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Incredibly fast

Intuitively smart

One button simple

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Macworld

The Mac App Store needs to support software demos and upgrades

BY KIRK McELHEARN

Longtime Mac users remember how software was distributed before the introduction of the Mac App Store five years ago. You could buy boxed software in retail stores, and you could download shareware that you could try out and pay for if you liked. There was also freeware that developers gave away. Some developers still practice the shareware model, but the Mac App Store has become the sole provider for much of the software people use on their Macs.

This has its advantages: users are protected, since Apple validates the software; they don't have to trust their credit card numbers to potentially dodgy websites; and it's easy to redownload apps and get updates, all through a single app that serves as a storefront. Developers pay Apple a 30 percent commission, but Apple manages fulfillment and billing,

The **calendar app** you won't be able to live without.

and exposes their software to tens of millions of Mac users, so it's not a bad deal.

But two things are missing from the Mac App Store: demo versions and paid upgrades. (This also applies to the iOS App Store, but I'll just focus on the Mac in this article.) You can't download an app to try it out for a week or a month, and then pay for it if it suits your needs. And you can't get a discount on an upgrade to an app you bought a year or two ago, or even last week.

Both of these features are essential. Few users buy apps that cost $10, $20, or even $50 (or more) on the Mac App Store unless they're sure those apps work exactly as they expect. I've downloaded many app demos only to find in the first minutes that the app isn't for me. The Mac App Store could easily offer time-limited demos so users can test them out. These demos don't need to be long for most apps; a week is probably fine for basic apps, a month for apps with more complex features. Since the Mac App Store uses DRM, it would be trivial for Apple to develop a system whereby the apps stop working after a certain time.

Some developers do offer demos of their apps, but Apple won't let them say so in their app descriptions on the Mac App Store. Users have to know that by checking an app's web

page they might find a demo. For example, Flexibits (flexibits.com/fantastical) offers a 21-day demo of the calendar app Fantastical (See our review on page 34).

Some developers use a work-around to provide demos: they sell a free app with in-app purchases. I find this confusing. If I later redownload an app, I may forget that I've bought these IAPs and which features they offer. I'd rather see the full price up front, and not be tricked by *Free*.

Upgrade pricing ensures that users remain faithful to an app; developers want to reward customers who have been using their calendar, text editor, or game, and to retain these customers over time. Upgrades also ensure that users are aware of new versions. When a developer releases a new version of an app, they can't let existing users know there's an upgrade via the Mac App Store. They have to name the upgrade differently: instead of MyApp having a new version number, the app's name has to be MyApp 2. Some developers discount upgrades on launch (for a week or two, usually), which allows existing users to get a lower price, but also means that new

THE JOURNALING APP
Day One currently has "upgrade" pricing on the Mac App Store.

users get "upgrade" pricing. How-ever, if an existing user misses the launch window, they have to later pay full price.

These features are essential to a healthy app ecosystem, and without them, both users and developers lose out. Users won't take chances on new, unfamiliar apps, and devel-opers can't maintain a stable, long-term user base. Third-party apps are one of the key elements of the Mac platform, and the more apps people buy, the more likely they are to stick with the Mac. Adding demo versions and upgrades would be beneficial for users, developers, and Apple.

Do you have any pet peeves that you think Apple needs to fix? Send your ideas to fixthis@ macworld.com. ∎

This tool can block ransomware on Mac OS X, for now

The RansomWhere? tool detects when ransomware programs start encrypting files and then blocks them.

BY LUCIAN CONSTANTIN

A security researcher has created a free security tool that can detect attempts by ransomware programs to encrypt files on users' Macs and then block them before they do a lot of damage.

Called RansomWhere? (go.macworld.com/ransomwheretool), the application is the creation of Patrick Wardle, director of research and development at security firm Synack. It's meant to detect and block the encryption of files by untrusted processes.

The tool monitors users' home directories and detects when encrypted files are rapidly created inside them—a telltale sign of ransomware activity.

When such activity is detected, RansomWhere? determines the process responsible and suspends it. To limit false positives—legitimate encryption programs being detected as ransomware—the tool whitelists all applications signed by Apple and most of those that already exist on the computer when RansomWhere? is first installed.

This means that in order to work as expected, the tool needs to be installed on computers that haven't already been infected with ransomware. The tool also won't work if any ransomware programs that later infect the computer hijack or inject code into Apple-signed applications and use them to encrypt files.

When RansomWhere? suspends an encryption process, it prompts the user to allow the operation to continue or to terminate it. This provides users with an opportunity to whitelist legitimate encryption

> **THE TOOL MONITORS USERS' HOME DIRECTORIES AND DETECTS WHEN ENCRYPTED FILES ARE RAPIDLY CREATED INSIDE THEM—A TELLTALE SIGN OF RANSOMWARE ACTIVITY.**

programs they know and trust.

While good at blocking opportunistic ransomware attacks in general, RansomWhere? does not provide perfect protection, nor does it claim to have a 100 percent detection rate.

First of all, RansomWhere?'s blocking mechanism will only kick in after a ransomware program has encrypted a few files. Their number should be in the single digits, though.

"RansomWhere? was designed to generically stop OS X ransomware," Wardle said in a blog post. "However
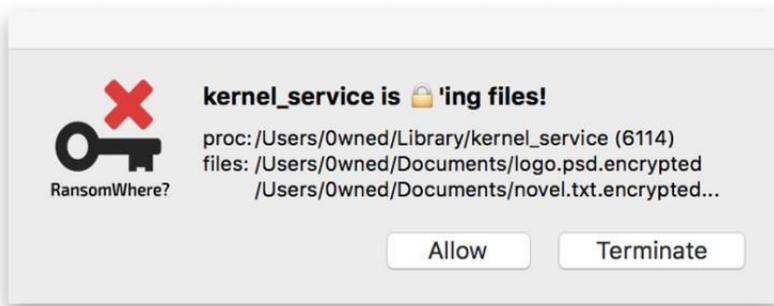
several design choices were con-sciously made—to facilitate reliability, simplicity, and speed—that may impact its protection capabilities. First, it is important to understand that the protections afforded by any security tool, if specifically targeted, can be bypassed. That is to say, if a new piece of OS X ransomware was designed to specifically bypass RansomWhere? it would likely succeed."

Until recently, ransomware cre-ators have almost exclusively tar-geted Windows computers, but that has started to change. There are already ransomware variants that infect Linux-based Web servers, and researchers have created proof-of-concept ransomware programs for OS X to show the platform can be affected.

In February, malware researchers spotted a new ransomware program being sold on cybercriminal forums that had versions for both Windows and Mac OS. Then in March, Mac users were hit by KeRanger (go.macworld.com/keranger), the first ever OS X ransomware found in the wild.

As the competition among ran-somware creators intensifies, many of them will likely branch out to other platforms in search of new victims. Mac users are certainly an attractive target. ∎
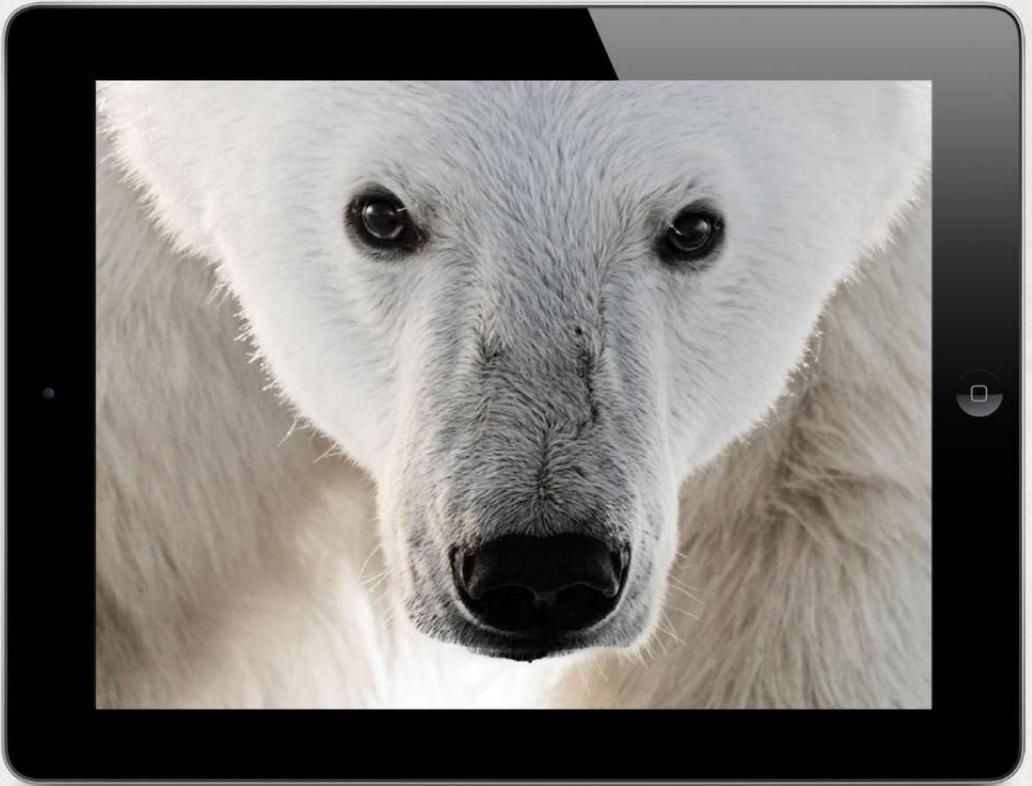
THE CLOSER WE GET, THE MORE WE SEE

Experience the world's most amazing animals in one app. **WWF TOGETHER** — the new free app from World Wildlife Fund. Download it today.

worldwildlife.org/together

Apple should give customers free iCloud space to match their devices

The newly refreshed MacBook has fixed storage that tops out at 512GB. Some Mac laptops even start at 128GB! That just isn't enough, and we think the answer is in the cloud.

BY SUSIE OCHS

The new MacBooks (go.macworld.com/rosegoldmac book) announced in April aren't very upgradeable: You can bump up the processor in either model to a 1.3GHz Intel Core m7 for a $150 upcharge, and they both come with 8GB of RAM. But you can't upgrade the storage. The $1,299 model has 256GB, and that's all it will ever have. The $1,599 model has 512GB, and that's as high as it goes.

I love portable Macs, but I also have a lot of files, and managing them on my 256GB MacBook Air is a chore. The biggest offender is my local Dropbox folder, which I use to back up my iPhone's Camera Roll, but I also can't keep a big iTunes library on this machine, or even local iTunes back-ups of all of my iPhones and iPads. I've got two USB drives mounted whenever I'm at my desk: one for Time Machine, and one for just off-loading device backups and big files.

My data-juggling act would get a lot easier with a terabyte of storage, but that's hard to find in a Mac laptop. The 13-inch MacBook Pro with Retina display only offers a storage upgrade for the most-expensive $1,799 model, which comes with 512GB of storage off the shelf but can go to 1TB for $500 more. (It's worth mentioning that the entry-level 13-inch MacBook Pro only offers 128GB of storage for $1,299, the same price as the 12-inch MacBook with 256GB.)

Both models of 15-inch MacBook Pro with Retina display offer storage upgrades. The $1,999 model that comes with 256GB of storage can go to 512GB for $300 more or 1TB for $500 more. And a $500 1TB upgrade is also available for the $2,499 model. That means that Apple will sell you three Mac-Book Pro configs with 1TB of storage, starting at $2,299 for a 13-inch model, and $2,499 to $2,999 for the 15-inch model. None of those are in my price range—and like the 12-inch MacBook, the Mac-Book Air has no terabyte option at all. But maybe there's another way to get the storage I need.

MY DATA-JUGGLING ACT WOULD GET A LOT EASIER WITH A TERABYTE OF STORAGE, BUT THAT'S HARD TO FIND IN A MAC LAPTOP.

iCLOUD TO THE RESCUE?

In the fall of 2014 (go.macworld.com/ fall2014pricecuts), Apple cut the prices on iCloud storage (go.mac world.com/icloudstoragepricing) to fall more in line with competitors like

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Amazon and Google. But the best thing Apple could do is recognize that we're already paying a lot to play in its garden, and throw in free iCloud storage that matches the capacities of our Macs, iPads, and iPhones.

It wouldn't have to be forever. Just start me off with a year or two and I'd probably keep paying for it when the time ran out. Apple made headlines (go.macworld.com/devicelifecycle) recently for updating its environmental FAQ (apple.com/environment/answers) with estimates of the typical "years of use" life span of its devices: The company "assumes" Macs and Apple TVs will be used for four years, and iPads, iPhones, and Apple Watches for three. Even rounding that down to two years for each new device would be sufficient, and Apple could even exclude the Apple Watch and Apple TV from the deal, since those don't need associated iCloud storage nearly as much.

Yes, that would be a lot of free storage given away. People only pay for iCloud storage to use with their Apple devices, so if new Apple devices suddenly came with free iCloud storage…then who would pay for iCloud storage? Well, some people (maybe people with 16GB iPhones; go.macworld.com/16gbnotworthit) might use the free storage to back up the whole device, and then buy a little more to keep their photos

> **More iCloud Storage Needed**
>
> This iPhone is storing 3.34 GB of photos and videos. You currently have 1.74 GB of iCloud storage available. If you run out of storage, this iPhone will not back up to iCloud and photos, videos, documents and data will no longer update.
>
> **Upgrade Options**
>
> **Cancel**

and videos flowing to iCloud Photo Library without having to sync the iPhone to a Mac to offload photos that way. To facilitate this, Apple could make it easier to manage what files are kept where—say, by providing an "iCloud Locker" that only lived in the cloud and didn't sync to your devices. That way you could offload files to the cloud, freeing up space on your devices but still having those files accessible on demand.

The Services portion of Apple's business is growing (go.macworld.com/apples2016q2), but it comprises a lot more than just iCloud storage fees. If millions of customers suddenly got more iCloud storage for free, it's possible some other services would see an increase in revenue that would offset some of the lost opportunity. For example, you might

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buy more apps or content to fill up your device, since you know that even when it's stuffed to the gills you'll be able to back up the whole thing to iCloud. Since the free iCloud storage would be cumulative, customers have more incentive to go all-in with the iPhone, Mac, and iPad, and the more Apple devices you own, the more likely you are to buy apps, purchase content from iTunes, subscribe to Apple Music, enroll in AppleCare+, and so on.

This certainly isn't a brand-new idea (go.macworld.com/smarteri-cloud), but consider me firmly on the bandwagon. Apple has tons of money, so giving away free iCloud storage when people buy a Mac, an iPad, or an iPhone probably wouldn't send the company to the poor house. It would, however, suddenly make a 256GB laptop or a 16GB iPhone or iPad seem a lot more valuable. ■
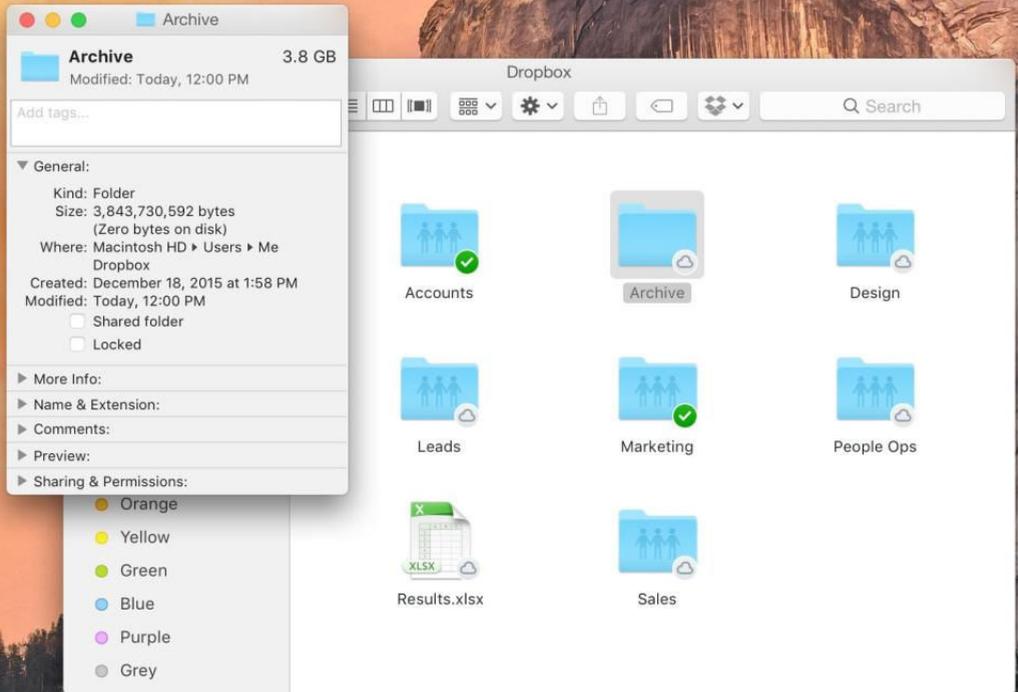
Dropbox wants to stretch desktop file storage to infinity

A new demo shows the company's vision of files that show up on your computer but don't take up space.

BY BLAIR HANLEY FRANK

Dropbox has a futuristic vision for how its users will be able to share massive files and have quick access to them on their computers, without their hard drives overflowing.

The cloud storage company recently announced a new initiative at its Open conference in London called Project Infinite. It's a push to create a new Dropbox interface that allows users to see all of the files they've stored in the cloud in their computer's file explorer without requiring them to keep local copies of each document, image, spreadsheet, or other file.

With Project Infinite, users will be able to manage their files in the cloud by moving them around inside the Mac OS X Finder or Windows File Explorer, just like they would any local files that are taking up space on their hard drives.

Right now, Dropbox users who want to see the items they have stored in the company's cloud among all their other files need to have those files downloaded to their Mac or PC—just like they did when Dropbox launched its product to the public seven and a half years ago.

Users can save storage space on their computers with a selective sync feature that only downloads some files, but the data people leave out can't be seen on their computers at all.

Project Infinite would take Dropbox's basic concept of creating folders that sync to the cloud and make it easier to work with an epic volume of files. It's part of the company's emphasis on helping users share files between one another, specially business users who pay for one of the company's premium tiers.

There's still a lot the company hasn't said about the new initiative. Dropbox won't say when it plans to include Project Infinite in the publicly available version of its desktop applications, or even which customers it will be available to when it does launch. (It's entirely possible that the company's millions of free users will be left out in the cold.)

Still, it's a cool tech demo that could help convince more businesses to choose Dropbox when they're considering a paid cloud

storage service. The company is pushing hard for commercial adoption and announced that it has more than four times the commercial customers now in Europe than it did two years ago.

The company also announced a new File Properties API that will allow people to apply custom metadata to files stored in Dropbox for use with third-party tools. That should help better enable applications like digital loss prevention services and data migration services. ■

I was one of the **1** in **5** children in America who **STRUGGLE WITH HUNGER**. join me and help put an End to childhood hunger.

Viola Davis

HUNGER IS ALL OF US

HELP UNDO CHILDHOOD HUNGER. GO TO HUNGERIS.ORG

Reviews

The Latest Mac Products Reviewed & Rated

MAC GEMS ARE APPS THAT OFFER STANDOUT UTILITY OR UNIQUE FEATURES AT A GREAT PRICE.

OS X UTILITY

TEXTEXPANDER 6: A SNIPPETS SUBSCRIPTION SERVICE THAT'S PRICED TOO HIGH

BY GLENN FLEISHMAN

THE TEXTEXPANDER UTILITY (textexpander.com) saves keystrokes by letting you type a short sequence that's replaced by a longer one. That's the heart of the app, which has expanded (sorry) its repertoire of replacement types over time to include form letters with fill-in and drop-down elements, a library of emoji, and a host of placeholders for date, time, the contents of the clipboard, and other elements.

