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iOS 14

...AND WHAT
WE DON'T LIKE
SO MUCH

STAYING HOME SAVES LIVES.

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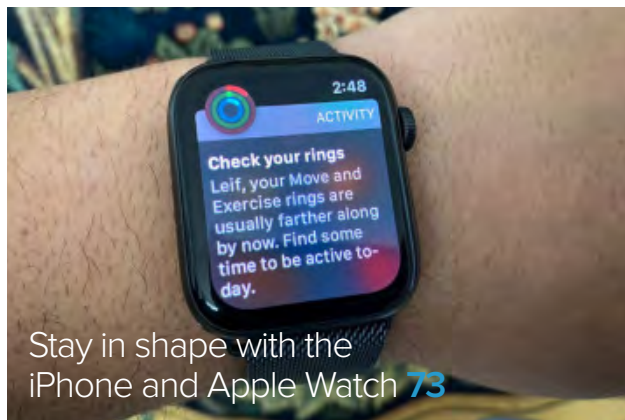
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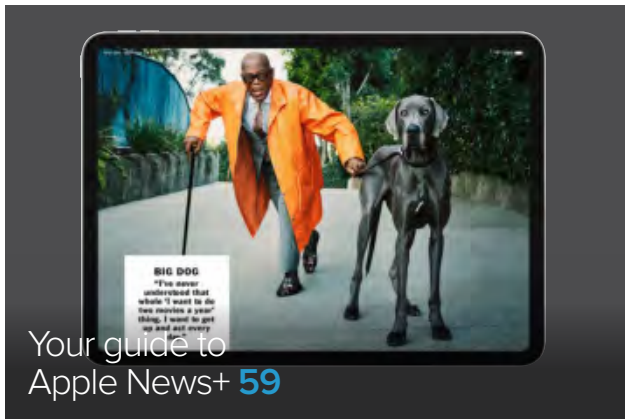
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PREVENT WILDFIRES, FOR THE LOVE OF THE OUTDOORS.

SMOKEY

75TH BIRTHDAY

The most invisible and influential eras in Apple history

Apple's business approach and position in the market has varied over the years.

BY JASON SNELL

wrote my first story about Apple in 1993, meaning I've been covering Apple for 60 percent of its existence. Lately, I've realized that beyond a few major milestones, most people don't really remember Apple as anything but a technology titan. But the two very different Apples of the 1990s and early 2000s are worth remembering, rather than losing them in a hazy muddle that begins with

Steve Jobs leaving Apple and ends with the arrival of the App Store.

I've tried to categorize the history of Apple into six distinct eras where the company's approach and position were remarkably different, with special attention paid to the two most undersold eras in company history.

THE HOBBYIST ERA (1976-1982)

You know the story. Two guys named Steve built a company in a garage in the earliest days of personal computing. There's been plenty of myth-making about this era in Apple's history, and for good reason. In 1982, high on Apple II sales, Apple hired John Sculley of Pepsi as its CEO, and this era came to an end.

THE CORPORATE ERA (1982-1992)

This era encompasses the continued success of the Apple II, the release of the Macintosh, and the Mac's growth under Sculley. It's funny to think about how Jobs's legendary shepherding of the original Mac project came as his power base in the company was crumbling, and a year after the Mac arrived, Jobs was gone.

What remained was a company that was ready to iterate on that original Mac and take it to some great places. The Mac became dominant in media circles thanks to the advent of desktop publishing. My

Macworld **started out as a print magazine, and the first issue was published during the Corporate Era.**

first Mac was an SE, purchased in this period.

Apple grew a lot during this period, transforming from the legendary garage startup into a more traditional corporation. Microsoft and IBM PCs loomed as threats, but the Mac was still clearly the best choice for the job—and the money flowed.

THE DOOM ERA (1992-1998)

I tell people that I started writing about Apple when it was doomed. And indeed, deciding to specialize in Apple computers in 1993 seemed about as smart as covering radio dramas during the roll-out

of television. Microsoft was on the march, and the release of Windows 95 massively closed the gap between Macs and PCs, robbing Apple of one of its great advantages.

The PowerBook, released at the very start of this era, was a winning product that helped earn Apple a lot of goodwill. But that goodwill was rapidly squandered with the disastrous second-generation PowerBook, the 500 series, and its even more disastrous successor, the PowerBook 5300.

Apple CEO John Sculley was booted during this period, and his replacements got increasingly less inspiring. Apple had a whole lot of money during this period, and not a whole lot of sense, and it flailed

PowerBook 5300cs, a symbol of the Doom Era.

around to find a solution that would allow it to become the legendary Apple of the previous era again. It also shot itself in the foot repeatedly, as it did when it licensed Mac OS to outside hardware makers to create Mac clones.

And just like that, the money ran out. Gil Amelio, the clueless executive left holding the bag, only had a few moves left. Even his single best decision as Apple CEO was a happy accident: Desperate to find a modern operating system because of Apple's inability to build a new version of Mac OS, he ended up getting talked into buying NeXT.

Yes, NextStep became the foundation of all of Apple's operating systems to this day. But even more important was that the founder of NeXT, Steve Jobs, came along with the purchase.

THE RESURGENT ERA (1998-2008)

The popular narrative of Steve Jobs's return to Apple is simple: Jobs came back and saved everything. Which, yes, that did end up happening. But I think it gives short shrift to this very interesting period at Apple, where Jobs was back and putting his plans in motion—but Apple was also hungry to try anything and everything to get back in the game.

We remember the successes. The original iMac, introduced in 1998, really

Apple's Steve Jobs (left) and Intel's Paul Otellini (right) talk about Apple's implementation of Intel processors in Macintosh computers.

mocked Apple's previous efforts to sell server hardware, and explained how Apple would remain committed with the new Xserve server, Xserve RAID storage

marks the start of the turnaround. The iPod followed in 2001, and combined with the launch of Apple's retail stores, Apple changed its brand, brought back the Mac, and primed the pump for the launch of the iPhone.

But there were failures and false starts, too. Apple's partnership with IBM in 2003 led to Apple announcing the Power Mac G5 and Jobs promising a 3GHz processor would be available within a year. IBM was never able to deliver, and Apple ended up having to jettison the entire PowerPC alliance and run into the arms of Intel, formerly Apple's archenemy.

And in 2002, Jobs stood on stage,

array, and Mac OS X Server software. It was worth a shot, but it just didn't work out—and both Xserve and Mac OS X Server slowly faded away as Apple found better areas in which to focus.

And then there were Apple's bumbling attempts to add online services to its portfolio during this period, from .Mac to MobileMe. iCloud has evolved into a solid service, but only after more than a decade of belly flops.

Yes, there was magic in the early era of Jobs's return. But it was hardly an effortless performance. In this era, Apple was sweating—trying hard, and often, to find places where it could push itself

forward. We remember the success, but maybe not the sweat.

THE ERA OF EXPANSION (2008-2015)

Beginning with the launch of the App Store in 2008, this is the era in which Apple went from being a big tech company to being one of the richest and most powerful companies in the world, largely on the growth of the iPhone.

In this era, Apple introduced the iPad, rapidly advanced iOS against competition from Android, honed its chipmaking skills, and made enormous amounts of cash.

By 2015, however, iPhone growth began to slow. You can mark the end of the era in 2015 or, if you prefer, 2018. But I'd argue that once iPhone growth slowed to a crawl, the era of Apple's rapid expansion had come to an end.

THE TECH TITAN ERA (2015-PRESENT)

And then there's the current era, in which Apple is finding growth in new areas beyond the iPhone—most notably wearables (Apple Watch, AirPods) and services. Apple's a gigantic force in the world, the target of regulatory investigations and white papers from politicians who seek to limit its reach.

Where does the company go from here? It seems like a return to Doom is unlikely, but there's a real question about whether Apple is going to enter a period of senescence, where it makes loads of money but stops growing and changing, or if the corporate culture defined by Steve Jobs drives Apple's current generation toward new products, new categories, and a constant reinvention of what Apple is.

If I've learned anything in the last 27 years, it's that Apple rarely stands still for very long. Perhaps sometime this decade, Apple will exit its post-iPhone period and enter another exciting new period of growth and change. I sure wouldn't bet against it. ∎

Apple has taken a commanding lead in the wearables market.

The Mac never left, but it's about to have a comeback

There's never been a more exciting time to be a Mac user.

BY DAN MOREN

There's never been a more exciting time to be a Mac user. And I say that as someone who's been one for nearly 30 years now, ever since my dad brought home a Macintosh LC in 1991. I lived through the transition to PowerPC, the dark years of the nineties, and the move to both Mac OS X and Intel processors.

Through all that time, the Mac has remained my workhorse. But in recent years, it often seemed as though the old stalwart had been overshadowed by the flashier iPhone and iPad lines, relegated to an afterthought in Apple's mind.

After this year's WWDC, however, the Mac is looking more like the Apple product that's poised to have a huge impact. As we

consider the calendar of the next couple years, there is a tremendous amount for Mac users to get excited about.

MODELING GOOD BEHAVIOR

Sometime later this year Apple will roll out its first Mac models running on Apple silicon. That frisson of anticipation hanging in the air is because nobody has a really good idea what exactly those models might look like. And not just in an aesthetic sense, though that's surely part of it. Will Apple opt for consistency, comforting Mac users by producing models that bridge the gap and change little, as the company did for the transition to Intel? Or is this a time to be bold, to push forward and demonstrate "This is what we can do when we're in complete control of every piece of hardware and software"?

I'm certainly hoping for the latter. Mac design in the last decade has, at times, felt staid and conservative. Sure, the latest MacBook Pro doesn't look exactly like its 2006 predecessor, but neither is it a huge departure. Likewise, the current generation iMac isn't hard to trace back to the first aluminum iMac of 2007, but it's honestly not even that distinct from the iMac G5 that preceded it.

Could those really be the ultimate evolved forms of the Mac, the platonic ideals of notebook and desktop computing? The new Mac Pro certainly

The new Mac Pro shows that Apple can think outside—and inside—the box.

illustrates that the company can think outside the box—or is that inside the box?—when it wants to. Plus, the engineering on the iPhone and iPad proves that when Apple does build its products from the ground up, it's second to none.

SOFTWARE EVERYWHERE

Not only is Mac hardware about to get more capable than ever, but that hardware is about to be deluged with software. Not only will Macs be able to run the same apps they've been running for years, but now they'll add hundreds of thousands of iPhone and iPad apps to the mix as well.

It's going to be a bit rough at first, to be

iPhone apps could end up on the Mac.

sure. Not every iPhone or iPad app is going to be a great experience on the Mac. But the simple fact that users will be able to install a mobile app and run it seamlessly is a huge sea change. Plus, having those apps available on the Mac has the added benefit of possibly encouraging developers who ordinarily might not have considered the Mac as a platform to improve their apps to make them better Mac citizens.

Throw in the huge collection of Unix-compatible software that it's able to run, and the Mac is arguably the most versatile platform in existence, with everything from command-line software first deployed before the Mac existed all the way up to an app designed for a smartphone in 2020.

THE BIG SUR PRIZE

On top of all that, Apple's thrown in the most significant redesign of the Mac operating system since the debut of Mac OS X nearly two decades ago. Big Sur is sure to engender plenty of strong opinions amongst both admirers and detractors, but it's hard to argue that it's not a bold move.

That's significant because, to my mind, you don't make that kind of statement on a platform that you don't care about. While some might see it as a sign of the Mac becoming more iPad-like, I'd argue that it's about letting the Mac be the Mac, but borrowing from everything that Apple has learned in developing the iPad and the iPhone over the last decade-plus.

The only constant is change, and if the Mac doesn't adapt, it will die. Therefore, the fact that it's changing to fit the times is a testament to its longevity. The Mac has been through far worse before, and it's always survived; hard to say the same about any other technology product entering its fifth decade because, well, there just aren't that many of them, are there?

The Mac, as Phil Schiller once said (go. macworld.com/phsc), keeps going forever, so what we're seeing now is just the start of the latest chapter in its long and storied history. And it looks like it's going to be a good one. ∎

The switch to Apple silicon: Will the Touch Bar survive?

Transitions are opportunities for changes and endings.

BY JASON SNELL

The arrival of Macs running Apple silicon (go.macworld.com/apsl) isn't just about faster, more-power-efficient processors. It's also an opportunity for Apple to reinvent Mac hardware (go.macworld.com/rinv) using lessons learned from the iPhone and iPad.
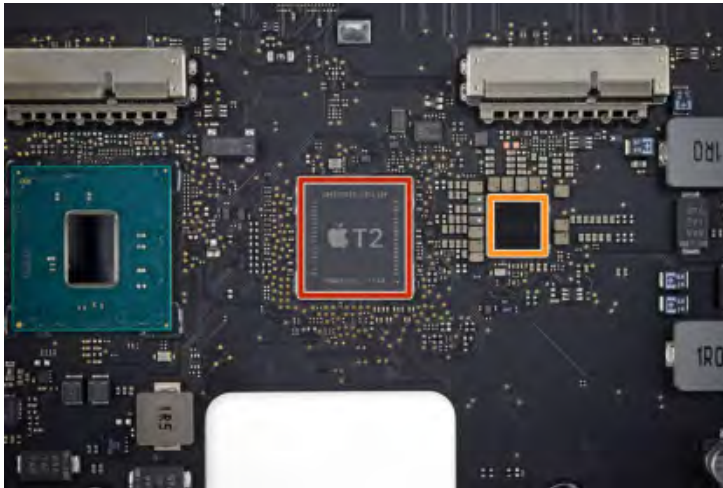
Apple can take this time to also reconsider some Mac hardware decisions of the past decade, most notably the Touch Bar on the MacBook Pro. While some users swear by it, the Touch Bar generally seems to have been received with indifference or scorn. Updates over the years have done almost nothing to

improve it, making me wonder if even Apple has truly embraced the thing.

By the end of this year, Apple will begin rolling out those new Macs. Sooner or later, the Intel MacBook Pro will be replaced with a model running on Apple silicon. Here's the big question: Does that laptop have a Touch Bar at all? And if so, will it be the same...or different?

THE OLD TOUCH BAR CAN'T SURVIVE

Powered by the T-series processors in modern MacBook Pros, the Touch Bar is a little part of the Mac interface that has been running Apple silicon since it was introduced. The silicon is also running its own operating system called BridgeOS, which is apparently based on watchOS.

The Mac and the Touch Bar talk to each other, but in many ways they're two separate computers.

Apple has spent the last few years offloading a bunch of Mac functions onto the T2 chip (go.macworld.com/ofld), doing things in uniquely Apple ways that wouldn't have been possible using Intel's processors and chipsets. That's all very clever, but once Macs are running entirely on Apple silicon, they won't need the T2 anymore—the main processor can take on all those jobs.

So what happens to the Touch Bar? If Apple wants to keep it going, it probably needs to re-architect how the Touch Bar works, to run on the same processor as the rest of the Mac. This might be good for the Touch Bar, in that it could be deeply integrated into macOS for the first time, rather than running at a remove via BridgeOS.

Perhaps Apple is satisfied that the Touch Bar is exactly what it needs to be, and will put in the work to rebuild the Touch Bar to behave exactly on Apple Silicon as it does on modern

Does an Apple silicon MacBook Pro still need a T2 chip?

Macs. (I'd suggest that the "classic" Touch Bar could use a little bit of love, but macOS Big Sur offers no real Touch Bar improvements, so I doubt any are forthcoming.) But it seems more likely to me that the

Widgets in macOS 11 Big Sur.

company has to choose between two paths for the Touch Bar: mend it or end it.

A WIDGET OPPORTUNITY?

If the Touch Bar is going to remain and evolve, it needs to get away from being just a keyboard row. Think taller, with room for more information and more room for fingers to move and swipe in two dimensions.

This year, along with Macs running on Apple silicon, Apple is releasing a unified feature across Mac, iPad, and iPhone: A new style of widgets, glanceable pieces of information from the operating system and third-party apps. iPhone users will be able to put widgets on their home screens. iPad users can stash them in the sidebar on the first page of their home screens. And Mac users...have to click on the clock in the

menu bar in order to temporarily reveal them within Notification Center.

It's better than nothing, of course, but how about letting Widgets run somewhere else? If the Touch Bar was expanded to be one row taller, it could display small and medium-sized widgets. If Apple embraced the Touch Bar as a second display, rather than a screen the size of a keyboard row, it could become the place for quick, glanceable and swipeable information. I'd wager more people would use Touch Bar widgets than use the existing Touch Bar—and they wouldn't get in the way of the rest of the Mac interface.

OR END THE EXPERIMENT

Then there's the other option: Give up. Consider the Touch Bar an interesting latter-day Intel era experiment to bring

some iPad and iPhone vibes to the Mac. The Intel era is at an end, and so perhaps it's time for the Touch Bar to fade away, too.

Macs running Apple silicon will have access to iPhone and iPad apps aplenty, and perhaps will even have touchscreens for the first time. Apple won't need the Touch Bar to bring multitouch interfaces to Mac users.

I've spent an awful lot of time using iPads with attached keyboards, and it's become clear to me that the two perpendicular planes of a traditional computer interface—the screen and the keyboard—are used in entirely different ways. I don't look down at my keyboard, except occasionally to orient myself, and I navigate it by feel.

Apple talks a good game about letting each device it makes focus on what it does best, but the keyboard is not a place to look carefully and touch only when you're certain about what you're touching. There's already a place for that kind of interaction. It's the screen. And once the Mac gets a

touchscreen, it won't need the Touch Bar anymore.

I can't say what Apple will do with the Touch Bar. But if I had to guess, I'd say that the lack of effort put into the Touch Bar in the past few macOS updates suggests that Apple itself doesn't believe in it, and has been waiting for an appropriate moment to let it fade away. The transition to Apple silicon is that moment. And while I kind of like the idea of a widget bar at the top of my MacBook keyboard, it's an idea that feels like it's trying a bit too hard.

That's the story of the Touch Bar as a whole, isn't it? It was designed to address some of the Intel Mac's deficiencies, and with Apple silicon those deficiencies are going to be wiped away. The Touch Bar's services are no longer needed. ■
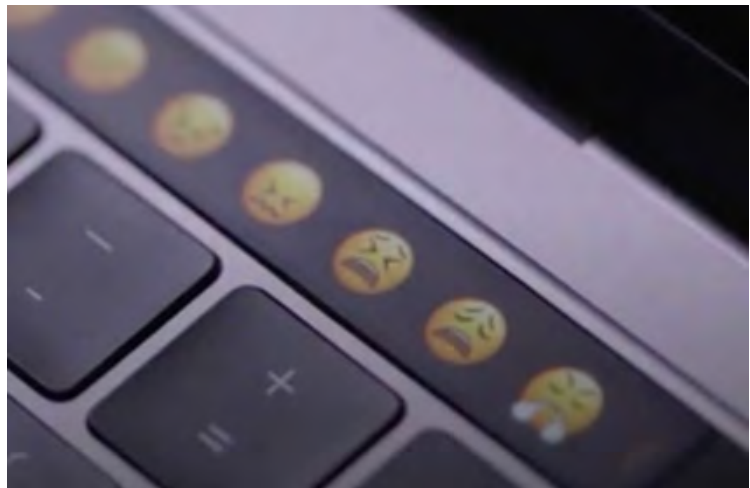
If MacBooks eventually get touchscreens, why do we need a Touch Bar?

What you need to know about Thunderbolt 4

Intel has a new version of Thunderbolt that aims to reduce connection confusion, and it may come to future Macs.

BY JASON CROSS

The USB Type-C connector is wonderful in many ways, but its ubiquity among modern computer interconnects has made it home to a host of confusing standards and capabilities. When you see that connector, you never know what you're going to get: Is it USB 3 or 3.2?

Maybe the upcoming USB4 (go.macworld. com/usb4)? What is the maximum speed? Does it have Power Delivery? Can I hook up an external display, and to what resolution? How fast is it?

Layer on top of it the Thunderbolt 3 (go.macworld.com/thu3) standard and its optional specifications, and it is hard to

know what will work with that Type-C connector and what won't.

Intel has a new standard, Thunderbolt 4, that it hopes will help cut through the confusion. It doesn't bring faster speeds (the maximum is still 40Gbps) or major new capabilities, but it has stricter minimum requirements and certification guidelines. The hope is that Thunderbolt 4 will be the "complete version of USB-C," as Intel puts it.

HOW THUNDERBOLT 4 IS DIFFERENT

In many ways, Thunderbolt 4 is the same as Thunderbolt 3. At least, it has many of the same *maximum* capabilities: 40Gbps throughput, 15W minimum power delivery for accessories, support for two 4K

monitors, and so on. But many Thunderbolt 3 ports on PCs do not actually meet these best-case specifications, and they're not all required for certification. Thunderbolt 4 raises the *minimum* requirements substantially.

You might think of Thunderbolt 4 as a sort of "guaranteed maximum capability Thunderbolt 3."

