-rsa/pki/private/cs.key.MEtsT2jr6x"

:: CA Complete Committee Committe
```

Generating a 2048-bit RSA private key in PiVPN takes a very long to complete

Because the Pi will be acting as a server, it will need a static IP address to function properly. Go into your router's settings (check the manual for how to do this) and look for something like "static DHCP reservation". The exact location and process for making a reservation will vary depending on your make and model of router, but it's usually straightforward. If you can't get a static IP, the guide at



You can select your preferred DNS provider for your VPN clients. Custom lets you use your own

bit.ly/no425 offers a fairly easy workaround to follow.

Install Rasbian Jesse

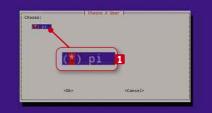
If you don't already have Jesse on your Pi, go to bit.ly/noob425 and download NOOBS - New Out Of the Box Software - to your PC, then unzip the contents to a folder on your Desktop. Connect a microSD card to your computer (using an

Ö

MINI WORKSHOP | Install and use PiVPN



Trom the Pi (or Ubuntu) Desktop, double-click the Terminal button to open a terminal window. Type PiVPN's installation command: curl —L https://install.pivpn.io | bash 2 and press Enter. All the required code will be pulled from PiVPN, so make sure you're connected to the internet. This takes a while, so be patient. The installation process will then begin.

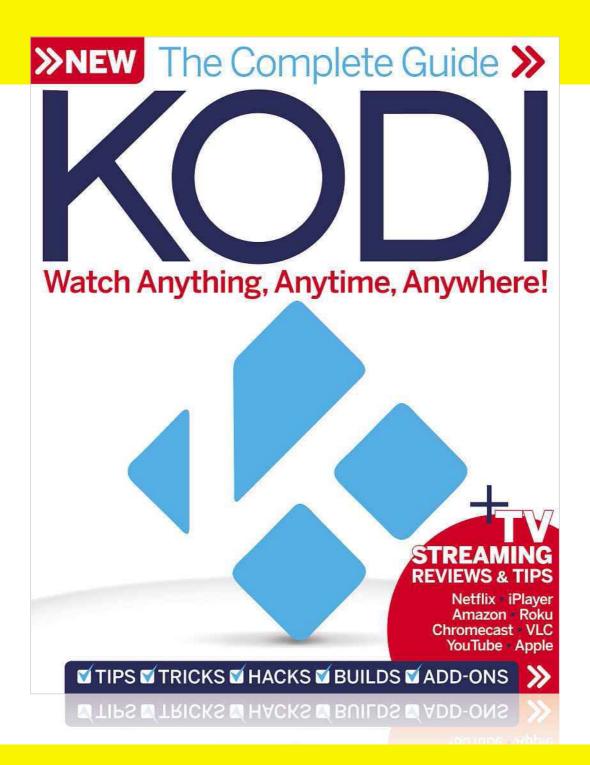


Choose a network interface Ethernet is best. Select it and click
Ok. You'll be asked if you want to use
your current network settings as a static
IP address. Select Yes, unless you want
to enter different details. Select Pi as the user to install the configuration to
(or the default user on your Ubuntu
installation) and allow unattended
security updates.



When this is set up, choose UDP as the protocol, then select the default port (1194). Accept the recommended level of encryption. It will take a very long time to generate a private key. Once that's done, select 'Use this public IP' and select a DNS provider, such as OpenDNS. Reboot your PC when asked to do so.

ON SALE NOW!



Buy now from Amazon:

bit.ly/completekodi

(or search for 'Kodi guide' on Amazon)

Be sure to answer Yes when asked if you want to enable unattended upgrades of security patches



adapter if necessary), then drag the contents from the folder to the card. Insert the microSD card into your Pi and power it up. NOOBS will load. When it completes, select Raspbian in the menu and click Install. It will take quite some time for all the files to be copied over but once it finishes, you'll be able to start using the Pi.

OpenVPN clients

Once your PiVPN is up and running, you'll need to install OpenVPN clients on all the devices that will be connecting to the VPN. There are lots of different clients available, but here's a shortlist of the best to get you started:

Windows OpenVPN GUI bit.ly/op425 Mac Tunnelblick tunnelblick.net iOS OpenVPN Connect bit.ly/ov425 Android OpenVPN Connect bit.ly/ ovpa425

We show you how to connect your devices to your VPN server in our Mini Workshop, below.

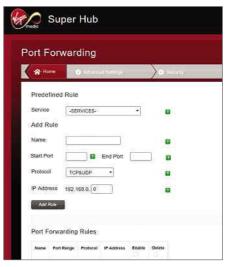
Port forwarding

Go into your router settings and look for a port-forwarding entry. This may be located under 'Advanced'. Essentially, all you need to do is enter the name of the application or service you're setting up, and the incoming port (or ports) to use. Choose a protocol type (TCP&UDP, for example) and the IP address to route the request to. If you're not sure what you need to do, try Googling the make and model of your router along with 'port forwarding' and you should find instructions to follow.

PiVPN commands

If you still have your screen connected, you can type commands into the terminal window in your Raspberry Pi to carry out various actions, such as seeing which clients are connected to your server, creating additional clients, revoking a client profile and more.

The command pattern you need to type is: pivpn <command> [option]



Configure port forwarding on your router to allow OpenVPN clients to connect to PiVPN

with <command> and [option] replaced by any of the following:

-a, add [nopass]

Create a client OpenVPN profile, optional no password

-c, clients

List any connected clients to the server -d, debug

Start a debugging session if you're having trouble

-1, list

List all valid and revoked certificates

-r, revoke

Revoke a client OpenVPN profile

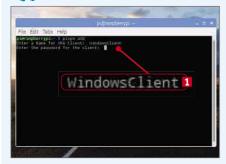
-h, help

Show the help information

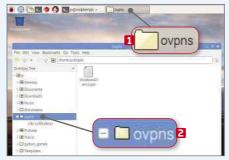
-u, uninstall

Uninstall PiVPN

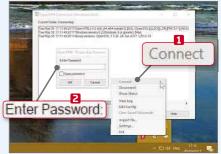
MINI WORKSHOP | Add clients and configure PiVPN



When the Pi has rebooted, open Terminal and type pivpn add. You'll be prompted to enter a name for the first client you want to use to connect a device to your new VPN ('WindowsClient', for example). 1 Enter a password twice. You want this password to be easy to remember but very hard to guess.