TEXTEXPANDER 6

PRICE WHEN RATED
$5 per month for LifeHacker plan; $10 per month for Team plan

COMPANY
Smile Software

Snippet Groups

TITLE	ORGANIZATION		
🌐 Emoji			👤✕
👤 Glenn Standards		👤+	🗑
🌐 Internet Productivity			👤✕
👤 Suggested Snippets			🗑
🏢 Themag	Unsolicited Punditry	👤+	👤✕

ADD GROUP
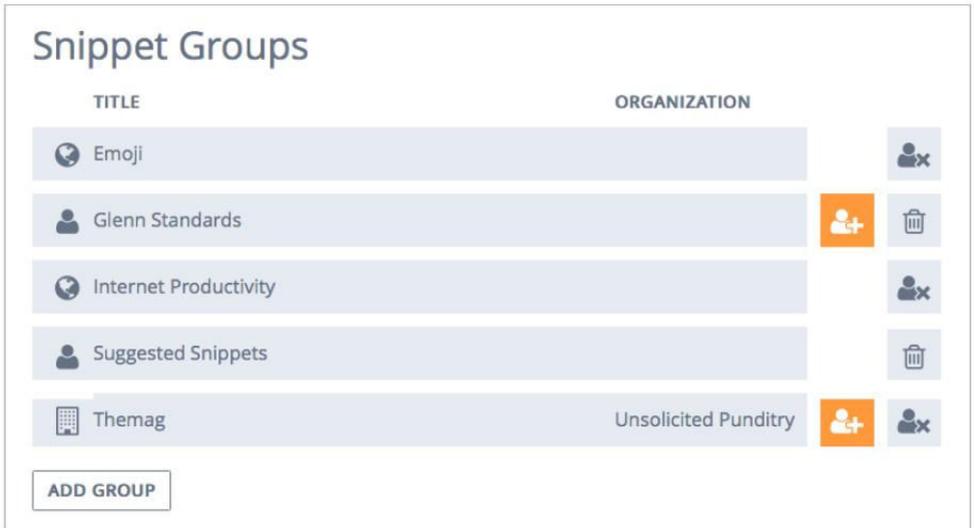
The previous updates for OS X and iOS are less than a year old; we reviewed version 5 (go.macworld.com/textexpander5) of TextExpander for OS X last June, and our high opinion of the core software remains unchanged.

However, the reason for this new review is a significant change in how its maker, Smile, prices its new version, which is coupled with mandatory cloud-based synchronization through its own servers, as well as options to share continuously updated snippets for individual users and groups.

With the new ecosystem, the TextExpander apps for OS X and iOS (and a beta for Windows 7 and later) cost nothing but work only when there's an active monthly or yearly subscription. Further, the company's website becomes a required hub for all users, whether they sync and share or not.

For details about core features in TextExpander, consult our version 5 review. In this review, I'll point out changes in the snippet editor, but will be focused on the ecosystem of apps: First, how it all works; next, security decisions and trade-offs; and finally, how existing users should approach the new arrangement.

But I can start with the conclusion: This first iteration is overpriced for

THE WEB APP manages sharing snippets, which are organized by type and use icons to identify additional characteristics, like globally shared.

most users' needs, and removing the ability to use TextExpander on a stand-alone basis with a less efficient personal sync doesn't give existing customers any advantage. Smile says it plans to add additional features and sophistication, which may ultimately make it worth the price to some users in the future, including those upgrading from the previous stand-alone releases. But we review the software and service in front of us, not a future version we can't test.

MOVING TO CLOUD CITY

The new set of TextExpander apps revolve around and connect to Smile's servers. You're required to set up an account and it has to be in good standing—currently paid for and active—to use snippets on any copy of the app you have, as well as to access sharing features on the website. If you're logged out or the subscription lapses, snippets disappear. (They can be exported from the OS X version to retain copies.)

WHEN YOUR SUBSCRIPTION is inactive, TextExpander empties all the snippets.

The new app versions comprise TextExpander 6 for OS X, TextExpander 4 for iOS, and TextExpander 1 for Windows (in beta). There's no purchase cost for the apps. The two subscription levels are labeled Life Hacker (for consumers) at $5 billed monthly or $47.50 per year and Team (for businesses) at $10 billed monthly or $95.50 pear year. Smile offers a 30-day trial for both flavors of its service. (Owners of previous releases receive a lifetime discount on the Life Hacker tier's yearly rate.)

Both tiers allow something previously unavailable in TextExpander: publishing snippets to others that push out updates whenever the source snippet is changed. Previously, TextExpander required exporting a snippet group (a folder that collects items), sending that or loading it on a shared local or cloud server, and importing it in another copy of the app. (That option remains available.) Further, anyone with permissions to edit a shared snippet can make changes, and those revisions are in turn

pushed to everyone that's part of the shared group.

The Life Hacker flavor lets subscribers share with any other user by email address. The Team version adds administrator-level features for showing group members, managing permissions, automatically pushing groups of snippets to people joining an organization or already part of it, and consolidated billing.

This new ecosystem adds a slightly awkward web app to the mix. When logged into an account at Textexpander.com, you have the same access to groups of snippets and individual entries, and can even edit and add snippets using all the tools available in the native apps. (The website is also the only way to edit snippets with the current Windows beta, which lacks a front-end interface, and can only expand snippets defined elsewhere.)

Some snippet groups can't be shared, and the iconography isn't crystal clear. If you see an icon with a single person that also has an orange plus-sign icon to its right, you can add other users. The Suggested Snippets group, however, can't be shared, but has the single-person icon. Groups identified with a globe are set to "worldwide" by Smile, such as for emoji.

Clicking the plus sign lets you enter email addresses, but not (yet at least) select people with whom you've already shared other snippets. There's no global or local address book, which reduces utility, though ensures more privacy. You can set

permissions for whether newly added people have admin privileges, can edit, or further share the group, or change the permissions at any time as an admin for anyone with whom you're currently sharing.

A REFRESH SNIPPET editor is the same in web, iOS, and OS X apps, and is a nice bump up in being explicable to new and veteran users alike.

Teams have more controls, with admins being able to assign snippet groups that are automatically added to new or existing users' accounts. Team-shared snippets can be shared with guests outside the team, but a snippet group created for a team or moved under team management can't be converted back to a regular group via the web interface. Instead, you have to export it and import it back in, then delete the team version.

Syncing and sharing are the same thing in this new ecosystem, and in my testing, it worked equally well on my devices with the same account and among devices logged in to different accounts that were sharing snippet groups.

The one significant change in the apps, by the way, involves both improvement and omission. A redesigned snippet editor has drop-down menus with all the special features, like inserting time-based placehold-ers, system keys, fill-in items, and the rest. This is a far superior interface for both new and experienced users. The editor is identical across the Mac, iOS, and web apps.

However, there's also a step back. TextExpander for OS X used to have a split-pane view that provided a live preview as you assembled a snippet. This preview now requires a keystroke (Command-Return),

which produces a modal dialog that has to be dismissed. In the iOS app, tapping a forward arrow brings up a preview and tapping a back arrow takes one back. The web app lacks a preview entirely.

And there's an odd and unfortunate omission in this first outing related to sharing. You can't manage shared snippet groups via the native apps. Sharing, adding people, managing permissions, and other tasks can only be done via the web app. While I expect that will be remedied in future releases of the apps, it makes it feel as if the ecosystem was released too soon.

The Windows client is still in beta testing, and didn't work well for me on an up-to-date Windows 10 laptop; I couldn't get it to expand with the latest beta release and restarting the laptop. It's also "headless," as noted, and has no snippet-editing or preferences interface.

THE iOS APP (shown), web app, and OS X app show the same organization by how snippet groups are shared and owned. But sharing is managed exclusively at the Web site.

HIDDEN IN PLAIN SIGHT

Previously, Smile hadn't stored any snippet information on servers under its control. Any syncing involved required a third-party service, and snippets were as vulnerable to disclosure as the policies and protections offered by those other firms, like Dropbox and Apple (for iCloud).

Now, central storage of snippets is mandatory. The new ecosystem stores everything on Smile's servers, uses the web app as a view into storage and administration, and treats apps as synchronized end points. This invites more scrutiny of Smile's security and encryption. The company's cofounder, Greg Scown, answered a number of questions via email that weren't on the firm's website as I wrote this, but the company plans to provide more detail.

Smile fundamentally maintains (go.macworld.com/textexpandersecurity) that its users shouldn't put anything that's generally useful to another party if it were stolen, such as social security numbers and passwords. That's impossible to enforce, of course, and snippets used inside a company—even the full set of responses a company uses for

SoftGozar.com

customer service—could reveal sensitive information alone or when viewed as a set.

All the apps and the website use the most recent secure version of TLS (version 1.2) for encrypted sessions, such as over https. However, the apps and website don't use certificate pinning, in which the digital certificates used to validate identity are restricted to be accepted only if issued by a small number of outside parties. Pinning prevents subverting operating systems through malware that can install root certificates that would produce valid-looking documents that a pinned app would reject, but a nonpinned one would accept. It's seen by security experts as a best practice for iOS apps by Apple and for apps in general.

Scown says Smile stores snippets at rest in unencrypted form on database servers operated by Compose.io, an IBM company. The company evaluated using solutions in which data is always encrypted except during the moments items are needed for syncing or updating, and found the other security elements—such as how passwords were restricted—were lacking in its evaluation.

There's a difference between unencrypted and insecure, and it's not de facto unsafe that Smile has made this choice. An attacker has to defeat multiple lines of defense to obtain the raw data—like two-factor authentication—and the raw data in snippets isn't likely to be as valuable (and thus it's much less likely to be a target) as, say, information stored by a password-syncing company like AgileBits or LastPass. Data encrypted "at rest" is yet another bar an attacker has to pass, but it's not insuperable, either.

However, I believe Smile's approach is naive given the current secu-rity climate. Other firms operating sync, backup, and hosting services that have native and web clients can let subscribers create a private passphrase that's used for a per-account encryption key so that data is
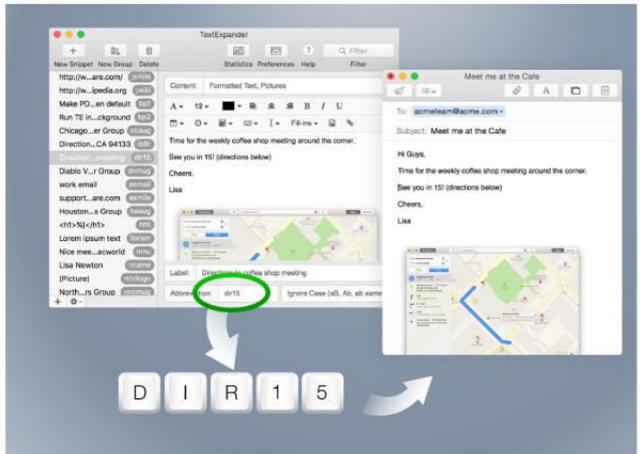
always encrypted in storage. These systems can support various methods to allow shared access to the same resource, as well.

This may seem like overkill and it adds a support burden to Smile (a lost passphrase means snippets would be unavailable unless backed up locally), but with their subscription cost, this seems like a reasonable baseline for which to ask. There are many approaches, and Smile chose none of them.

A REDESIGNED SNIPPET EDITOR HAS DROP-DOWN MENUS WITH ALL THE SPECIAL FEATURES, LIKE INSERTING TIME-BASED PLACEHOLDERS, SYSTEM KEYS, FILL-IN ITEMS, AND THE REST.

One more issue: the terms of service (textexpander.com/terms) for TextExpander states explicitly, "The Service is not intended for use by users employed by any federal, state or local government." This is likely intended to reduce liability, but it strikes another sour security note.

A CHOICE TO UPGRADE FOR EXISTING USERS

Those who own recent copies of TextExpander may be faced with a quandary. To ease the transition, Smile is offering registered users 50 percent off monthly subscriptions for the first 12 months (about $2 a month), as well as a lifetime 50-percent discount off a yearly Life Hacker subscription, making it $20 a year.

However, many users may not be interested in the sharing feature; I can't find a reason for it in my workflow. It's my fundamental question as I review this revision: How many current users have been dying to share automatically updated snippets? The new system may be highly attractive to new subscribers, especially in business, but if you have no desire to move to this mode, you don't have to.

The previous releases continue to work in iOS and OS X, and Smile will continue to offer them for sale under the old pricing ($45 for the OS X version and $5 for the iOS one). Smile also changed its original plan to just maintain compatibility for the older versions to continuing development on them. In a statement on April 12, Smile said it will continue to bring some new features to the previous versions as well.

If you want to try out the new version, you can't have both TextExpander 5 and 6 running at the same time, although you can have both installed and named distinctly, and run one or the other. Installing the new version 4 in iOS doesn't remove the previous version 3 release, and

as alternative keyboards, you can switch among them.

Smile says TextExpander 6 won't create backward-incompatible snippets, so you can make new snippets in the new version and then export and use them with the older one if you don't choose to continue with a subscription.

You don't have to make a decision right away. I believe most current users will probably stick with the previous versions.

A LOW VALUE IN THE CURRENT PRICE

As a dedicated user of TextExpander for many years, I continue to find a high degree of utility in it, even more so as it's matured. However, it's impossible for me to wholeheartedly recommend TextExpander's new approach to either existing or new users.

For existing users, there's not enough advantage unless you fall in what I think is a relatively narrow band of people who need more than sync and want individual or team sharing. If you're one of them, this is the ecosystem for you.

For new users, the cost is simply too high for the current utility offered. While I trust that Smile will continue to expand and develop its product, the subscription price is not far below Slack's paid tiers, and Slack is a vastly more complicated and sophisticated communication system. The business price isn't far below entry-level customer relation-ship management (CRM) software that includes form-based responses that are fully integrated with incoming and outgoing email.

A future version of the TextExpander ecosystem may fulfill Smile's goals in making this business-model switch, but the current version falls short for the price demanded. ∎

ANKER USB-C DOCK: THE RIGHT COMBO OF PORTS, BUT A USB POWER PROBLEM FOR DRIVES

BY GLENN FLEISHMAN

NO 12-INCH MacBook is an island; every portable of this line requires some kind of main connection. That's at least a USB-C power adapter supplied by Apple, but more options have started to appear in the form of mini-hubs and full-fledged ones. I've been particularly waiting for affordable, portable alternatives to Apple's $80 Digital AV Multiport Adapter (go.macworld.com/digitalavmultiport). The $60 Anker Premium USB-C Hub (go.macworld.com/ankersuperspeedspec) with HDMI and Power Delivery fits the bill

ANKER USB-C DOCK

♦♦♦

PRICE WHEN RATED
$60

COMPANY
Anker

nicely with more ports, better flexibility, and a lower price.

The Anker hub has built-in pass-through power over USB-C, HDMI support up to the 4K resolution supported by a 12-inch MacBook (via DisplayPort 1.2/HDMI 1.4b), and two USB 3.0 Type-A ports. With a longer cord than Apple's similar adapter, a brushed aluminum styling, and a better placement of ports, the Anker is my top choice for a portable hub to support an external monitor. (If you're also, or instead, looking to use external drives routinely, pay special attention to the end of this review.)

These compact hubs have full-fledged computers in them to handle all this conversion, but their job should be to not get in the way of data transfer. In testing, the Anker hub did just fine. With an external USB 3.0 drive (a bus-powered WD My Passport Ultra HDD 2TB), I got 90 MBps read and write rates through the hub's USB 3.0 Type-A ports, just

COURTESY OF ANKER

as fast as using Apple's USB-C to Type-A adapter for a more direct connection. HDMI output worked as expected as well, providing a solid, stable signal.

One odd note, however: I wasn't able to get the MacBook to recognize drives plugged into the Type-A ports initially; I had to reboot the Mac, at which point I had no further problems. That makes it seem like more of an OS X oddity than related to the dock, which requires no hardware drivers to work correctly.

The Anker measures 4.7 x 1.6 x 0.4 inches, and I particularly like that the USB-C port for pass-through power is at the end of the longest dimension. Coupled with a 6-inch integral cord to plug into your Mac-Book, this gives you a lot more flexibility in placement. It's just 2.4 ounces, making it a slight addition to your satchel or travel bag.

Anker is admirably frank about the hub's limitations, but, oddly, these limitations do not appear on its site nor in the product's manual, but rather on the linked Amazon page (amazon.com/dp/B01AT27SKS) for the product. (Anker sells and ships its products via Amazon fulfillment.) These disclosures are far more extensive than any I've seen from other pass-through power docks. For instance, the dongles for wireless keyboards that use 2.4GHz unlicensed spectrum (whether Bluetooth, Wi-Fi, or

proprietary) might not work, and Apple's SuperDrive can't be used.

The webpage also notes that Western Digital drives may not be supported and, sure enough, I saw some instability with keeping my model mounted, although I was able to run extensive suites of speed tests without a hitch as the only USB drive connected. If you own portable WD drives and prefer them, this would be a reason to not opt for the Anker dock.

The page notes the maximum total current available for USB via the Type-A ports is 1500 milliamperes (mA) while the USB-C power adapter is connected to the hub, and 900mA without. This should be fine with most powered USB devices besides hard drives. The included manual only cites the 900mA limit without the connector, but provides a list of amperage draw by device type, which strangely excludes smartphones and tablets.

This was troubling, so I tested in a variety of ways. I plugged in an iPhone 6s, which can draw anywhere from 500mA to nearly 2000mA (2A). With the iPhone attached, I had troubles copying large files with both the WD drive and a USB 3.0 flash drive from SanDisk. The drives spontaneously unmounted and remounted, which supports a power issue. With the iPhone unplugged, this problem went away.

I didn't read similar warnings nor did I have similar problems with the Satechi USB-C dock I tested recently, but it doesn't include HDMI support, and there may be trade-offs in terms of power and circuitry, no matter what's connected.

BOTTOM LINE

I can't recommend the Anker as wholeheartedly as I'd like, because drive unmounting can result in lost data or drive issues, as well as being frustrating and a hassle. If you plan to attach unpowered drives routinely to a dock, this isn't the right solution except in limited cases, potentially with just a single, non–Western Digital drive attached at a time. ∎

OS X UTILITY

FANTASTICAL 2.2 FOR OS X: MORE MATURITY AND INTEGRATION WITH EXCHANGE

BY GLENN FLEISHMAN

AS APPLE'S CALENDAR apps for iOS and Mac OS X moved across recent releases from inconsistent, inadequate, and irritating to more or less just fine, the market for replacements grew and matured. Fantastical for iOS (flexibits.com/fantastical), now in its second release, filled a gap there by not just presenting a clean list and having strong support for different calendar systems, but also offering natural-language processing. Type in a semblance of an event, and Fantastical would parse it and place it for you without fuss.

Fantastical's makers, Flexibits, brought a kind of snippet of Fantastical to OS X in its 1.0 release: a drop-down day view closely reminiscent of the iOS version. Its 2.0 release in March 2015 was a full-fledged replacement for Apple's Calendar and a strong competitor to similar products. The 1.0 view turned into the Mini-Window, an optional system menu-bar pop-down that gives a capsule view. A 2.1 update later in the year answered many of our concerns in the initial release, but the just-released 2.2 update takes it much, much farther, making it a serious contender in Exchange-based offices.

The guiding philosophy for Fantastical 2 is that it's a calendar app that focuses on upcoming events in a list view, keeping that view active no matter whether you're looking at a graphical layout of day, week, month, or year. I live in the week view, and the combination of the upcoming list and a glance at the current week tends to work well together.

FANTASTICAL 2.2

$\bullet\bullet\bullet\bullet\frac{1}{2}$

PRICE WHEN RATED
$50

COMPANY
Flexibits

The 2.1 and then 2.2 releases improved and extended ideas sketched out in the initial release, which prompted updated reviews for both versions. In 2.1, Fantastical interleaved reminders that have a date or date and time set in the graphical calendar view. While this can be disabled, it allows a more seamless flow of untimed reminders, appointments, and to-do items that would seem to better fit how many people approach deadlines and completion.