WHAT THIS MEANS FOR FUTURE APPLE PRODUCTS

While Thunderbolt and USB-C implementation has been a big mess on Windows PCs, Apple's recent Macs have been a shining example of top-notch Thunderbolt implementation. Modern Macs tend to support the maximum throughput, eGPUs, and multiple 4K monitors on their Thunderbolt 3 ports.

But not every Apple product with a Type-C port supports Thunderbolt 3. The iPad Pro has a USB-C port and supports external displays using the DisplayPort standard, but is not a Thunderbolt port. The 12-inch

How Thunderbolt 4 is different than other solutions
Based on minimum solution requirements so people know what they are getting

		Thunderbolt™ 4	Thunderbolt™ 3	USB4	USB3/DP
Unrivaled Simplicity	One universal computer port	•	•		
	Universal 40Gb/s cables up to 2 meters in length	•			
	Accessories with four Thunderbolt ports	•			
Maximum Performance	Minimum PC speed requirement	40Gb/s	40Gb/s	20Gb/s	10Gb/s
	Minimum PC video requirement	Two 4K displays	One 4K display	One display (No Minimum)	One display (No Maximum)
	Minimum PC data requirement	PCIe 32 Gb/s USB 3.2 - 10Gb/s	PCIe 16 Gb/s USB 3.2 - 10Gb/s	USB 3.2 - 10Gb/s	USB 2.2 - 5Gb/s
	Required PC charging on at least one computer port†	•			
	Required PC wake from sleep when computer is connected to a Thunderbolt dock	•			
	Minimum PC port power for accessories	15W	15W	7.5W	4.5W
	Thunderbolt Networking	•	•		
Reliable Connectivity	Mandatory certification for all shipping computers, accessories and cables	•	•		
	Cable testing and cable quality audits for Thunderbolt cable manufacturers	•	•		
	Required Intel VT-d based DMA protection	•			
	USB4 Specification	Compliant	Compatible	Compliant	Compatible

THUNDERBOLT

Thunderbolt 4 has similar maximum capabilities to Thunderbolt 3, but much higher minimum requirements.

MacBook, now discontinued, had a USB-C port with no Thunderbolt as well.

Thunderbolt 4 is meant to clean up the USB type-C mess.

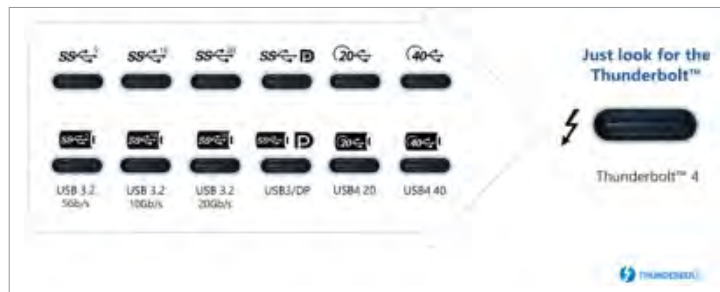Will future Macs support Thunderbolt 4? The ones that are based on Intel processors probably will. Intel will introduce Thunderbolt 4 controllers in its "Tiger Lake" processors, due for release near the end of the year. Macs using those chips will probably hit the market in the first half of next year. A standalone Intel controller chip will follow at a later date.

Apple recently announced that it will transition Macs from Intel processors to its own silicon (go.macworld.com/owpr). That throws a bit of a wrinkle in things.

Macs that use Intel processors (there will still be some of those for the next year or two) will probably support Thunderbolt 4, once Macs with Tiger Lake processors show up. It won't make a huge difference in practical terms—Apple's Thunderbolt 3 implementation is usually so robust that it meets most of the Thunderbolt 4 minimum specs.

What about Macs that use Apple's own silicon? One requirement for Thunderbolt 4 certification is "Intel VT-d DMA protection" which is a security measure that prevents memory access from connected devices. *PCWorld* points out (go.macworld.com/t4sp) that Intel says it would certify an "equivalent" DMA protection technology, though. So Apple could conceivably have its own Thunderbolt 4 controller that meets Intel's certification process, or it could use an Intel controller chip when one becomes available in the future.

Apple confirmed to The Verge (go.macworld.com/cnvr) that it does intend to continue supporting Thunderbolt on Macs with Apple silicon: "Over a decade ago, Apple partnered with Intel to design and develop Thunderbolt, and today our customers enjoy the speed and flexibility it brings to every Mac. We remain committed to the future of Thunderbolt and will support it in Macs with Apple silicon."

This doesn't tell us what version of Thunderbolt we can expect, or whether Apple will use an Intel or Apple controller, but we can probably expect at least the same level of compatibility and support present on current Macs. ■

Apple promises net zero carbon emissions by 2030

The company has given itself one decade to make all its products, from end to end, carbon neutral.

BY JASON CROSS

n July, Apple unveiled an ambitious plan to make its entire business carbon neutral by 2030. Apple's "corporate emissions" are already carbon neutral, but the impact of its offices and datacenters are small compared to all the products it makes and sells. This new goal encompasses the entire business, including the manufacturing and sale of all of its products, the supply chain for them, and even product end-of-life.

Given all the global companies

involved in the supply of parts for Apple's products, it's a very ambitious goal to achieve in just a decade. However, it's worth noting that *carbon neutral* is not the same thing as *zero carbon*. Carbon may be produced somewhere in Apple's business, as long as the company makes up for it elsewhere. For example, if the manufacturing of the displays used in MacBooks produced 100 tons of carbon per year, but Apple sends enough excess solar power to the grid to eliminate 100 tons of carbon in energy production, that would be considered carbon neutral.

Companies can produce carbon emissions but still be carbon neutral by producing excess carbon-free energy, using carbon removal, buying carbon credits, or otherwise offsetting the amount of carbon they produce.

HOW APPLE WILL GET THERE

In Apple's press release (go.macworld. com/apre), it laid out some specifics about how it plans to achieve net zero carbon emissions across its entire business. The aim is to provide a roadmap that other businesses can follow, and help pull the industry as a whole to a more sustainable future. In particular, Apple's goal for 2030 is to reduce emissions by 75 percent while using new carbon removal solutions for the remaining 25 percent of its footprint.

Here are the five key areas in which

Apple will invest in order to become fully carbon neutral in the next decade.

Low carbon product design: Apple is going to use even more recycled materials in its products and invest more in ways to disassemble and recycle its products.

Expanding energy efficiency: Apple will find new ways to use less energy in its own facilities and also help its supply chain make the same improvements.

Renewable energy: Apple's own operations already use 100 percent renewable energy, and it will work on moving its entire supply chain there.

Process and material innovations: Apple is working on making more of its materials carbon-free, including its support for the first carbon-free aluminum smelting process. The first product to use this low-carbon aluminum will be the 16-inch MacBook Pro.

Carbon removal: Apple is investing in natural projects that remove carbon from the atmosphere, like forest restoration.

Apple's carbon-neutral promise is ambitious, but it is just that: a promise. Nobody is going to levy harsh fines against the company or slap it with penalties for missing its targets or abandoning goals. Having said that, Apple has taken its environmental stewardship very seriously of late, and frequently shows up near the top of any green company list. ■

RECYCLING IS CREATING

When you recycle, you create something new.

BeRecycled.org

The latest Mac products
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REVIEWS
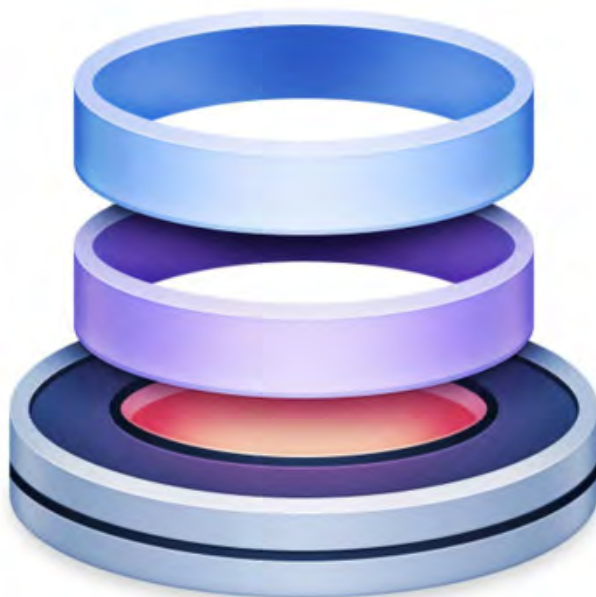
MENU-BAR UTILITY

DROPZONE 4: EXCELLENT MENU-BAR UTILITY SUPERCHARGES MAC DRAG AND DROP

BY J.R. BOOKWALTER

Drag and drop has been integral to the Macintosh user interface from the very beginning, one of the few elements to remain relatively unchanged since the original hardware was unveiled in 1984. And with good reason: It's not easy to improve on what works so well.

But just because UI pioneers Jef Raskin and Bill Atkinson nailed it more than 35 years ago doesn't mean there aren't still ways the drag and drop experience can be more efficient.

Out of all the software installed on my iMac, there are only a handful of apps I use consistently, day in and day out. Dropzone (go.macworld.com/dpzn) is among them, and the latest 4.0 release

makes the core functionality of this powerful shortcut utility free for everyone.

To use a sports analogy, if drag and drop was like pitching a baseball, then Dropzone would be the catcher receiving files and folders at home plate. This menu-bar app enhances the process with convenient "drop zones" to copy, move, or open files in frequently-used applications using a single gesture.

Dropzone turns the menu bar into a portal where users can copy, move, or open files in favorite apps with one drag and drop gesture.

The Dropzone panel is comprised of three sections: Drop Bar, for temporary storage of files and folders you want to access quickly later; Folders and Apps, which offer a faster way to access frequently used destinations; and Actions, effectively shortcuts for a variety of different services. For even faster access, pressing F3 opens Dropzone, allowing anything on the grid to be opened via keyboard shortcut.

Drop Bar is similar to Yoink (go. macworld.com/yonk), another excellent drag and drop utility that provides a temporary "shelf" for working with files and folders. Although Drop Bar lacks some of Yoink's niceties such as Quick Look preview and the ability to remove all stored content with a single click, the implementation here is convenient enough to avoid paying for both apps.

IN THE ZONE

Dropzone really shines with Folders and Apps. Add frequently-used folders to the grid, and you'll never again need to drill into a specific destination when copying or moving files. Start dragging content, and the Dropzone overlay appears under the menu-bar icon, conveniently expanding the grid as you move onto it. Folders can be configured to either copy or move whatever gets dropped onto them.

I use this feature daily to organize electronic documents for credit cards, utility bills, and bank statements into specific iCloud Drive folders, as well as archive downloaded software installers to a network-attached storage. Likewise, you can also add applications to the grid, making it easy to import JPEG files into Photos, open a PDF in Preview, and more in a single gesture. You can already do this from the Dock, but Dropzone provides quick access to lesser-used apps you don't want cluttering up that precious screen real estate.

Best of all, using

Organize content by creating Dropzone folders assigned to copy or move files for specific tasks, such as archiving downloaded apps.

Actions offer Dropzone users more ways to interact with cloud services, but the selection is currently limited.

the core Drop Bar and Folders and Apps features are now free. Dropzone 4 eschews the one-time cost of prior versions in favor of subscription-based pricing. Priced at $2 per month after a 14-day trial period, a Pro subscription unlocks full use of Actions, which includes uploading files via Google Drive, Amazon S3, and FTP servers; others are free, such as custom shortcuts to shorten web links via Tiny URL, or integrating with AirDrop and Imgur.

At this writing, only 20 different Actions are available, a fairly skimpy lineup

considering the annual cost. That's not to say Actions aren't convenient; shortcuts like Print, Install Application, and Image Search make life easier, and those with a knowledge of Ruby or Python can also choose to roll their own. Presumably there are more Actions to come, but as a premium feature, the current lineup isn't a compelling reason to subscribe.

BOTTOM LINE

Now that the best parts of Dropzone 4 are free, there's just no reason not to install this must-have menu-bar utility. ∎

Dropzone 4

PROS
• Configure folders to conveniently copy or move files from menu bar.
• Drop Bar provides temporary drag-and-drop storage.
• Keyboard shortcuts for quickly accessing folders, apps.

CONS
• Premium subscription now required for most Actions.
• Drop Bar not quite as useful as Yoink.
• Limited catalog of Actions.

PRICE
Free (in-app purchases)

COMPANY
Aptonic

VPN

WINDSCRIBE PRO: A GREAT VPN AT A GREAT PRICE

BY IAN PAUL

Windscribe Pro (go.macworld.com/w1nd) is a good VPN for securing a connection over open Wi-Fi, but what really sets this service apart are the extra features. It also has good speeds, and a very good price.

For well over a year, the company has been working on a new app design, dubbed Windscribe 2.0. The refresh has already rolled out on mobile, but has yet to hit the desktop of either operating system. We'll update this review once the app changes, but there's so much to offer with this service we got tired of waiting and decided to plunge ahead.

SECURITY, SOFTWARE, AND SERVERS

Windscribe is based in Richmond Hill, Ontario and was founded by Yegor Sak and Alex Paguis. The service offers 59 different country connections (plus a "Fake Antartica" connection) with more than 600 servers. By default, Windscribe uses the IKEv2 protocol, with OpenVPN options as fallback. Data encryption is AES-256 with SHA-512 for data authentication, and the handshake is handled by a 4096-bit RSA key.

The company's privacy policy is fairly straightforward. Windscribe stores the total amount of data transferred through a VPN account every 30 days—each account has a "bandwidth reset" date in the My Account section. Windscribe also retains the timestamp of an account's last activity on the VPN network, and it tracks the

WIndscribe for Mac.
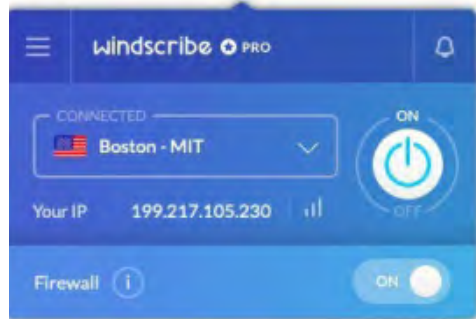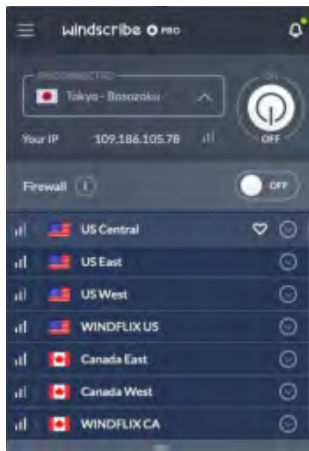
Windscribe for Mac with a live connection.

number of connections that a single account is using at the same time.

The company says it does not retain your IP address, the sites you visit, or a record of all your VPN sessions. When a connection is active the Windscribe server keeps a few items in memory including your username, time of connection, and the amount of data transferred.

Sign-ups for Windscribe require a username and password. The company doesn't require an email address, but adding one helps in the case of password recovery—using a good password manager is one way around that. Windscribe's privacy policy is not quite as good as Mullvad's (go.macworld.com/muvd), which supplies a random code for logging in (and that's it). Still, Windscribe is a good choice for privacy based on what we know.
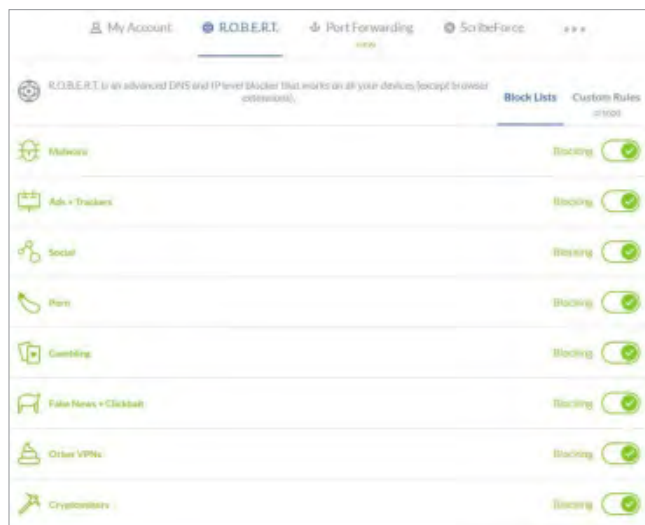
Windscribe is a little box displaying a large power button, the current IP address,

and the country connection choice. Click the latter and the window extends with a list of all 59 countries where Windscribe has servers available.

Click on the desired country and Windscribe will either connect automatically or display a secondary drop-down with all possible regional connections. Selecting U.S. East, for example, will show various choices in Boston, Buffalo, Chicago, and so on.

When Windscribe is active it automatically enables its internet kill switch, dubbed the "Firewall," to prevent online activities from being exposed on an open network.

All pretty standard stuff in a package that looks nice and is very easy to use.

Windscribe also works with Netflix. Originally, the company did this via dedicated servers labeled "Windflix" for the U.S., Canada, Japan, and the UK. Now, however, Windscribe supports Netflix in 27 different countries including the U.S., Canada, and the UK. Windscribe also supports more than 48 streaming services in various countries around the world such as BBC iPlayer, Disney+, and others.

Now, let's get to those useful extra features. Windscribe includes a "set it and forget it" blocker that works at the DNS and IP level, making it possible to set these options once and apply it to all your devices. Windscribe calls it the Remote Omnidirectional Badware Eliminating Robotic Tool, or R.O.B.E.R.T. for short.

Windscribe's basic settings for R.O.B.E.R.T.

By default it blocks malware, ads, and trackers when connected to the VPN, but it can also block social media sites and trackers, porn, gambling, fake news and clickbait, other VPNs, and cryptominers.

These features are adjustable from the account page on Windscribe's website; the blocking preferences reach out to all devices where Windscribe is installed. The only

exception being the Windscribe browser extensions, which use a blocking mechanism that's independent of the Windscribe apps, for now.

Overall, R.O.B.E.R.T. worked really well. It had no trouble blocking sites like Facebook and Twitter, as well as most porn sites on page one of Google results. Digging into pages 8–12 of Google, there were one or two porn sites that got past the blockers, but overall it was surprisingly good. Just remember this feature only works when you're connected to the VPN.

Next, there's the browser extension, which has a ton of extras. Originally, the Windscribe browser extension was just like most other VPNs, a way to connect to a proxy that only affects your browser. It does that, but it also has a secure link generator, a fancy URL-shortening service that we explained in *PCWorld*'s Windscribe review (go.macworld.com/wnrv).

In addition, the extension has tracker blockers, and the ability to block requests for website notifications. There are also spoofers for syncing a system's GPS location and timestamp to that of the connected server. Finally, the extension supports double-hop VPN connections in conjunction with Windscribe for Mac.

PERFORMANCE

Windscribe has pretty good speeds. In our tests over three different days, Windscribe retained about 25 percent of the base speeds. That puts it in the middle of the pack, with especially solid performance for U.S., UK, and German connections. Australia was mostly weak, while speeds in Japan would vary between average to incredible. Overall, Winsdscribe's speeds should be acceptable for most uses including gaming.

PRICING

Windscribe Pro costs $50 per year on the yearly plan, which is an amazingly good price for the features you get. You can also opt for the monthly plan at $9 per month. Alternatively, there's a Build a Plan option where you pay $1 per month for each location you want.

BOTTOM LINE

Windscribe is a feature-packed VPN with good speeds, excellent pricing, and a nice set of features. The privacy promises are very good, and while we don't think they quite rise to the level of Mullvad they are very close. The bottom line is that you'd be hard pressed to find a VPN with better value than this one. ∎

Windscribe Pro

PROS
• Works with Netflix.
• A healthy number of extras for power users.

CONS
• There is some logging, but it's limited and mostly time sensitive.

PRICE
$49

COMPANY
Windscribe

MY SHELTER PETS ARE
MY BEST FRIENDS

#AdoptPureLove

OLIVIA MUNN WITH FRANKIE AND CHANCE: ADOPTED 2016 AND 2014.
They're a little bit of a lot of things, but they're all pure love.

ad COUNCIL

THE HUMANE SOCIETY
OF THE UNITED STATES

Maddie's Fund

THESHELTERPETPROJECT.ORG

Hot Stuff

VIZIO SB2021N-G6

vizio.com

Vizio's 20-inch soundbar is a champ when it comes to beating expectations. It manages to crank out impressively rich, detailed audio for its size, while DTS Virtual:X processing helps to deliver 3D effects that sounds amazing. The soundbar lacks such basic features as HDMI inputs (forget lossless or even Dolby Digital Plus audio) and Wi-Fi connectivity, but the SB2021n-G6 makes for a terrific, inexpensive way to upgrade the sound on a bedroom TV or in a cramped dorm room. **–BEN PATTERSON**

LOGITECH MX MASTER 3 FOR MAX

logitech.com

As the name indicates, the MX Master 3 is the third generation of MX Master mice, and the design hasn't changed much since the original—thankfully. In addition to a comfy design, the mouse has seven programmable button, two programmable scroll-wheels, and a battery that can last up to 70 days on a charge. It works with the iPad Pro, too. **–ROMAN LOYOLA**

Hot Stuff

NIKON Z 5

nikon.com

Nikon's latest is geared toward photographers who are new to using a full-frame mirrorless camera. Equipped with a FX-format sensor, the Z5 has an effective pixel count of 24.3 megapixels, and its auto-focus system can detect the faces and eyes of humans and animals. Its vibration reduction works with both still photos and video recordings. **—ROMAN LOYOLA**

1 in 7 children faces hunger.