A private key and OpenVPN profile will be generated. Open the File Manager 1 and navigate to the folder where this file has been saved. 2 By default, this is '/home/pi/ovpns'. You can copy this to your OpenVPN client using FTP or via email (remember to completely delete the message afterwards, for security reasons).



In Windows, install and run the OpenVPN client. Right-click its icon in the notification area and select 'Import file'. Browse to the saved OVPN file, select it and click Open. Next, right-click the icon and select Connect. When prompted, enter the password you created earlier. 2 OpenVPN should connect to your VPN server.

NEXT ISSUE

How To... Lock your PC using a Yubikey

On sale Wednesday 28 June

SUBSCRIBE NOW!



Subscribe to **Webuser** today and save on the single issue price.

Each issue of **Web user** will be delivered directly to your device each fortnight.

SEE NEXT PAGE FOR SET-UP INSTRUCTIONS

HOW TO SUBSCRIBE...

...on an iPad or iPhone

Return to the Web user library

Choose your subscription term and tap twice on the 'price' box

Choose whether to create an optional PixelMags account

STEP 4 Enter your **Apple ID password** to confirm





...on a Kindle Fire

Kindle Fire subscriptions come with a FREE one month trial.

Tap 'Free Trial Subscription' in the Web user library

Chose your subscription term from the drop down menu on the popup that appears

STEP3 Tap 'Subscribe'





...via the Zinio app

Step 1 Search for *Web user* via the search box in the Shop tab

Tap the 'Subscribe' button

Choose whether to create an optional Zinio account

Enter your Apple ID password to confirm



Subscribe to Web user today and save on the single issue price



Web User Masterclass

Unlock secret settings and experimental features in your browser with these tips from our experts

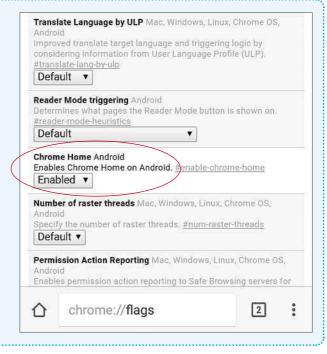


Move Android's address bar

obile phones have grown consistently bigger over the years and many screens are now more than five inches across the diagonal, which makes them tricky to operate one-handed. Chrome's address bar (sometimes called the Omnibox) is at the top of the browser, which makes it even more of a stretch for your thumb. It would be much easier to reach if it was at the bottom of your screen.

To move the bar, open Chrome on your Android device and type chrome://flags into the address bar. Scroll down the page until you come to an item called Chrome Home, then tap the button and select Enabled from the menu. A message appears prompting you to restart Chrome. When it restarts, the address box will be at the bottom. If you want to move it back to the top again, return to Chrome Home and select Default.

Enable the Chrome Home option to move the address bar to the bottom of the Android screen



Make scrolling smoother

By default, scrolling in Chrome jumps in steps from one line to the next, which can be annoying if you prefer smooth scrolling. You can fix this via a setting in Chrome. Type chrome: //flags into the address bar and look (or search) for the Smooth Scrolling setting. Click Default and change it to Enabled. You'll need to restart Chrome to activate it.

Remove the scrollbars

The scrollbar on the right-hand edge of the browser window takes up valuable space if you're working on a laptop with a small screen – and if you're using a wheel mouse or trackpad, you probably don't use it much anyway. An experimental feature in Chrome lets

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.

you hide the scrollbars, making your browser window less cluttered and leaving more space for content.

Type chrome://flags and select Enable from the Overlay Scrollbars menu. Restart Chrome and go to a web page that is tall and runs off the bottom of the browser window. The scrollbar will no longer be visible so if you want to scroll the page, you'll have to either use your mouse wheel or place two fingers on your laptop's touchpad and pull down or push up with two fingers.

To make the scrollbar reappear, move the mouse over the right-hand edge of

the Chrome window. If it's visible but very narrow, hover the mouse over it and it will expand to the normal width, so you can drag it to scroll the page. At its full width, the scrollbar becomes semi-transparent and appears over the top of the page content.

Fill forms automatically

How many times have you filled in a form on a web page with your name, email address, home address and so on? If you find yourself repeatedly entering the same information, you can cut down the

tedium by using Chrome to provide suggestions in a drop-down list when you click a text box in a form.

Chrome can go one step further and automatically enter text in every field of an online



There are three useful Chrome settings right next to each other in Chrome's experimental features

form, predicting when this is needed. Enter chrome: //flags into the address bar and find 'Show Auto-fill predictions'. Click the Enable link. The next form you come across should have most of your details entered automatically.

Instantly create secure passwords

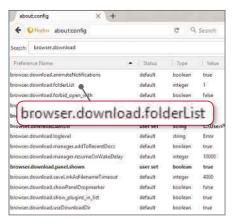
It's hard to think of a unique username and password for every website and service you sign up to, but Chrome can save you the effort by generating secure, random passwords automatically. Go to chrome://flags and look for 'Password generation', then change the setting to Enabled. When Chrome detects that you are filling in a new sign-up form and need a password, it will instantly create one for you.

Configure Firefox settings

Firefox also provides a comprehensive collection of customisable settings that control every aspect of the browser's tools. To see them, type about: config into the address bar and press Enter. The search box at the top is the best way to find specific settings.

For example, type browser .download.folderList into the search box. Double-click this entry in the list and you'll see that the value can be set to 0, 1 or 2. Enter 0 to save downloads to the Desktop; 1 to save them to the Downloads folder; or 2 to save downloads to the last folder used.