With 2.2, Fantastical is a much more full-fledged part of the process of finding mutually agreeable times for meetings or events with other people, from seeing attendee availability to sending invitations to responding to invites. The user interface continues to deepen, with this release adding multi-event drag-and-drop, enhanced time-zone support for simultaneous display, and (finally) printing! The last was a notable omission that many readers clamored for.

TYPE IN SOMETHING that's very nearly a descriptive sentence and Fantastical 2 parses out the event information.

Fantastical can pick up existing accounts and calendars set in the Accounts system preferences pain, or stored locally or via Exchange, as well as let you manually add other iCloud, Google, Yahoo, and Fruux accounts, or any CalDAV-compatible calendar link. This 2.2 release has full, native Exchange support as well, allowing direct access for invitations, people's availability status and lookup, and other features.

SPEAK FREELY

Flexibits has always stressed its natural-language aspect, and it works as well or better in OS X than in iOS. (I've used the iOS version for years.) You can typically type a narrative sentence like, **Meet Laci at 10:15 a.m. at 123 Every Street, New York, NY for two hours on Sunday and set an alarm an hour before**, press return, and you're done. The date is set by default to the current one selected in the calendar view; the address added to the location field; the end point figured out; and the alarm turned on.

This lets you include the kitchen sink when you make an appointment instead of needing to tap buttons and flip levers later, though

those options are available to modify as you want. You can also add entries in the drag-and-release model on the calendar layout, but even then Fantastical takes your mouse movements and fills in the parameters related to them and moves the text-entry focus to its fill-in field.

The supported vocabulary is quite large, though it's easy to stump it. For instance, entering, **`eat bitter greens every night at 8 pm`** works just fine, but **`eat bitter greens at 8 p.m. nightly forever`** does not. Flexibits says it will be responsive to feedback and expand the vocabulary based on user requests. Starting in version 2.2, the app recognizes partial matches for place names, such as retail establishments, which reduces a step when you want an address attached.

Reminders have more limited parameters, and you can preface your to-do sentence with **`reminder`** or **`remind me to`** or the like. If in the process of creating a reminder or event, you can click a switch to flip to the other kind of entry. Version 2.2 also adds the ability to drag and drop the preview shown on the calendar based on your natural-language entry, which is a nice bit of additional flexibility.

As with most mature software, Fantastical rewards you for experimenting or becoming a more sophisticated user. While it appears at first glance that you have to choose a calendar from the pop-up entry rather than type it in, Flexibits hit the shortcut of using a slash followed by the unique part of a calendar name and the appropriate one appears in the calendar field for the entry in progress. If you
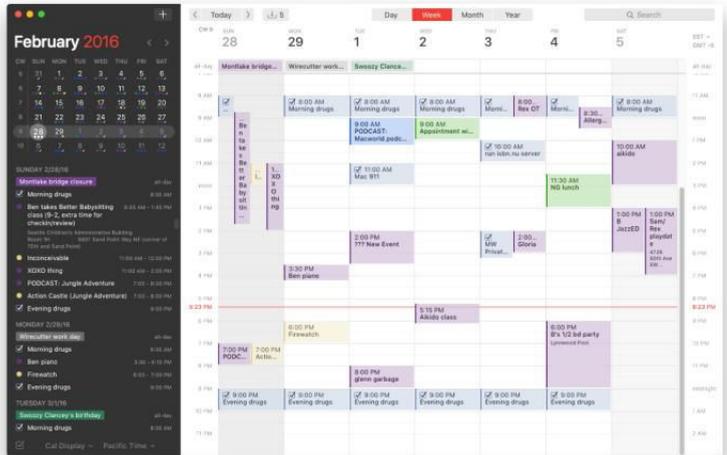
FANTASTICAL ORIENTS ITSELF around its event list view.

AS WITH MOST MATURE SOFTWARE, FANTASTICAL REWARDS YOU FOR EXPERIMENTING OR BECOMING A MORE SOPHISTICATED USER.

36

have calendars named Soccer, Office, and Shared Family, you only need to enter **/So**, **/0**, and **/Sh** to match uniquely.

Or you might notice that days and times are entered in a literal format when you drag-and-drop, and thus enter the current date in full, like **3/25/15**, to create an all-day event.

VERSION 2.2 RECOGNIZES potential locations and offers autocomplete suggestions.

WORK THE MOUSE AND KEYBOARD

An app that grew from an iOS sensibility definitely believes in minimizing the number of "touches" with a mouse as well. This generally works to its advantage. For instance, in the year view—often a somewhat wasted view in other calendar programs that provides too much information and too little functionality—Fantastical uses shading to indicate the intensity of a day from yellow (least) to red (most). Hovering over a day for a moment reveals a floating summary; clicking a day scrolls the list at left to that day's activities.

Clicking an event in the list sidebar or in the Mini-Calendar list or double-clicking an event in the weekly or monthly view brings up an editable pop-over with the same options found when you initially create an event. This also appears when selecting an event in the day view, although in a separate right-hand pane.

In its drive to keep its approach clutter-free, options besides the basics are hidden while creating or when editing an event or reminder.

AN APP THAT GREW FROM AN iOS SENSIBILITY DEFINITELY BELIEVES IN MINIMIZING THE NUMBER OF 'TOUCHES' WITH A MOUSE AS WELL.

Tapping a down-arrow or pressing Command-E reveals items, such as invitees, URL, and notes, as well as the time zone and repeat function in the default area if they haven't already been set for an event. Given that I often need to enter notes, I wish there were an opt-in preference that allowed the drop-down options to open by default.

In version 2.0, navigating to a date on the graphical calendar layout and adding an event would end with a snap back to the current date. If

you needed to enter multiple events at that time or edit the details of what you just created, you had to navigate back. Fortunately, version 2.1 added a preference that lets you opt whether or not to stay put after creation. That update also

THE YEAR VIEW uses shading to indicate how busy a day is.

let you cut, copy, and paste events, allowing another method for interacting that fits in naturally. Version 2.2 extends this further: You can select multiple events to move and delete, handy when you're trying to reshape a week's worth of things at once.

For frequent travelers, Fantastical supports fixed and floating time zones for events: the former used for events occurring at a specific time in a given geographic area (an appointment or a flight) and the latter that should happen at the time of day (such as taking a medication) regardless of where you are. Enter a time zone in natural language or the word `float` or `floating` and Fantastical places it correctly.

Time zones are supported in reminders, but not floating times, and the time zone isn't shown for reminders, though it is set correctly; the problem is with how Apple handles reminders, not Flexibits, however.

The current time zone is derived from the system, but can be overridden in the Advanced preferences. I've found time-zone controls maddening in Apple and other apps; Fantastical has the best controls to set and events. It does lack a visual reminder in the list and datebook views that an appointment's time is non-local, which I feel is overdue for fixing.

Even better in version 2.2, for those who are working with people across multiple time zones or who travel frequently, is a second axis time-zone scale that you can enable.

YOU CAN ADD a second time zone axis on the right, set to any zone in the world you want.

In Advanced preferences, you can opt to show a second time zone, which appears in day and week views, using any zone you like. This doesn't affect when events are shown, but lets you glance from right to left to see the time in that zone. Very clever.
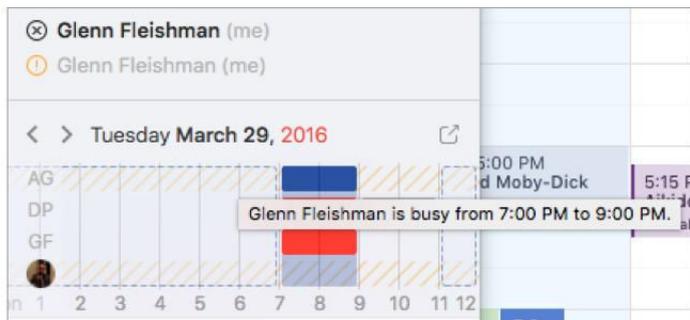
Flexibits uses Calendar Sets to manage which of your calendars appear. I've wound up with about 25 personal, family, hobby, and work calendars across seven accounts, and I typically don't need to see all of them. Rather than constantly display a list of all calendars, active or otherwise, Fantastical offers a Calendars preference to build sets which you can select in a pop-up menu at the bottom of the list view. It goes further, too, by using geofencing to choose which set should appear when arriving or leaving at a set location.

A NEW FEATURE in 2.2 lets you see availability of invitees if the calendar server offers support.

Version 2.1 added a right-click option to duplicate a set, making it easier to have a model version that you modify, instead of rebuilding your selections from scratch for each new set. I definitely miss the ability to toggle one calendar on and off, but I used that feature so infrequently that I prefer having the screen space back for useful information I refer to all the time.

RSVP

Fantastical worked with Google's calendaring system in previous releases of version 2, but 2.2 is the first that steps up to offer more robust support and for a broader array of systems and software for the whole process of finding attendees, checking their availability, inviting them, and managing responses. These improvements mean more people can take advantage of using the app as a hub for collecting people for an event without having to switch to other calendar software or web apps for some controls or options.

The biggest addition in version 2.2 is native support for Exchange. Previously, Exchange was handled slightly indirectly, giving the app

limited ability to interact with the server. Now, Flexibits says Fantastical lets its users respond to invitations, check someone's current "presence" status (whether they're free or busy), find people via an Exchange directory, and view categories. (I was unable to test these features as I'm not connected to any firms that use Exchange.)

A PRINTING OPTION new to version 2.2 has robust options for customizing and limiting.

More generally, Fantastical offers better interaction with iCloud, Google Apps, and regular Google accounts. While adding people to a Google Calendar event, Fantastical can suggest names from your Google contacts. iCloud notifications for shared calendars now appear. Google Hangout links work with Google Apps accounts, whereas before they worked only with regular Google accounts.

And, depending on the remote server's options, you can see when people are available to make appointments. Peering into availability is a feature long available in intranet software—I was using a package 25 years ago that offered this. It's nice to see it in a consumer-level product that can provide, in the right circumstances, enterprise-style interaction.

The latest version also lets you send event invitations and responses via Apple Mail or Airmail when a CalDAV server doesn't have the hooks to handle it directly within Fantastical. That's just another edge shaved down for people who have this server issue.

In the small-but-welcome department, holding down the Option key after showing the inbox for notifications and invitations now lets you click an OK All button, dismissing multiple messages in one go.

WATCHING THE DAYS DROP FROM THE WALL

Version 2.2 finally adds printing. That's *finally*, without irony, as many people still like to have a hard-copy version of a schedule that they can annotate, give to others, or pin up on a bulletin board. The first pass at printing is comprehensive, as if it had matured alongside other features in the last year.

You can choose among the four views (day, week, month, and year) and a list, pick time periods and the number of said time periods to print, and even select your calendar set within the print dialog—that last nuance is rather nice for a new feature. You can also toggle the sorts of events (all-day and timed) and legends (calendar week numbers, tiny inset months) and color.

A change introduced in the last version continues to be useful months later. By interleaving reminders into graphical calendar views, instead of making them a separate display kind of thing, reminders fit much better in my workflow. While timed or untimed events that can be marked as completed are distinctly different from appointments at a given time for a specified duration, it's incredibly useful to see reminders and appointments in one place.

SINCE VERSION 2.1, Fantastical displays simultaneous events more clearly if you reduce the type size.

Being able to disable that interleaving is nice as well, for those who prefer to keep reminders and appointments separate (go to Preferences ➔ Appearance, and uncheck Show Reminders In Day, Week, And Month). Reminders can have no priority or three levels— low, medium, and high—and be sorted by priority and due date, due date, or title. You can swap between viewing a list at the far left of events (including interleaved reminders) or just reminders, with Command-R or an icon click at lower left.

The previous update added an option to help with event overlaps—View ➔ Make Text Bigger/Smaller—which allows a good trade-off between size, overlap, and legibility.

Two rough spots remain. For a program that has a lot of synchronization options for calendars, it lacks one important one: you can't

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sync account information or other settings, like Calendar Sets, between multiple computers running Fantastical (I have two), or shared feature settings between iOS and OS X. This means setting up Fantastical from scratch on each device and, when a change occurs, managing it on each device as well. The company opted to not use iCloud for syncing, as it offers the software in the Mac App Store and directly as well, but there are many other sync options for these kinds of configuration details.

The other rough spot is price. At $50, it's a hard sell for any but the most dedicated Calendar haters or who have the right integration in a work environment that Fantastical can replace Microsoft, Apple, or other software. I don't dislike Calendar, so much as find myself stymied by it. Having Fantastical on my iPhone led me to expect it on my Macs, too, and I gladly paid the price.

BOTTOM LINE

Fantastical's overt simplicity and hidden depths may not be for everyone. But Flexibits made distinct choices based on years of developing its iOS version and previous OS X release. Making design choices instead of throwing everything into the mix produces both good software and sharp contrasts—it's less likely to be for everyone, but more likely to serve quite well those who find the choices appealing.

If you find Fantastical's event-list centric approach—in which upcoming events can intermingle with reminders but remain distinct—matches the way you want to manage your calendar, and the natural-language entry an appealing way to add events without feeling like you're adding events, it's the right program to pick. ∎

PHOTOSHOP ELEMENTS 14: WHEN YOU NEED MORE THAN WHAT APPLE PHOTOS HAS TO OFFER

BY LESA SNIDER

LAST FALL, ADOBE released a new version of its consumer-level photo-organizing and -editing application, Photoshop Elements 14 (adobe.com/products/photoshop-elements.html). A mature and uniquely user-friendly application, the latest version has a host of welcome improvements for beginners and advanced users alike.

For example, the Organizer has better facial recognition and it's easy to find images that you haven't yet organized with tags and events. The Editor sports an effects collection of 2,500 different looks; Guided edit mode has a new interface and two new tutorials for resizing images and simulating speed; plus the Enhance menu sports two new commands that fix both hazy and blurry photos. For beginners and hobbyist-level photographers, there's very little here not to love.

ELEMENTS ORGANIZER

Organizer 14, the database portion of the application, is the most usable version yet. Built upon the concept of People, Places, and Events, you can use it to organize pictures into tidy stacks based on

THE ENHANCE MENU sports two new commands that fix both hazy and blurry photos.

PHOTOSHOP ELEMENTS 14

♦♦♦♦

PRICE WHEN RATED
$100 upgrade $80
COMPANY
Adobe
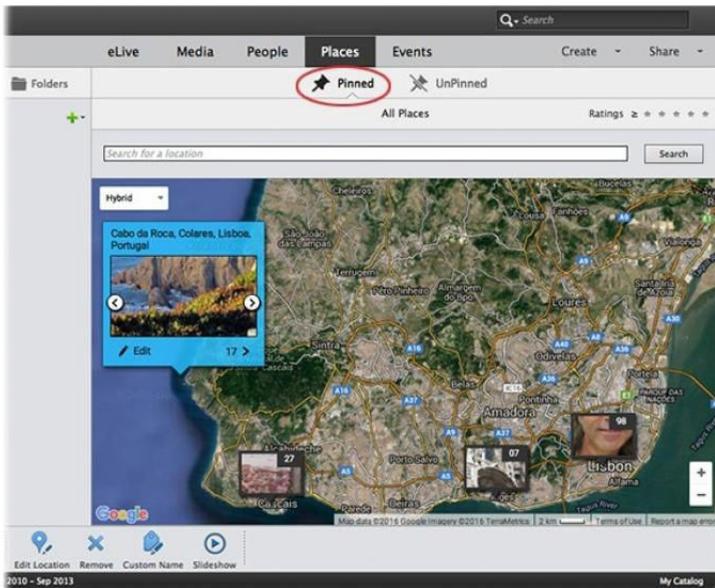
AS YOU ZOOM into the map, the pins split apart revealing additional image stacks. Click any stack to view it as a tiny slideshow.

who's in them (People), where they were taken (Places), or what the occasion was (Events).

Version 14 includes several improvements, such as noticeably quicker and more accurate facial recognition, and the ability to easily round up images that don't yet have people or place tags, making it easier for you to add them. For example, in People view, click Named to see image stacks that have facial tags and Unnamed to see those that don't. In Places view, your choices are Pinned or Unpinned, with Pinned images appearing as stacks atop a nice big map.

While it's easy to add locations to one or more images in Places view, the interface still feels very Windows-like in design: Once you click Add Location and enter some text in the resulting dialog box, you have to press the Return key to prod Google Maps into searching for matching results. Otherwise, you sit and stare at the dialog wondering why nothing is happening.

The Events view also got some organizational help and now has a Suggest button that groups related pictures together that you may want to use for a new event. Other Organizer improvements include a

scrubby view in People and Places: point your cursor to an image stack and wiggle your mouse to see glimpses of the individual pictures inside. In People view, pointing your mouse at a stack also reveals buttons that let you pick what you want to see: only the person's face or the entire photo (you can do this in Apple Photos, too).

ELEMENTS EDITOR

Additions to the Elements 14 Editor are even more impressive. New in the Effects panel of Quick edit mode is Smart Looks, which analyzes your image and reaches into a database of 2,500 effects to display the best five for that particular image.

Elements' unique Guided edit mode also received a visual makeover and now illustrates each tutorial with an interactive "before and after" slider so you more fully understand what you're getting into before you start clicking.

There are a couple of new Guided edits, too, including

SMART LOOKS ANALYZES your image to suggest five of 2,500 possible effects.
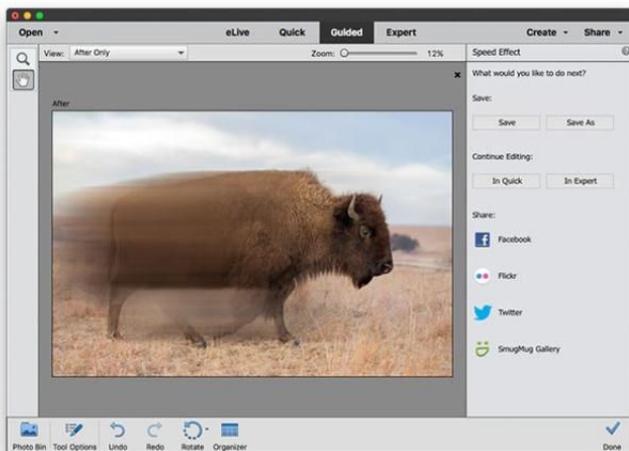
THE NEW FINAL panel in each Guided edit helps you decide what to do next.

one for resizing your photos for print or for the web, which is something that vexes some Photoshop CC users. Unfortunately, it doesn't give you a resolution warning if you pick a print size larger than your pixel count can support, although Elements' Print dialog box will. The other new

guided edit walks you through the otherwise complicated task of adding a motion blur to simulate speed.

Another nice addition to Guided mode is a panel that lets you decide what to do next: save the file, continue editing (if so, in which mode), or share your creation to Facebook, Flickr, Twitter, or the SmugMug Gallery.

As in previous releases, Elements 14 also snatched some powerful editing prowess from other Adobe applications. For example, thanks to Camera Raw and Lightroom, the Enhance menu in Quick and Expert modes has a Haze Removal command that analyzes your image and removes any atmospheric haze it finds. This command is also available with a dialog box, which has a couple of sliders that let you take haze removal into your own hands.

And thanks to Photoshop CC, Elements 14's new Shake Reduction command fixes blurry images caused by camera shake. The automatic version of this command analyzes your image from the center outward to find blurry areas from which it discerns a blur pattern—the direction in which your camera moved—and then corrects it.

Rounding out the changes in the Elements 14 Editor is the Refine

THE HAZE REMOVAL command does a great job removing haze, even if it's caused by a super volcano.

THE DIALOG BOX version of Shake Reduction lets you move and resize the area of analysis (marked by a dotted line), as well as add additional areas to be analyzed.

Selection tool, useful for creating tough selections that involve hair or fur. To be fair, this tool isn't new; it's a more discoverable version of the Refine Radius Tool tucked inside the Refine Edge dialog box. Lastly, the Camera Raw plug-in that comes with Elements now supports newer cameras.

BOTTOM LINE

For those eager to expand their skill set beyond Apple Photos, Photoshop Elements 14 is a great choice—it's the most user-friendly version yet and well worth the $100 price tag for a perpetual license—while you may find other image editors that cost less, they offer no organizational tools.