There's more than enough food in America for every child who struggles with hunger. Help get kids the food they need by supporting Feeding America, the nationwide network of food banks. Together, we can solve hunger™. Join us at **FeedingAmerica.org**

#DanceLikeaDad

fatherhood.gov

After the Mac's processors, Apple's next transition is apps

Less launching, more convenience.

BY MICHAEL SIMON

Over the next two years, we're going to hear a lot about Apple's next transition. The move from Intel to Apple's homegrown silicon (go.macworld.com/hgrw) is one of the biggest moves the company has ever made, one that's sure to impact the rest of the industry as much as the Mac itself.

But that's not the only transition that Apple is embarking on. It might not have gotten its own segment during the WWDC keynote, but Apple laid down the tracks for a major shift away from traditional apps over the next several years. It won't be as sudden or even as quick as the move to Apple's silicon, but before long apps aren't going to be something we need to

IMAGE: APPLE

download before we can use them. Rather they're going to be ever-present, glanceable, dynamic, and agnostic extensions that adapt to both our location and the device we're using without needing to visit a store.

WIDGETS WIDGETS EVERYWHERE

The iPhone may have kicked off the "there's an app for that" mentality, but you need to look no further than the iOS 14 home screen to see how Apple's ubiquitous handset is moving beyond a home screen littered with icons of every task. It's not just the App Library, which literally removes icons from our view, but also the elevation of widgets.

In iOS 13, widgets are deliberate. They're hidden behind a swipe, stacked in an infinite scroll, and not all that easier to use than an actual app, but in iOS 14 they've been elevated to front-and-center glanceable objects that will actually cut down on the number of times we need to open our favorite apps. From weather forecasts to sports scores and news, widgets give you a reason to stay out of your apps by putting relevant information within constant eyesight. Apple will even be spotlighting popular ones in the gallery so you can download an app strictly to use the widget.

And that means we're going to be using the accompanying app less. The iPhone's home screen has always been

Widgets will take away the need to launch apps whenever we need to know something.

little more than a shortcut to your apps, but in iOS 14, it's going to be a destination. You'll be able to unlock your phone, glance at a widget or swipe through a stack, and put it back in your pocket all without ever opening an app.

App clips are like downloading apps except quicker, smarter, and more convenient.

PIECE BY PIECE

Somewhat ironically, App Clips will reduce our dependency on apps as well. Designed to deliver small pieces of apps when and where we need them, App Clips are by nature ephemeral, serving a specific purpose and then disappearing.

They may function like the apps, but App Clips are a very different animal. You don't use the App Store to find them, you don't explore menus or save files, you don't even keep them around after you're done using them. They serve a specific purpose and poof, they're gone. They're apps in name only, and if developers adopt them as quickly as they should, App Clips will usher in a whole new way of installing apps.

Apple didn't announce App Clips for Apple Watch, but they make even more sense there. Even with an on-watch store

and a list view for the honeycomb home screen, finding apps to buy and use isn't all that pleasant on the Apple Watch. But App Clips could be a game-changer, turning app discovery into a smart, effortless extension of the watch face with tools that arrive when we need them and disappear when we don't. We wouldn't need to load up our watch with apps we rarely use, and most importantly, App Clips would take the focus off apps and put it where it belongs: on the watch face and complications.

THE FUTURE OF APPS

Of course, apps aren't going anywhere for a while. In fact, Apple is launching a brand new one in iOS 14 called Translate that does what you'd expect: help you learn

and communicate in foreign languages. As it stands you'll need to open it and interact with it like any other app, but it's easy to see a future where it just works without needing the app.

While the Translate app is for the iPhone now, it's much more suited for Apple's always-on and always-connected wearables. Translate could be built into future AirPods as a sort of Babel Fish that automatically translates into your native tongue when it detects another language. Or your Apple Watch could use Siri to translate on demand. And a future pair of Apple glasses could translate signs and images just by looking at them.

Translate is a perfect example of how apps could evolve beyond, well, apps. Just like App Clips, future apps could be integrated into the system like (or with) Siri and just work without needing to launch an app. Maps could be ready when we get in our car. Apple Music or Spotify when you start a run or pop in your AirPods. Or Target when you walk into the namesake store. And with Apple silicon soon powering every device, switching between them will be seamless and dynamic.

Of course, Apple has to get through the Mac's transition, but once that's done, apps are next. It's not that they're going away. We're always going to need a place to play music, browse stores, and get directions. But the way we access those tools could be very different in a few short years. ∎

Translate is an app now, but it won't be forever.

Apple removing the iPhone 12 power adapter wouldn't be courageous. It's just mean.

A new rumor says that the iPhone 12 won't include a power adapter in the box.

BY MICHAEL SIMON

An iPhone rumor made the rounds recently (go.macworld.com/newr), and it wasn't about the notch or the flat edges, or the size of the displays. This one's about what's in the box. Or rather, what's not in it.

Respected analyst Ming-Chi Kuo has seemingly confirmed an earlier report by Barclays that Apple won't be supplying a charger in the iPhone 12 box. Like none at all. Not even the lame 5W adapter that takes more than an hour to provide a decent charge.

Not since Apple removed the

headphone jack from the iPhone 7 has there been a rumor with more (as Apple might describe it) "courage." It's unclear whether Kuo is talking about the whole iPhone 12 lineup or just the entry-level models, but his sources expect Apple to ship some new models this fall without a charger.

The iPhone 12 might not include any of these chargers in the box.

That's not cool. Granted, nearly everyone has an old charger lying around, and anyone who has ever owned an iPhone or an iPad has a charger in a drawer somewhere. But when you buy an electronic device, whether it's an iPhone, a Nintendo Switch, or a MacBook, you expect to have everything you need to use it. Apple can spin it all they want—but people will have a right to be upset.

BYOC

Apple has long used its iPhone chargers to save a few bucks. While every other phone maker has shipped its phones with fast-charging adapters, Apple only just started including an 18W charger with the iPhone 11 box, and even then, only with the Pro models. The $699 iPhone 11 still has the same 5W charger as the original iPhone.

But we expected Apple to expand in-box fast charging to all iPhone 12 models, especially with battery-sucking 5G on board. The math works: Apple charges $19 for its 5W charger and $29 for its 18W one, and the USB-C cable that's required to fast-charge costs the same as the USB-A one ($19). And the benefit for the user is huge. Now we might not get anything.

Apple wants to sell the iPhone 12 at a similar price point to the iPhone 11, and 5G and OLED, which are rumored to be coming to all models, aren't cheap. So something has to give. Dumping the charger might only bring a few bucks in savings for Apple, but those dollars add up when you're selling tens of millions of devices every quarter.

Still though, it would be pretty shocking

to open your new iPhone and see a blank space where the charger used to be. Since phones don't ship with a full charge, many people plug them in during setup, and now it looks like they're going to need to bring their own charger to do it. Maybe Apple will cut the price of its own chargers and hopefully they'll at least supply a USB-C-to-Lightning cable in the box. But this still feels like nickel-and-diming.

It's early enough in the iPhone 12 manufacturing process where Apple could still go either way, so it's a good time to test the waters. A rumor like this was certain to spread like wildfire, so if Apple was looking to gauge the public's reaction before signing off on the final decision, the timing and the source is perfect.

But while the backlash might be enough for Apple to backtrack on the iPhone 12 and include a charger, it's pretty safe to assume the iPhone 13—which is already rumored to be completely portless (go.macworld.com/ptls)—won't have one. And I wouldn't be surprised to see other phone makers follow suit. Just like the headphone jack, camera cutout, and gesture navigation, I expect Samsung and other Android phone makers to at least explore their options when it comes to chargers if Apple removes one from the iPhone 12. Before long, buying a phone with a power adapter could be as rare as finding one with a headphone jack.

We're already expecting Apple to remove the Lightning earbuds (go. macworld.com/rmeb) from the iPhone 12 box, but not including a charger is on a whole other level. Yes, excellent chargers from Anker and Aukey are often on sale, but that's not the point. It's bad enough that Apple doesn't include a cable with its chargers or a headphone dongle with the iPhone 12. A pair of earbuds, a dongle, even a headphone jack are auxiliary features that enhance the experience. A charger is a necessity. ■

We're expecting Apple to remove the Lightning earbuds from the iPhone 12 box.
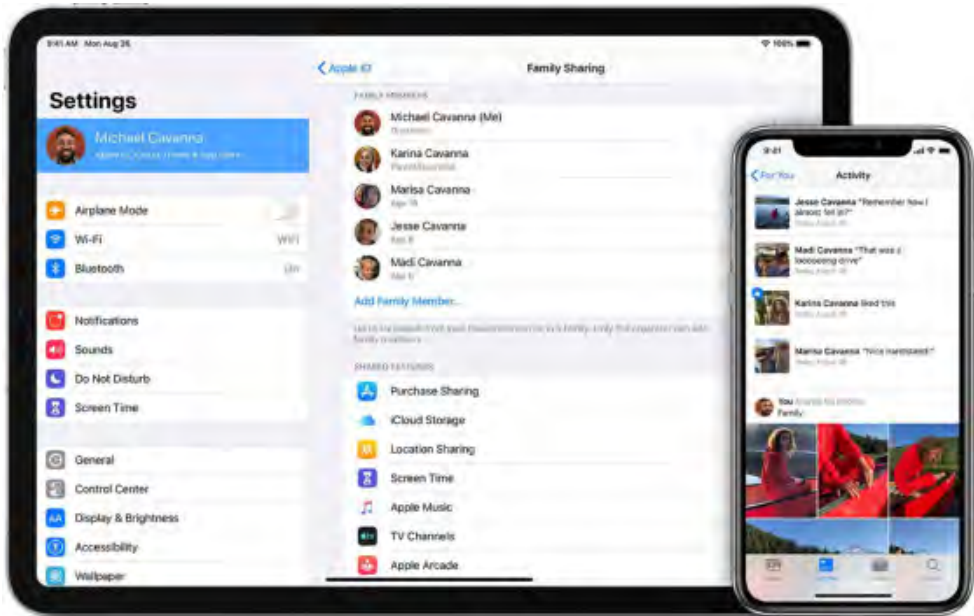
How to set up Family Sharing on your iPhone, iPad, or Mac

Share purchases and subscriptions with up to five other family members.

BY JASON CROSS

Apple introduced Family Sharing way back in iOS 8, but we wouldn't be surprised if you ignored it so far. It allows you to share iCloud storage and purchases, but that comes with some caveats (go.macworld. com/cavt) that have made it undesirable for many. The biggest problem is that, if you share iTunes and App Store purchases, then every purchase from every family member is always charged to the "organizer" account—family members literally have no way to make any purchases on their own.

While Apple should definitely address that shortcoming, there are now far more reasons to enable Family Sharing than even a year ago. Apple's new subscription services—Apple TV+ (go.macworld.com/

IMAGE: APPLE

SETTING UP FAMILY SHARING ON iPHONE OR iPAD

You set up Family Sharing the same way on an iPhone or an iPad.

1. Go to Settings, and tap on your Apple ID account at the top.

2. Tap Set Up Family Sharing (if you already have a family set up, it will just say Family Sharing and list members).

3. Tap Get Started and follow the on-screen instructions. You'll send a special iMessage to the people you invite. They'll need to tap on it to accept.

Tap on your Apple ID and then Set Up Family Sharing to get started on iPhone or iPad.

atvp), Apple News+ (go.macworld.com/apnw), and Apple Arcade (go.macworld.com/arcp)—all support Family Sharing at no additional cost. Apple Music can be shared for an extra $5 per month, and new features like Screen Time and Apple TV Channels can be shared, too.

Even if you don't want to share purchases and force every App and iTunes purchase to go through a single Organizer account, you can share these other subscriptions and features. And that benefit makes the value of these subscriptions an absolute steal.

Here's how to get Family Sharing set up on your iPhone, iPad, or Mac.

SETTING UP FAMILY SHARING ON MAC

Setting up Family Sharing on the Mac is just as simple, but the interface is different.

On your Mac, Family Sharing is in the upper right of the System Preferences menu.

1. Open System Preferences (if it's not in your Dock, look in the Apple menu on the menu bar).
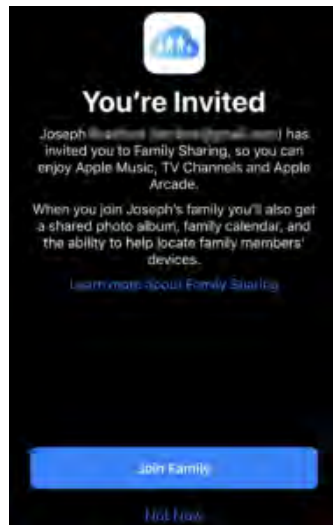
2. Click Family Sharing in the upper right of the System Preferences window.

3. You'll be asked to confirm your Apple ID and then prompted for family members to invite.

ADDING FAMILY MEMBERS

You don't need to add all your family members right when you first set up Family Sharing. You can add or remove members at any time, up to five members (plus the Organizer).

On iPhone or iPad, open Settings and tap on your Apple ID, then choose Family Sharing. Tap Add Family Member and then enter their name or email address.

On the Mac, open System Preferences and then click on Family Sharing. Make sure Family is selected in the left sidebar, and choose Add Family Member.

Family members you add will get an iMessage inviting them to the Family. They must tap on it and opt to join before Family Sharing will work for them—many people miss this step!

CHOOSING WHICH FEATURES TO SHARE

Once you have added family members, you should choose which features you want to share. The current options are as follows:

Purchase Sharing: Media you buy on iTunes, Books, and most App Store purchases (but not in-app purchases!).

iCloud Storage: If you have the 200GB or 2TB storage plan, you can share it with your family.

Location Sharing: Family members share location or the location of their devices. You can always just share location to an individual in the Find My app (go. macworld.com/fdmy).

Screen Time: If you have a Child account in your family, you can set screen limits and view reports for it.

Apple Music: You need a family plan on Apple Music to share with your family (it costs $15 per month, rather than $10 for an individual account).

Family members you invite get a special iMessage, and must tap on it and then choose Join Family.

TV Channels: If you subscribe to a premium streaming service (go.macworld.com/prsv) through the TV app, you can share it with your whole family at no cost. This includes Apple TV+, which is technically a Channel.

Apple Arcade: Apple's gaming subscription service includes Family Sharing at no cost.

Apple News+: If you have the premium magazine and newspaper subscription in the News app, you can share it with your family at no cost.

There are three important things to mention about these sharing options.

First, if you enable Purchase Sharing, your family members will have access to all the iTunes movies and TV and music you buy, as well as books bought in the Books app and most of the apps you buy in the App Store. But it will not include in-app purchases or app subscriptions. If you enable it, the Organizer of your family will be charged for any such purchases made by anyone in your family, even if it can't be shared. You're effectively turning on a single, always-active family-wide billing account. You don't need to have Purchase Sharing enabled to share any of the other things, though.

Second, when you share iCloud storage, your family members cannot see each other's content stored in the cloud.

Purchase Sharing comes with a big caveat, but there's little reason not to turn on most of the other sharing options.

It's as if you each have your own separate iCloud storage; the data you all use just counts against the same 200GB or 2TB limit.

Finally, sharing services like Apple Music or Apple TV Channels does not mean you're going to see each other's content or playlists. Each family member gets access to those services as if they had their own subscription, with their own play history, recommendations, and so on. So don't worry about Family Sharing messing up your Up Next selections in the TV app or your music suggestions in Apple Music. ■

Why the iOS Mail app shows a phantom unread message badge and what to do about it

It's a sorting glitch.

BY MICHAEL SIMON

f you don't regularly check your email throughout the day, the unread badge count on your iPhone or iPad is an indispensable part of your workflow. When it works, that is. If your iOS Mail app is like mine, it often shows a lone unread email badge even when everything's been read, which can get annoying.

There's a simple explanation for it that doesn't involve nuking your account and starting over (believe me, I've tried). It has to do with rules. While you can't actually create mailbox rules on your iOS device, you can set them up on the Mac, which is where the trouble starts.
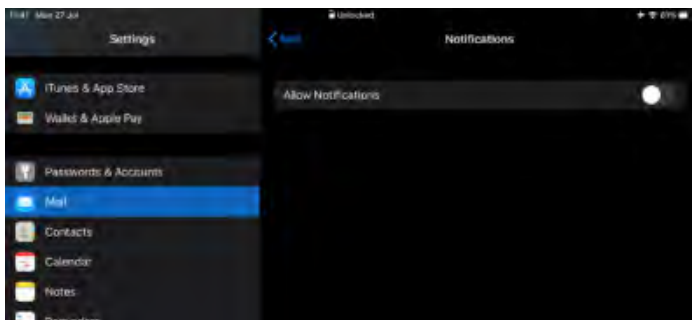
Mail rules are basically if-this-then-that

sorting and organizing for your inbox (go.macworld.com/ogin). You can have messages automatically move, redirect, forward, or flag based on the sender, subject, or contents, and it's very useful for keeping clutter out of your inbox. However, since Mail Rules can only be created on the Mac, the iOS app struggles a bit and that's where the trouble comes in.

Turning off Notifications should remove the unread badge.

Rules are applied after an email comes in, so messages still go into your inbox before they are sorted. On the Mac, it's an instantaneous process that is basically invisible, but on an iOS device, you can see it working. Emails come in and then get sorted, so they appear in the inbox as unread messages before they reach their final destination. The badge is supposed to disappear after it's sorted, but it doesn't always work that way. Sometimes it'll stick around in the inbox too long, other times I'll open it before it reaches the right folder, and often it just gets tricked into thinking there's an unread email in the inbox when the message in question has actually already been moved to a different folder.

There are a few ways to counteract this, but none of them are really ideal. For one, you could stop using Mail and try a different app. Or you could turn off Push notifications. That will give the Mail app time to properly fetch and sort messages on its own schedule, which should eliminate the unread badge. You could also clear out any rules in Mail on your Mac, which would completely solve the problem but kind of defeat the purpose of having rules in the first place.

If It persists after trying those things, your account is likely attached to another service that's filtering and triaging your messages even if you don't use it anymore. In my case, it's Newton, which automatically filters newsletters and social media messages into specific folders. When I turn them off, the phantom unread badge is no longer an issue.

Someday the iOS mail app will support rules and this won't be an issue. But until then, it's an issue with solutions that aren't ideal. ∎

CAMERA APP

CAMERA FRONTBACK: STAY IN THE ACTION WITH PICTURE-IN-PICTURE CAMERA APP

BY J.R. BOOKWALTER

Smartphone cameras are great for documenting life's precious moments to replay them over and over again in the years to come. With a front-facing camera, it's even possible to put yourself in the action, although video selfies come with inherent limitations. Wouldn't it be great to be able to shoot high-quality video from the back camera while capturing your reaction from the front camera at the same time?

That's exactly what Camera FrontBack (go.macworld.com/cmfb) is designed to do. This $1 app combines live video from the front and rear cameras at the same time in a single movie, allowing iPhone owners to
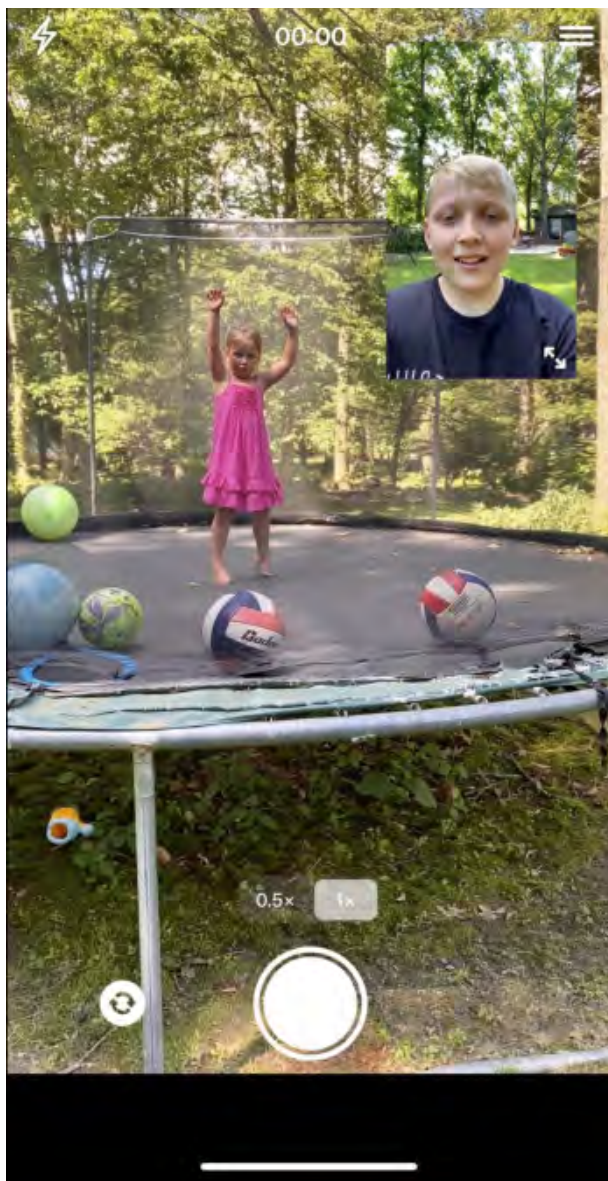
Always left out while shooting video of the kids? Camera FrontBack uses the front camera to keep you in the action.

put themselves into the action while simultaneously recording high-quality video from a camera on the back of the device.