Now search for layout .spellcheckDefault. Double-click it and set the value to 0, 1 or 2. A value of O disables spell-checking on text boxes; 1 enables spell-checking for multi-line text boxes; and 2 enables it for all text boxes. Option 2 sounds like it should be the default but it isn't, because singleline text boxes are often used for username and password sign-ins, where spell-checking is often unnecessary.



Type into the search box to filter the settings in Firefox and find what you need

TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

Manage memory by discarding tabs

Do you always end up leaving a trail of open tabs when you browse the web? Each tab uses up some of your computer's memory, and it's very easy to run short if you have lots of open tabs and other software running.

To combat this, Chrome can make a judgment on which tabs are most important to you, and 'discard' those that aren't. To see this in action, open about 10 tabs. After browsing the web for a

few minutes, open chrome:// discards. You'll see a list of all your open tabs in order of importance (as decided by Chrome). Each listed tab includes a Discard link.

Discarding a tab doesn't close it and you won't lose the page - instead, the tab is put in suspension and any memory it was using is released, which improves the performance of your PC. When the tab is clicked again, Chrome reloads the content and you can continue browsing.

To take this a step further, you can switch on automatic tab discarding. Whenever Chrome detects that a tab hasn't been used for some time, it is discarded to release memory, though the tab stays in place so you can still reload it. Go to chrome: //flags, look for 'Automatic tab discarding' and change it from Default to Enabled, then restart Chrome.

Firefox speed tweaks

Here are some more Firefox tweaks that may make your browser faster: Type about:config in the address bar and search for 'browser.cache.use_new_backend'. Double-click the item and set the value to 1. This tells Firefox to use a different type of cache for storing recently accessed pages, which should be faster.

Letting Firefox use more memory also helps it run faster, especially when lots of tabs are open. In 'about:config', search for 'browser. cache.disk.metadata_memory_limit'. Double-click it and increase the value from 250 to 500.



Chrome can 'discard' (suspend) tabs you're not using and keep them accessible for later

Search for 'network.http.pipelining', then double-click to change it from False to True. This allows Firefox to make multiple connections to websites so it can download them faster. Changing 'network.http. pipelining.aggressive' from False to True can sometimes provide even more speed, and enabling 'network .http.pipelining.ssl' speeds up secure websites that use 'https' connections.

Experimental Edge features

Edge has a collection of experimental settings called flags, just as Chrome does. Start Edge and type about: flags into the address bar to see them.

Unfortunately, most of them aren't very interesting or useful, but if you're interested in website building, go into the 'Developer settings' section and enable 'Show "View source" and "Inspect element" in the context menu'. This means that items on the page can be right-clicked to display their code. The window is split horizontally with the web page in the top half and HTML, CSS and other code in the bottom half.

Under 'Experimental features', you'll find a long list of items but only a few of them will make any noticeable difference. Under 'Composition engine', select between Release and Canary (the latter is the more advanced - but less stable - version). Scroll down to Networking and tick the box next to 'Enable TCP Fast Open'. You may find this provides a slight increase in speed when browsing the web.

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



TABLETS

Start a Fire with an Amazon account

When I try to open my Amazon Fire tablet, it asks me to open an Amazon email. I've done this but I still can't download anything onto it. When I try, it tells me I need an Amazon email. I've emailed Amazon about this three times, but they haven't answered my messages.

Richard Coleman, via email

Amazon tablets require an Amazon account, just as Android devices require a Google account and iOS devices require an Apple account. Do you have an Amazon account? You can check by going to Amazon (www .amazon.co.uk) and signing in. Mouse



Create an Amazon account and use it on vour Fire tablet

over the Your Account link and click 'Sign in', or click 'Start here' next to 'New customer' if you don't have one.

Use the same email address and password on your Fire tablet. This links the device with your Amazon account for purchases of apps, books, music and so on.

MOBILE

Find tablets with 'Developer options'

I, along with two other silver surfers, volunteer to run a free computer course and café for older people in our district in Essex. We teach 12 people at each lesson, using 12 laptops that we own. Because computing is constantly in flux, we have decided to put aside the



Tap the build seven times to bring up Developer options

laptops and switch to tablets, which seem to have become more popular, but people still don't know how to use.

I have searched the internet for inexpensive Android tablets that have a microSD memory card slot, a Micro HDMI port and

the ability to use 'Show touches' in 'Developer options'. Most tablets show some but not all of these specs, and none of them mention 'Developer options'. We have even asked on the Android Forums, to no avail.

Our intention is to display what's on the tablet through a projector. We need the 'Show touch' option to show the students where our fingers have tapped the screen.

Robert Grieve, via email

If your Android device supports Developer tools, you can enable them by going to Settings, About Device. You might then need to press Software Info or something similar. Find the item labelled 'Build number' and tap it seven times. An extra item appears in Settings called 'Developer options'.

This isn't an advertised feature because playing around with these options could cause all sorts of problems. Most of them relate to information that can be displayed on the screen, but it is not something phone and tablet manufacturers want the public playing with, so it is hidden and

not documented. The only thing we can suggest is to go to a large store that has tablets on display and see which ones you can enable 'Developer options' on.

An easy way to see what is on an Android tablet or phone is with a TV. A Chromecast dongle will mirror the Android device's screen on the TV and no cables are needed. We have never tried this in a café using public Wi-Fi, but it works brilliantly on home Wi-Fi.

New Samsung TVs, tablets and phones have a screen-mirroring feature and you can connect them wirelessly to mirror the screen: find out more on Samsung's support pages at bit.ly/ sams425. Alternatively, you can use a cable. We found cables to connect Samsung tablets and phones to a TV for under a fiver on eBay.

Update phone numbers

I have bought a new phone with a new phone number. Do I need to update my Microsoft account with the changes and how do I do this?

Darren, via email

You should update your contact details on every service that has your phone number. Not only your Microsoft account but Google, Apple, Facebook, Twitter, LinkedIn and any other sites you log into. With some, this is optional but in others it is essential and may play an important role in your security. For example, it's often possible to use a phone as part of the security system, such as with Two Factor Authentication (2FA) or Two Step Verification.