For those who own previous versions, it comes down to available cash. If you've got the money and you spend a fair amount of time in the application, you'll appreciate the Organizer improvements, plus the Remove Haze and Camera Shake commands can salvage otherwise unusable photos. ◼

Hot Stuff

GRIFFIN BREAKSAFE BREAKAWAY POWER CABLE

Do you have a new USB-C MacBook, or are planning on buying one? You need this breakaway power cable. USB-C may be a versatile connector, but it's not a breakaway connector, and it makes me miss the cleverness of Apple's MagSafe connector on its MacBook Air and MacBook Pro laptops. Fortunately, there's Griffin's $40 BreakSafe Breakaway Power Cable (griffintechnology. com). It brings breakaway power cable connectivity to the Mac-Book and it could save your laptop from a mishap—like the time my dog tried to jump over my legs and tripped on my power cable. **–ROMAN LOYOLA**

SUGR CUBE
WIRELESS SPEAKER

The $229 Cube by Sugr (sugrsugr.com) is billed as the world's first portable Wi-Fi speaker with Spotify. That may be the case, but I found the Cube to be much more than that. I found it to be a wireless speaker marrying form and function—one that doesn't need a smartphone or app to satisfy your musical cravings. The diminutive Cube strikes a, ahem, sweet spot. It's beautiful to look at, and its support for AirPlay, DLNA, and Spotify Connect streaming— in addition to its own storage—are worthy of your attention. Marry that with its unique tactile elements and you have a small, versatile speaker that will satisfy many. **—THEO NICOLAKIS**

Hot Stuff

POLAROID REMOTE-CONTROLLED PANORAMA EYEBALL HEAD

The $50 Polaroid Remote-Controlled Panorama Eyeball Head (polaroid.com) provides a pocket-sized, remote-controlled 360-degree view for your smartphone or GoPro camera that can be used with any tripod. It's a roughly three-inch black orb, and on the bottom you'll find a quarter-inch threaded hole compatible with standard tripod heads; a bronze ring crowns the device with a male screw onto which a compatible camera is attached. The device is solid and well-constructed, with a micro-USB port for recharging the sealed 450mAh battery in around eight hours; an indicator light on the internal circuit board turns red while charging, green when connected via Bluetooth, or blue when changing head direction. It works great for panoramic shots, so it's worth a try for shutterbugs.   **—J.R. BOOKWALTER**

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EVERY NEW ART FORM HAS ITS FIGHT FOR FREE SPEECH.

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V I D E O G A M E V O T E R S . O R G

Hands-on: iOS 9.3, CarPlay, and the Chevy Volt are firing on all cylinders

The 2016 Chevy Volt has the best CarPlay screen we've tried yet, and the new additions to Maps and Apple Music in iOS 9.3 are most welcome, even if a little overdue.

BY SUSIE OCHS

More new cars are shipping with CarPlay every year, including the Chevy Volt. GM loaned us one to try the new features Apple just added to CarPlay in iOS 9.3, namely the For You and New sections in Apple Music, and the ultra-handy Nearby feature in Maps.

In the video below, you can see both features in action, but what you can't see is how much more responsive the Chevy Volt's touchscreen is than the aftermarket CarPlay stereo from Pioneer (go.macworld.com/carplaypioneeravic) that I tested a year and a half ago. That one had a capacative touchscreen that just didn't register all of my touches, but the Volt's built-in touchscreen worked perfectly every time.

iOS 9.3 brought the New and For You sections to Apple Music in CarPlay, which is great if you aren't sure what you feel like listening to. I love how the New section has more than just albums, but I wish you could refresh For You to get more suggestions, like you can on the phone. In Maps, the Nearby feature is great for finding coffee, gas, restaurants, and

more—except sometimes it wants you to pull a U-turn and retrace your steps to a destination behind you, instead of finding you something in the direction you're already headed.

2016 CHEVY VOLT

The Volt's high-tech bells and whistles even had me wondering how the Apple Car would compare. For starters, the Volt is a plug-in hybrid, kind of the car version of Apple's Fusion Drive.

The Fusion Drive, you'll recall, combines a solid-state drive and a traditional hard drive into one volume, so you get both faster speeds and plenty of storage space. The OS handles all the heavy lifting of deciding what files and applications go on each drive, so it's all seamless to the end user. The Chevy Volt has both a rechargeable battery and a gas tank, and the dashboard prominently shows how much range you have left on your battery, and how much further you can go before you're out of gas. If you can keep the battery charged, you'll barely use any gas at all, but on days you need more range, the car seamlessly starts using gas when the battery runs out. It's automatic—you're just cruising. I know all-electric is all the rage, but this seemed to me like a very Apple way to do things.

I was also impressed with how many sensors the Volt has. It could tell if I left the keys inside, and beeped to warn me. (The "key" is really just a fob, and to start the car you just need to have the fob nearby and press a glowing blue button on the dash.) The headlights came on automatically when it got dark. A dashboard indicator showed if I was following the car in front of me too closely, and little lights blinked on each side-view mirror if a car in the next lane was riding in my blind spot.

> **IF YOU CAN KEEP THE BATTERY CHARGED, YOU'LL BARELY USE ANY GAS AT ALL, BUT ON DAYS YOU NEED MORE RANGE, THE CAR SEAMLESSLY STARTS USING GAS WHEN THE BATTERY RUNS OUT. IT'S AUTOMATIC—YOU'RE JUST CRUISING.**

Maybe if your car is newer than my 2006 Subaru wagon, these features won't sound so futuristic to you. But something about having a partially electric car talking to me with Siri's voice—complete with an iOS app (go. macworld.com/iosonstar) for locking, unlocking, diagnostics, and even remote startup—got me wondering how Apple might approach streamlining the typical car dashboard and overhauling the driving experience. And I guess I'm not the only one.

Have you taken the CarPlay plunge yet? Or are you just fine with connecting your iPhone to your car's plain old stereo over Bluetooth or USB? (At least you don't have to wait for new features to trickle down to CarPlay.) For much more detail on the Chevy Volt, check out my colleague Melissa Riofrio's excellent write-up (go.macworld.com/2016voltrev) for *PCWorld*. ∎

CHEVROLET DESIGNED the 2016 Volt to look and feel more mainstream.

How to install and use third-party keyboards on your iPhone or iPad

Are you still using iOS's built-in keyboard? It's easy to switch to a third-party keyboard that may better suit your needs. We'll show you how.

BY NICK MEDIATI

Released in fall 2014, iOS 8 brought with it a truckload of new features—one of which was the ability to swap out Apple's built-in keyboard with one of your choosing supplied by a third-party developer. After all, the stock keyboard isn't for everyone, and it has its fair share of shortcomings.

If you've never tried a new keyboard, now's a good time to explore your options, and making the switch is a fairly easy process. Here's how to go about it.

BEFORE WE BEGIN, A NOTE ABOUT PRIVACY

Since third-party keyboards can access anything you type in, there are some privacy risks inherent to using such a piece of software. As Apple notes in a privacy disclaimer nestled in the Settings app, third-party keyboards may be able to send anything you type to that company's servers. For example, a keyboard may need to communicate with a server in order to analyze what you type and offer up better autocorrect suggestions.

Fortunately, iOS has got your back. Keyboards don't receive this level of access—which Apple refers to as "full access"—by default: You have to explicitly allow keyboards to submit any data it collects to a server. Also, you can easily switch between and remove third-party keyboards as you please, so you can change your mind later.

●●●●● AT&T 4G · 2:55 PM · 51%

‹ Keyboards

Allow Full Access
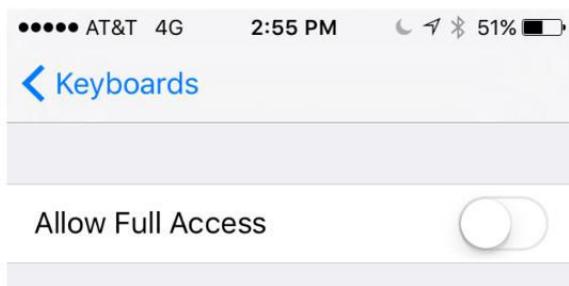
FINDING A KEYBOARD

iOS treats keyboards more or less as apps—you have to go through the App Store to purchase and download them.

You have a number of options at your disposal. Swype ($1; go.mac-world.com/swype) is one popular option—it allows you to swipe your finger over letters in order to form words instead of punching a word out letter by letter. (Want to type "cat"? Place your finger on the C, swipe up to A, over to T, then release your finger). SwiftKey Keyboard (free; go.macworld.com/swiftkeykb) is worth checking out as well.

Developers have come up with all sorts of unique and novel keyboards

THIRD-PARTY KEYBOARDS may need to communicate with a server in order for certain features to work. You'll need to explicitly grant such access to each keyboard you install.

that go beyond standard text input, though—see Oscar Raymundo's *16 delightful ios keyboards* (go.mac world.com/ioskeyboards) to get a taste of what awaits you. Also, check the Add Fun Keyboards page accessible through the App Store's Utilities section (open the App Store, tap Categories, then tap Utilities).

Once you find a keyboard you want to try, go ahead and download it like you would any other iOS app. (For the sake of this article, I'm using SwiftKey's keyboard.)

SETTING UP YOUR NEW KEYBOARD

Once you download and install your new keyboard, you'll have to tell iOS that you want to actually use it. To start, open the Settings app, tap General, then tap Keyboard. Tap Keyboards—it's the first item listed on the screen—then tap Add New Keyboard.

You'll find your new keyboard under the Third-Party Keyboards subheading, but before you proceed, you should tap About Third-Party Keyboards & Privacy to learn more about the aforementioned privacy implications of using a new key-board.

Now that you know what you're getting into, tap Done, and on the following screen, tap the name of the keyboard you just downloaded.

FROM FUN TO PRACTICAL, the App Store offers plenty of keyboards for you to try out.
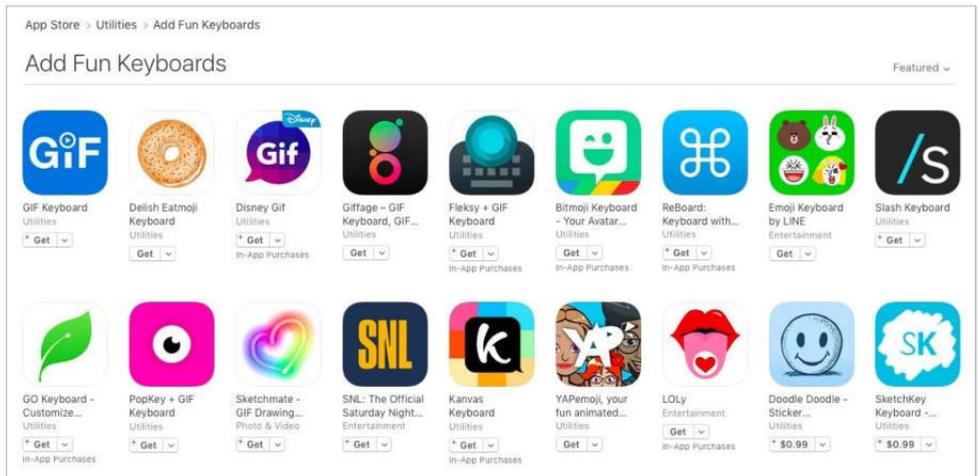
ONCE YOU INSTALL a new keyboard, activating it is just a few taps away in the Settings app.

THE KEYBOARD PICKER menu lets you quickly and easily switch between keyboards you have installed.

Just like that, your new keyboard will be added to the list of installed and active keyboards on your device. Tap your newly installed keyboard's name to get at more options, including the aforementioned Full Access mode.

At this point, you may want to hop into the keyboard app itself to see if there are any additional configuration options. For instance, if you use SwiftKey, you can sign in to or create a SwiftKey account in order to get

more features beyond the basic keyboard.

USING YOUR NEW KEYBOARD

Now that that's all out of the way, it's time to actually use your newly-installed keyboard. Open an app that accepts text input—like Notes—then bring up the keyboard. Tap and hold the Globe key until a keyboard picker menu pops up. Select the keyboard you just installed, then start typing. If you want to switch key-

boards, you can do so at any time—just repeat this process and pick the keyboard you want to use.

DEACTIVATING OR DELETING A KEYBOARD

If you want to remove a keyboard from the keyboard picker menu, head back to Settings ➔ General ➔ Keyboard, then tap Keyboards. Tap the Edit button, then tap the red minus sign (–) button. Tap Delete to confirm that you want to remove that keyboard from the keyboard picker.

Note that doing so doesn't actually delete the keyboard from your phone—you can always add it back to the list by tapping Add New Keyboard and then picking the keyboard you want to use.

You can remove the default keyboard from the list if you never want to see it again, and you can rearrange the order in which keyboards appear in the picker menu. Once you're finished, tap Done.

But what if you want to delete a third-party keyboard from your phone entirely? It's simple: Find the keyboard's icon on the home screen, then press it until the home screen icons start jiggling around (don't press down too hard if you own an iPhone 6s or 6s Plus, though—you might invoke the 3D Touch feature instead). Tap the X, confirm you want to delete the keyboard app, then press the Home button.

Do you have a favorite third-party keyboard? ■

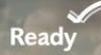**YOU CAN DISABLE** or re-enable any third-party keyboards you installed at any time.

Make sure you
know where to find
your family
in an emergency

Ad Council | Ready ✓ | FEMA

START YOUR PLAN AT READY.GOV

MOM

ALICE

ALEX

DAD

Grove St

Bellevu

coln Ave

SoftGozar.com
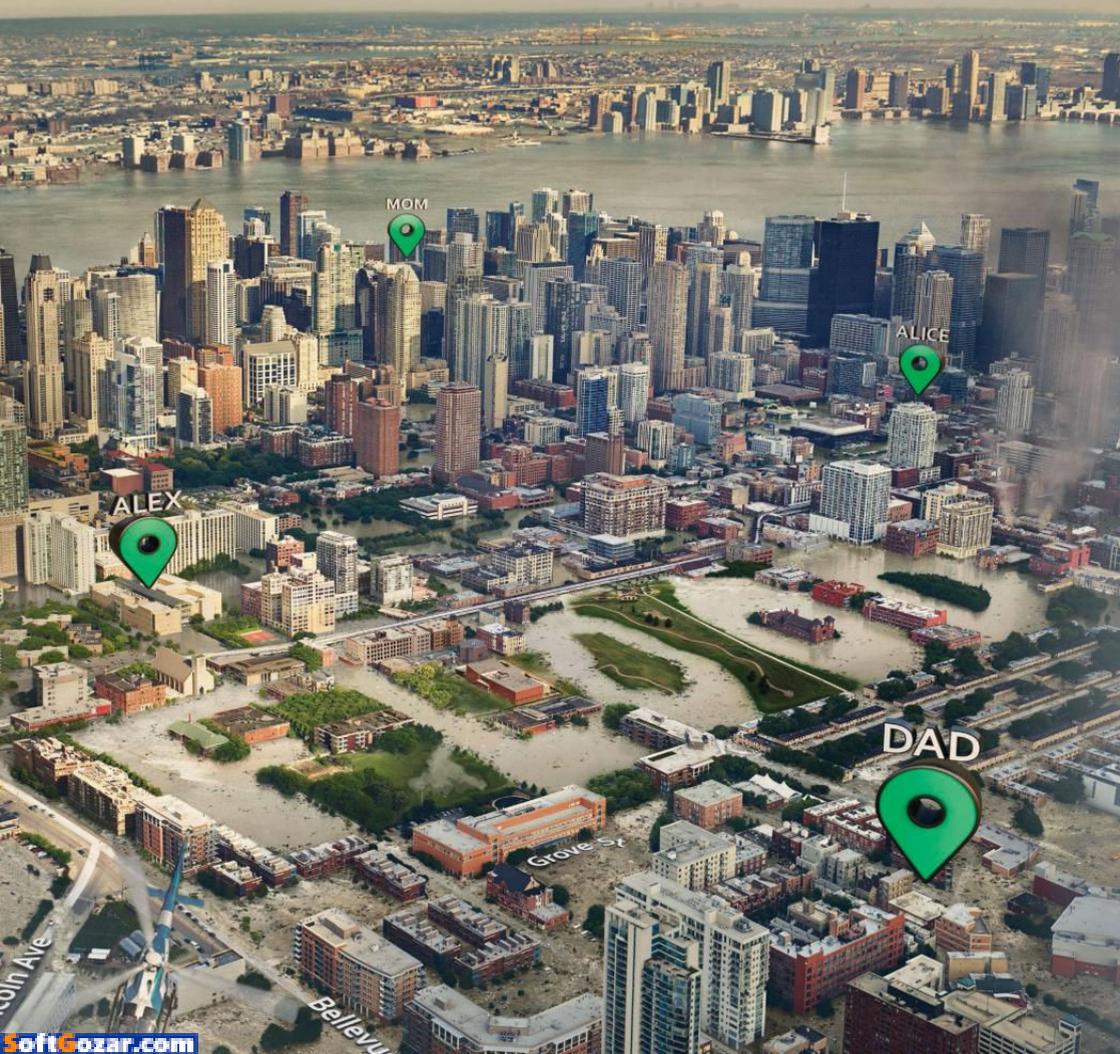
3 iPhone battery cases that might be right for you

Here's how Apple's Smart Battery Case stack up against two competitors.

BY OSCAR RAYMUNDO

We've all had this collective freakout: You need a get a hold of someone or find directions back home but then your iPhone dies.

Luckily, you don't have to go through that ever again as long as you have an external battery case for your iPhone. But which one is right for you? This time on *The iPhone Show* (go. macworld.com/iphoneshow), we test three of the latest iPhone battery cases: Apple's Smart Battery Case, Mophie's Juice Pack Reserve, and Kuke's Smart Case.

If you have an iPhone 6 or 6s, Apple makes a premium battery case for $99 (go.macworld.com/ applebatterycase). Apple's Smart Battery Case has enough juice to keep your iPhone charged for 18 hours of Internet use. And yes, you'll be able to get over the hump– especially when you realize that the hump actually makes it easier to slide your iPhone in and out.

For a more affordable option (or if you need a battery case for an older iPhone model), look to Mophie. The company's Juice Pack Reserve (go. macworld.com/juicepackres), for example, is $60 ($57 on Amazon; go. macworld.com/juicepackresama zon) and keeps your iPhone running for 16 hours. The one caveat is that it is not compatible with the Lightning connector, so you're going to need to bring a separate charger if you travel with it.

Then there's the Kuke case (go. macworld.com/kukecase). This smart case is actually thinner than Apple's case, but has a longer-lasting battery. Kuke has a 2400mAh battery pack, compared to Apple's 1877mAh and Mophie's 1840mAh. The best thing about the Kuke case, however, is that it also has an external memory pack, adding 16GB or 64GB (go.macworld. com/16gbnotworthit) of additional storage to your iPhone (definitely a life-saver if you own a 16GB iPhone). Plus, it has a Lightning port. The only drawback is that it was somewhat difficult to take the iPhone out of this case. It actually made me wish it had a hump. You can pre-order a Kuke case for iPhone 6s or 6s Plus starting at $69 for the 16GB version.

Watch the video to learn more about these three iPhone battery cases and find out which one's the right for you. ■

> **LUCKILY, YOU DON'T EVER HAVE TO GO THROUGH THAT EVER AGAIN AS LONG AS YOU HAVE AN EXTERNAL BATTERY CASE FOR YOUR iPHONE.**

Apple Watch's second year: Health apps will make it a must-have

Forget Hermès bands. Let's think bigger.

BY CAITLIN McGARRY

The Apple Watch started shipping about one year ago. I still wear mine almost daily—after breaking it and going through a lengthy and arduous repair process (go. macworld.com/shatteredawatch)—and find it incredibly useful. Is it essential for daily life? Of course not. Chances are you already own an iPhone, which has many of the same features. But you can't wear an iPhone on your wrist, and that's why the Apple Watch will become a key component in Apple's product lineup—even if it doesn't seem like it yet.