The app superimposes video taken with the front camera on top of what's being recorded with the Wide or Ultra Wide lens on the back. This rectangular picture-in-picture window can be moved anywhere on the screen with your finger, or changed to a circle instead with a double tap.

Camera FrontBack also works in reverse, putting your own mug front and center while subjects shot with the rear camera appear picture-in-picture instead. The PiP window can be reduced or enlarged with a pinch, anywhere from 1/16 (the default size) up to one-quarter of the screen.

LIMITS AND BONUS FEATURES

One thing missing from many third-party camera apps is the ability to use the iPhone volume buttons to start or stop recording. Sadly, Camera FrontBack also eschews this

Camera FrontBack supports the Ultra Wide lens on newer iPhone models for a more expansive view of what's happening.

convenience, meaning that recording can only be performed by tapping the on-screen shutter button. There's also no split-screen mode, which would come in handy for professional users.

The app gets other things right: There's a manual toggle to light up the rear LED flash during darker scenes, as well as options to switch between Wide and Ultra Wide lenses on supported hardware. Curiously, Telephoto mode is not currently supported. Camera FrontBack requires fairly recent hardware, specifically iPhone XR or later, including all

🐛🐛🐛🐛

Camera FrontBack

PROS

• Records video from front and rear cameras at same time.

• Resizable picture-in-picture window.

• Switch PiP window between rectangle and circle with double tap.

CONS

• No support for iPhone volume button camera shutter.

• Only works with Wide and Ultra Wide cameras on iPhone 11 Pro Max.

PRICE

$1

COMPANY

Yuliya Andrienko

iPhone 11 models.

Tucked away in the settings are toggle switches to retain the current size and placement of the PiP window next time you launch the app, as well as enable pinch-to-zoom for the rear camera, a feature still in beta but which worked well in our tests. Last but not least, you can change the app icon to Classic or Neon.

BOTTOM LINE

Camera FrontBack is neat way to keep yourself in the action while shooting video with an iPhone, all in real time. ∎

DIRECTIVE REVIEW: REMINDER APP DESIGNED WITH HOME AND AUTO NEEDS IN MIND

BY J.R. BOOKWALTER

Although I love Fantastical (go.macworld. com/fnts), there are tasks on my to-do lists that would be better served by a different kind of app. Reminders for recurring household and automotive maintenance chores like changing furnace filters, having the septic tank pumped, or scheduling annual eye exams and dental cleanings are just a few of the important services that are easy to be overlooked when intermixed with unrelated one-time tasks.

These are exactly the type of reminders Directive (go.macworld.com/drtv) was created for. Free to download and use for up to ten maintenance tasks on Mac, iPhone, and iPad, the app comes
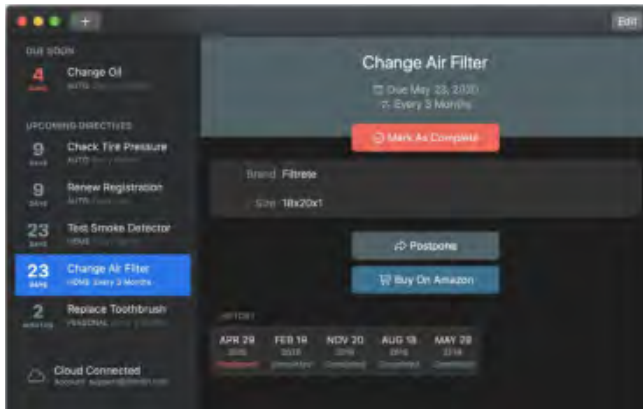
Directive makes it easy to keep track of recurring maintenance tasks that would otherwise clutter up your to-do list app. (Mac version shown here.)

preconfigured with more than 30 of the most common, repetitive chores faced by those who own a home or automobile.

Directive can't perform the actual task for you, but it's easy to add new tasks, customize the name, assign a category (home, office, etc.), note when the maintenance was last completed, and set the frequency of the task in just a few clicks. You can even add details specific to each task—great for remembering which size furnace filter you need to buy, or what your car's proper tire pressure should be.

Directive also allows assigning one-click actions to each task. These can be used to reorder parts on Amazon (or another online store), initiate a call to the doctor's office or service center, and find

the nearest location based on task name. While you can add custom categories and details, only nine actions are available in the current version.
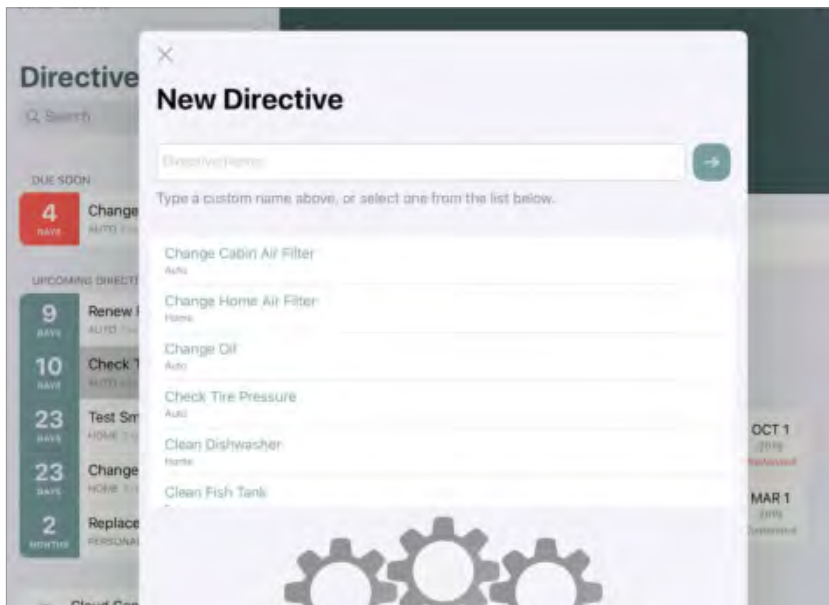
PRO PLAN
Directive displays upcoming tasks as a list sorted by next due date. Overdue tasks appear in red under Due Soon, along with those that fall within the range set in preferences: Due in One Week, Two
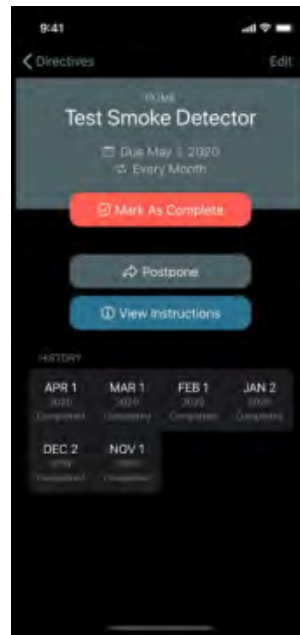
Mark as complete, postpone to a later date, or use one-tap actions to reorder parts and schedule service when it comes due. (iPhone version shown here.)

Creating new "directives" (maintenance tasks) is easy with the preconfigured home and auto options available. (iPad version shown here.)

Weeks, 30 Days, or Today. There are optional alert reminders, and when a task comes due, you can either mark as complete or postpone to a later date (one week or one month).

For those who need to keep tabs on more than ten maintenance tasks, developer LittleFin offers an optional recurring Pro subscription for just $3 per year. This allows users to add an unlimited number of tasks, as well as cloud sync to keep all your devices on the

same page.

Directive Pro also enables setting custom repeat intervals for when the eight default monthly and annual options aren't enough. Unfortunately, there's no way to create non-repeating tasks, so any one-time maintenance reminders will have to stay on your regular to-do list for now.

BOTTOM LINE

Directive is a handy, inexpensive way to keep recurring maintenance tasks off your normal to-do list. ∎

Directive

PROS
• Dedicated maintenance reminder app for macOS, iOS, iPadOS.
• Actions make reorders, scheduling appointments a breeze.
• Free for up to ten maintenance tasks.

CONS
• Annual Pro subscription required for cloud sync, custom repeat intervals.
• No support for non-repeating tasks.

PRICE
Free (in-app purchases)

COMPANY
LittleFin LLC

She can
STEM

SO CAN
YOU.
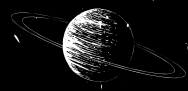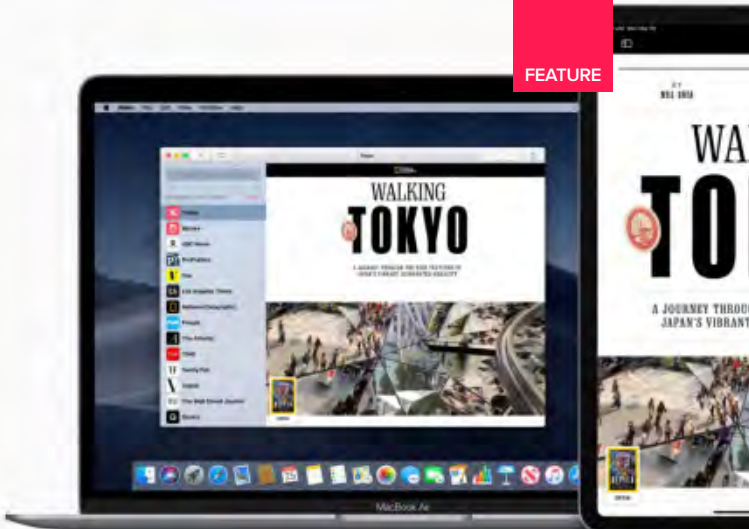
YOUR GUIDE TO
APPLE NEWS+

GET STARTED WITH APPLE'S NEWS SERVICE.
BY MACWORLD STAFF
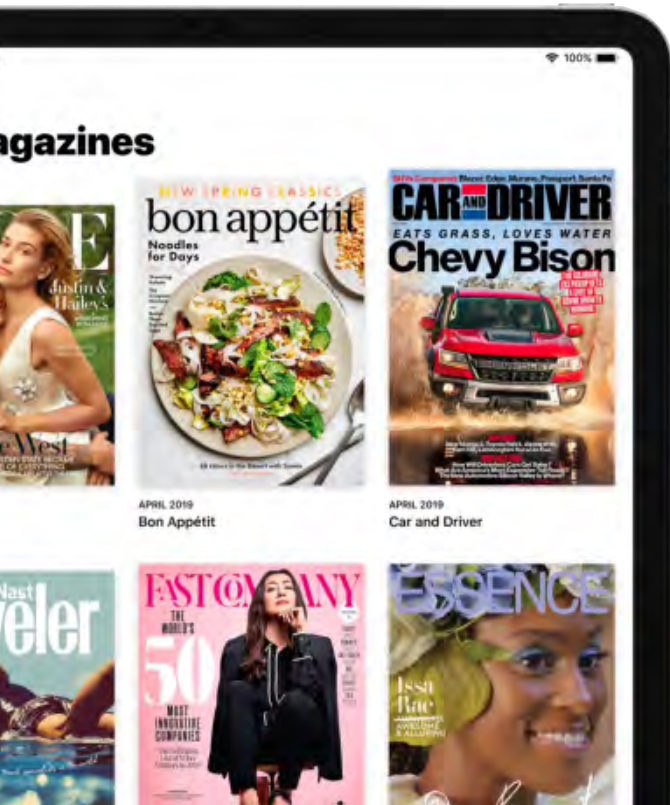
Apple News+ is a subscription service for people who crave a greater variety of content than they get through the free Apple News app. It's Apple's way of letting you get the "good stuff" of journalism—the features are normally locked behind magazine subscriptions or (in a few but notable cases) paywalled daily news sites—without forcing you to plunk down hundreds of dollars in subscription fees. Instead, you'll just pay a modest price to Apple.

In this guide, you'll find answers to some of the biggest questions you might have about the service. Learn how to get started, how much it will cost, and how you can get the most out of the service.

WHAT IS APPLE NEWS+?

Apple News+ is a new subscription-based addition to the existing Apple News app for iOS and macOS. While the free Apple News app largely emphasizes "straight" news, Apple News+ emphasizes longer-tailed magazine content, although you'll also get access to content from sites like *The Wall Street Journal* and *The Los Angeles Times* that would normally be behind paywalls.

Some magazines in Apple News+ have

nifty features like animated "live covers" that enhance the magazine-reading experience for the digital age, but a surprising number of magazines on Apple News+ are little more than PDFs.

HOW DO I SIGN UP FOR APPLE NEWS+?

On the iPhone/iPad: Make sure you have at least version 12.2 of the operating system installed on your iPhone or iPad. You'll then find the Apple News+ tab along the bottom bar when you open your regular Apple News app. Press on it and you'll see a splash page with a red button offering a month for free. Press that tab and enter your Apple ID and you'll be in immediately.

On the Mac: Your Mac needs to be running at least version 10.14.4 of the operating system. Open the News app in your Applications folder. If you have never opened the News app, a pop-up will appear, asking if you want to subscribe to News+. If you don't see the pop-up, look in the sidebar, and you should find News+ under the Apple News section. Click on it and you'll see that the main screen switches to the News+ section. See the red button offering a free month of News+? Click on it, and you'll have to enter your Apple ID to complete the transaction.

HOW MUCH DOES APPLE NEWS+ COST?

An Apple News+ subscription costs $9.99 per month, although you can try it out for free for a month when you first sign up. Keep in mind, though, that Apple will automatically start charging you once the free month is up. You can cancel before the trial expires.

IF I CANCEL MY FREE TRIAL EARLY, CAN I KEEP USING APPLE NEWS+ UNTIL MY FREE MONTH IS UP?

No. Apple News+ will deny you access to the articles via the app the second you unsubscribe from the service. If you want to get the most out of the trial before making a decision, use Siri to set up a reminder to cancel a day or two before the subscription is set to renew.

HOW DO I SEARCH FOR A SPECIFIC MAGAZINE?

Apple News+ doesn't have a traditional search bar on the iPhone or iPad, although you'll find a search bar at the top of the sidebar on a Mac. Instead, Apple wants

you to browse (think: newsstands). On the iPhone and iPad, open the Apple News+ tab and then click on the Browse The Catalog tab along the top and scroll down to the magazine you'd like to read. Alternatively, you can press on the topical tabs to the right of the Browse the Catalog tab, which cover everything from Entertainment to Science & Tech.

There's an easier way to search for specific magazines, but it's less intuitive. First, press the Following tab at the bottom of the Apple News interface. (It's next to the Apple News+ tab.) Then enter the name of the magazine you want to find in the Channels, Topics, And Stories search bar that appears at the top of the next screen. Once the magazine's name pops up (if it's available, of course), press on the name of the publication to see its latest issues and articles.

HOW TO I ADD MAGAZINES TO MY FAVORITES/MY MAGAZINES?

On the iPhone/iPad: Go to the Apple News+ tab and press either Browse The Catalog or one of the topics at the top. Scroll to the magazine you want and tap Follow below the cover. A pop-up appears to confirm that you are following
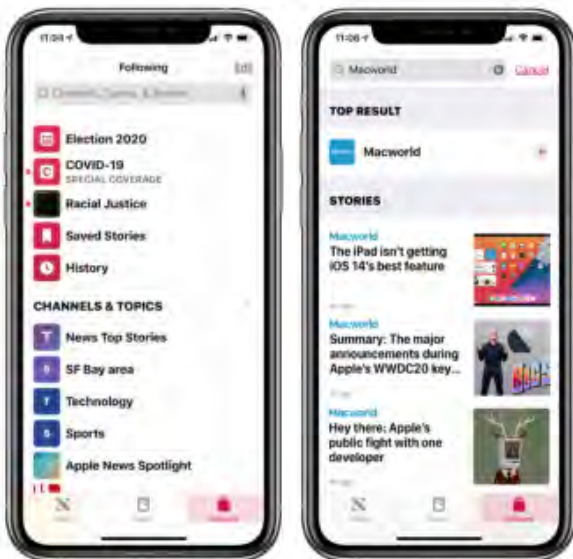
see the name of the magazine pop up in the search results, press the heart icon to the right to favorite it.

On the Mac: Click on the News+ icon in the sidebar. Click either Browse The Catalog or one of the topics at the top. Scroll to the magazine you want and tap the blue Follow button at the lower right of the cover. A pop-up appears to confirm that you are following that magazine, and it will appear in the My Magazines section.

that magazine, and it will appear in the My Magazines section.

Alternatively, press the Following tab at the bottom of the Apple News interface. Enter the name of the magazine you'd like to favorite in the Channels, Topics, And Stories search bar at the top. When you

HOW DO I READ ARTICLES FROM *THE WALL STREET JOURNAL*, *THE LOS ANGELES TIMES*, AND OTHER PAYWALLED NEWS SITES?

If you look for *The Wall Street Journal*, *The Washington Post*, *The Los Angeles Times*, and other paywalled
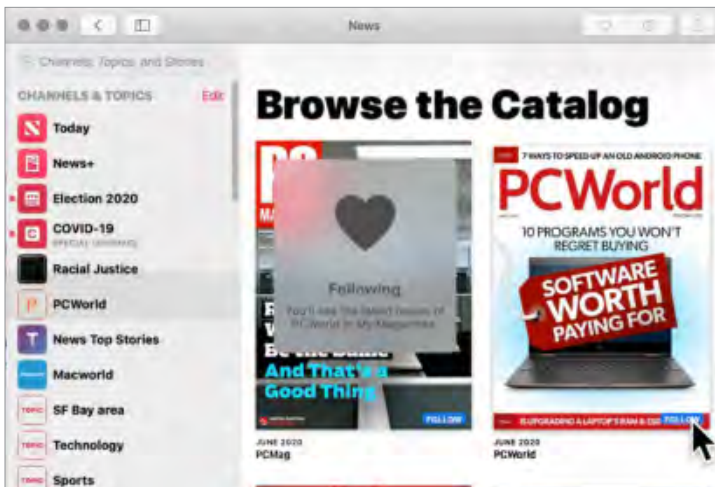
sites as though you're looking for a magazine, you're not going to find anything. Instead, to give them priority in the Apple News+ interface, you need to add them to your favorites searching for the publications through the Following tab.

There's a good chance that you won't even have to add them to your favorites in order to see their content, though, as the landing page for Apple News+ includes default sections for From the *Wall Street Journal* and From the *Los Angeles Times*. *The New York Times* is not available through Apple News or News+.

CAN I DROP MY SUBSCRIPTIONS TO PUBLICATIONS INCLUDED IN APPLE NEWS+?