When you log into the site or service, a text message with a code is sent to your phone, which must be entered to gain access. Even if a hacker got hold of your username and password, they could not log in to your account without your phone. If your phone number changes, you will need to change the number used by 2FA or you won't be able to log in anywhere that uses it. It's a pain, but 2FA makes online accounts more secure.

To update your Microsoft account, go to the OneDrive or Outlook website, click your picture in the top-right corner and select 'Edit profile'. Find the options to add or remove phone numbers. You should also click 'View account'. Under 'Update your security info', click Security, then the Update Info button. Click 'Add security info' to add a phone number and click Remove next to old phone numbers you no longer have. Now log into all your other sites and update your contact information.

A side benefit of doing this is that contacts are often synced with online services, so when you update online contact information, the contacts on your friends' phones are also updated, replacing your old number with the new one. It saves you having to text everyone your new number.

GENERAL PC

Get files in the correct order

I have a problem with Windows 10. I open a folder and add a series of MP3 files numbered Track001.mp3, Track002.mp3 and so on up to, say, 11. The tracks are listed in the correct numerical order but when I add another file - say, Track101.mp3 - the listing then puts Track101 between Track001 and Track002. How can I get the order I want with numbers and/or letters?

Wilf, via email

It sounds like your files are being listed in the order in which they are stored on the hard drive. Files displayed in Explorer windows and open/save windows can be sorted by name, date, size and other attributes, to make them easier to find.

In an Explorer window, right-click an empty space and select 'Sort by', then click the attribute you want - in your case, it should be Name, Alternatively, click the View menu in Explorer or the arrow next to the View button in Open/ Save Windows, and select Details. This displays file attributes in columns and clicking a column heading, such as Name, sorts the files.

GENERAL PC

Force Windows to update

I have an MSI laptop running Windows 10 Home with the Creators Update. Whenever I try to run Windows Update or download anything from the Windows Store, I get the following error: "There were some problems installing updates, but we'll try again later. If you keep seeing this and want to search the



All Microsoft updates can be found using the Windows Update Catalog

web or contact support for information, this may help: (0x80240439)".

I've tried everything I can think of, including wiping the PC and starting again, but nothing fixes the problem. However, I can manually install updates and they work fine. Everything worked before I installed the Creators Update.

Cecil, via email

You sent us a long list of the actions you've carried out, which we haven't printed here, but it really does look like you've tried everything. The bad news is that you need to keep trying. We've experienced a similar problem and had to perform the following fixes several times before Windows 10 was fully working again. Once was not enough.

Right-click Start and select Command Prompt (Admin). Check the hard drive for errors by typing chkdsk c: /f.

Press Y to run the check next time Windows is started, then restart Windows. Check Windows for errors by opening Command Prompt again and typing sfc /scannow. When it has finished, type these two commands:

DISM.exe /Online /Cleanupimage /scanhealth

DISM.exe /Online /Cleanupimage /Restorehealth

Open the Control Panel and click Troubleshooting in Small Icons view. Click 'View all', then run Background Intelligent Transfer Service, Windows Store Apps and Windows Update. In Windows Update troubleshooter, click Advanced, then click 'Run as administrator'. This finds and fixes more problems. Keep repeating every step until Windows is working.

Microsoft keeps an online catalogue of updates at catalog.update.microsoft .com; but you need to know exactly what you're looking for because the main page displays only a search box and entering 'windows 10' produces 997 results, including Windows 10 updates.

Open the Settings app and click 'Update & security'. Click 'Update history' on the right to see a list of the successful and failed updates. Enter the KB number into the Microsoft Update Catalog to find the download for that specific update.

MOBILE

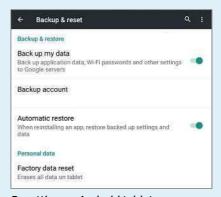
Replace an Android snooker game

I have an Asus Transformer TF101 tablet. Because my grandkids have been playing with it and loading all kinds of games, it was running very slowly. I decided in my wisdom to do a factory reset, making a note of all the apps I wanted to keep.

It now runs like new, except that when I try to reload some of my apps from the app store, I get a message saying the app is not compatible. One particular app I like - Pro Snooker - ran fine before the reset but I now can't install it. The tablet runs on Android version 4.0.3 with no further updates available. Any help would be much appreciated.

Paul Rowan, via email

What probably happened is that the app was installed some time ago when it was compatible with



Resetting an Android tablet means some apps may no longer work

Android 4.03 but it has since been updated and the latest version requires a newer version of Android. Only the latest versions of apps appear in the Google Play Store and there is no way to install old versions.

That old version of Pro Snooker is gone but a search of the Google Play Store produced dozens of alternatives. Many of them are free and run on Android 4.03. Download a few and try them.



This fortnight Roland has been backing up and plugging security holes in his websites

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

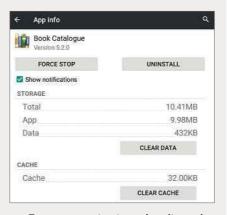
TOP TIP

Uninstall Android apps completely

I can't find an Android app equivalent to Revo Uninstaller, but I've discovered a method that seems to do a thorough job. Go into your phone or tablet's Settings, open Application Manager and tap the app you want to remove. If the Force Stop button is active, it means the app is running in the background. Press Force Stop, then Storage and press Clear Cache followed by Clear Data. Return to the application screen and tap Uninstall.

This procedure stops the app, erases its files, then erases the app. It's as close to a clean uninstall as you'll get.

Alan McCarthy, via email



winner WebUs

Force an app to stop, clear its cache, clear its data and press Uninstall

enters them to speed up your logins. For more tips on making your accounts unhackable, see our feature on page 48.

HARDWARE

Speed up your mouse's scroll wheel

Some web pages are very long and it takes a lot of scrolling to get from the top to the bottom. To make scrolling faster, open Settings in Windows 10 (Windows+i) and go to Devices. Select 'Mouse & touchpad' and you'll see several options. One is 'Roll the mouse wheel to scroll', and you can choose 'Multiple lines at a time' or 'One screen at a time'. The former lets you jump ahead a whole screen with just a small movement of the mouse wheel, which will get you to the bottom of a web page really quickly.