The Apple Watch (go.macworld.com/applewatchfaq) doesn't have a "killer app," critics say. Seeing notifications on your wrist is nice, and possibly less rude than checking your iPhone every time it vibrates, but is that really worth $300 (or more)? For many, probably not. That could be why Apple hasn't sold many watches compared to iPhones. The company doesn't break out Apple Watch sales in its quarterly earnings reports, but KGI analyst Ming-Chi Kuo pegged 2015 watch shipments at 10.6 million and estimates just 7.5 million watches will ship this year. Shipments don't equal sales, but Fluent, a customer acquisition company, recently surveyed 2,578 randomly selected Americans and found that just 197 of them, or 8 percent, owned an Apple Watch.

These data points are useful, though not exactly scientific. Fluent's sample size isn't very big, but the survey found that 56 percent of

Apple Watch owners use the device for health and fitness monitoring more than any other feature. This might seem obvious, because fitness bands are huge right now and Apple has highlighted the watch's activity-tracking features in ad campaigns.

THE APPLE WATCH'S "killer app" could be Health.

65

But the Apple Watch has the potential to do so much more than just nudge you to stand and count your steps. Once that potential is realized, the Apple Watch will be a must-buy.

WHAT IT CAN VS. WHAT IT COULD DO

The Apple Watch has a heart-rate sensor that measures your heart rate continuously when you start an exercise in the watch Workout app, or every 10 minutes otherwise. There are well-documented instances (go. macworld.com/awsaveslives) of the Apple Watch saving lives with its heart-rate data. The watch also prompts you to stand every hour, because according to the latest research, sitting all day will kill you. The rollout of watchOS 2 last September allowed third-party app developers to run natively on the watch, which means the exercise apps (go.macworld.com/awfitnessa-doption) you're already using on your phone can tap into the sensors on your watch. That's all great.

But the Apple Watch could do so much more. Imagine if the watch had skin-capacitive sensors that could detect cortisol levels in your sweat, or a sensor that could track blood flow (go.macworld.com/bloodflowsensors) beneath your skin. Over the last year, Apple has focused on personalizing the device with interchangeable

bands, including high-end options from Hermès (go. macworld.com/hermesbands). Those bands, which take up more of your wrist than the watch case itself, look great, but imagine if they were smart.

Apple recently filed a patent application (go.macworld.com/modularbandpatent) for smart watch bands with modular pieces. The patent covers a band that has multiple links, each with an electrical component. Those components could include an actuator, an electricity generator, a photovoltaic cell, a speedometer, GPS, a thermometer, a blood pressure sensor, a sweat sensor, a magnetic field sensor, a

THE APPLE WATCH band could one day be smart.

speaker, a force sensor, and more, according to Apple's filing on March 31. Can you imagine? I want all of those options right now.

Apple patents all kinds of technologies that have yet to make it into actual devices, but the application proves the company is considering the ways in which the watch could be the ultimate health device. The watch band, which has until now been positioned as a fashion accessory, could play a huge role in that effort.

HOW APPLE WATCH FITS WITH THE -KITS

The Apple Watch is also the perfect device to unite Apple's trio of health initiatives: HealthKit (go.macworld.com/healthkitios8), ResearchKit (go.macworld.com/researchkit), and CareKit (go.macworld.com/carekitintro). HealthKit puts all of the health data your iPhone and various third-party health apps collect into one centralized place, the iOS Health app. ResearchKit opened up your iPhone and Apple Watch to medical researchers, who can use the devices to study you (if you let them). And Apple's recently launched CareKit is still in early days—those apps haven't yet hit the App Store—but will soon allow doctors and hospitals to help you manage your health at home.

Those developer frameworks are tied to the iPhone, but there's no reason they can't make use of the Apple Watch. Some already do: The
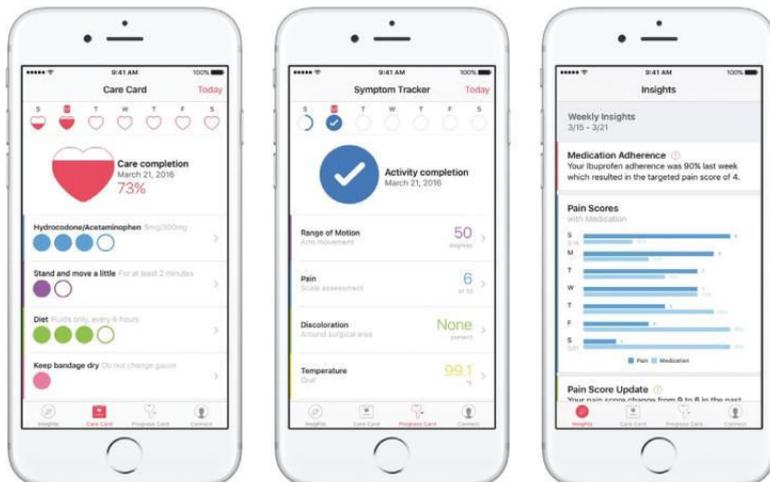
CAREKIT TURNS YOUR iPhone into a doctor. It could do the same for your watch.

67

EpiWatch app from Johns Hopkins (go.macworld.com/awepiwatch) researchers uses the watch's sensors to monitor epilepsy patients, while the American Sleep Apnea Association's SleepHealth app (go.macworld.com/sleephealthapp) analyzes your sleeping patterns from watch sensor data.

With access to the watch's heart rate sensor, accelerometer, and gyroscope, researchers, doctors, family members, and watch wearers can already see tons of data. If Apple puts more sensors into the watch or watch band, that opens up a world of information that's not just viewable, but actionable. if your watch strap has a blood pressure sensor that gives you readings on your wrist, it can warn you when readings are high or low enough to require medical intervention. That's just one possibility. The options are endless.

Millions of Americans avoid going to the doctor until they absolutely have to. The watch could be a preventative health device, nudging you to seek medical attention when your heart rate is irregular or when the cortisol levels in your sweat are abnormal. With CareKit apps, you'll be able to immediately share that data with a doctor. Health insurance companies and the employers who pay them will love this.

There are many, many steps for Apple to take between selling the Apple Watch of today and building the game-changing device I predict it could be in the future. Beyond just the technical feasibility of putting those advanced functionalities into the watch, Apple can't market it as a medical device without approval from regulators.

THINK DIFFERENT

Maybe I'm being overly optimistic about the Apple Watch's potential. Plenty of people seem satisfied with the watch as it is right now. The device has scored high in customer satisfaction surveys, including the latest one from Fluent. But Apple is nothing if not a company with big ideas and the attention to detail required to pull them off—not to mention the commitment to privacy necessary to keep medical data secure. I think it has grander ambitions for the watch.

For now, no one needs an Apple Watch. I use mine to send and receive texts, track my workouts, and tap *Macworld* Executive Editor Susie Ochs on the wrist when I think she's ignoring my Slack messages. Are those essential to my happiness? Of course not. But Apple could turn the watch into a must-have health device, not just a fashion-forward tech accessory. The company's "most personal device ever" could eventually help you live a better life. That will justify its existence. ■

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NETWORK UTILITY

SPEEDIFY: FASTER, MORE RELIABLE INTERNET FOR YOUR iOS DEVICES

BY J.R. BOOKWALTER

SERVICES OFFERING VIRTUAL PRIVATE NETWORKS (VPNs) have become a booming business, and with good reason. Corporations depend on them for the additional layer of security they provide, and world travelers benefit by being able to take many of their favorite streaming video subscriptions abroad with them.

But there's another use for VPN you might not be aware of, one that can make any available Internet connection faster and more reliable in

SPEEDIFY MOBILE (iOS)

AT A GLANCE

Speedify combines available cellular and Wi-Fi connections, seamlessly providing faster, more reliable Internet speeds from any iOS app.

PROS

- Faster, more reliable Internet connectivity for iOS devices
- Easy setup with 1GB free per month
- Customizable limits for cellular data connections
- VPN On Demand ensures persistent connectivity

CONS

- Subscription required for unlimited use
- Netflix does not allow VPN connections

PRICE

Free for 1GB of data per month; in-app purchases available

COMPANY

Speedify.com

just a few taps. If you're VPN-curious and looking to squeeze the most out of your mobile connectivity, it's as easy as downloading an app.

THE NAME'S BOND

Speedify (speedify.com/mobile; go.macworld.com/speedifyitunes) isn't a VPN in the traditional sense, but rather a free, universal iOS app used to bond available Wi-Fi and cellular connections. Rather than focus strictly on security, the service splits traffic between channels, making it possible to seamlessly switch between them as needed.

To get started, you'll need to sign up with an email address. Free accounts receive 1GB of data transfer per month, but can earn more through referrals. You can also purchase paid, mobile-only unlimited usage upgrades priced at $5 per month or $30 annually. (A desktop version is also available for $18 per month or $88 per year, which includes mobile access; however, only one session per account can be active at a time.)

The app is easy to set up: Grant permission to create a new VPN connection, then select the closest

SPEEDIFY OFFERS granular control over cellular data connections to avoid exceeding your carrier's monthly allotment.

available server. While active, a VPN icon appears at the top of your home screen next to the usual cellular and Wi-Fi options. Speedify runs in the background even when the app is closed, routing data through its own secure server before sending it through the open Internet.

While Speedify is open, a dashboard displays real-time graphs that measure usage, color-coded by the type of connection. In typical use,

Wi-Fi is used by default, but switches to cellular on occasion for quick speed boosts, or to assure a smooth, interruption-free handoff between connections.

SERVING SPEED

If you're one of the millions on a cellular plan that limits the amount of data available each month, Speedify can be configured with daily and monthly caps to prevent the service from consuming too much bandwidth. Should you exceed either limit, the app sends a push notification requesting an increase, but only with your approval.

There's an option to prevent Speedify from using cellular entirely, or treating such connections as a backup, used only when nothing else is available. The Connections screen provides feedback on how much data each adapter is using, which can be reset to start the meter running again; the Advanced screen reveals any latency and loss present in the current connection.

In average use, the speed bump provided by Speedify is modest at best, but I immediately noticed the difference when streaming video. Services like Amazon Video started instantly, although Netflix doesn't work at all now that the service actively blocks VPN connections. While earlier versions would drop the connec-
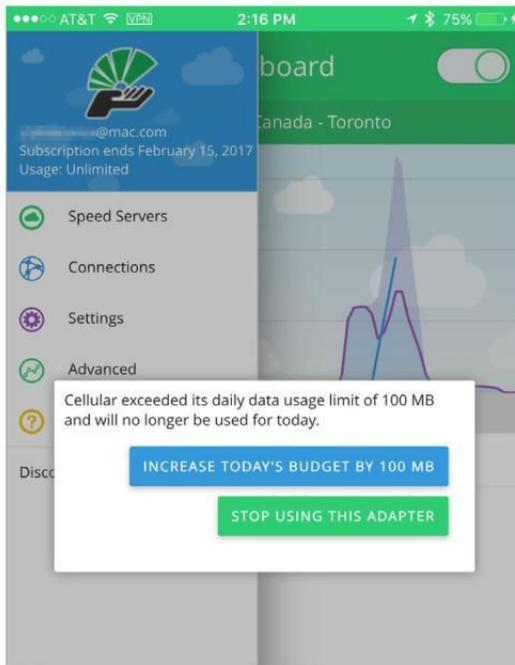
IF YOUR DAILY or monthly data limit is exceeded, Speedify will gently nudge you to increase it so you can keep going.

tion when the device was idle too long, version 3.4 introduces support for persistent connectivity.

Speedify did smooth out a bump in my home wireless network, which uses a pair of linked AirPort Extreme routers for wider coverage. There's a known dead zone in my hallway right between the two routers, but Speedify successfully filled this brief gap using cellular connectivity, allowing downloads or streaming video to continue without missing a beat.

BOTTOM LINE

Speedify makes the most of any available Internet connection, and it's easy to configure and use, but not necessarily the most reliable on iOS devices. ■
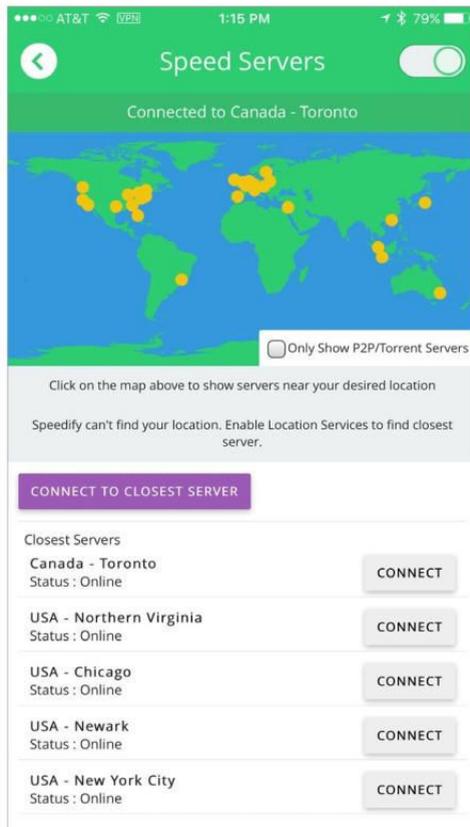
SPEEDIFY USERS CAN select the closest available VPN server, or manually select one from the provided list of choices.

STORAGE DEVICE

TRANSCEND JETDRIVE GO 300: CURE FOR THE 16GB iOS DEVICE BLUES

BY J.R. BOOKWALTER

WHY APPLE CONTINUES to sell iOS devices with a meager 16GB of storage is a question only executives in Cupertino know the answer to. If you're stuck with a low-capacity iPhone, iPad, or iPod touch, Transcend has a new accessory that offers some much-needed room to breathe.

DUAL CONNECTIVITY

Measuring 2.22 x 0.79 x 0.31 inches and weighing barely a quarter-ounce, the JetDrive Go 300 ($45 to $95 on go.macworld.com/tran-scendjetdriveamz) is a diminutive flash drive that works equally well with iOS devices, Macs or PCs. One end is an MFi-certified (Made For iDevice) Lightning connector, while the opposite end is a USB 3.1 Gen 1 Type A connector.

Sandwiched between the connectors in a metallic black or silver chassis are 32GB, 64GB, or 128GB of flash storage (my review unit was a 64GB silver one). It's super-lightweight and pocket-friendly, but

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TRANSCEND JETDRIVE GO 300

🏅🏅🏅½

AT A GLANCE

Available in 32GB, 64GB, and 128GB capacities, the Transcend JetDrive Go 300 is a flash drive for your iOS devices that also plays nice with Mac OS and Windows.

PROS

• Dual Lightning, USB 3.1 connectors

• One-touch Camera Roll backup with companion iOS app

• Option to disable backup of iCloud Photos

CONS

• No keychain hole, easy to lose or misplace

• Sharing extension can't save files from other apps

• Fixed internal storage

• JetDrive Go app only supports FAT32 format

PRICE

32GB, $45; 64GB, $65; 128GB, $95

COMPANY

Transcend Information
us.transcend-info.com

there's no hole to attach a keychain, nor are the end caps connected in any way, making the accessory easy to misplace.

Although the accessory offers dual connectors, they can't be used at the same time. Drawing power from the host device, the JetDrive Go 300 features internal, non-swappable flash storage formatted FAT32 for cross-platform compatibility with files up to 4GB in size. (Don't bother reformatting; the companion iOS app supports only FAT32.)
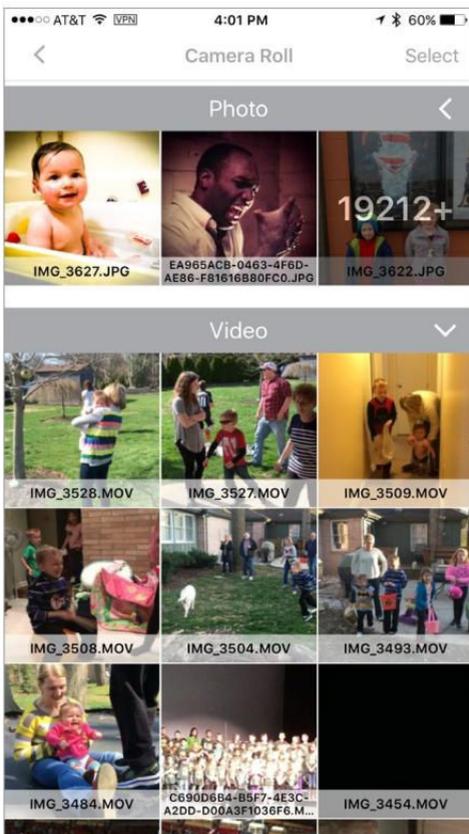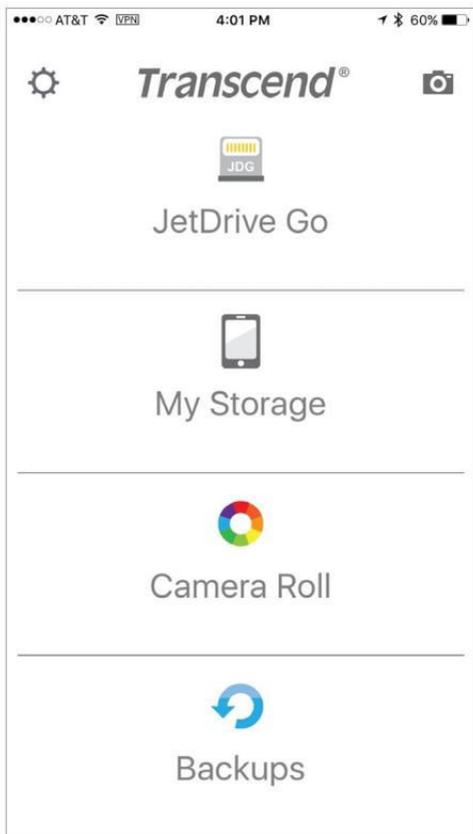
THE FREE JETDRIVE GO APP can access content stored on the flash drive, inside the app, or in your iOS device's Camera Roll.

THE JETDRIVE GO app allows for moving photos and videos back and forth between the iOS device and flash drive.

FLASH OF LIGHTNING

Using the USB connector, JetDrive Go 300 is capable of impressive transfer speeds up to 130MB per second. I was able to copy a 3.2GB file from my mid-2012 MacBook Pro with Retina Display in about two minutes flat, only 15 seconds longer than a traditional USB 3.0 thumb-drive, Transcend's JetFlash.

To use with Lightning-equipped iOS devices, you'll need to install the free JetDrive Go app (go.macworld.com/jetdrivegoapp), summoned whenever the accessory is plugged in. Transfers to or from iOS are capped at 20MB per second—an Apple hardware limitation—but that's plenty fast enough for transferring documents, music, photos, or MP4 video files, with a negligible impact on battery life.

With JetDrive Go, users can shoot photos and videos directly to the flash drive, or copy and move Camera Roll content back and forth. There's also one-tap backup for photos and/or videos, with the handy option to disable iCloud Photos and skip content that hasn't been downloaded in full resolution. Although JetDrive Go can share to other apps, there's currently no iOS extension support for saving directly to the flash drive.

BOTTOM LINE

You can't attach it to a keychain, but otherwise the Transcend JetDrive Go 300 is a versatile, affordable flash drive for storage-constrained iOS devices. ■

DESPITE THE JetDrive Go 300's dual connectors, only one can be used at any time.

What's new at the App Store

MELODY JAMS

Melody Jams (melodyjams.com) lets you mix-and-match monster characters to create your own songs. You choose sounds, mix melodies, and make all the music you want on the instrument of your choosing. Check out their video demonstration (vimeo.com/154951931).

Digit

Digit (digit.co) is a variation on the idea behind the popular Acorns app (acorns.com)—the idea in both cases is to help you nickel-and-dime your way to savings: "Every few days, Digit checks your spending habits and saves a few dollars from your checking account if you can afford it." Typically the amount will be between $2 and $17, and the service promises that it will never be more than you can afford.