It depends on how often you use that publication and how you use it. Take *The Wall Street Journal.* A subscription normally costs $39 a month, and an Apple News+ subscription is a good way to avoid that punch. Thing is, you're not getting all the *WSJ*'s content with Apple News+. You're just getting a carefully curated sample. If you just want to read the *Journal* casually, though, Apple News+ is a great option.
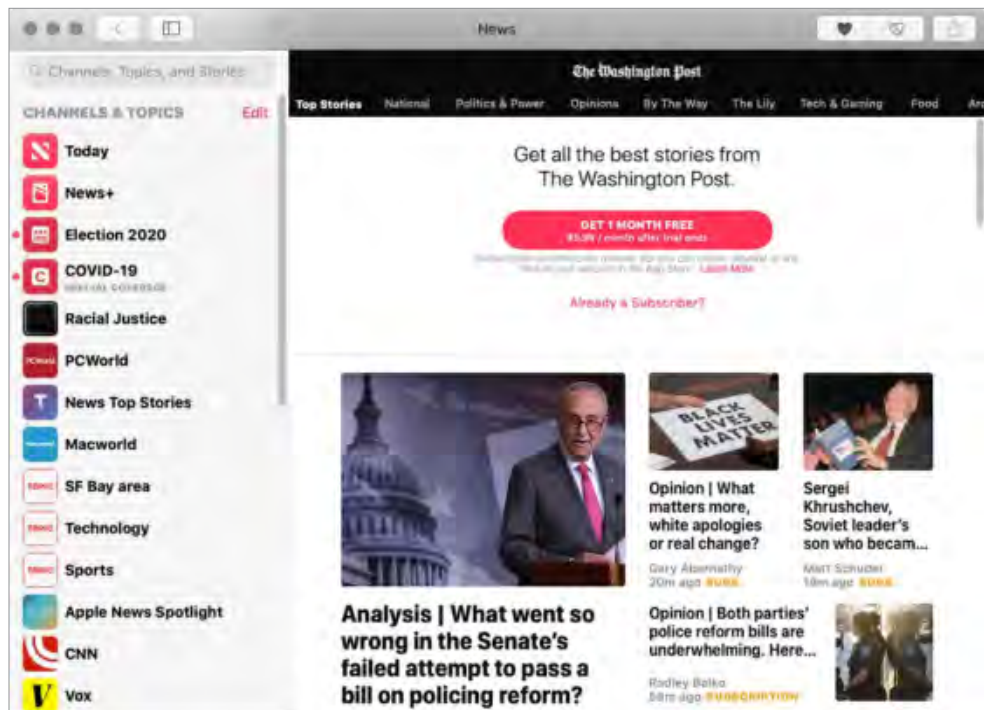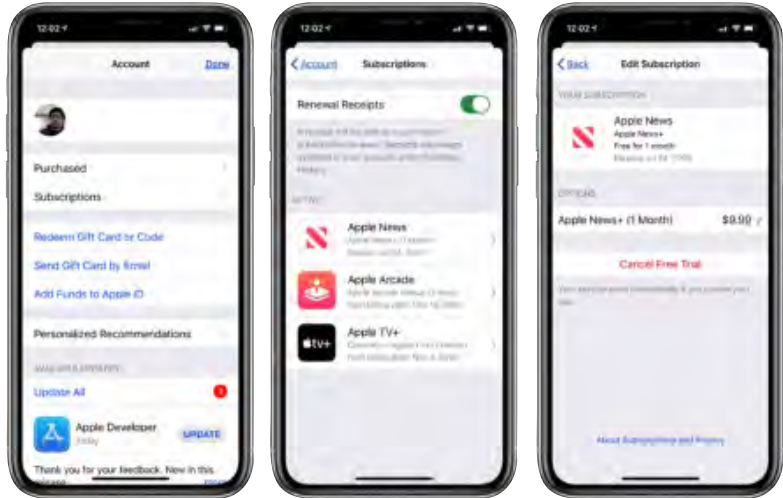
HOW DO I CANCEL APPLE NEWS+?

On the iPhone/ iPad: Go to the App Store app, press on your profile photo in the upper right-hand corner, and then press Subscriptions. Then press Apple News+ and tap Cancel Subscription (or Cancel Free Trial if you're still in the trial period).

On the Mac: In the News app, click on the File menu and select Manage Subscriptions. The App Store app will open, and then you can cancel here. Look for the Apple News section and click the edit link at the far right. Another window will open, and then you click Cancel Subscription (or Cancel Free Trial if you're still in the trial period).
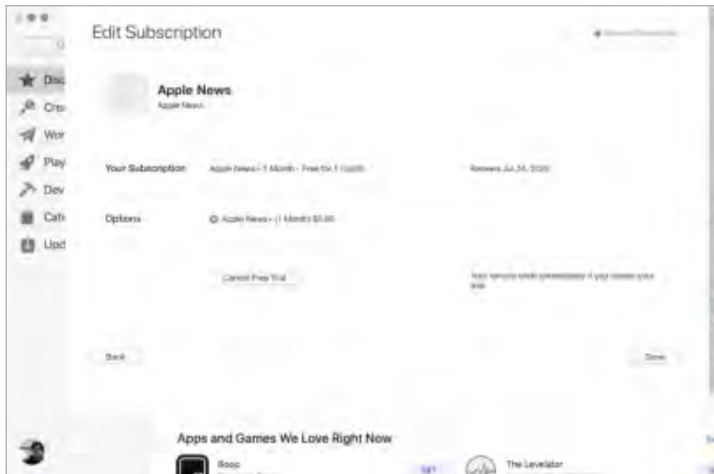
IS MACWORLD AVAILABLE THROUGH APPLE NEWS+?

Yes, it is! You can find our digital magazine by either scrolling to Macworld under the Browse The Catalog (A-M) tab or under the Science & Tech tab. ∎

Our
Shero

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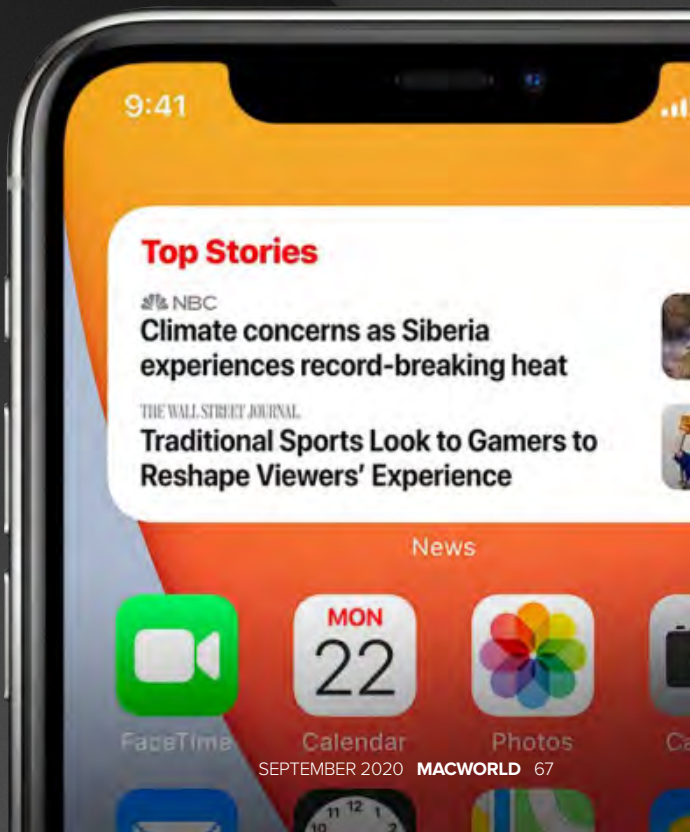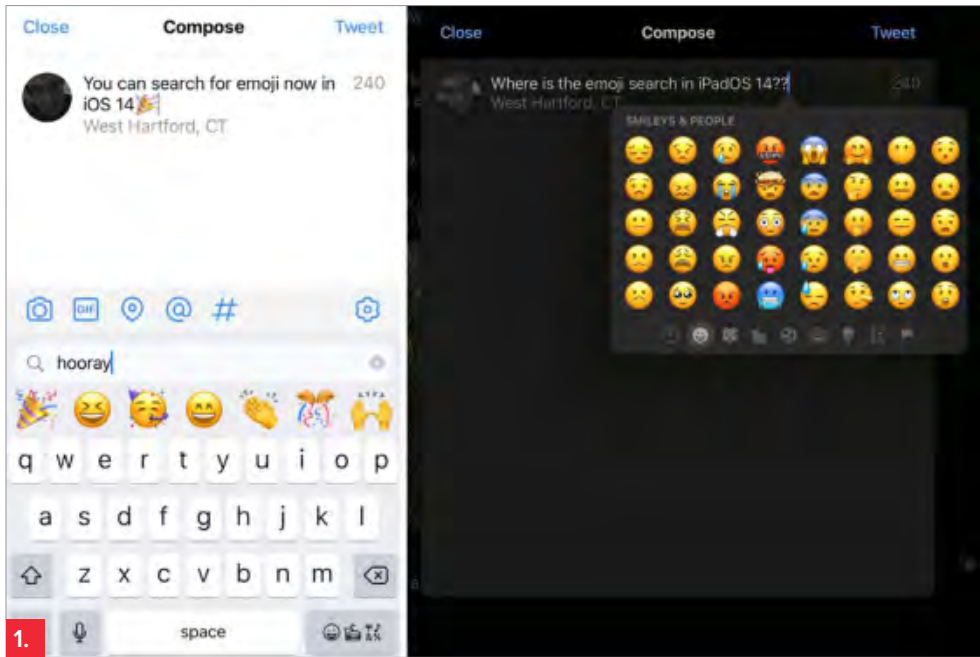- Free tips to start boosting your retirement savings now

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FIVE THINGS

WE LOVE—AND HATE—ABOUT THE FIVE BIGGEST iOS 14 FEATURES

THE GOOD AND
THE NOT-SO-GOOD.
BY MICHAEL SIMON

1.

E ven if you haven't rushed to install the iOS 14 and iPadOS 14 public betas (go.macworld. com/14bt) on your devices, you already know all about the new features that'll transform your home screen, apps, and overall mobile experience in exciting new ways. Major changes are in store for our home screens, widgets, and apps, as Apple makes some long-overdue tweaks to the iPhone and iPad experience.

But it's not all moonlight and roses. I've been testing the new betas since they landed, and I've run into frustrating quirks and roadblocks along the way. Don't get

me wrong: There's a lot to like here, but in true Apple fashion, old systems and puzzling decisions keep the new features from being as great as they can be. There's still a lot of time for the betas to be tweaked, of course, but here's what I like and don't like so far.

1. EMOJI SEARCH
What's good

Finally, right? A feature that is hilariously and horribly overdue, Apple now lets you search the emoji list so you don't have to rely on the flaky predictive text or your own memory. When you tap the emoji button on

the stock iPhone keyboard, you'll see the same interface as before, with a left-right library of all of the emoji available for use, but now there will be a search bar at the top. It's fast and smart, searching for both context and emoji name so you should find what you're looking for on the first try.

What's not so good

While emoji search is awesome on the iPhone, it's not available on the iPad. You do get a new pop-up interface that's nicer to look at and a little easier to navigate, but there's no search bar anywhere to be found. So if you're using the Magic Keyboard, you'll still need to reach up and swipe to find your expression. (Insert weary emoji here.)

2. HOME SCREEN
What's good

Many of us have been waiting for years for Apple to rethink the iOS home screen, and Apple finally delivered. I would've been happy with a Launchpad-style interface that hid a searchable launcher for your apps, but Apple took it a step further, letting you hide home screens, add widgets, and keep things organized without sacrificing the iPhone's decade-long identity. It's smart, intuitive, modern, and clean. And best of all—if you like your home screens the way they are, you don't have to do anything.

2.

What's not so good

While the new home screen is way more customizable than before, it's not without its annoyances. The biggest frustration is that apps and widgets still stubbornly stick to the grid. If you have multiple home screens, apps and widgets will jump between them and if you start from scratch, icons and widgets will jump to the top of the screen. That makes the whole system feel more constrained than it should.

It's also a little tricky to figure out how it works. I'm sure Apple will provide a tutorial for new iPhone buyers, but as it stands, there isn't much to indicate that home screens can be hidden or even how to do it (by tapping the dots at the bottom of the screen when in jiggle mode). And it's sorely missing from the iPad.

3. APP LIBRARY
What's good

The App Library may be the smartest feature I've ever used on a phone. Not only does it blow Android's app drawer out of the water, it makes it incredibly easy to find and launch apps on your phone. Accessible by swiping all the way left past your last home screen, the App Library organized your apps by category and use, with suggestions of your most recently used apps and recently added apps at the top and other categories following based on your usage. It's nice to look at and a downright pleasure to use.

What's not so good

For everything that's great about the App Library, it has one major shortcoming: You can't customize it. So if you

3.

4.
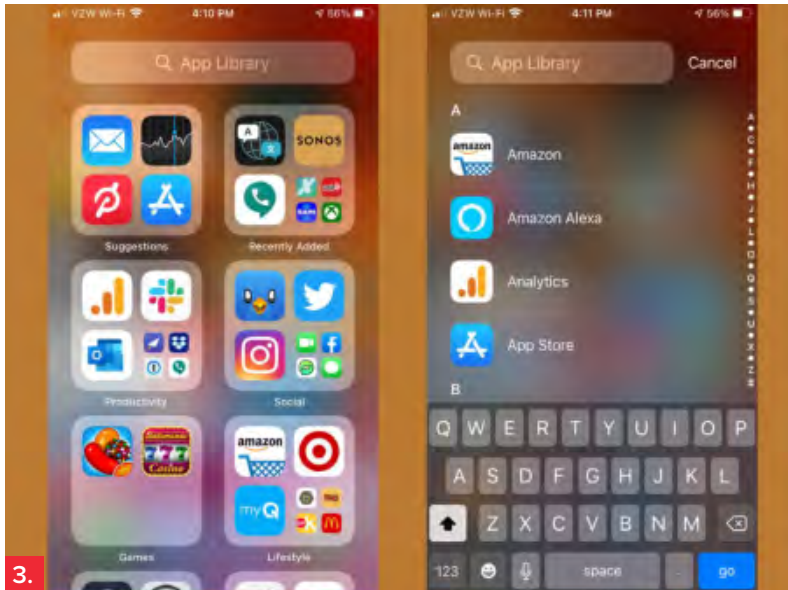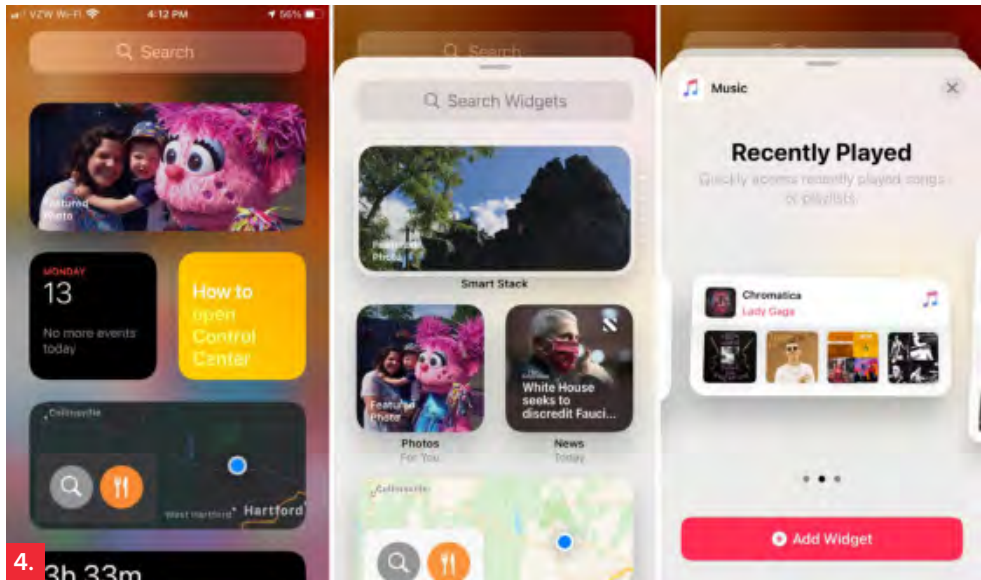
want to rearrange the categories or even add a new one, you're out of luck. That takes away some of the usefulness of the App Library, as you're at the mercy of Apple's algorithm that selects just seven apps at most.

4. WIDGETS

What's good

I've never been a big fan of home screen widgets on my iPad or Android phones, but I love Apple's iOS 14 widgets. They're pretty for one, but more importantly, they do what they're supposed to do: present a glanceable bit of information that saves you from needing to open the app. They're fairly limited at the moment, but

once developers start releasing them for their own apps, widgets will become an indispensable part of your home screen experience.

What's not so good

Most widgets come in several sizes, but you can't actually resize them. To pick a bigger or smaller one, you need to delete it from the home screen and add a new one, a clunky process. You also can't interact with widgets yet, so a calculator or small game is out of the question for now. They're also very pushy when trying to put them in position, so if you're trying to get your home screen just right, it's going to take several attempts.

5. COMPACT UI

What's good

The full-screen takeover for Siri and phone calls is finally gone, and it's a joy to behold. When you summon Siri on either the iPhone or iPad in iOS 14, you'll get a small icon at the bottom of the screen or a banner that's much more pleasant. And phone calls no longer interrupt your focus with a jarring full-screen pop-up. You'll see a small banner at the top of the screen that can be easily ignored. The Siri interface is especially nice, but both are a huge improvement on iOS 13.

What's not so good

While the banner for phone calls lets you keep working when an alert comes in, summoning Siri still forces you to stop what you're doing, unlike the Mac where you can keep working. So you're not really gaining anything with the smaller UI other than nicer visuals.

Plus, there's a weird disconnect between the Siri interface and the response on the iPhone. The interface is on the bottom of the screen but the response appears at the top of the screen, which takes a beat to find. I'm sure I'll get used to it, but right now I'm actually spending more time away from my work when I need to ask Siri a question. ∎

STAY IN SHAPE

WITH THE iPHONE AND APPLE WATCH

THERE'S NO NEED TO GO TO THE GYM WHEN YOUR GADGETS CAN HELP YOU STAY FIT.

BY JASON CROSS ⊕ LEIF JOHNSON

W hile we're still in the middle of a pandemic, rules about going out have loosened up. But experts agree that the best way to protect yourself is to limit your interactions with other people. If you like to exercise in a gym, that could be difficult—and the main reason why you don't want to go.

But there are lots of apps that can help you get a complete workout at home, and Heath & Fitness (go.macworld.com/hlft) is one of the most popular categories on the App Store. If you take a look at the listings, you'll see that nearly every app is free—or so it would seem. In reality, the vast majority of fitness apps are only free to download but require an in-app purchase subscription be useful. Many don't even function at all without one.

That's money you may not want to or be able to spend right now. So we put together this list of five fitness apps that can help you stay healthy at home. One is totally free, and the others offer in-app

Look closely at a lot of "free" fitness apps and you'll see there's nothing free about them.

purchases but have plenty to offer without spending a penny.

SEVEN

Price: Free (in-app purchases) from go.macworld.com/sevn

Back in 2013, a paper published by the American College of Sports Medicine (go.macworld.com/acsm) investigated a special circuit-training routine for maximum full-body benefit in minimal time using only body-weight exercises. It was featured in *The New York Times,* and before you knew it, the seven-minute workout was born.

These days you'll see a lot of seven-minute workout apps. Our favorite is probably Seven. It's going to aggressively push a "7 Club" membership at you, but just hit the X button in the upper right to ignore the pitch and you can use the simple, clear, attractive app to perform basic seven-minute workouts all you want. The subscription gives you the ability to set custom workouts and unlocks a lot more exercises, but you can do things like schedule workout reminders and connect the Apple's Health app for free.

NIKE TRAINING CLUB

Price: Free (in-app purchases) from go.macworld.com/nike

The Nike Run Club app is very popular among runners, but stay-at-home orders are not the best time to work on your mile pace. Nike's got another nice workout app, Nike Training Club, that offers tons of exercise routines you can do at home. Some require modest equipment like dumbbells, but many do not.

There's a nice Apple Watch companion app that helps
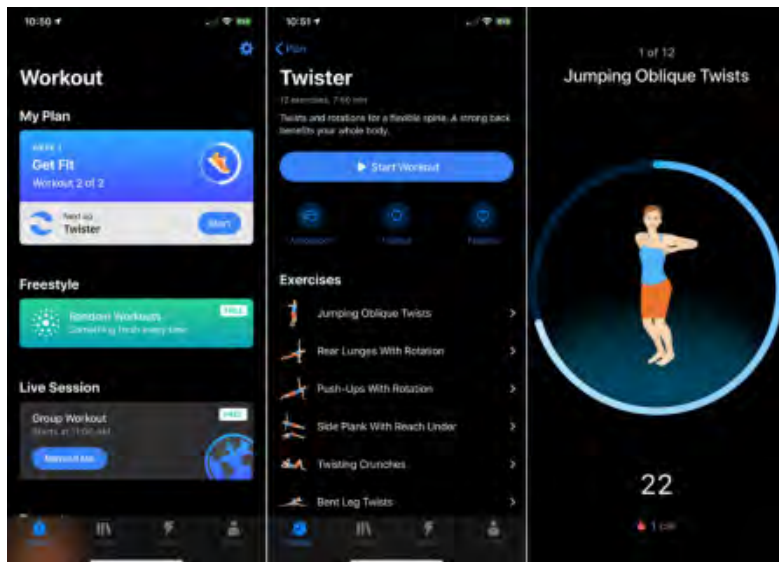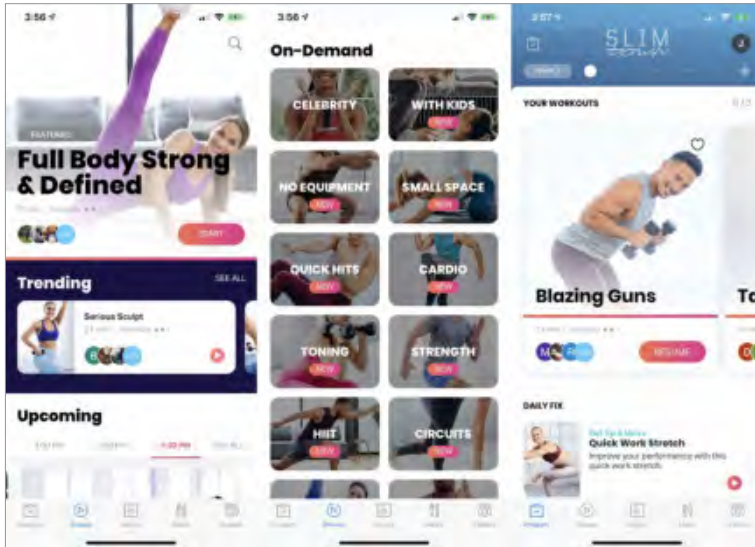
subscription that you'll forget to cancel and be billed for later. Nike just unlocked the free content for everyone.