> If that's too much, select 'Multiple lines at a time' and drag the slider to select the number of lines to scroll down.

In Windows 7, these mousewheel scroll settings should be in the Mouse app in the Control Panel. On my PC, I found them in both locations.

This tip also works with other





Choose how far your page scrolls when you rotate the mouse wheel

things that can be scrolled through, such as documents.

Gary Mosse, via email

WINDOWS 10

Add a classic Start menu

If you want to make the Start menu in Windows 10 look and feel more like Windows 7, I'd recommend Start Menu X (www.startmenux.com). It's highly customisable, and lets you change its layout and even add tabs. After installing it, you can get the best of both worlds by switching between Start Menu X and the default Start menu using a simple keyboard shortcut. Give it a try - if you don't like it, you don't have to keep it.

fossewayfella, Web User Forums



Start Menu X replaces Windows 10's Start menu with a more traditional one

Change Google notifications

When you're on a Google site, such as Gmail or Docs, you may have seen notifications about Google+ and Google Photos. There are three icons in the top-

SECURITY

Create secure passwords quickly

When you register a new account online, coming up with a strong, secure password can take some thought. There are several sites that can generate a complex password for you very quickly, such as Strong Password Generator (strongpasswordgenerator.com), Password Generator (passwordgenerator .net) and Norton Password Generator (bit.ly/norton425). I use the latter, and you don't even have to be a Norton user

Madeline, Web User Forums

Web User says: Alternatively, LastPass (www.lastpass.com) generates secure passwords, saves them and automatically

to create passwords on its site.



Get into the habit of using unique, complex passwords for online accounts



Which notifications do you want to see when logged in to Google websites?

right corner and the middle one is either a bell or a red number. Click it, then click the cog icon to see a switch to enable or disable notifications from Google+ and Google Photos.

I don't use Google+ so I've switched off its notifications but Google Photos sometimes creates special images or albums from your snaps, which means notifications can be useful.

Brian Sharp, via email

SOFTWARE

Create Notepad logs

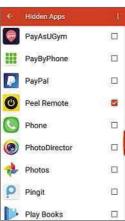
When you save something in Notepad, you can set it to record the date and time. Go to Edit and click Time/Date (or press F5) to make the option appear. You can add the time and date at the beginning, end or both.

To create a Notepad file that saves these logs automatically when you close the document, simply open a new Notepad document, type .LOG as the first line of text (with no spaces or characters before it) and save the file, giving it any name you like. Now, close the document, reopen it and you'll see a log of when it was closed. Note that if you don't close the document immediately after saving it, there will be a discrepancy between the times.

Madeline, Web User Forums

ANDROID

Clean up your app drawer



Use Nova Launcher Prime to hide pre-installed apps

Nova Launcher Prime (bit.ly/ nova425) has a handy tool that lets you hide apps from your app drawer. This is useful for hiding apps that came installed on your device but that you never use, or to prevent people from seeing certain apps you've installed.

To hide an app, open the Nova Settings app and

tap 'App & widget drawers'. Swipe up until you see 'Drawer groups' and tap 'Hide apps'. Tick the boxes for any apps you want to hide, then tap the Home button and open the app drawer. The apps are no longer visible, but you can still access them using the search bar at the top of the page.

The Prime version of Nova Launcher (£3.99) unlocks gestures and unread counts, and is well worth the money, but if you want to try using the launcher before spending any money, the free version (bit.ly/novaf425) is great, too.

Tom W, via email

BROWSERS

Use Chrome as a calculator

I use Google to perform quick sums because it saves opening other apps.



Chrome lets you perform calculations in the address bar

However, there's an even faster way to perform calculations from your browser just enter a sum into Chrome's address bar and it displays the result without even loading a web page. Just be sure to include the equals sign at the end of your sum and you'll see the answer displayed on a new line. I'm not sure if this works with the address bar in other browsers, but it's a handy tip for Chrome!

Aidan Stone, via email

BROWSERS

Change spacing in Google services

If you use Gmail or Drive, you can change the spacing of your email or file listings, adding white space to make them easier to read; or squashing up the text so you can fit more in.

In Gmail, click the gear icon in the top-right corner and choose Comfortable, Cosy or Compact to adjust the line spacing. There's also a Touch Enabled option for touchscreens.

In Drive, click the gear icon, then select Settings. The Density section lists Comfortable, Cosy and Compact options.

Bill Lane, via email

BLUNDER OF THE FORTNIGHT

Terminate Telegram sessions remotely

I use Telegram (telegram .org) for messaging my other half and I love that I can use it on almost any device. There are apps for Windows, Mac, Android and iOS, so if my phone battery runs out, I can simply pick up my iPad or laptop and carry on where I left off. This is its significant advantage over WhatsApp (www .whatsapp.com), whose web app has to connect

to the smartphone app.

One drawback to logging in on so many devices is that you're more vulnerable to snoops. I once left the app running on an unattended PC which meant my colleagues could see all my incoming messages, but I've since discovered you can quit these sessions remotely from your phone. To do this, open Telegram, tap Settings then Privacy and Security. Under the

← Active Sessions Telegram Android 4.0.1 ngSM-G920F, Android SDK 23 Terminate All Other Sessions Logs out all devices except for this one. Telegram IOS 4.0 Pad 4G, iOS 10.0.2 Telegram Desktop 1001002

Terminate your other Telegram sessions from the app's security settings

Security heading, tap Active Sessions to see all your active sessions listed according to when they were last used. Each one displays the IP address and OS to help you identify it. Tap a session and a pop-up asks whether you want to 'Terminate this session?'. Tap OK and no one will be able to snoop at your messages on that device. You can also 'Terminate All Other Sessions'.