Budge

Budge (go.macworld.com/budge) is a $1 app that lets you combine a shopping list and budget to create what it calls a (natch) "budgeted shopping list." The idea? Keep a running tally of how much you're spending as you load up the shopping cart, and make sure you don't accidentally exceed your spending limits.

ProtonMail

ProtonMail (protonmail.com) is for the security conscious—you can send and receive encrypted emails, and if you're really nervous about prying eyes, you can even program outgoing messages to self-destruct after a set period of time. The app is free; if you like it, you can donate to the developers, or purchase a premium account, which starts at $5 a month.

Screens VNC

The $20 Screens VNC (edovia.com/screens) has launched Version 4.0 of letting you look at your Mac desktop from your iOS device; the new version includes a "curtain mode" that lets you keep the desktop hidden even as you access it, as well as multitasking support and better 1Password integration. **–JOEL MATHIS**

Selfies without the stick

This month's roundup features the Flip It Nite, which packs a retractable arm that acts as a selfie stick, and Prynt which turns your iPhone into a photo printer. Plus, two waterproof cases, a battery-amplifier case and one that includes a micro dock.

BY EMANUELA CORSO AND MARCO TABINI

NEUMAGINE

The Flip It Nite (iPhone 6/6s; $50 MSRP; flipitcase.com) is a hard-shell case with a built-in kickstand. Available in black or white, the case sports a retractable steel telescopic arm that extends up to 25 meters for all of your selfie needs, and comes with a handy removable Bluetooth remote with which you can snap pictures at a distance.

NODUS

The elegant Shell Case (iPhone SE, 6/6s, and 6 Plus/6s Plus; $72.68 through Nodus, or $80 on Amazon; thenoduscollection.com) protects your iPhone in a simple leather-wrapped cover. The case includes a polycarbonate frame and a microfiber lining for added padding. It also features a magnetic docking system for hands-free use when mounted on the Micro Dock, which ships with the case.

PRYNT CASE

Available in white or black, the Prynt
Case (iPhone 6/6s; $150; prynt.co)
provides you with everything you need to
turn your iPhone into a portable photo
printer. The case sports an internal
battery to power the printer, and a hidden
compartment to store photo paper.
Together with its companion app for iOS,
the Prynt Case offers a full set of
photo-editing and post-production features
for instant prints—like a high-tech Polaroid.

DOG & BONE

The compact Wetsuit (iPhone SE; $59.95; dogandbonecases.com) is a
waterproof iPhone enclosure that prevents damage even under
harsh and demanding conditions. This case features a
perimeter membrane that creates a water-tight seal
around your iPhone's display, so that you can
freely access your screen without the need for
a protective cover. With this case, your
iPhone can be fully submerged in water up to
two meters deep, and it's certified to keep
your iPhone safe when dropped from a height
of up to six feet.

Selfies without the stick

PATCHWORKS

Manufactured with Saffiano leather, the fashionable Wallet (iPhone 6/6s; $79) sports a folio design with a zippered back pocket for your change or your cash. The case features a soft-to-the-touch, scratch-resistant finish, three interior credit card slots, and a gold cradle to secure your iPhone. The Wallet comes in baby pink, black, navy, pink, or red.

CATALYST

The just-announced Catalyst Case (iPhone SE; $70) offers full-on waterproof protection, with a transparent front and back that shows off your iPhone SE's design. Made with polycarbonate, this rugged case has been tested to withstand drops from up to six feet high, can be submerged in depths up to 16 feet, and is compatible with the iPhone's touchscreen through its thick screen protector. The Catalyst Case comes with a lanyard for hands-free carrying and is currently available for pre-order, with shipping expected to begin in May.
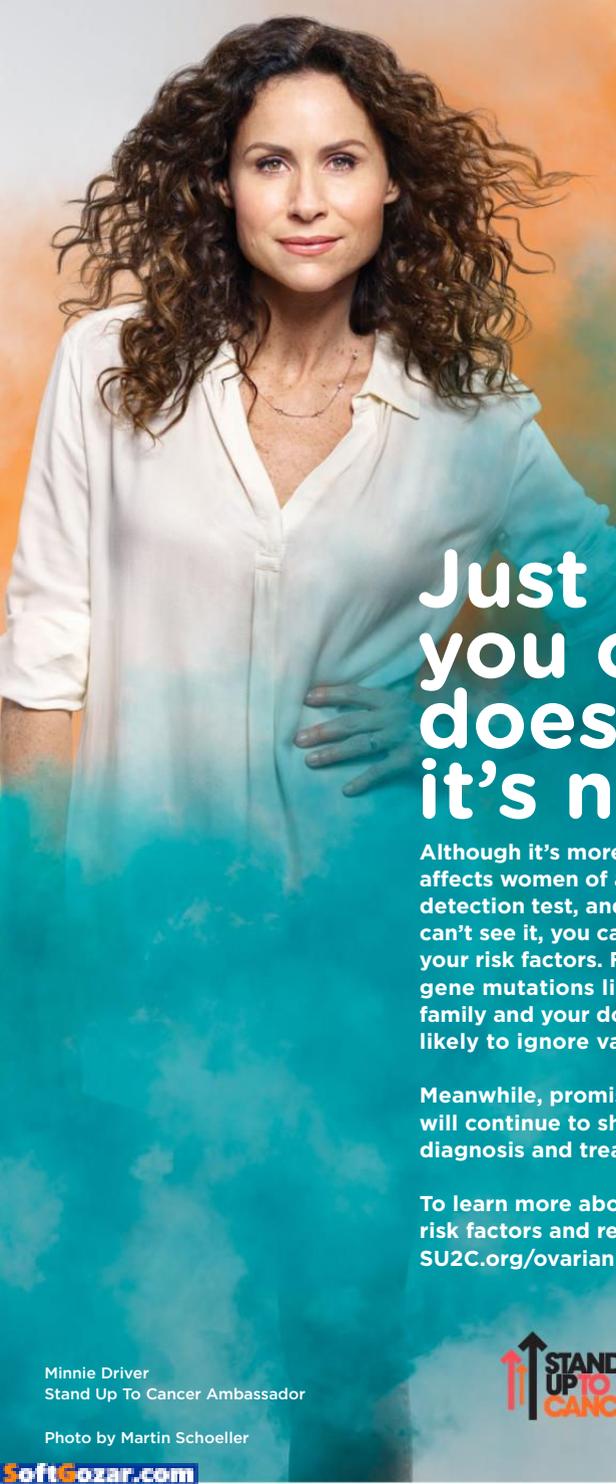
Just because you can't see it doesn't mean it's not there.

Although it's more common in older women, ovarian cancer affects women of all ages, even in their 20s. There is no early detection test, and symptoms can be subtle. But while you can't see it, you can take steps to get ahead of it by knowing your risk factors. Family history of cancer and presence of gene mutations like BRCA are risk factors, so talk to your family and your doctor. This information makes you less likely to ignore vague signs that could indicate disease.

Meanwhile, promising collaborative research will continue to shed light on new advances in diagnosis and treatment of ovarian cancer.

To learn more about symptoms, risk factors and research go to SU2C.org/ovarian

Minnie Driver
Stand Up To Cancer Ambassador

Photo by Martin Schoeller

STAND UP TO CANCER

Ovarian Cancer Research Fund Alliance

n.o.cc.
NATIONAL OVARIAN CANCER COALITION

Stand Up To Cancer is a program of the Entertainment Industry Foundation, a 501(c)(3) non-profit organization.

MACBOOK 2016 REVIEW:

ULTRA-PORTABLE LAPTOP SATISFIES WITH SPEED GAINS

IT'S NOT A DESKTOP MAC REPLACEMENT. THE MACBOOK IS IDEAL FOR ON-THE-GO USE. **BY ROMAN LOYOLA**

When it comes to hardware, Apple isn't afraid to force its users to adapt, to change habits. Longtime Mac users remember when Apple stopped including floppy and optical drives, or when FireWire was discontinued. More recently, Mac users have had to accept the inability to upgrade hard drives and RAM, or that the Magic Trackpad 2 is the preferred input device, with its support for gestures that can't be performed on a Magic Mouse 2.

The MacBook (go.macworld.com/macbook2016) is one of those game changers. When it was released last year, it was pretty obvious that Apple wanted to push its users in a certain direction, to a place where there are no wires, where you depend on the cloud, where you can carry a laptop effortlessly and never worry about the battery running out.

The push was more like a big shove. Apple's thinnest and lightest laptop has only one port for connecting devices, and it sports a processor that sacrifices performance. And Mac users pushed back, especially about the single port. It wasn't hard to find someone who wished that the MacBook was more like the MacBook Pro or that Apple would do something with the MacBook Air. (Apple did do something with the MacBook Air, the 13-inch model specifically. It now comes standard with 8GB of memory instead of 4GB.)

When Apple announced that it was updating the MacBook, Mac fans clicked on news links in anticipation. Will Apple add another port? Or maybe upgrade from USB-C to Thunderbolt 3? How 'bout an HD FaceTime camera instead of the 480p camera that was on last year's MacBook?

Nope, sorry. None of those features were added. But Apple did upgrade the processors and graphics. That's certainly nothing to scoff at. In fact, the MacBook closes the

THE 2016 MACBOOK is just as thin and light as its predecessor. All the changes in the new version are inside the aluminum case.

84

gaps between itself, the MacBook Pro, and the MacBook Air, so much so that for general use, the speed should satisfy most users.

The MacBook also has longer battery life. Apple's battery specification is now an hour longer than the previous MacBook; 10 hours for "wireless web" and 11 hours for "iTunes movie playback." Apple told me that the longer battery life is due to better battery chemistry. The size of the battery is the same as before.

And, oh yeah, the MacBook is available in Rose Gold now, in addition to Gold, Silver, and Space Gray.

You won't find those color options with the current MacBook Pro and MacBook Air, for what it's worth.

A BETTER PERFORMER

Everything on the outside of the MacBook is the same as before, so I won't dive into my thoughts on things like its size, weight, and construction; the 12-inch, 2304 x 1440 Retina display; the Force Trackpad; or the keyboard. For more details about these parts, see our review of the 2015 MacBook (go.macworld.com/usbcmacbook) by Jason Snell. His

APPLE DIDN'T CHANGE anything on the exterior of the newest edition of the MacBook. It has the same screen, keyboard, and trackpad found in the 2015 version.

PHOTOGRAPH BY ROMAN LOYOLA
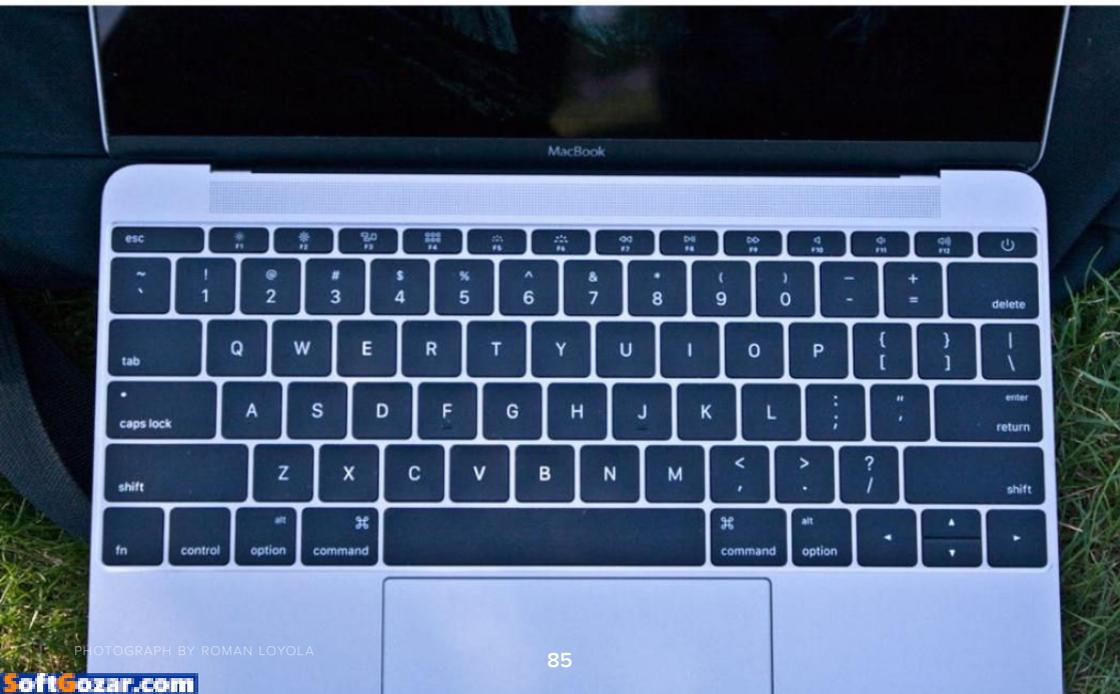
thoughts still hold up and jibe with my thoughts, though maybe I dislike the keyboard more.

The major changes are internal, so let's focus on those. The MacBook now has Intel Skylake processors, an upgrade from the Broadwell processors used when the MacBook was introduced last year. Apple uses the Core M version of Intel's processors in the MacBook, which are designed for mobile devices.

Apple offers two standard configurations: the $1,299 MacBook features a 1.1GHz dual-core Core m3 processor with Turbo Boost up to 2.2GHz, and the $1,599 MacBook has a 1.2GHz dual-core Core m5 processor with Turbo Boost up to 2.7GHz. (Both models have 4MB L3 cache and 8GB of 1866MHz LPDDR3 RAM.) For an additional fee, you can upgrade the processor to a 1.3GHz dual-core Core m7 processor with Turbo Boost up to 3.1GHz. (This review focuses on the $1,599 MacBook.)

64-BIT GEEKBENCH 3: 2015 VS. 2016 MACBOOKS

Longer bars/higher scores are better.

MacBook (2016)
1.2GHz dual-core
Core m5 (Skylake)
- 2927
- 5875

MacBook (2015)
1.3GHz dual-core
Core M (Broadwell)
- 2637
- 5276

MacBook (2015)
1.2GHz dual-core
Core M (Broadwell)
- 2437
- 5049

MacBook (2015)
1.1GHz dual-core
Core M (Broadwell)
- 2299
- 4489

■ Geekbench 3 Single-core (score) ■ Geekbench 3 Multi-core (score)
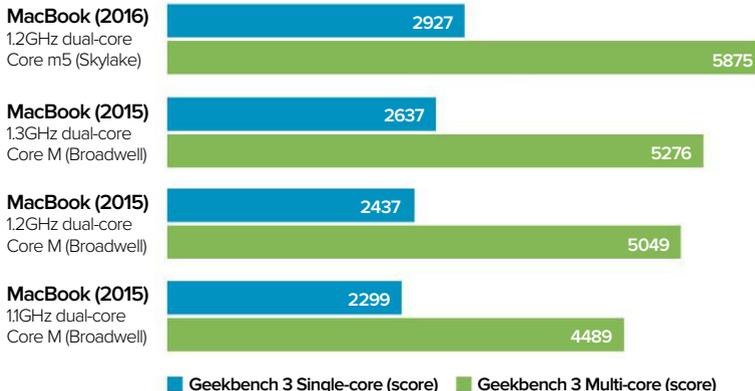
How much of a speed improvement does the 2016 MacBook offer on last year's version? Using Geekbench 3 (go.macworld.com/geekbench), the 1.2GHz Core m5 offers an increase ranging from 11 to 30 percent, depending on the older processor that it is being compared to. For example, in Geekbench's 64-bit multi-core test, the 1.2GHz Core m5 is 11 percent faster than the 1.3GHz dual-core Core M processor that was an upgrade option for the 2015 MacBook. Another example: In the same test, the 1.2GHz Core m5 is 30 percent faster than the 2015 MacBook's 1.1GHz Core M processor. Generally speaking, the speed increase isn't unusual; we've seen similar increases in past Mac laptop upgrades. Faster is always better.

64-BIT GEEKBENCH 3 RESULTS: 2016 AND 2015 MACBOOK

Now let's compare the performance to the MacBook Air. Last year's MacBook was about 9 percent slower than the current 1.6GHz MacBook Air (which was released in March of 2015 with a Broadwell processor). That speed difference threw a wrench into a shopper's decision making: Pay $1,199 for a faster 13-inch MacBook Air or spend $1,299 or $1,599 for a slower MacBook? (Sure, there are other differences to consider, like the display and ports, but I'm simplifying here for argument's sake.)

Fortunately, with the new MacBook, you feel like you're getting performance that better justifies the price difference. The 1.2GHz Core m5 MacBook is 12 percent faster than the 1.6GHz MacBook Air in Geekbench's single-core test; that's a nice boost compared to last year, where the 2015 MacBook was as fast or slower (depending on which processor you pick) than the MacBook Air. In Geekbench's multi-core test, the new MacBook was just 1 percent faster than the MacBook Air. But to put that in perspective, last year's MacBook was slower than the MacBook Air by a range of 9 to 20 percent.

For reference, I also compared the 1.2GHz Core m5 MacBook to the current 13-inch MacBook Pro models, which have Broadwell processors. Interestingly, the MacBook isn't far behind in Geekbench's single-core test. That means that for tasks like email, writing apps, spreadsheets, and basic websites, you may not notice a speed difference between the two different laptops. But as expected, the MacBook Pro blows past the MacBook in Geekbench's multi-core test. Translation: With apps that can use multiple processing cores, like profes-

VIDEO
To view this video, go to go. macworld.com/ 2016mbookvid

sional video, audio, or image editors, you're better off with a MacBook Pro.

One last platform comparison: How does the new MacBook stack up against the iPad Pro from a pure performance standpoint? You might be surprised. Both the 12.9-inch and 9.7-inch iPad Pro perform in line with the new MacBook. Just another thing to consider (or to make your decision more complicated).

PORT OF CONTENTION

Of course, there's more than performance to consider when picking a Mac laptop. As I mentioned earlier, much of what the MacBook offers hasn't changed from last year and was covered in our previous review. But the single USB-C port is a serious point of contention for shoppers, so I

feel I should address it.

Apple positions the MacBook as the laptop for the wireless world, with "wireless" meaning more than just your Internet connection. It also applies to external input devices (there's Bluetooth for that) and external storage (the cloud). (There is an audio-out jack on the opposite side of the MacBook, so you can still use wired headphones and speakers.) You shouldn't really need to use the USB-C port, except when you need to charge the laptop.

Why didn't Apple upgrade the port to Thunderbolt 3, which uses the same port type and is compatible with USB-C? When I posed this question to Apple, a representative said that Thunderbolt 3 has chip and thermal considerations that don't fit with the MacBook's fanless design. It's not as simple as slipping in a

THE MACBOOK'S USB-C port is for charging and connecting peripherals. If you want more ports, you either need to connect a USB-C hub, or consider a MacBook Air or MacBook Pro.

Thunderbolt subsystem in place of USB-C, so if Thunderbolt 3 ever does make it to the MacBook (if it's possible), it's going to take some re-engineering of the internals.

The MacBook's single USB-C port is a deal-breaker for some. You'll have to go with a MacBook Air or a MacBook Pro. But you really want the size and weight of the MacBook, you say? You could wait another year and see if Apple finally relents and adds another port. It's not unprecedented. The first MacBook Air in 2008 had only one USB port, and then Apple added a second USB port two years later.

Another option is to wait and see what Apple does with the MacBook Pro. Apple's Worldwide Developers Conference is in June, and the current MacBook Pro is a year old. Seems like the time is right for a MacBook Pro update between now and WWDC.

THE MACBOOK AIR IS APPLE'S AFFORDABLE LAPTOP, À LA THE MAC MINI.

The rumors say that Apple is working on "ultra-thin" 13- and 15-inch MacBooks, so if you're waiting for a MacBook Pro, you need to hold on for a few more weeks.