FITON

Price: Free (in-app purchases) from go.macworld.com/fton

The FitOn tagline is "Fitness is always free," but there's a pretty expensive $69.99 per year FitOn Pro subscription they want you to buy (currently on sale for $19.99). Ignore it. It gives you some meal plans,

guide you through your workout, too. On March 29, Nike made the premium membership (usually $14.99 per month) free "until further notice," but we would recommend this app even if it hadn't. The membership gives you access to 4-to-6-week programs, some nutrition and wellness guide stuff, and on-demand classes. But even the free tier offers plenty of good at-home workouts with excellent videos.

One nice thing about Nike's free access premium access: You don't have to sign up for a "free"

recipes, and premium music, but you don't need any of that.

Enter your birthday, height, weight, desired exercise frequency, and goal, and FitOn will set you up with a whole fitness class regimen. Each workout is a guided video class with a trainer, and you can link your Apple Watch to see your heart rate overlaid on it.

There are tons of on-demand workouts in a bunch of categories along with regularly-scheduled live classes you can tune in to. There really is a whole lot on offer in the free tier; this is a rare example

of an app that seems to treat its free tier as the main product and not just a demo for the subscription service.

YOGA FOR BEGINNERS

Price: Free from go.macworld.com/ygbg
Here we have a rare fitness app that is free! Really, truly free. No in-app purchases, no premium tier, no merch to buy—free.

You have a list of various Yoga routines to choose from, like Beginner Yoga, Butt Toner, Inner Peace, or Core Blast. Each one starts with a list of the poses you'll

need to know: If you have no idea how to do one, tap on it for a written guide along with a clear YouTube video to show you the way.

When the workout begins, you're treated to sedated music and a pleasant voice that walks you through the poses, with basic diagrams and a timer to let you know how long you'll have to hold it.

There are a few ads—gotta pay the bills somehow—but they never interrupt a session with one. If traditional workouts aren't your thing and you just need to make some time each day to stretch, flex, and breathe the stress away, Yoga for Beginners is just the thing.

MYFITNESSPAL

Price: Free (in-app purchases) from go.macworld.com/ftpl

Working out at home is one thing, but if you don't eat right you're not going to be healthy, and the best way to eat right is to keep a food diary. Under Armour bought MyFitnessPal back in 2015 and has done a great job maintaining it as the best food diary app in the business.

A huge user-submitted database of foods helps you add home cooked meals and fast food items, and the reliable bar code scanner will effortlessly add nearly any packaged food. You can set goals (like "lose 1 pound per week") to set calorie
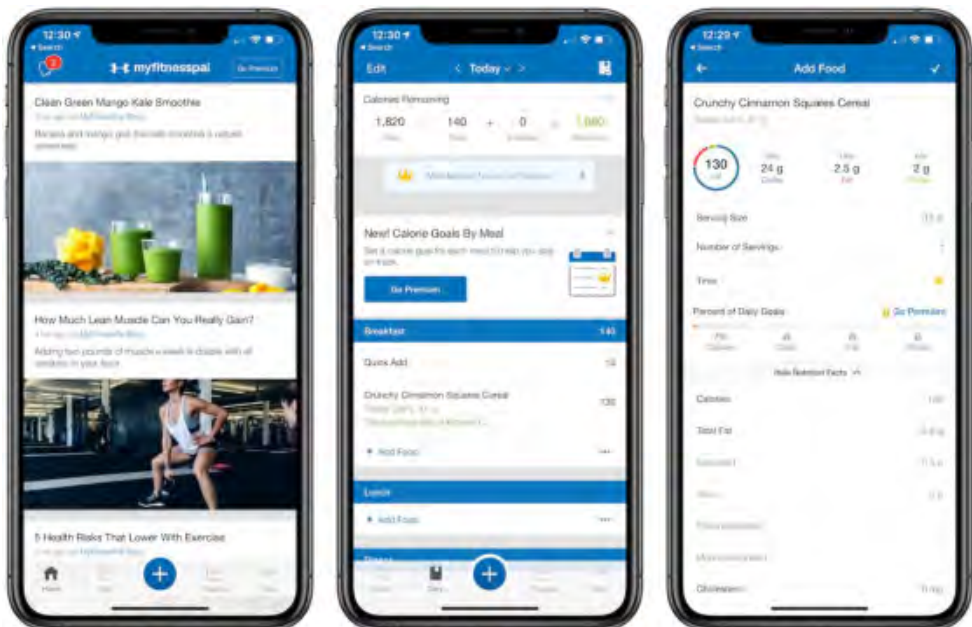
goals and see fat, carbs, and protein consumed each day.

A premium membership is required to see the breakdown by meal, set different goals for different days, or follow one of the many meal plans. It also removes ads. But as a simple and reliable way to make sure you're not eating too much junk and have a healthy mix of carbs, fats, and proteins, the free version is all you need.

HOW TO CLOSE APPLE WATCH ACTIVITY RINGS EVEN WHEN STAYING AT HOME

Closing Activity rings on the Apple Watch takes a lot more effort than it did before the pandemic. And while shelter-in-place policies have relaxed in most of the U.S., you may be hesitant to go out and be about—and with good reason. That makes it a little more difficult to close those rings.

Fortunately—if you're willing to change your standards—it's still possible to close your rings in order to achieve a degree of certainty. Some of you might recognize the suggestions listed here as variations on the "cheats" for gaming your activity rings that circulated when the Apple Watch first came out, but think of them more positively. Provided you don't try to close

your Move ring simply by swiping your arm back and forth while vegging out in an armchair—which is actually possible— these can serve as foundations for healthy practices.

A couple of things first. You're likely allowed to go outside and take walks or bike rides on empty paths or in local parks. You can close your rings that way, but keep in mind that the risk of contagion goes down if everyone stays home. Second, you're probably not going to have any trouble closing your rings if you have exercise equipment in your home—and more power to you if you do.

Some of you might recognize the suggestions below as variations on the "cheats" for gaming your activity rings that circulated when the Apple Watch first came out, but in 2020, I prefer to think of
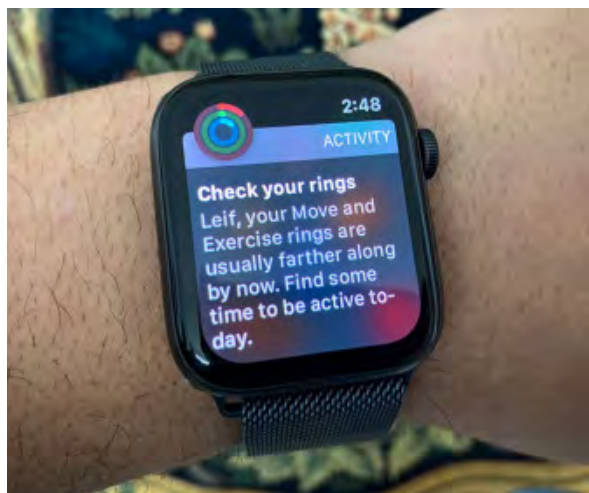
Even jumping jacks will work with this.

them more positively. Provided you don't try to close your Move ring simply by swiping your arm back and forth while vegging out in an armchair—which is actually possible—these can serve as foundations for healthy practices in these limiting times.

How to close your Exercise ring

The Exercise ring sounds like it would be the hardest ring to close. Unless you start a workout, the ring closes by determining how much your heart rate goes above a value determined by factors like your age or weight. Keep up that heart rate for 30 minutes, and your green ring will close. It's a lot easier than it probably sounds. Before the pandemic, my Apple Watch would normally ask me if I wanted to log my daily walk to work from the train station as an Outdoor Walk workout, and doing that twice a day would almost always close the ring.

But it gets even simpler. You can quickly close your Exercise ring by opening the Workout app on your Apple Watch and then scrolling down to the bottom and tapping Add Workout. Tap Other in the screen that pops up, and set it for an open goal. Just keep that running for 30 minutes, and your Exercise ring will close. To give you an idea of how well it works, I closed my activity right while writing this story. As a bonus, the Move ring also closes a little more quickly while a workout is running.

You can pair this Other workout with household chores if you wish, but closing the ring doesn't have to be that simple. Even if you don't feel comfortable about going outside to exercise, you can get a decent 30-minute workout just by performing some old exercise standbys like push-ups, sit-ups, and burpees in your home. (If you add a Workout for "High Intensity Interval Training," your Apple Watch will usually correctly log such activities.) For a more guided workout, gyms and similar fitness organizations are currently offering a lot of their normally paid online training services for free, and

you can check out some of those in the last section.

How to close your Stand Ring

Traditional outdoor and gym-based exercises might not be safe options right now, but really, you should at least be getting up and moving around. As such, closing your Stand ring is especially important at a time when so many people are stuck indoors. This ring can be tricky: I've gone on 12-mile hikes where I've tripled my Move goal, and I still didn't close my Stand ring at the end of the day. Also, if you have access to an adjustable standing desk, now would be a great time to use it.

Closing your Stand ring might not be much of a big deal if you haven't turned off the Apple Watch's annoying reminders to stand every hour. This is an especially good time to keep those on, but you can turn them off by going to the Watch app on your iPhone and then pressing Notifications, then Activity, and then turning off Stand Reminders.

Yet here's the thing:

All you need to do in order to close your Stand ring every hour is get up and walk around for a minute or two for at least 12 hours a day. It helps to move your arms around in the process.

Anyone want an easier way of closing your Stand ring? Raise your hands—and keep them up. If you raise your arms and wave them around a bit for two minutes every hour, you can sometimes close your Stand ring without even leaving the couch. But seriously, get up and walk around a bit.

How to close your Move ring

If you're keeping your arms in motion during one of these standing breaks, you should

manage to close a bit of your Move ring as well. Also, the Move ring is the only activity ring you can adjust, and in normal times I keep it set to a manageable 800 calories. Considering how that amount is a little ambitious for many of us right now, your best bet for closing it would be to temporarily lower your daily move goal unless you have home access to equipment like a treadmill.

To do this, simply go to the Activity app on your Apple Watch, press firmly on the ring interface, and then press Change Move Goal when the option pops up on the display. Experiment with what's manageable.

This is cheap, but if you change the goal to the calorie amount you've already achieved for the day, your Move ring will automatically close. As a reminder, the Move ring closes faster during a workout.

Some additional tips

Again, these tips may have their origins in cheats, but please, don't spend this time vegging on the couch and closing your rings by just waving your arms in the air every hour. That's just sad.

Instead, use these tips as a complement to all the free resources that are suddenly available now that gyms and other fitness organizations are adjusting to the realities of the COVID-19 pandemic. Daily Burn, for instance, is offering 60-day free trials (go. macworld.com/dbrn) for all of its classes. If you go to Gold's Gym's website (go. macworld.com/glgm), you can get its Amp digital personal trainer app for free until May 31 if you use the code FIT60. You can also learn yoga exercises for free from Core Power Yoga (go.macworld.com/ crpw), and there's a wealth of stay-at-home fitness videos on YouTube.

And again, at the bare minimum, get down and partake in some time-honored equipment-free exercises like push-ups and sit-ups. If you're in a place where it's pretty safe to jog or take a walk according to guidelines set out by your city or county, do that.

Most of us aren't able to close our rings as easily as we were earlier this year, but with these little adjustments, you can still use your Apple Watch to feel a little satisfaction at the end of the day. If you feel like you're being a little too easy on yourself, go ahead and bump up that Move goal. And if you combine these tips with good exercise habits, there's even a good chance that you'll come out of this even better than you started. ∎
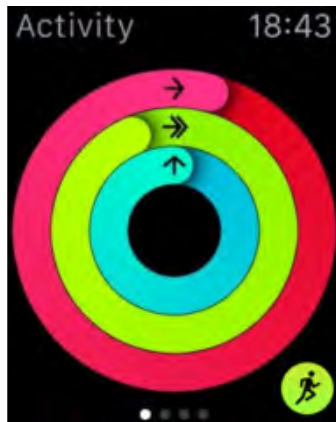
WHEN YOU'RE **BUZZED**, YOU GET IDEAS. LIKE ASKING EVERYONE INSIDE THE TACO TRUCK WHAT **DRIVING** AROUND IN A KITCHEN **IS** LIKE AND THEN ORDERING 22 TACOS WITH EXTRA GUACAMOLE AND ALL THE CHEESE FOR EVERY **DRUNK** PERSON IN LINE. BAD IDEA FOR YOUR WALLET, BUT NOT AS BAD AS **DRIVING** HOME BUZZED.

NHTSA

ad COUNCIL

STAY SAFE - STAY STRONG - STAY HOME -

Coronavirus.org

Artwork by Shepard Fairey | Amplifier.org

ad COUNCIL

Don't keep your Mac laptop charged to 100 percent all the time. Here's why

Lithium-ion batteries don't age well.

BY GLENN FLIEISHMAN

I f you leave your MacBook, MacBook Pro, or MacBook Air plugged in all the time—no matter the vintage—the battery suffers wear for being charged to full. Over time, the maximum charged capacity diminishes and you lose many
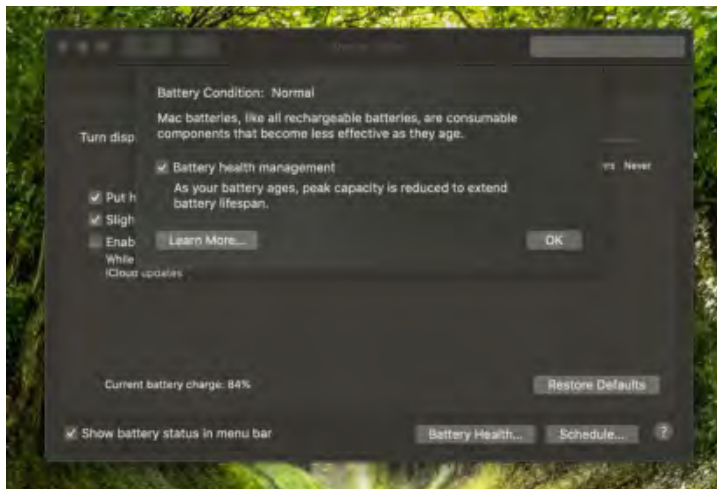
minutes—even hours—of usable time. It is just a characteristic of the lithium-ion batteries in laptops and nearly all modern electronics.

Here is a quick list of the best practices for managing your MacBook's battery.

> Routinely unplug your laptop, as frequently as daily, and let it drop its power down to the 30 to 40 percent range.

> Don't fully discharge your battery regularly—that is, don't let it run down to zero. As Battery University (not a degree-granting institution) notes (go.macworld.com/btun), "If at all possible, avoid full discharges and charge the battery more often between uses….There is no memory and the battery does not need periodic full discharge cycles to prolong life."

> With modern Apple laptops, in macOS Catalina's 10.5.5 release you can make sure that Battery Health Management is enabled in the Energy Saver preference pane's Battery tab by clicking Battery Health.

> In macOS 11 Big Sir, recent Mac laptops will have more modern options enabled by default.

If you'd like more details, read on.

THE LOWDOWN ON TOPPING UP BATTERIES

Lithium-ion batteries are a far sight better than their nickel-based predecessors. Even the later nickel-metal hydride (NiMH) batteries required a regular full discharge—taking the battery down to no stored capacity—to keep them in good shape. Li-ion batteries are excellent at charging and discharging in varying amounts over time and losing relatively little charge when idle for long periods.

But the way in which they store energy requires careful charging past about 80 percent capacity. After that point, it's easy for the batteries to overheat, which can damage them or, in the worst case, cause bulging or even fires. That's why battery circuitry on all devices throttles charging speed from 80 to 100 percent.

In macOS Catalina's 10.5.5 release make sure that Battery Health Management is enabled in the Energy Saver preference pane.

If you ever wondered why your devices charge very fast and then very slowly, that's why. And 100 percent isn't really "100 percent." It's the maximum that a battery's controlling circuitry or connected operating system believes it can safely hold when "full." Even with the most careful algorithms to get to 100 percent, lithium-ion batteries simply age faster when they're topped up all the time. Battery University explains it succinctly (go. macworld.com/btun):

> Lithium-ion suffers from stress when exposed to heat, so does keeping a cell at a high charge voltage...Exposing the battery to high temperature and dwelling in a full state-of-charge for an extended time can be more stressful than cycling.

iOS manages battery charging by adapting it to your usage pattern and charging to full in anticipation of when you need it daily.

Apple recognized this as a problem with iPhones in particular, and built into iOS an awareness of a battery's available capacity, which led it to throttle certain tasks when the battery couldn't deliver enough juice without the iPhone shutting down. (See Settings ➤ Battery.) Much has been written about Apple's lack of disclosure, apology for the issue (go. macworld.com/apap), and discounted battery-replacement program for older phones.

This minor crisis also led the company to add more detail about battery capacity and charge, and shape charging more intelligently. Apple no longer always ensures an iPhone and iPad charges to 100 percent when plugged in, but observes your charging patterns and adapts to charge only as necessary to give you the most stored juice you need at any given time.

That leads to greater battery life. My iPhone 11 Pro from last October shows 99 percent battery capacity, which is quite a bit higher than previous phones I've owned over that period of time. (The included one-year warranty on Apple's battery-powered devices allow for a no-charge replacement if capacity drops below 80 percent in that first year [go.macworld.com/bl80]. AppleCare+ extends that replacement for as long as you're paying for the warranty.)

Apple brought a charging algorithm for its laptops that sport Thunderbolt 3 to macOS Catalina in the 10.15.5 update that isn't quite the same, but it is designed to take the edge off a battery as it ages. In the Energy Saver preference pane's Battery tab, click Battery Health. Battery Health Management should be checked; if not, you almost certainly want to enable it. (Mac laptops with Thunderbolt 3 currently include the MacBook Pro models since 2016 and MacBook Air models since 2018.)

With the preview of Big Sur, Apple promises the same sort of charging algorithm in iPhones and iPads for recent Mac laptops as well. It's a painless and management-free way to get more life out of your laptop battery. ■

macOS 11 Big Sur will bring iOS-like battery-management and usage features to the Mac.

How to fix the 'cannot be autosaved' bug when saving documents in macOS apps

An oddball problem with an oddball fix and some workarounds.

BY GLENN FLIEISHMAN

Autosave is a highly useful macOS feature that prevents losing incremental changes to a document you're working on between the periods when you press Command-S or choose File ➜ Save. As you work away, the current state of the document is updated temporarily. When you close the file, changes are applied even if you don't use the Save command or keystroke.

But what if autosave goes south?

Some users, including a *Macworld* reader, have seen the error in various
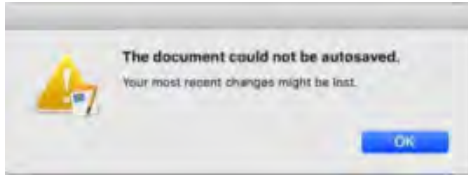
This dialog seems to indicate something is off with sandboxing, a security feature.

macOS apps dating back nearly a decade: "The document could not be autosaved. Your most recent changes might be lost." The dialog box explaining this has an OK button and nothing else.

> What's the explanation? It appears to be a permissions problem between so-called "sandboxed" apps and the operating system about whether a file may be written to or not. A sandboxed app is one delivered from the App Store, including Apple's own free and paid apps, that has a number of restrictions placed upon it that increase user privacy and security. Sandboxed apps can only perform certain tasks and with certain files. (Apps offered directly by developers have freer range, but you may have to approve certain kinds of access [go.macworld.com/iacc] via the Security & Privacy preference pane's Privacy tab.)

Savvy users have figured out that this problem can be fixed by emptying the recent documents list. In affected software, choose

File ➜ Open Recent ➜ Clear Menu. When this bug occurs, this action appears to free up slots for save or refresh permissions. Some users have only had the autosave issue occur when working with extremely large files; others, when they have lots of documents open.

If you encounter the problem and clearing recent files doesn't solve it, here are a few more strategies:

> Create a fresh document, copy the old document's contents (Edit ➜ Select All), paste them into the new document, and save immediately.

> Disable autosaving, which is a preference in the General preference pane labeled "Ask to keep changes when closing documents." With this box checked, autosave no longer occurs. You can use the Save feature, and will be prompted to save when closing a document.

> Divide the document into smaller separate files by copying and pasting it a piece at a time into new documents and saving those. ◼
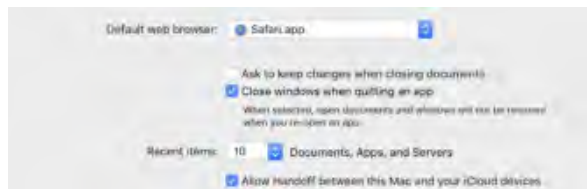
The General preference pane lets you set continuous saving for supported apps.

Replace an Apple AirPort network

With Apple's Wi-Fi base station units ever older, here's how to replace them.