You can also make sure that your PC or tablet is set to lock after a period so your messages can't be intercepted and, to be extra safe, stop messages being previewed in your Android notifications by opening the 'Notifications and Sound' menu from Telegram's settings and turning off Message Preview.

Tim Wright, 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!

BROWSERS

How often should I delete cookies?

What is the best approach to clearing cookies from your browser? Should they be cleared after every browsing session or will doing this at weekly or monthly intervals suffice?

daddybear, Web User Forums

I don't bother deleting cookies as a matter of course - only if there's a problem. 95% of the time I revisit the same sites, so there seems little point in clearing them only to download them again on my next visit.

You can normally clear individual cookies you don't want by opening the appropriate menu in your browser. Otherwise, try using CCleaner (bit.ly/ccle425).

To delete individual cookies in Google Chrome, open the Settings menu, then click 'Show advanced settings'. Under Privacy, click 'Content settings...', then select 'All cookies and site data...' You can then browse all your saved cookies, hovering over each one and clicking the X button to delete them.

Bear in mind that if you're exploring cost quotations for insurance or flights, some websites try to rip you off by hiking up the prices when the cookies tell them you've returned to the page. If that happens, delete all the cookies relating



Chrome lets you delete individual cookies so you can keep the ones you want

MUSIC

How can I download music from a website?

I have found a concerto on the internet that I would like to add to my music library but I don't know how to download it - or if that's even possible. At present, I have copied the URL and can play it on my laptop but I would appreciate any advice that helps me to save it.

billw, Web User Forums

It all depends on the website you're trying to download it from. On some web pages (such as Czech Radio at bit.ly/audio425), you can right-click the audio file and select Save Link As (or similar). Not all websites that offer audio files for download let you do this but it should definitely be the first thing you try.

If you don't have any luck, you can



4K YouTube to MP3 lets you save audio simply by copying and pasting a URL

use a tool such as 4K YouTube to MP3 (bit.ly/4k425), which downloads audio from SoundCloud, YouTube, Facebook and Vimeo, among others. It has a simple, functional interface and extracting the audio is as simple as copying and pasting a URL.

Another option is Pazera Free Audio Extractor (bit.ly/pazera425), which is available as a portable application.

For grabbing audio, Audacity (www.audacityteam.org) is great, too.

lizzygraham, Stewart40, calimanco and wildthing666, Web User Forums

to that company and re-enter your details to retrieve your original quote.

rogerman40, FratPark, Stewart40 and mikec1, Web User Forums

SOFTWARE

How can I access LastPass passwords in Firefox?

I have just done a clean install of Windows 10 and all my online passwords are saved to LastPass (www.lastpass.com). Is there a simple way for me to get them back in Firefox?

beefy, Web User Forums

to all your passwords.

It's a good idea to enable multifactor authentication after you've set up LastPass to give yourself an added layer of security. To do this, open Account Settings from the LastPass Vault, then click Multifactor Options.

There are several different free authenticators you can use, most of which work by sending a notification to your smartphone. If you don't have a smartphone, there's also an option to print a spreadsheet of login codes.

TheTechGuy, Web User Forums

If you download and install LastPass for Firefox (bit.ly/ lastp425), it will install the latest LastPass add-on for the browser, giving you instant access



Get quick access to your saved passwords with LastPass for Firefox



Star Email

Mug/

WannaCry attack is no laughing matter

didn't know whether to laugh or cry when I heard about the WannaCry ransomware outbreak. The fact that such a shoddy-looking piece of malware with its modest ransom demand of \$300 could cause such chaos across the world just proves that we're not as technologically advanced as we think we are. It's like the massive alien fleet in Independence Day being brought down by Jeff Goldblum's computer virus!

What wasn't funny, of course, was that the ransomware caused such serious problems at the NHS and that patients were denied important operations and treatment because the computer systems were down. From what I gather, the attack wasn't specifically targeted at the NHS, but a consequence of hackers exploiting



security holes in outdated systems used by companies all over the world. But there's a big difference between patients' lives being put in danger for crucial hours and some car factory having to send its workers home early for the day. The thought that our health service's systems are so vulnerable to cyberattack is very scary, especially now that hackers know the trouble they can cause and, no doubt, will do again.

What also concerns me is that ransomware is usually triggered by someone opening an dodgy email attachment, which causes the malware to spread over a network. This means that somewhere along the line an NHS employee opened that attachment, or clicked a link or whatever, and pandemonium was unleashed. I know the NHS doesn't have much money, and that its staff are stretched for time as it is, but some basic training in computer-security skills would surely have prevented this from happening. Perhaps we should start leaving copies of Web User in our doctors' waiting rooms for them to take the hint!

Michael O'Neill, via email

Blow the whistle on phone scammers



webuser422) regarding BT

phone scammers. We've all had them and I've followed the same pattern as he did - start nicely and end with expletives! It makes you feel good, but the scammers still don't learn their lesson and, sometimes, if you upset them, they put you on some form of auto-pilot, which means someone calls you repeatedly every five minutes until they get bored or you take the phone off the hook.

The answer? Keep a referee's whistle by the phone and, if you get bombarded by scam calls, blow long and hard! Anyone on the other end will soon be dancing around the office as if they are being attacked by wasps while they try to get their headset off as fast as they can. It may even end their shift for the day because it's difficult to make your next call when your ears are ringing!!

Ron O'Brien, Luton

Private browsers should support extensions

Having just read your round-up of private browsers in Issue 423 (bit.ly/ webuser423), I must say that I find them very limiting. This is mainly because you can't add extensions - except for Tor Browser, which can be customised with extensions

With your Gold Award-winner, Epic Browser, you can't install Chrome extensions such as Adquard or Dashlane. I got in contact with Epic Browser on Twitter about this issue and they replied: "We don't plan to support extensions, simply because many are untrustworthy and sell your browsing history" (bit.ly/ epictweet425). I found this surprising and although I agree that many add-ons could compromise your privacy, isn't it up to the user of the software whether or not to install them?