What about the MacBook Air? I think some people still think of the MacBook Air as the ultra-portable laptop; after all, that's how it was positioned when it was released. Longtime users even remember the previous MacBook line, which was positioned as the affordable laptop. But the MacBook is now the ultra-portable. The MacBook Air is Apple's affordable laptop, à la the Mac mini. And I wouldn't be surprised if it was treated like the Mac mini, with an update cycle that's much longer than other Macs.

THE iPAD PRO OPTION

Maybe one of the reasons why some don't understand the purpose of the MacBook is because the MacBook is being considered from a laptop user's point of view. But if you think about it from an iPad user's point of view, the MacBook starts to make more sense. iPad users are used to not having to connect devices to their tablet and relying on wireless connections, so having one port on a laptop isn't that big of a deal.

Now, I get that the notion of iPad-first may not seem practical, but I don't think it's unrealistic. Kids are using iPads in school, and people do use smartphones and tablets as a primary computing device.

If available ports are not an issue, then the iPad Pro could be an option

over the MacBook. The 12.9-inch iPad Pro weighs 1.57 pounds, and with a keyboard case, you approach 2 pounds. So when it comes to weight, there's not really an advantage. There is one with the smaller iPad Pro; even with a keyboard case, the 0.96-pound 9.7-inch iPad Pro will have a cumulative weight under 2 pounds, though you end up with a smaller screen.

64-BIT GEEKBENCH 3 RESULTS: 2016 MACBOOK AND iPAD PRO

In Geekbench testing, the iPad Pro doesn't disappoint against the MacBook. So what it comes down to is iOS versus OS X and the apps. Can you do what you need to do within iOS? That requires a close examination of the software you use and the tasks you perform.

BOTTOM LINE

For a lot of people, the MacBook is the ideal laptop. It's light. It's small. It's easy to carry. And it offers good performance for productivity software, though it can handle pro apps fine (you'll just have to wait a little longer for some tasks). The MacBook is meant to serve the user who is constantly on the go, and it serves its purpose well.

But if what you want is the MacBook Pro feature set in a MacBook body, then you'll need to either wait and see what Apple does in the near future or bite the bullet and buy a MacBook Pro. However, if you want more ports but you want them at an affordable price, then the MacBook Air is the laptop for you and you'll have to accept its compromises. ■

64-BIT GEEKBENCH 3: MACBOOK VS. iPAD PRO

Longer bars/higher scores are better.

MacBook (2016)
1.2GHz dual-core
Core m5 (Skylake)
- Single-core: 2927
- Multi-core: 5875

12.9" iPad Pro
A9X
- Single-core: 3216
- Multi-core: 5473

9.7" iPad Pro
A9X
- Single-core: 3030
- Multi-core: 5179

■ Geekbench 3 Single-core (score)   ■ Geekbench 3 Multi-core (score)
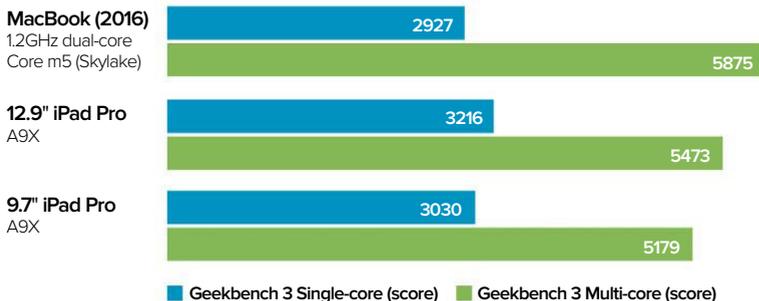
12 REASONS I STILL WEAR MY APPLE WATCH EVERY DAY

After 12 months and 1 day, my Apple Watch is still a constant companion, keeping me on time, on track, and more aware of the world around me. **By Susie Ochs**

ILLUSTRATION BY YUTA ONODA

t's been a year since I've had my Apple Watch. The things I complained about at the start (go.macworld.com/apple watchcomplaints) are still an issue, and they mostly boil down to the fact that even running native apps, this is the slowest Apple product I've used for a long time. Still, I've charged the battery almost every night, and worn the Apple Watch almost every day. I can't help it; I've come to rely on the little thing. It doesn't do anything my iPhone can't do, of course, but some of those little tasks are suited particularly well to my wrist, and the watch has wormed its way into my everyday routine so deeply that I'm genuinely sad on the rare days when I accidentally leave it plugged into its charger all day.

To prove my utter dependence on this handy little gadget, I humbly submit this list of the things I use my Apple Watch for, virtually every day that I'm wearing it. They're not big things, they're not "game changers," and whether or not they add up to the gadget's new starting price (go.macworld.com/applewatch299) of $299 (go.macworld.com/buyapplewatch) is up to you. I do agree with Apple that the watch is the company's most personal product, so everyone's reasons to own one—or not—will be likewise pretty personal. But personally, I'm glad I have it.

One year in, let me know what you think of your Apple Watch. Are you still wearing it? Did you sell it? (go.macworld.com/byewatch) If you skipped this one, are you intrigued enough to consider Apple Watch 2 (go.macworld.com/watch2rumors)? Or do you think this whole smartwatch thing is a fad? I'd love to hear from you. Email podcast@macworld.com and we'll feature some feedback in an upcoming podcast episode.

SOMETIMES, I TAP the Apple Watch. Sometimes, it taps me.

1. SETTING TIMERS AND ALARMS

Pizza reheats for about 5 minutes in the oven. My son gets iPad time in 15-minute increments. I need to leave here 10 minutes from now. "Hey Siri, set a timer for 10 minutes," I mutter into my watch. Yes, I could yelp "Hey Siri" at my iPhone and set a timer that way, but the timer buzzing right on my wrist is impossible to ignore.

I use alarms for things I need to do at the same time every day, or every weekday, or every week—watchOS can handle them all. Again, the iPhone does this just fine, but setting the alarms is quick with Siri, and I love having an alarm I'm wearing on my arm. Bonus: The Snooze and Dismiss buttons are crystal-clear on the Apple Watch, unlike the tap-to-snooze, swipe-to-dismiss gestures on the iPhone's lock screen.

2. WRIST-TAP DIRECTIONS

I used to always use Waze in the car. Now I'm just as likely to pick Apple Maps for directions (go.macworld.com/applewatchmaps) because I love how it taps my wrist before each turn, so I can turn off the annoying navigation voice that would otherwise interrupt my music and podcasts. I can even glance down at my wrist to see the name of the next street I'm turning on, and how far away that is, although I wish the whole process was a little speedier. But it's less distracting than trying to look at my iPhone screen. I've managed to navigate to places I've never been before with the navigation voice turned off, just by waiting for the wrist-taps: 10 fast taps before a right turn, six taps that come in three pairs before a left turn.

3. TRACKING WORKOUTS

I love the Workouts app (go.macworld.com/workouts app). I have tracked every spin class I've ever taken, every ride on my ultra-dorky FitDesk stationary bike (go.macworld.com/fitdeskbike), every jog I've huffed and puffed through since getting the Apple Watch—oh, and a year's worth of concerts. I love going to a show I know where I'm going to dance my butt off, and then starting a workout right as the band takes the stage. It never stops amusing me that my best-ever workout medal is for getting particularly funky on the lawn at a Phish show.

IN CASE YOU'RE wondering, at the Phish concert I burned 566 calories in just one set, with an average heart rate of 123 beats per minute.

4. CLOSING THE ACTIVITY RINGS

The Activity rings (go.macworld.com/activityrings) have kept me more engaged than any Fitbit or Jawbone fitness tracker I've tried. I love how the Apple Watch tracks three goals (standing, moving, and exercise), and something about the visual of closing a circle is just more compelling to me than trying to hit 10,000 steps. Speaking of steps, I also love how the Apple Watch primarily tracks calories over steps, since that's gotten me to think more about the calories I'm eating, now that I've seen just how hard they are to burn. The bottom line is that the Activity app is the thing that gets me to wear the Apple Watch every day, and the main reason (go.macworld.com/watchapps) I'm sad on days I forget to wear it. (Bonus: Lately, when I get the tap on my wrist telling me to stand, I grab my hand weights and stand up for a minute of reps. My Fitbit never got me to do that.)

THE MODULAR FACE can have third-party complications too, and tapping a complication is the fastest way to launch the corresponding app.

5. THE MODULAR FACE

I hate the Apple Watch's home screen of tiny app icons you can't hide. So I just never use it. Most of the functions I need on my Apple Watch I can add to the Modular watch face as complications. Mine looks like this: Activity, time, calendar, temperature, battery life, and timer. Better yet, I can tap those complications (except the time and the battery life) to jump immediately into those watch apps. It's not the coolest-looking watch face, but it's the most useful by far.

6. DICTATING REMINDERS

Wait a second, there's no Reminders app on the Apple Watch! Nope, but I use Siri on the Apple Watch as a remote for sending new reminders to my iPhone's Reminders app the moment I think of them. If I say "Add to my Things list," it goes on a list that gets automatically imported into my Things to-do app—yes, Things has its own Apple Watch app, but I'm more likely to do it this way. If I ever get my husband to share a Reminders list with me, I could even add things to his list—uh, I mean *our* list.

7. FINDING MY iPHONE

I'm only slightly embarrassed to admit I do this just about every day. I put my iPhone down somewhere in my single-story, 1,100-square foot home, and 10 minutes later I have no idea where I left it. Before the Apple Watch, I would pace around looking, getting frustrated, and eventually bothering my husband to call the darn thing. Now I swipe up on my watch face to Glances, and tap the magic iPhone-locating button in the Control Center. My iPhone pings. I find it. My family rolls its eyes at me. Everyone's happy.

8. NOW PLAYING

The Now Playing glance is incredibly useful. I don't keep any music synced to the Apple Watch itself, because I don't have Bluetooth headphones that I like. Luckily, Now Playing can control whatever's playing on my iPhone, and my iPhone is the source of most of my music and podcast listening. The Apple Watch lets me pause, fast-forward, control the volume, and even Heart or Add songs if I'm listening to Apple Music. Tapping the name of the song launches Apple Music, once again keeping me away from that home screen. I don't have to stick with Apple apps, either; Now Playing works just great with Spotify, Casts, Soundcloud, and even YouTube.

9. NOT MISSING TEXTS

My husband and I share a car, which means he gives me a lot of rides. He used to spend a lot of time waiting outside my office wondering if I was on my way down or if I just hadn't seen his text. Now I see all his texts, and I have a happy reply ready to go.

NOW THAT NOBODY calls anymore (which is fine with me!), I'm obsessed with getting texts right away.

10. APPLE TV REMOTE

I don't lose my Apple TV remote enough to stick a Tile on it, (go.macworld.com/tileonremote) although I can't wait for Apple to release one you can "page" from your phone, or dare I say your Apple Watch. (My son did hide it in his toy garbage truck once, after all.) But even when I know where my Apple TV remote is, sometimes it's way across the whole entire room, so I use the Remote app on my Apple Watch instead. It does everything but the Siri and dictation features.

It's a shame the app didn't work with the newest Apple TV immediately at launch, but it does as of tvOS 9.1, (go.macworld.com/tvOS91) and I use it all the time. I hope the forthcoming Apple TV app (go.macworld.com/gruber appletv) that Eddy Cue announced on John Gruber's podcast back in February has an equally handy Apple Watch component too.

11. TELLING THE TIME, DUH

I didn't wear a watch before I got my Apple Watch, not since college. In the year since I've gotten this watch, I glance at the time on it before looking almost anywhere else. On days I forget my Apple Watch, I find myself looking at my wrist constantly, expecting to find out what time it is. It's a little thing, but I forgot how nice it is.

12. SPINNING THE PLANETS

My son is 4. When I got my Apple Watch he was 3. He's pretty good about bedtime, but of course there's a whole ritual of acts he'd like performed in a certain order, and one of them—we don't do it every night, but sometimes—is what he calls, "Can I spin the planets?"

> WE ARE BOTH SNUGGLED IN HIS BED WHEN HE ASKS, AND I FORCE-PRESS THE WATCH FACE SCREEN AND SWITCH FROM MY UBER-FUNCTIONAL MODULAR FACE TO THE BEAUTIFUL ASTRONOMY ONE.

We are both snuggled in his bed when he asks, and I force-press the watch face screen and switch from my uber-functional Modular face to the beautiful Astronomy one. He loves it. He loves how a green dot lights up on Oakland, where we are, and he loves how if you lightly tap the screen, you're able to spin the Earth with your finger, to see how it's daytime on one half and night on the other, with little orange glowing spots to indicate big cities. He loves twirling the Digital Crown to go forward in time, and see the sun and the shadow swoop over North America, and the little divot in the West Coast, where we are.

He loves tapping the moon icon and seeing the moon zoom into view, the same way it looks in the sky that night. He loves looking at the whole solar system, spinning the Digital Crown some more to see the orbits, listening to me explain how a year on Mercury is really short and a year on Neptune is so long. He says that being 4 is taking a really long time, and I try to assure him that every age is exactly the same, even though I know that isn't true. He still thinks the moon is a planet, the biggest planet of all. I wonder what questions he'll ask me about the moon, the world, and the universe when he's 5, or the year after that, or even just next week. It can get a little tiring keeping my arm propped up while he fiddles with my Apple Watch and we talk about these things. But it's something I'm really glad we can do. ■

ASTRONOMY, aka the spin-the-planets watch face.

A SAFE
BURNING SITE

SHOULD BE FAR
—AWAY—
FROM

OVERHANGING
BRANCHES.

POWER LINES,
BUILDINGS,
CARS,

—AND—
EQUIPMENT

For more safety tips visit **SmokeyBear.com**

ONLY *YOU* CAN PREVENT WILDFIRES.

Typing shortcut utilities:
6 alternatives to TextExpander

If TextExpander's subscription service rubs you the wrong way, there are
several options that you can buy—and one that's free.

BY MICHAEL SIMON

For as long as we've been using Macs to type repetitious bits of text into emails and documents, there's been TextExpander. One of the original alphabet automators, the typing shortcut utility has been at the beck and call of writers and coders for generations, dutifully filling in tedious lines and phrases, and saving precious seconds throughout our day.

Even at $45, TextExpander (textex-pander.com) was one of the most essential and popular utilities on the Mac (see our review on page 22), but a recent change to its pricing structure has longtime users feeling scorned. Smile made the surprising move to a subscription service (go.macworld.com/textexpander6sub) rather than continue its long-standing policy of paid upgrades, and even after a

backlash-induced change of heart (go.macworld.com/tenewprice) that lowered the annual rate to $40 for new users and $20 for current customers, it will still cost something of a premium for access to TextExpander's snippets.

TextExpander might be the most popular text-expansion service, but it's certainly not the only one. If you're looking for a cheaper alternative or just one without such a
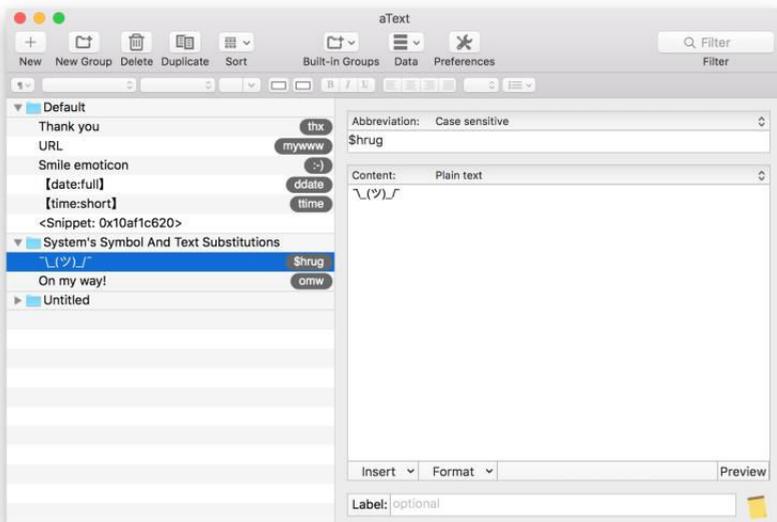

aTEXT

long-term commitment, check out these apps.

aTEXT

aText ($5; trankynam.com/atext) might not have TextExpander's brand recognition or breezy interface, but it stacks up in just about every other way. Calling itself a *text accelerator* rather than an expander, the affordable app lives up to its billing, speeding up your typing by offering myriad shortcuts for the things you write.

Setting up snippets is as quick as using them, and aText gets you started with a few common examples. Simple, clearly labeled fields will get your workflow up and running in seconds, storing chunks of text that will expand whenever and wherever their accompanying abbreviations are typed. Dates, images, and formatting can also be added to snippets, and handy auto-correction tools can help with capitalization and misspellings.

Like TextExpander, aText's greatest strength is the time it saves with the automation of monotony. The interface is hyper-focused on organization, neatly arranging your snippets by groups for easy editing. You can also create fill-in-the-blank templates that can make the most tedious of forms a breeze, and if you have more than one Mac, Dropbox and Google Drive integration will keep your snippets synced across all of them.
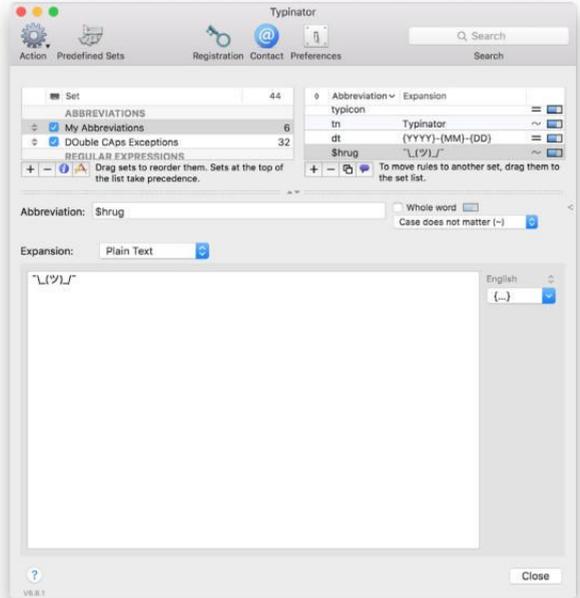
TYPINATOR

Simplicity and speed are the main features of any text expanding app, and Typinator (€25; ergonis.com/products/typinator) has them in spades. With easy drag-and-drop organization and a powerful set of expanding options, Typinator won't just replace your reliance on TextExpander, it'll make the transition effortless.

Unlike most of its peers, Typinator is strictly a menu-bar app. But just because it doesn't reside in the Dock doesn't mean it isn't as full-featured as TextExpander. An expansion can be as simple as setting **tn** to expand to **Typinator**, but it can go a whole lot

deeper than that, with case specification, cursor positioning and a whole-word option that only expands phrases when the next typed character is neither a letter nor a digit, protecting against accidental inserts.

Beyond common text snippets, Typinator can be trained to perform calculations, or insert the current date and time, as well as create interactive pop-up boxes for fill-in form letters. There are a healthy amount of predefined sets, and code tinkerers can try their hand at regular expressions, which add a unique level of power to your snippet library. Based on the International Components for Unicode, it allows users to create complex expansions that are triggered under much more specific circumstances than a hotkey or phrase.
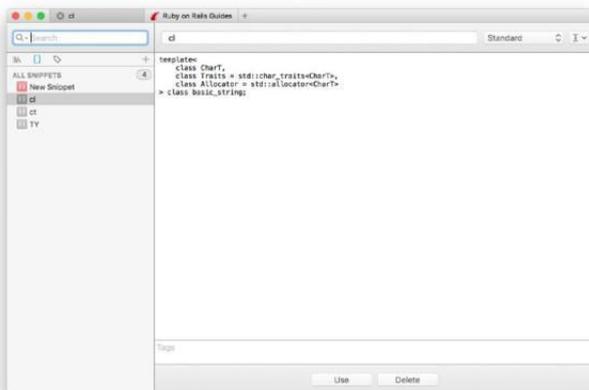
DASH 3

The average user can find myriad ways to save valuable time using text expanders, but for coders they can be an absolute life-saver. Cutting down on the number of times a

string or variable needs to be typed can make or break a deadline, and while any of the text expanders here can be configured to help, only Dash ($30; go.macworld.com/dash3itunes) makes it its primary mission.