BY GLENN FLIEISHMAN

Apple's AirPort Base Station was a revelation in 1999. While it cost $299 plus required a $99 AirPort Card in every Mac you wanted to use with it, this was much cheaper than all other options and it came with the friendly AirPort utility for configuration—far easier than competitors' tools. (Apple actually licensed the hardware and software to package in its unique way.)

Apple abandoned its Wi-Fi base stations years ago, seemingly preferring to not compete in a market that increasingly produced inexpensive—but difficult to configure—base stations. And it sat out the mesh-networking revolution (go.macworld. com/msnt), which dramatically simplifies

Wi-Fi network setup, but can cost two to four times comparable old-style Wi-Fi routers.

I increasingly get email from readers who have failing or kaput AirPort base station equipment and want to set up a network with the same simplicity, but at a lower cost than mesh options. Such readers are in the same situation I am in: we have some ethernet wiring or have strung some ethernet cables in the house to connect base stations and just want to swap out what we have for the latest. Mesh may sound great, but why not use the wiring we have?

Readers ask for what was a breeze with AirPort configurations: a single network that allows devices to roam seamlessly without awkward handoffs between base stations. Any device that has a Wi-Fi adapter that lets it connect to a network—whether an iPad, laptop, Nintendo Switch, Android phone, or smart fridge—automatically roams among base stations that share the same network name and encryption setup, including password. Apple made it easy to set up a series of base stations that could have unique individual names (to identify them for configuration), but could be set to share the same network name to allow devices to roam.

(Because this roaming is dependent on individual devices, you can see different performance among them. Roaming devices should switch automatically from a weak signal to a stronger one, but iPhones in particular seem to sometimes stick to a weak signal even when it provides a very slow link and much closer routers are available.)

The tricks to setting up an ethernet-connected AirPort replacement network are straightforward:

> One of your Wi-Fi gateways needs to act as the "main" unit. It connects via its WAN (Wide Area Networking) port to your broadband modem.

> The main network takes the Internet Protocol (IP) address handed off by the broadband modem and creates a private network range and passes out addresses to Wi-Fi- and ethernet-connected devices. (This is the combination known as NAT and DHCP: NAT manages the private network range; DHCP hands out addresses.)

> Connect each additional router via ethernet to the LAN ports on the main router. You can also insert ethernet switches for convenience or to span greater distances between the main router and additional ones.

> Configure each additional router as a bridge or access point. The terminology varies by Wi-Fi device maker. You want these routers to *neither* create a private network *nor* pass out addresses. Instead, they pass through the NAT/DHCP combo

from the main router.

> Name each additional router's network the same. This name, the SSID (Service Set Identifier), is what you see in a list of Wi-Fi networks in a menu. (Name the base stations themselves uniquely in whatever way the device lets you identify them for configuration.)

> Use the same network password for all Wi-Fi networks, too.

That's generally all that's required. The only exception is if the broadband router handles network assignment with DHCP and NAT. In that case, configure your main base station as a bridge/access point, too.

For a configuration like this, some manufacturers have finally got the religion of simplicity. I've gradually switched from Apple to TP-Link for the three Wi-Fi routers on my network. The first still required an ugly and complicated Web administrative interface to configure. But the later two use TP-Link's Tether.

Tether lets me connect to the router out of the box, configure it to be part of my set of managed networks, and then choose the simple options, like network name and access point mode, with a few taps. It's not quite AirPort Utility, but it's among the least-frustrating setups I've had for non-mesh and non-Apple gear. ∎
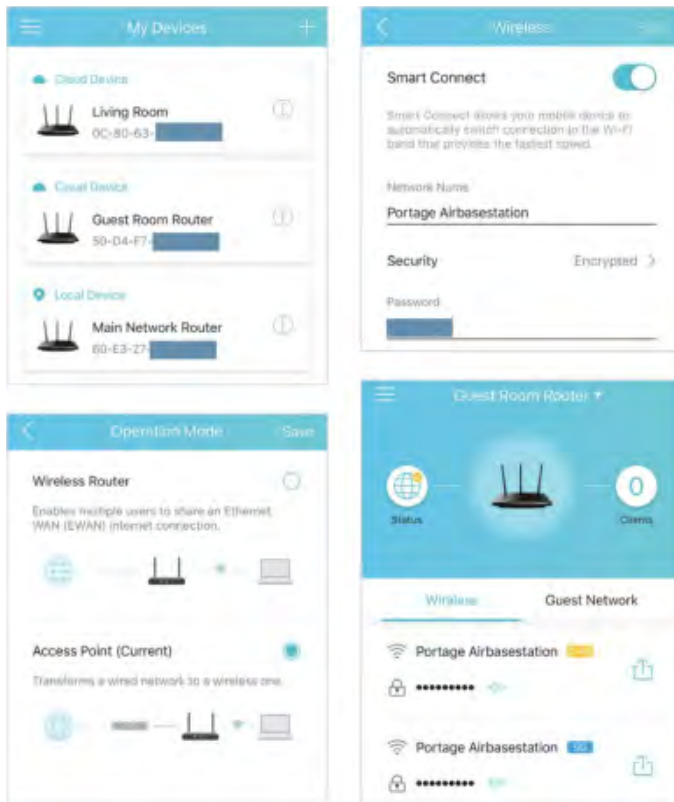
TP-Link's Tether app offers simplicity in configuring a set of standard Wi-Fi gateways. At left, top: A list of local devices; bottom, setting access point mode. At right, top: enabling Smart Connect to assist in mobile roaming; bottom, a configured device.

Accell Power Dot surge protector: A clever idea, but also a pricey one

You can plop your smart speaker in the middle of this surge protector and have three outlets and four USB ports to power other devices.

BY MICHAEL BROWN

The Accell Power Dot takes some design cues from the company's earlier Poweramid surge protector (go.macworld.com/pwam; now street priced at $20), adds a USB-C charging port, and scoops out its middle to make a recessed hollow for a

smart speaker. On the downside, it has two fewer outlets than the Poweramid and costs twice as much.

Providing four outlets in an 8-inch footprint instead of the Poweramid's six allowed the Power Dot's designers to space the outlets further apart. With about

1.75 inches between each of them, you'll have no problem plugging in oversized wall warts. I was able to plug the three-inch-wide, right-angled AC adapter for a 10-inch Lenovo Smart Display into any of the four outlets without blocking any other outlet or the two sets of USB charging ports.

Removing a 5-inch plastic plate from the center of the Power Dot exposes a recessed cavity designed to accommodate a round smart speaker such as an Amazon Echo Dot (go.macworld.com/edot) or a Google Nest Mini (go.macworld.com/nmni). You might think the removable plate is a waste of plastic, but (as I discovered) it makes the perfect platform to host an Echo Spot (go.macworld.com/ecsp) smart display. If you don't have a smart speaker, you could use that cup to wrangle paperclips, spare change, or other small objects. Resist the temptation to use that hollow as a drink coaster, though; you wouldn't want to spill liquid into those outlets.

The AC outlets are angled up in their default position, making it easier to plug power adapters into them, but they also pivot down to a 90-degree angle if you

The round form factor and the widely spaced outlets enable the Accell Power Dot to accommodate even oversized AC adapters without blocking adjacent outlets.

find that makes it easier to plug in regular power cords. Unfortunately, the Power Dot's pivoting outlets aren't all that useful, and it takes a lot of effort to move them to boot. If that design feature is responsible for making the Power Dot so expensive, it was a mistake.

The Power Dot provides 1,080 joules of protection across its four outlets, with 400 volts of maximum clamping voltage on each leg (line-neutral, line-ground, and ground-neutral). A "protection" LED will glow until the unit's MOVs have burned out, but the LED's location above the on/off switch and beneath the top surface makes it difficult to see.

The position of the LED is especially problematic if you arrange the Power Dot so that its 8-foot power cord goes straight to the back of your desk, as that puts the switch on the right-hand side and out of your line of sight. (Should you find that cord too short, there's another model with a 16-foot power cord [go.macworld. com/16ft] that's priced at $60.) The LED was tough to spot even when I arranged the device so the switch was facing me—at least when I was standing (since I've started using an Evodesk XE Pro sit/stand desk [go.macworld.com/evxe], I rarely sit

The Power Dot's four outlets pivot, but it takes a lot of force to move them.

While Accell says its Power Dot doesn't support the USB Power Delivery standard, it did prove capable of rapidly charging my Pixel 2 XL when I plugged it into its USB-C port.

positioned on the right-hand side of the power switch. All three of the USB-A ports can deliver up to 5 volts, 2.4 amps, and 12 watts. If a device plugged into the USB-C port is pulling the maximum of 3 amps, the three USB-A ports must divvy up the remaining 1.8 amps and vice versa. As Access explained the prioritization: "The hungrier the device, the more power it will get."

All four ports are sufficiently spaced to accommodate oversized plugs. Accell says the Power Dot's USB-C port does not support the USB Power Delivery standard, but my Pixel 2 XL nonetheless reported that it was charging rapidly when I plugged it in (the app Ampere reported the phone as drawing a minimum of 780mA and a maximum of 1,040mA).

while working). The indicator LED was a little more visible when I was seated.

USB CHARGING PORTS

On the top surface of the Power Dot and flanking the on/off switch are a total of four USB charging ports, which share 5 volts, 4.8 amps and 24 watts. On the left side of the switch, you'll find one USB-C port that delivers a maximum of 5 volts, 3 amps, and 15 watts.

The first of three USB Type-A ports sits beneath the USB-C port, with the other two

Accell Power Dot

PROS

• You can set a small smart speaker in the middle of its outlets.

• One USB-C and four USB Type-A charging ports.

• Its four AC outlets are very widely spaced.

CONS

• More expensive than conventional power strips equipped with twice as many outlets.

• Protection LED is difficult to see from some angles.

PRICE

$39

COMPANY

Accell

BOTTOM LINE

You'll encounter plenty of less-expensive surge protectors that can accommodate a lot more devices when you go shopping, but the Power Dot's round form factor and its ability to host a small smart speaker do render it unique in a sea of longitudinal power strips. Whether that makes it worth an extra 10-spot for half the outlets you'll get with its more conventional competitors is up to you. ◼

Together, we can take these steps.

- ☑ Avoiding close contact
- ☑ Staying home
- ☑ Handwashing for 20+ seconds
- ☑ Disinfecting frequently touched surfaces
- ☑ Wearing a cloth face covering in public

Together, we can help slow the spread.

Learn ways to protect yourself and others at coronavirus.gov
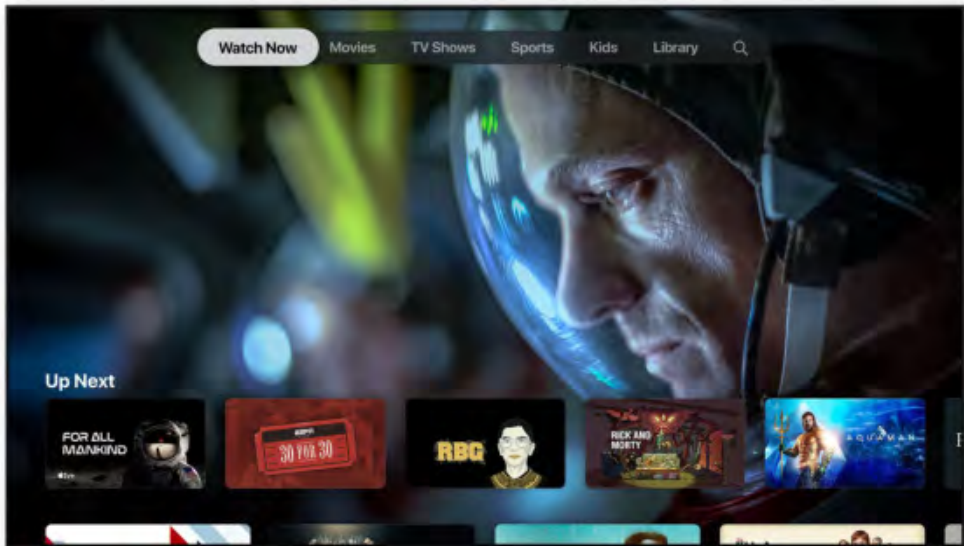
Apple media sharing limits explained and why you should use Plex instead

Apple sets limits on what you can share among people in a family or home.

BY GLENN FLEISHMAN

Apple has implemented multiple kinds of sharing for media—apps, music, audiobooks, movies, and TV shows—but imposes limits across a few directions, ostensibly not to reduce piracy, but to limit the reach of any particular purchased item. Some of this–maybe all of it–is at the behest of copyright holders that require Apple to meet certain terms to offer the media at all.

If you BYOM (bring your own media) to any of Apple's software that manages, plays, and shares it, you'll feel these limitations, depending on with whom you share and how you've set things up.

The better alternative if you have a lot of your own stuff to share among a family,

including on the go and geographically dispersed? Plex.

(It's obligatory and morally necessary for me to point out that none of this advocates sharing media in a way that's prohibited by the terms of what you've purchased or been given access to. Those rights tend to be either explicitly broader or carved out through court cases for media shared within a family or in a single residence.)

APPLE'S VERSION OF SHARING

Family Sharing. This free option allows up to six people you claim in the same family to give each access to a common set of apps (if the app developer offers sharing), purchased media, and optionally to one iCloud storage subscription, even though the storage is still private to each individual. (Starting with the next release of Apple's operating systems, including Big Sur, developers can also let Family Sharing include sharing in-app purchases and subscriptions.)

Family Sharing doesn't include any items you've added to a media library, like iTunes, Music, or TV. That includes omitting music that you've purchased or ripped and rely on iTunes Match to find high-quality copies of and sync across your own iCloud-linked devices. Only purchased music and other media is shared.

Home Sharing. Separate from Family Sharing, Home Sharing isn't primarily

designed to let you share media with different people, but to share it among your own devices on a local network. You can authorize up to five computers and access it from mobile, too. Guests have access as well, including to media you have in your libraries that's not purchased from Apple.

Turn on Home Sharing in Mojave and earlier in iTunes: iTunes ➜ Preferences ➜ Sharing and check Share My Library on My Local Network. In Catalina and later, use the Sharing preference pane, select Media Sharing, and check the Home Sharing box and Share Media With Guests.

Apple Music. To complete shared offerings, Apple offers individual and family subscriptions (go.macworld.com/fmsb) to Apple Music. If you purchase a family subscription for Apple Music and have Family Sharing enabled, it automatically shares it to those family members; if not, you have to enable Family Sharing.

Across none of these scenarios can you and others share all your media in any given location, though a combination of them may provide you with access at home to everything, albeit not all in the same fashion.

THE PLEX ALTERNATIVE

The Plex (go.macworld.com/plxt) software and service is the best alternative for Mac users, and even better for people using media across Apple and non-Apple
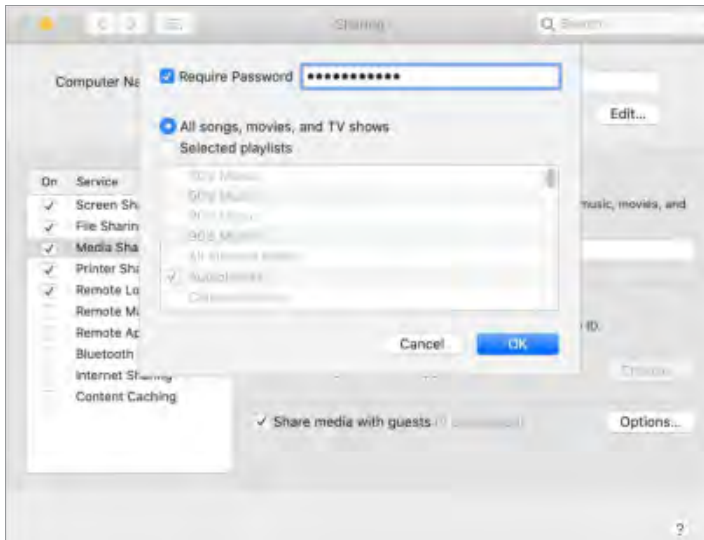
Catalina offers controls within the Sharing preference pane for Home Sharing, including choosing what you share with guests.

to your account. Plex lets you identify folders that contain various kinds of media, and these can be scattered across drives and locations. I have an external 8TB drive on which I store most media, and it's easy to point Plex at that, where iTunes, Music, TV, and other apps are harder to target and can't manage multiple locations.

platforms. Its free flavor may offer people everything they need for sharing music and video, and Plex also allows photo sharing.

Its premium tier is worthwhile for a few added features: offline storage on mobile devices, and over-the-air recording of TV programs with a networked tuner (I use it for this). It's just $4.99 a month, $39.99 a year, or $119.99 for a lifetime subscription. It also adds parental controls.

The one thing Plex can't do is play Apple-protected video content, but that's something that Family Sharing is quite good at managing.

You install Plex on any computer from which you want to share media and log in

Plex lets you enable sharing by kind of media, and then you can use that from other devices to access your own computer servers—and use invitations to share content with other people in your family. They don't need premium subscriptions unless they want to have offline mobile access, too. Streaming is available without any paid subscription.

Plex has apps for Android, iOS, Apple TV, Amazon Fire TV, Google Chromecast, and Roku, among other platforms and systems. Desktop users access Plex through a browser, which is also the best way to manage and configure server settings. ◼

House of Marley Redemption ANC: Environmentally conscious wireless earbuds

Want style, sound, and sustainability? You'll like these. Want good ANC?
You may have to look elsewhere.

BY LEIF JOHNSON

W ill you be redeemed by wearing the Redemption ANC buds from the House of Marley? Likely not, but if you're concerned about the usual Earth-unfriendly methods of making devices like

this, you'll probably at least walk away with a load off your conscience.

They're not biodegradable, but they are made from recycled silicone, and House of Marley even found a way to work sustainable materials like bamboo and

IMAGE: LEIF JOHNSON

The charging case next to the USB-A-to-USB-C charging cable that comes with it.

wood into the design. Along with their sound quality and general stylishness, that's a good reason to be happy about these buds, but it may not take long before you start worrying about the shortcomings of some of the active noise canceling and other features.

DESIGN AND CONTROLS

They make a good impression even when they're in the charging case. The case itself is unfortunately bulky enough that it doesn't fit easily into jeans pockets, but I kind of like its black, pucky body and the way it's crowned with a square of bamboo. (It doesn't hurt that House of Marley's logo is pretty nifty, too.) When you combine the Redemption's case with the colorful nylon USB-C charging cord it comes with, the

whole package looks a little like something you might find on one of Etsy's classier pages.

At least there's sort of a good reason for that big case. The Redemption ANC buds can last an impressive seven hours on a single charge, and the case grants three more full charges. A row of four lights along the front ensures you always know just how much of a charge is left in the case, and on the back you'll find the USB-C charging port itself, perched right above the Bluetooth pairing button. Pairing should be easy enough without it for the initial setup: I simply opened my iPhone's Bluetooth menu, opened the charging case, and I immediately got a prompt to pair the individual buds.

I didn't mind the hefty charging case so

The Redemption ANC next to Apple's regular AirPods for comparison. The Redemption case is also considerably thicker than the AirPods case.

downpour on a rainy day. Still, they're quite big. You're never going to forget they're in your ears.

Like the AirPods, you control the Redemption ANC through a series of taps on the stems. Two taps on the right stem plays or pauses your music, two taps also allows you to answer or end a call, and three taps let you skip to the next track on your music. (Sorry, you can't use them to repeat a track.) On the left bud, two taps activate voice assistants like Siri or Google Assistant (depending on your phone), and two taps also let you decline a call. If you tap three times, you can turn on the active noise canceling, turn on the ambient mode, or turn both features off. Want to pause without pausing them? Just pull one of the buds out of your ears. Whew.

That's a lot of info to digest, and a lot of it didn't click until I went online and watched one of House of Marley's instructional videos (go.macworld.com/

long as I kept it in my bag—but unfortunately, the buds themselves are pretty hefty, too. They look a lot like Apple's first-generation AirPods aside from the black body and the wood running down the stem, but they're also noticeably thicker. And that's without the three different sizes of rubber ear tips they come with to help with the ANC, as well as a pair of wraparound ear fins that help keep them in place. I've always worried about my AirPods falling out even during a brief jog, but to my surprise, the Redemption buds stayed in even during a brief run down the block. They also have a water resistance rating of IPX4, so they'll shrug off sweat from a workout but not a

invd). Fortunately, it's easy to learn the controls, but they're not so intuitive that you'll easily figure out their full range on your own without some frustration.

That said, you'll probably end up frustrated anyway because of the finicky controls. At least a third of the time the Redemption buds interpreted my three taps for turning off the ANC as two taps, so I'd end up having an unexpected chat with Siri. I had similar troubles with the right bud when I was trying to skip forward to the next track. Even after several days with the Redemption buds, this never stopped being a problem.