You'd forgive any patient for asking "come again?" when told their doctor was being held to ransom

Turn to page 74 to find out
what's making Barry mad this issue



I'm also surprised that you missed out Brave browser from your round-up. Although it does not have a proxy, it makes up for this by having extensions such as a PDF reader torrent viewer and syncing with its Chrome-based browser for iOS and Android. Brave also works on Linux. It's still very limited but I'm certain that the Brave team will add more features to the browser in due course.

Gold Master, via email

Pagat.com's the real deal for card games

Regarding your feature 'The 100 Best Things You Can Download For Free' in Issue 423: Wikibooks does indeed include books about card games (number 91 in your list), but for anyone who really likes playing cards, the place to go is Pagat.com (www.pagat.com), which has been an astonishingly good resource for a very long time (just like Web User). It's not a new website by any means, but deserves a mention because it's an encyclopaedic site for card-playing enthusiasts.

Paul Peters, via email



My recommendations for free downloads

What a cracking edition of *Web User* Issue 423 was! I really enjoyed looking through and browsing many of the websites that you featured.

I thought you might like to have a look at www.hraconsulting-ltd.co.uk as an additional source for calendars. I have

used their templates for the last three years for pictorial family calendars, which are easy to download in Word format. The calendars are presented in A4 landscape format, with all 12 months shown continuously. This means you can change the page size to A3, rearrange details and

add your own photos. Because it uses Word files, you can add family birthdays and other events. You do, of course, need an A3 printer to finish the job.

Another website that will be of interest to hobbyists is the box-template creator at templatemaker.nl, which allows you to construct gift boxes of all shapes and sizes. The files can be saved in PDF or SVG format, and the downloaded template can be loaded into Illustrator or Inkscape to add photos and messages.

Eric Page, via email

Warning about adult comics

I share this as a warning to anyone sensitive to adult content. In last issue's cover feature, item 43 - titled 'Classic comics' - Web User says the second link takes you to a site featuring American comics, but the page also includes a collection of Manga comics. Some of these are adult, and the cover pictures make this very apparent. It doesn't bother me, but I know some people won't want to go there, so I thought I'd mention it.

Jon98, Web User Forums

Web User says: Unfortunately, after we went to press with the feature, the front

page of the Internet Archive's Comic Books and Graphic Novels section was updated to include some images of adult Manga comics.

comics.
Previously it
had featured
mostly Disney,
Marvel and

Lone Ranger titles. We apologise for any offence our link caused anyone. You can skip the Manga and go straight to the classic comics at bit.ly/comic423.



Fake news has been foisted on us for years

I write in regard to Barry Collins'

Page 404 column in Issue 422 concerning fake news. We all know there is a lot of rubbish out there, but what of the mainstream media? The so-called prestigious newspapers? Do you not think these long-standing publications are also guilty of publishing fake news? One classic example was the way Donald Trump (and I am no fan of the guy) was treated prior to the last US Election. Same with the Labour Party and Jeremy Corbyn. The mainstream media sets out to destroy reputations by publishing rumours and suggestions, and trying to plant false impressions in our heads. Where there is a political motive, we are going to be deceived.

It's not just politics, either. Any subject in which the establishment has a vested interest to mislead us is foisted on us daily. As the old saying goes: tell a lie loud enough, and long enough, and people will come to accept it as the truth.

Consequently, one has to go on websites such as Facebook to seek out

on sale now from Amazon, visit bit.ly/wudisc16









the true stories the mainstream media is

trying to suppress.

Topics such as genetically modified food, fracking and other controversial subjects are not given the coverage they deserve because they are either too controversial (regardless of their validity) or will threaten the mainstream media's advertising revenue.

If you want to know what is really going on in this world, ditch the tabloids, broadsheets and TV news channels that are set out to 'character assassinate'. Fake news is not just the domain of those who make up outrageously fake stories. In fact, the mainstream media have been at it for years.

Get the message? If not, try my site Fakir News (www.fakirnews.com) for some of the finest fake news out there.

Chris Silverthorne, via email

Don't open the doors to our personal data

I feel I must respond to Gerry Walker's Star Email in Issue 423, 'Online surveillance is for our protection'. I have to point out that while it may be all well and good for our security services to be able to look at our emails, Facebook accounts and so on, it's not them we need to worry about.

Any backdoor entry or access to



encrypted content will be immediately exploited by criminal elements and unsavoury foreign powers who often have access to the most up-to-date and sophisticated software. The recent use of ransomware to cripple the NHS and other organisations across the globe is a case in point. Some of the criminals' software was highly sophisticated and stolen from the NSA.

To my mind, allowing unfettered access to your data is like asking you not to lock your doors in case the police need to check you're not hiding weapons. Anyone can then walk in and help themselves. The modern digital world has no borders, and the old saying "I've got nothing to hide" is now meaningless.

Colin South, via email



HE MP3 FORMAT HAS BEEN **DECLARED DEAD BY ITS** MAKERS. DO YOU STILL USE IT?

Yes, but then I still use cassettes and vinyl.

Chris Armstrona

I'm happy to stick with MP3s as I'd rather be able to play them everywhere. I don't do music streaming - the internet is far too unreliable for that.

Wolf Simpson

Yep, I can put USB sticks in my car and have a few thousand tracks.

Si Mellor

I prefer to buy CDs, put them on my laptop, then convert them to MP3 and play them on my MP3 player.

••••••

Phil Graham

O YOU APPROVE OF PLANS TO ALLOW PEOPLE TO MAKE PHONE CALLS ON THE **LONDON UNDERGROUND?**

No, it would just be everyone blabbering away. And with all the background noise, people on the receiving end would be, like: "You what? Repeat that!"

goldmaster @imthegoldmaster

Bad idea. Crammed in like sardines with someone yelling into their mobile phone half an inch from your ear! No thank you.

Johnny G @Scots_Jock

Coming from a generation who had to hide valuables and cash in our socks while on the Tube, I would be reluctant to wave expensive tech about (but I understand London is a much nicer place these days).

Richard Morgan

It'll be a quick way to get your phone nicked.