NOISE CANCELLATION AND SOUND QUALITY

And then there's the actual noise canceling. It works, technically, but sometimes I wouldn't have even known it was on were it not for the built-in British-accented voice confirmation. Frankly, the ANC I experienced with these headphones was about the same level of noise canceling I might get from wrapping a T-shirt around my ears. Sounds that I'd normally expect to be muted by ANC—my desk fan, the cars going by on my street, and even the wind on my windows—still managed to sneak through regardless of

The Redemption ANC with the charging case open.

which tip I wore. In other words, these are not earbuds for folks who like to use ANC buds while working in silence without musical accompaniment.

The "ambient" mode (which allows you to hear your surroundings as if you weren't wearing buds) is a little more impressive, but the inferior quality of the microphone never lets you forget that you're hearing your environs through a piece of hardware. After discovering this, I wasn't too surprised when I called family and friends with the Redemption buds and was told the call quality was merely "okay."

I'm happy to report that the sound quality of the music I played went a long way toward redeeming the Redemption ANC buds. It's surprisingly impressive considering the disappointments of the ANC, especially if you're a fan of tracks with heavier bass. Thumpin' tracks like Billie Eilish's "Bad Guy" or Of Montreal's "Gronlandic Edit" resounded deeply through my head without smothering the songs' middle and high ranges. On tracks with softer low ranges like The Rolling Stones' "Sweet Virginia," I was pleased to find the Redemption ANC buds hit the right degree of weightiness.

It's enough to make me think House of Marley designed these

buds with the assumption that you're almost always going to be playing music when they're in your ears. In those circumstances, the music is going to be doing most of the work of the "noise canceling," and the weak ANC on the buds does pull some of the remaining slack. But only some. When the music stops, as it does for a second after the opening riff of ZZ Top's "Just Got Paid," I can still hear my desk fan chugging along. That's not pleasant.

BOTTOM LINE

At $200, the Redemption ANC may seem steep, but for context, Apple sells its ANC-free second-generation AirPods at the same price. But even with the significant advantage of the ANC and sound quality, the Redemption buds are tough to recommend. For one, that active noise cancellation isn't all that good, and the fussy controls and bulky size of both the case and the buds are already leading me to reach for other buds when I leave my apartment. Of course, if you're particularly impressed with House of Marley's environmentally conscious manufacturing efforts, these earbuds' shortcomings certainly aren't so great to dissuade you from considering them. ∎

🎧🎧🎧 1/2

House of Marley Redemption ANC true wireless earbuds

PROS
• Good sound, particularly for bass-heavy tracks.
• Made from recycled and sustainable materials.
• Eye-catching design.

CONS
• Mediocre active noise cancellation.
• Finicky controls.
• Bulky case and buds.

PRICE
$109

COMPANY
House of Marley

Zvox AV50 wireless noise-canceling headphones: There's a lot to like about these headphones

Rich and clear sound quality, with very effective active noise canceling, but the vocal enhancer is very subtle.

BY SCOTT WILKINSON

Zvox, best known for soundbars and soundbases (go.macworld. com/snbr), has expanded its product lineup to include Bluetooth headphones with active noise cancellation (ANC) and even hearing aids. So, I decided to check out the AV50

headphones, which are touted as the world's first headphones designed for users aged 55 and older.

The feature aimed specifically at that demographic is much more subtle than I expected, but the overall sound is excellent in any case.

IMAGE: ZVOX AUDIO

FEATURES

The AV50 are relatively small and lightweight at only 8.1 ounces, and they can be folded into a small hard-shell case for traveling. Single dynamic drivers utilize neodymium magnets and achieve a specified frequency range from 15Hz to 23kHz (±4dB).

Bluetooth 4.1 provides wireless connectivity using the aptX, AAC, and SBC codecs as well as A2DP, AVRCP, HFP, and HSP profiles. It also comes with a 3.5mm cable for a wired connection.

Active noise cancellation (ANC) generates sound that is 180 degrees out of phase with ambient sound picked up by two onboard microphones, mixing both signals to reduce the level of the ambient sound by means of phase-inverted cancellation. Unlike other ANC headphones, the AV50 must be fully powered on to activate its noise cancellation. I prefer having the option to engage ANC without powering Bluetooth to enjoy some peace and quiet without audio while drawing less power from the battery. To extend the battery life, you can listen to audio without ANC.

The feature aimed specifically at older users is called AccuVoice, which works in conjunction with ANC. It purports to enhance voices while reducing unwanted noise, so you understand dialog better without having to turn up the volume. Specifically, it gently raises the level and compresses the dynamics of frequencies from 500Hz to 3,000Hz. This is the frequency range of speech consonants, which are critical for intelligibility. Unfortunately, you can't engage ANC without AccuVoice; I wish that was an option.

Like virtually all Bluetooth headphones, the AV50 can be used with a mobile phone

The AccuVoice feature is designed for older folks who might have trouble with vocal intelligibility.

The AV50 folds up to sit in a case that's small enough to fit in just about any carry-on bag.

to find by feel. The multifunction button turns the power on and off, initiates Bluetooth pairing, and answers and disconnects phone calls. The + and – buttons control the volume and skip to the next or previous track.

The fourth button is separate from the other three. It turns ANC/AccuVoice on and off.

At the bottom of the right earcup is a 3.5mm jack for a wired connection to the source device. A mini USB port at the bottom of the left earcup lets you charge the battery. Finally, a multicolored LED between the ANC and other buttons indicates the status of pairing, ANC, and Bluetooth. A blue LED next to the USB port indicates charging status.

PERFORMANCE

The AV50 feel somewhat flimsy, and the earcups are relatively small, but I got them to seat well over my ears after some fussing. Oddly, adjusting the position of the earcups on my head while playing music with ANC on caused some crackling and distortion, but not with ANC off.

to answer calls and speak with callers using an onboard microphone in the right earcup. That mic is independent from the two microphones used by the ANC system.

The rechargeable battery lasts up to 12 hours with Bluetooth and ANC engaged; if you turn off ANC, the battery life extends up to 18 hours. With a wired connection and ANC, the battery lasts up to 15 hours, but without ANC, a wired connection does not drain the battery at all. It takes about two hours to recharge a fully depleted battery.

USER INTERFACE

Four buttons on the lower rear of the right earcup provide all the controls. A multifunction button is flanked by + and – buttons, which are taller than the multifunction button, making them easy

Since AccuVoice is intended to make voices clearer, I focused on music with vocals. Listening to Tidal Master tracks (uncompressed or losslessly compressed high-res audio), I started with "I Got Rhythm" from *Love is Here to Stay,* by Diana Krall and Tony Bennett. I couldn't hear much difference at all between ANC/AccuVoice on and off. The vocals were clean and well-defined, the piano was clear and natural, and the drum brushes were crisp.

The same was true on "Green Flower

Street" from Donald Fagen's album *Nightfly.* The vocals were slightly more present with ANC/AccuVoice on, and the overall sound was a bit warmer and higher in level, but the difference was subtle.

Marvin Gaye's classic "What's Going On" from the album of the same name sounded great. With ANC/AccuVoice on, the lead vocal was a bit more present and up front, and the overall sound was a bit richer with beefier bass.

"Free Man in Paris" from Joni Mitchell's album *Court and Spark* was much the same. With ANC/AccuVoice on, the overall sound was richer, the bass was bigger, and the vocal was slightly more present. On or off, the track sounded excellent.

Moving on to classical music, I listened to Cecelia Bartoli sing "Nell' attendere mio bene" from Nicola Porpora's opera Polifemo on the album *Farinelli* with Il Giardino Armonico under the direction of Giovanni Antonini. With ANC/AccuVoice

The controls are found on the back of the right earcup near the bottom. The power on/pairing/answer-call button is flanked by the volume up/down buttons, which are raised above the central button, making them easy to find by feel. The ANC button is separated from the other three by the indicator LED. A 3.5mm jack at the bottom lets you connect a cable to a sound source, and a mini-USB port on the bottom of the left earcup lets you charge the battery.

on, the overall sound was a touch warmer and richer, and the vocal was a bit more forward, but the difference between ANC/AccuVoice on and off was very subtle.

Finally, I took the AV50 on a drive around my neighborhood to test its noise canceling in a somewhat noisy environment. The acoustic isolation of the earpads is quite good, and ANC is excellent, reducing the level of ambient noise

The active noise canceling works very well in environments with ambient noise.

significantly. As before, with ANC on, vocals were a bit more present and forward, and the overall level seemed a bit higher, but it wasn't a dramatic difference.

COMPETITIVE COMPARISON

I compared the performance of the AV50 with the Edifier W860NB, which I reviewed here (go.macworld.com/wd86), because it's in the same price range. I also compared it with the Sony WH-1000XM3, reviewed here (go.macworld.com/whm3), even though Sony's headphones are twice the price of the AV50. For this comparison, ANC was on the entire time, and I matched the level in each headphone set as best I

could by ear.

Listening to "Time Out of Mind" from Steely Dan's album *Gaucho,* the Edifier sounded leaner and more restrained, and the bass was slightly subdued. The Zvox sounded richer and warmer, and the bass was perhaps just a tad overbalanced. The Sony was even richer, with the bass drum more pronounced than with the other two headphones.

The WH-1000XM3 was the most comfortable headphone to wear by far. Also, the Edifier and Sony did not crackle when the earcups were jiggled. Another comparative factor is the size of the case; the Zvox case is the smallest, making it

The Zvox AV50 are available in a variety of colors.

easier to pack in your carry-on bag. The Edifier case is the largest, with the Sony in the middle.

Which model you would prefer depends on your taste in audio reproduction. If you like a leaner sound, I recommend the Edifier W860NB (with ANC on; turning it off degrades the sound quality significantly, as I discuss in my review). But if you gravitate toward a richer sound, the Zvox and Sony fit that bill nicely.

BOTTOM LINE

The Zvox AV50 are excellent wireless ANC headphones. The sound quality is rich and clear, and the noise cancellation is very effective. I found the AccuVoice feature to provide

very subtle improvement in vocal presence and overall richness, but not nearly as much as I expected. It sounds just fine with ANC/AccuVoice off, which I can't say about many ANC headphones.

On the downside, the build quality feels somewhat flimsy, and the sound crackles with ANC on when shifting the earcups to get a good fit. Earlier, I said that I'd prefer the AccuVoice feature to be independent of ANC, but since its effect is so subtle, that's not really a concern for me anymore.

At a penny less than $150, the AV50 are a great value. If you're in the market for over-ear ANC headphones, these ones are worth a serious listen. ∎

🎧🎧🎧½

Zvox AV50 wireless noise-canceling headphones

PROS
• Sound quality is rich and clear.
• ANC very effective.
• Controls are easy to find by feel.

CONS
• Flimsy-feeling build quality.
• Some crackling and distortion when adjusting headphones with music playing and ANC on.

PRICE
$69

COMPANY
Zvox

Mac 911

Solutions to your most vexing Mac problems.

BY GLENN FLEISHMAN

WHY CAN'T FAMILY SHARING INCLUDE MORE THAN SIX PEOPLE?

Family Sharing allows Apple uses to select up to six people in their family who can pool iCloud storage, share most apps, and view each other's purchased media. It also lets parents more easily shape and monitors usage of their kids' devices, providing more security and peace of mind.

But why is there a six-person limit? A *Macworld* reader with six children recently wrote in to explain how it affects his family after he tried to add his two youngest kids:

> *Now I can't use screen time controls for them because I can't add them to my family. And I can't stop my oldest 20-year-old to make room because he relies on our Apple Music subscription*

and app sharing. So I'm left with leaving the little ones unprotected, which is unacceptable. How do I get around this?

I should note before getting into the rest of it that you can enable Screen Time on individual and iCloud-linked sets of devices without using Family Sharing. That requires setting a PIN on each device or on a single device in an iCloud-linked set and enabling Screen Time on each device. It doesn't offer centralized management, but it does provide protection. (Macs require Catalina, the first version to include Screen Time.)

Unfortunately, there's no workaround for adding more people to Family Sharing. Apple likely picked six as a reasonably inclusive number. Only about 1 percent of households in America (go.macworld. com/1phs) have more than six people in them, though that number includes both adults and children in a single household.

And the company ostensibly limited the number, and didn't set it to something like ten, for a combination of licensing terms it sets with app developers and music and video partners, and to prevent groups of people sharing an account in order to share items and reduce Apple and its partners' revenue.

To Apple's credit, they do not say, "Covers the whole family." Rather, they more carefully state, "Family Sharing

makes it easy for up to six family members to share…"

One solution: Take a Solomon-like approach and split the family in two. No, not down the middle of each child, thank you, but pick one parent for one group of kids to run their Family Sharing and another parent for the rest. This doesn't give you quite the same financial benefit in not purchasing things twice, but it does allow collective Screen Time management and sharing of some purchases.

Since more apps are shifting to in-app purchases for subscriptions and other features, and in-app purchases are not shared as part of apps that allow Family Sharing (which seems to be most apps), you see less of a benefit these days from shared app across a family.

Apple could use another option for Family Sharing, which is to rely on part on geographic verification. If you wanted to add more than six people total, you might have to opt in to letting Apple occasionally check—even in some privacy enhanced obscured way—that all the devices were usually clustered around the same address.

Spotify takes that tack for its family accounts, which are licensed to use only by people residing at the same address. The company routinely asks for verification (go.macworld.com/spvr), too. Maybe that's not the right approach.

HOW TO GET RID OF THE SCREENSHOT DROP SHADOW IN MACOS

To follow up on previous advice on controlling how macOS takes screenshots, as described in "How to take better screenshot selections in macOS, (go. macworld.com/btsc)" you can also choose to include or exclude a border and drop shadow when you want to grab a window.

A thin border is supplemented in these screenshots by a drop shadow that provides contrast against a background. That's a faux-real or skeuomorphic effect, as if a window is floating and casting a diffuse shadow, but it does make the window pop out more effectively when including it in documentation or an email.

macOS puts those elements in by default when you use the Command-Shift-4 keyboard shortcut and then press the spacebar while hovering over a window or menu to select it, and then clicking your mouse or trackpad or pressing Enter or Return.

You can remove the border and drop shadow by holding down the Option key while clicking. This lets you retain it when you want and disable it otherwise.

If you never

The default macOS screen capture of a window includes a border and drop shadow (top), but you can easily change this for each capture or permanently (bottom). A thin gray border was added in both cases to show the extent of the image.

want a border and drop shadow, you can use the Terminal to make that change permanent. Open Applications ➜ Utilities ➜ Terminal and then copy and paste each of these lines in turn:

```
defaults write com.apple.
screencapture disable-shadow true
```

```
killall SystemUIServer
```

You can reverse that by swapping true for false in the line above and pasting in that line and the next again.

The downside of this change is that you can't retain the border while getting rid of the drop shadow, which is useful for light-colored windows or those with white edges. If you place the image into other software, you can typically set a border for it, as in Pages. Or, you can get an inexpensive photo editor, like Pixelmator (go.macworld.com/pmtr) or GraphicConverter (go.macworld.com/gcon), which makes it easy to add a bitmap border around the edge of an image.

HOW TO GET CERTIFIED FOR A HARD DRIVE YOU ERASED

It's relatively easy to erase the contents of a drive on a Mac. But what if you're asked to prove you did so? Some companies, government agencies, and other organizations have an internal or legal requirement to erase drives securely. While the IT department may handle this at large organizations, you might be asked (as one reader was) to provide documentation before disposing of a company computer.

Fortunately, this isn't an odd request. And it's not terribly expensive even for an individual to conform to. There's a category of software that's available across many different platforms from many firms that

Adding back a border is easy in software like GraphicConverter.

is designed to not just perform erasure meeting a variety of industry or military standards, but can also produce a certification report at the end.

This certificate is backed by the company having run though its own set of certifications with industry groups and labs that test the software to make sure it meets the erasure specifications promised. Stellar's Bitraser File Eraser (go.macworld. com/fers), for example, notes that "This certificate helps you meet compliance with data protection regulations such as SOX, GLB, HIPAA, ISO27001, EU-GDPR, PCI-DSS, audits, and international guidelines, including ISO 27001."

If any of those letters and numbers are important for your group, Bitraser File Eraser is $40 a year for a single-user license, and it's up to date for macOS 10.15 Catalina.

iShredder from ProtectStar (go. macworld.com/ishd) also meets the bill for macOS through Catalina with "deletion algorithms like DoD 5220.22-M ECE, Peter Gutmann, DoD 5220.22-M, HMG Infosec No.5, German BSI-2011-VS, US Army AR380-19 and more." It's $19.90 for an individual license for its professional version, which includes one year of updates and support. It has a

iShredder for Mac offers a military edition.

"military edition" that adds more military standards for erasure and a more comprehensive report.

Instead of purchasing software, you may also be able to find a local electronics recycler—like the non-profit InterConnection (go.macworld.com/incn) in my town of Seattle—or data-security firm that offers a one-off price for erasing a computer's internal drive with the necessary certification report or extracting and destroying a drive with a paper trail for your needs.

HOW TO SWITCH UP YOUR APPLE ID IF YOU'RE LEAVING AN ORGANIZATION THAT NEEDS ACCOUNT ACCESS

An Apple ID is a powerful hub for one's Apple-centric identity. However, what if you use your Apple ID within an organization—an organization that needs access to Apple ID-linked purchases, email, developer resources, and other Cupertino-connected sites and services—and you're retiring or moving to another place of employment?

Take measures before it's too late for the handoff. This is especially important when two-factor authentication (2FA) is enabled, because your former group could wind up locked out of an account.

First, Apple lets you change the address associated with an Apple ID under a variety of circumstances. The easiest method is if you're using an address that's anything but an Apple-managed one that ends in mac.com, me.com, or icloud.com, as you can change that address to anything—including an Apple-managed one. (I provide the step-by-step instructions in this November 2018 column (go.macworld.com/nv18).)

In an institutional environment, like a college or company, where the Apple ID is an address managed by the organization, I suggest that the folks taking over the account create a new account that's more generic. One reader is retiring from his college, and the Apple ID for his team's Apple Developer project is his address, which will retire with him.

Instead of pointing the Apple ID to another individual's address, the group could create apple-id-dev@anycollege.edu and use that. Internally, that address could forward to one or more individual tasked with managing associated Apple services. Then, if Apple changes Apple ID policies about modifying the email address in the future, this change protects against any limitations.

(Another solution may be preserving someone's old email address and setting up a permanent auto-reply that explains they have left or retired, and only using the incoming email box to check for verification messages or to send email required to verify access for Apple or other services.)

If someone is using a personal mac.com, me.com, or icloud.com address, there's no way to shift that over to another address. Apple only allows Apple IDs to move among third-party email addresses. With an Apple-managed address, you can only swap among available aliases, shown at appleid.apple.com (go.macworld.com/iapp) when you log in and click Edit to the right of the Account section and then click Change Apple ID. For me, since I've had an
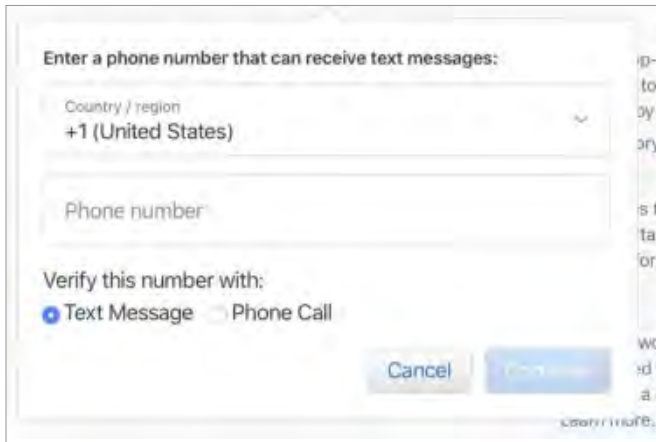
Trusted phone numbers allow backup access to 2FA-protected Apple ID accounts.

Apple account for so long, I can pick among mac.com, me.com, and icloud.com with the same account prefix; for later Apple service joiners, you may have only two choices or no choices at all.

Second, since two-factor authentication is almost certainly enabled for any Apple ID currently in use because of how Apple has encouraged or required its use, consider also adding additional trusted phone numbers to the Apple ID account. This can help prevent loss of access in case something goes wrong with the primary email address before or after changing it.

A trusted phone number can receive either a text message via SMS or a call with an automated voice that speaks a code. You can add a trusted phone in three ways:

> At appleid.apple.com, click the Edit button to the right of the Security section, and then click Add a Trusted Phone Number. Follow the steps for verification.

> In iOS and iPadOS, go to Settings ➜ account name ➜ Password & Security, tap Edit next to the Trusted Phone Numbers label, tap Add a Trusted Phone Number, and follow the steps.

> In macOS Mojave and earlier, open the iCloud preference pane, click Account Details, click Security, and click the + (plus) sign below the list of Trusted Phone Numbers. Follow the steps to verify a number.

> In macOS Catalina, open the Apple ID preference pane, click Password & Security, click Edit to the right of Trusted Phone Numbers, click the + (plus) sign at the bottom, and follow the steps to add and verify a number.

Now, you have a belt and suspenders in case when the original email account something goes wrong and you need additional connections to the Apple ID if you have to contact Apple for help in recovering access. ■