Steve Hamilton

RE YOU TEMPTED TO BUY THE NEW 'OLD' NOKIA 3310 (bit.ly/nokia425, see page 10)?

••••••

Only as an emergency phone, in case my iPhone gets lost or broken. With limited modern features, there is no other reason to purchase one.

Gavin Green

If it had been an actual 3310 then maybe, as a backup phone. But this horrific monster is nothing like the original. It's a con to name it the 3310 and has been done just to get hipsters to part with £50.

Pete Fitzsimmons

Not me, but my brother would if he needed a new phone. He only needs a phone for calls and texts, and one that has a long battery life, so it would

Trevor Booth

Tempted? Yes. Have I got £50 to leave lying in a drawer? No.

Karl Robson

O YOU AGREE WITH A **GERMAN COURT'S RULING** THAT FACEBOOK DOESN'T HAVE **TO GIVE PARENTS ACCESS TO** THEIR CHILDREN'S ACCOUNT SHOULD THEY DIE (bit.ly/ fbook425)?

No. They are your kids, and I would want to know what, if anything, was being said.

Paul Adrian

No. Parents should have access if they want to close the account, or save any photos on their timeline.

Iori @gadgetgal16

Facebook is run by Satan - they do what they want, when then want. They should unlock the accounts, but it's likely they won't.

Heather Hear @heather_hear

Barry Collins argues that the technology of the fractured NHS badly needs healing

Don't blame Windows XP for WannaCry

e've all had medical appointments cancelled for various reasons: staff shortages, flu outbreaks, a Millwall match in the immediate vicinity. But you'd forgive anyone for asking "come again?" when they turned up for their appointments on 12 May, only to be told they couldn't be seen because the doctor was being held to ransom.

Anyone who's read *Web User* over the past couple of years will be familiar with ransomware, a decidedly vindictive form of malware that encrypts your computer's files and demands payment to release them. So why, you might reasonably ask, did it catch the NHS's IT departments by surprise? How did so many systems fall victim to an attack that could easily have been thwarted by the free security software that comes with Windows?

The answer, according to some commentators, is money. The WannaCry ransomware attack that disrupted several hospitals and dozens of GPs' surgeries was "an accident waiting to happen", according to Charles Arthur in

the *Guardian*, because many NHS trusts were still running systems based on Windows XP – an operating system for which Microsoft stopped issuing security updates in 2014. Indeed, the NHS paid Microsoft a huge sum to keep supplying

ff What use are digital

records if the computers

that store them can be

knocked out by a low-rent

ransomware attack? 🕊 🕊

security patches for Windows XP well into 2015, before it stopped the payments.

"For all the Tories' droning on about not wanting a

coalition of chaos, they've overseen exactly that in the health service, where computing departments are fragmented nationally due to the franchised nature of health trusts and underinvestment is rife," Arthur lamented.

I know Charles and he's a great journalist, but on this point we differ. The NHS has had plenty to spend on IT equipment - it's just squandered the money on the wrong things. In fact, Charles only needs to look back to the

Guardian in 2013 to find a report about the £10bn wasted on an abandoned effort to digitise NHS patient records. Even if this stupidly expensive project only reached a fraction of the trusts it was supposed to, what use are digital

> records if the computers that store them can be knocked out by a low-rent ransomware attack? We may as well go back to filing cabinets.

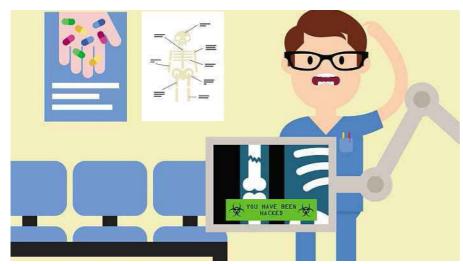
The problem lies less with funding and more with the first part of Charles Arthur's analysis:

the fractured nature of health trusts. There isn't one overarching NHS IT department, there are hundreds, and it would take months just to figure out how many systems across the health service are still running Windows XP. Even when you find them, it's not as simple as spending a few million to upgrade those systems to Windows 10.

One reason why XP is still so prevalent in the NHS is that specialist medical applications were designed to run on that operating system and cannot be ported to modern versions of Windows. I took my daughter for a hearing test earlier this year and the software that measured the readings was running on an XP machine. Replacing that computer might require the department to replace the entire testing suite, too, at which point the trust manager sucks his teeth and says: "maybe we'll stick with XP a little longer".

The WannaCry ransomware has proved that's no longer an acceptable answer. Whatever the cost, the NHS trusts must now root out those XP machines and secure their networks properly. Nobody wants to see an infected doctor, after all.







ENJOYED THIS ISSUE? GET THE NEXT ONE EARLY!

hank you for reading this issue of *Web User* – we hope you found the tips and advice useful. The good news is that you don't have to wait too long for the next issue. If you subscribe to *Web User* by Monday 19 June (8pm)*, you'll receive it through your letterbox before it's available in the shops!

What's inside the next issue:

COVER FEATURE: THE HACK-PROOF GUIDE TO ENCRYPTION

PLUS:

- Update everything faster
- Automate everyday tasks
- Fix streaming problems

AND...

Best new PCs for less than £500

*Don't worry if you miss this deadline you can subscribe to Web User at any time!



Subscribe to *Web User* today and you'll pay just £19.99* for the next 13 issues – that's a 26% saving on the shop price. As an added bonus you'll also receive a free gift – a mini torch

Subscribe online at

subscribe.webuser.co.uk

or call now on **01795 592 926**

*Includes FREE DELIVERY

Quote offer code: P1712P



GB2488HSU | GB2788HS | GB2760QSU

Panel	TN LED (Full HD – WQHD)			
Response time	1 ms, 144Hz, FreeSync™			
Features	OverDrive, Black Tuner, Blue Light Reducer, Predefined and Custom Gaming Modes			
Inputs	DisplayPort, HDMI, DVI			
Audio	speakers and headhpone connector			
Height adjustment	13 cm			