You can use Dash to expand any bit of text, but it's built to speed up the coding process by cutting down on the thousands of tedious instructions that need to be written. Even before you start adding snippets of your own code, the app will speed up your programming with an exhaustive catalog of language documentation that is accessible from the sidebar. Fully searchable and customizable, it provides an indispensable database of rules and references that will sharpen your syntax.

Anything you see can be easily turned into an expandable snippet by copying it and using the Create New Snippet From keyboard command.


DASH 3

Snippets are sortable by program-ming language and searchable by context, and can be as interactive as you need them to be, with cursor positioning, date and time stopping, and variable placeholders.

TYPEIT4ME

If you're looking for the original text expander, you might be surprised to learn it actually isn't TextExpander. TypeIt4Me ($20; ettoresoftware.com/mac-apps/typeit4me) has been storing snippets and expanding text since the days of System 6, and it's every bit as useful today as it was back then.

While its interface may have changed, its core concept hasn't. TypeIt4Me is just as easy to use as it was on the day it was launched, with a menu-bar or Dock-based system of snippets (or clippings, as they're called within the app) that can quickly be added to your document. Com-pared to TextExpander, TypeIt4Me keeps it super simple, with a clear input window that mimics the ease of an OS X Settings pane.

All of the usual options are here: rich text, picture, date, time, autocorrection, etc. But the app doesn't bog you down with complicated menus. Snippets are given abbreviations for easy expand-ing, but you don't actually need to remember them. TypeIt4Me's unique menu gives you access to all of your clippings, letting you insert them with a
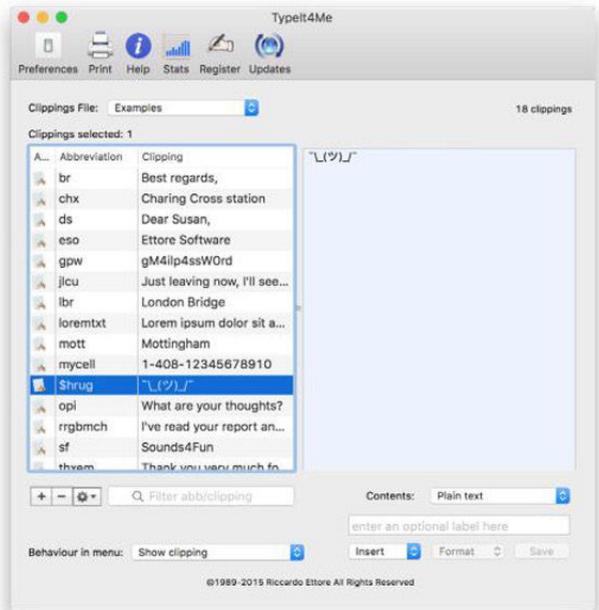
click rather than a shortcut. Addition-ally, Ettore offers a TypeIt4Me key-board for iOS, matching TextExpand-er's cross-platform support.

TYPEIT4ME

KEYBOARD MAESTRO

Keyboard Maestro ($36; keyboard-maestro.com/main) won't just fill all of your text expanding needs, it'll turn your keyboard into a veritable launchpad that will speed up every-thing you do on your Mac. But even if you just use it for its text expanding abilities, longtime TextExpander users will appreciate its versatility.

You can use Keyboard Maestro to make a basic macro that turns a string

of letters into a line of text, but expert expanders will want to dive into the array of options available. From the abbreviations to the actions, everything is customizable down to the character. For example, when setting a snippet to be pasted rather than typed, you can tell Keyboard Maestro to return the clipboard to its prior contents, so whatever you had manually copied isn't wiped out.

Text tokens make macros infinitely more powerful by adding fields for things like calculations, dates, IP addresses, and mouse location, and you can also program how your macro works within specific apps, or set snippets to expire after a set period of time. By piggybacking actions, you'll be able to expand your text in pretty much any way you can imagine whether you're automating words,
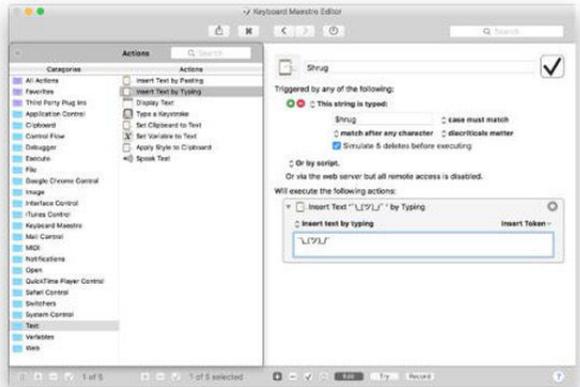

sentences, or entire pages of type.

SYSTEM PREFERENCES

If you don't want to pay anything to speed up your typing, there's a way to do it right inside System Preferences. It's not as powerful as a stand-alone app, but Apple has actually baked text expanding abilities into OS X since Mountain Lion.

To find it, head over to the Keyboard palette and click on the Text tab. Inside, you'll be able to create basic expandable snippets. It's text expansion at its most rudimentary, but if you're solely interested in saving time while typing, it'll do the trick. ■

YOU CAN CREATE snippets in the Keyboard system preference.
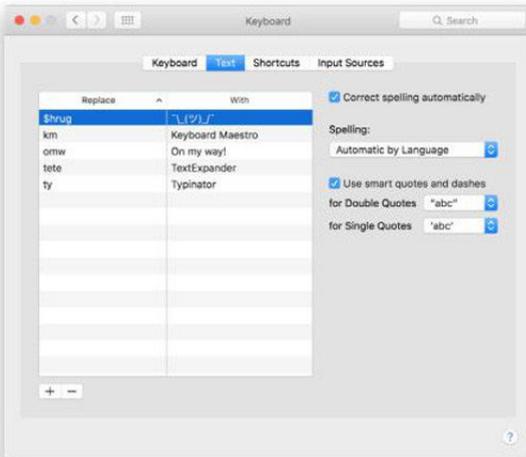
5 Gmail hacks that help you master your messages

Turn emails into to-dos, tune out distracting conversations, and more with these tips.

BY MICHAEL ANSALDO

A while back we looked at several hacks for getting more out of your Gmail (go.macworld.com/moregmail) account. But as with all of Google's services, there are always more tricks and features to uncover. Here are five that will help you better manage your messages.

Add another email address you own

Enter information about your other email address.
(your name and email address will be shown on mail you send)

Name: Michael Ansaldo

Email address:

☑ Treat as an alias. Learn more

Reply-to address:

(a reply to mail you send will go to this address. Learn more)

Cancel   Next Step »

HIT THE 'MUTE'

Who hasn't wanted to run screaming from their monitor after the thirteenth "Welcome aboard!" message to the new hire? Gmail provides a means to tune out distracting email conversations like these: muting.

Muted conversations bypass your inbox and go straight to your archive. They only return to your inbox if a new message is addressed solely to you or you're added to the To or Cc line in a new message. To silence the noise, select the conversation and click the More button above your messages, then select Mute. You can also use the keyboard shortcut M.

SEND MESSAGES FROM DIFFERENT ADDRESSES

Most of us have multiple email accounts: your work address and at least one, if not several, personal ones. Instead of logging in to each account individually, you can send messages from any of them through Gmail.

You'll first have to set up your alter-

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nate email
addresses in Gmail.
Google provides
detailed steps (go.
macworld.com/
gmailsendalias) for
adding external
addresses and
domain and email
aliases. Once they're added, just
click the From field when you're
composing, forwarding, or replying to
an email. Then click the drop-down
menu to the right of the field and
select the address from which you
want to send the message.

TURN MESSAGES INTO TASKS
There are dozens of third-party apps
that let you turn email messages into
action items. But you can do it with
Gmail alone thanks to Google Tasks.

Open a message you want to add
to your to-do list or just select the
checkbox next to it in your inbox. Click
More ➜ Add To Tasks or press Shift-T.
The item will be added to your task
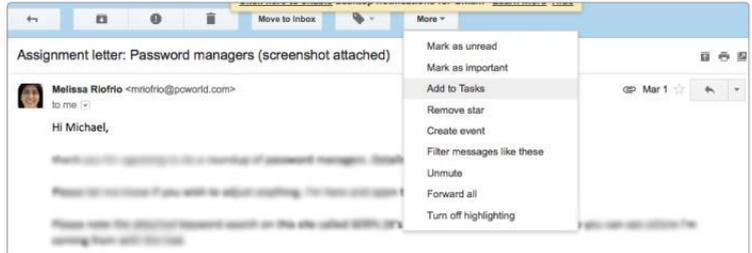
list in the lower right corner of the
Gmail window. Click on the task list to
add a due date and notes, see related
messages, or move it to another list.

BACK UP YOUR MESSAGES
We all assume our most important
Gmail messages will be there when
we need them, but it's best not to
tempt fate. As with any other critical
data, a backup is a must. Google lets
you do it (go.macworld.com/down-
loadgmailcal) without the need for
third-party software.

Just go to Google's data download
(takeout.google.com/settings/
takeout) page and scroll down to
Gmail. Click the drop-down menu on

TO TURN MESSAGES into
action items, select
Add To Tasks from the
More menu.
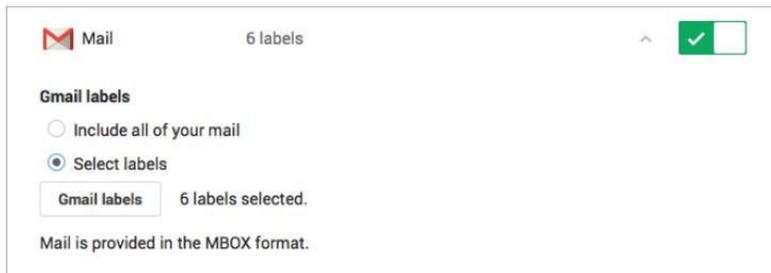
YOU CAN DOWNLOAD
your entire Gmail
data set or just select
labels.

the right to download all your mail or just particular labels. Messages are saved in the widely used .MBOX format, so you can easily port them to another email service as well.

RECLAIM SPACE

Many of us will never bump up against Drive's 15GB of free storage. For those who do, there's an easy way to find the email attachments that are hogging the space.

In Gmail's search bar, type `size:xm`, but replace *x* with a number (`m` stands for megabytes). This will pull up all messages with file attachments over the size threshold you've designated. Save them to your local drive or external storage, and then delete them from your inbox to free some space. ■
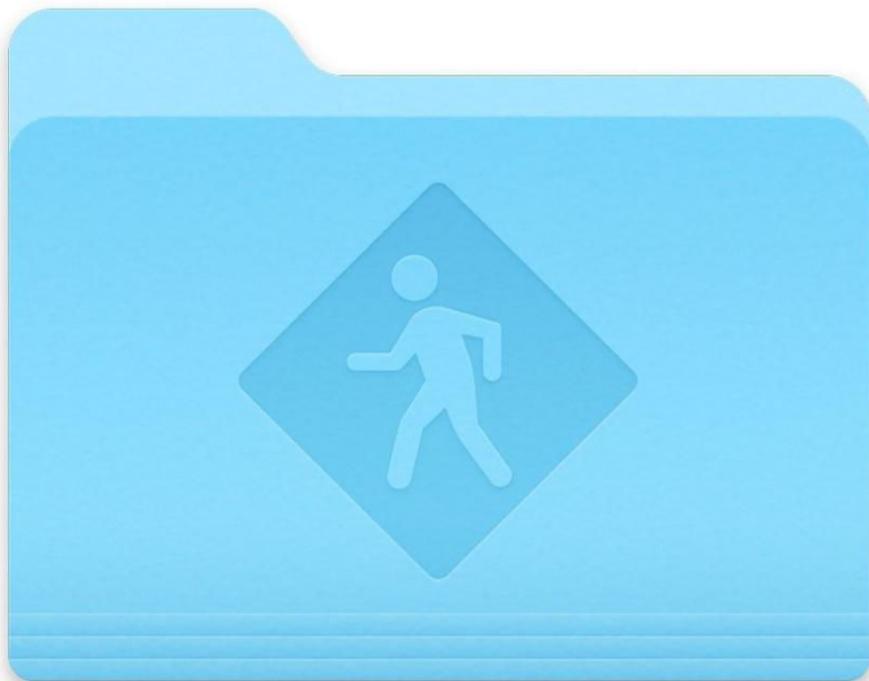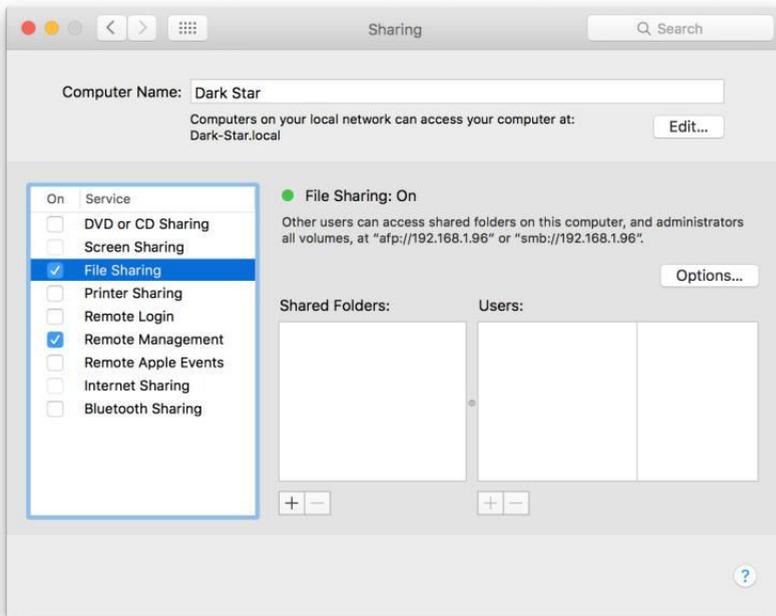
9 ways to share files between Macs

Need to transfer files from one Mac to another? There are many ways to do it.

BY KIRK McELHEARN

I f you have more than one Mac, you probably need to exchange files between the two computers from time to time. There are lots of ways to do this, and the method you choose may depend on the type of file you need to share or the way you manage your workflow. Here are 9 ways you can exchange files between two Macs.

FILE SHARING

The basic way to share files between Macs is to use File Sharing. To use this feature, you must activate it in the Sharing pane of System Preferences—select File Sharing. If you want to only share specific folders, or allow certain users to access them, add folders to the Shared Folders list, and then select a folder and add users in the Users list. If not, any user with an account can access your files.

To access another Mac's files in the Finder, choose Go ➔ Network, double-click one of the computers or devices that displays, and enter your

username and password. You can then browse that Mac's folders and files, and drag files to and from that computer.

AIRDROP

In the Finder, choose Go ➜ AirDrop on both Macs; the one you want to send files to, and the one you're sending from. Drag a file onto the icon of the computer you want to send a file to. Unfortunately, AirDrop isn't always reliable, and it does need to be active on both Macs, so you can't easily copy files to a server or other computer, but it can be easier that messing with File Sharing if you only need to send files occasionally.

EMAIL

If you have one or more small files you need to send to another Mac, you can send them as attachments to an email message. Just create a new message and address it to yourself, and then add the files. When you get to your other Mac, open your email client and download the message and its files. This is a good way to send files to a Mac that's not currently running.
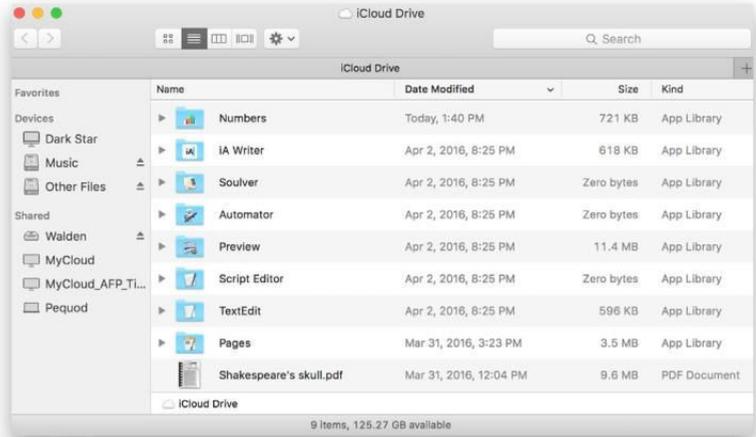
DROPBOX

If you use Dropbox to store some of your files in the cloud, it seems obvious that you can easily transfer files from one Mac to another by placing them in your Dropbox folder. But you may think that, when you need to transfer large files, such as videos or large software installers, it isn't practical to put them in the cloud and then download them. Dropbox has a feature called LAN Sync that allows Dropbox to sync them across your network to other devices. It still uploads them, but if you have a bunch of files to transfer from different folders, just drop them all in a Dropbox folder, and let them sync to the other devices. When you've got the files on the second Mac, move them out of your Dropbox folder, so they don't stay in the cloud. Unfortu-

iCLOUD DRIVE stores files for apps, but you can also add your own files.

nately, this feature isn't always reliable, so it may not work for you.

iCLOUD DRIVE

Apple's iCloud Drive is mostly designed for apps to store files, but you can add files to it as well, which you can later access from another Mac. Choose Go ➜ iCloud Drive in the Finder, and you'll see a number of folders. Just add a file to the top level of the iCloud Drive hierarchy or create your own folder, and you'll be able to access the file on your other Mac. This works best for small files, as well as files you may want to access on iOS devices.

OTHER CLOUD SERVICES

If you use Google Drive, Box, or another cloud repository for your files, you can obviously place files there from one Mac and access them

on another. With most of these services, you can also upload files via a web browser, so you don't need to run their apps if you don't want to.

BITTORRENT SYNC

One of my favorite ways to sync files between my Macs is to use BitTorrent Sync (go.macworld.com/bittorrent-sync2). This free app (with optional pro features), lets you sync folders across devices. For example, I have a Screen-shots folder on each of my Macs. Whenever I take a new screenshot for an article on one of my Macs, it instantly syncs across to the other one. I also have a folder for current projects, which also stays in sync every time I add or change a file. I've had some issues getting folders to sync with one of my Macs, but, in general, this software works very well, and is essentially transparent. It's the kind of

YOU CAN USE FTP to transfer files to a Mac running OS X Server.
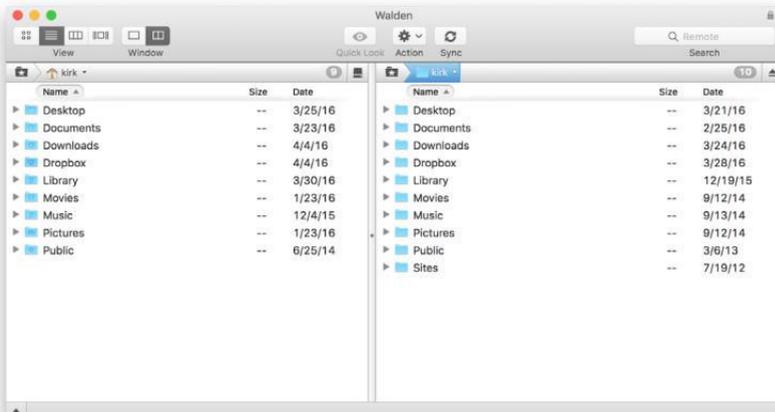
feature that Apple should add to OS X.

FTP

This is a power-user feature, that most people won't need, but some might find useful. OS X used to include an option to share files via File Transfer Protocol, but this is now somewhat hidden. To turn on FTP on a Mac—more correctly, SFTP, or secure FTP—enable Remote Login in the Sharing pane of System Preferences. I use Transmit (go.macworld.com/transmit4) to transfer files between my iMac and my Mac mini server, and I find it practical when I have a lot of files to copy since I can control how many get sent at a time.

SNEAKER NET

Let us not forget that these many ways of transferring files from Mac to Mac are fine if you have a handful of files, but they can take a long time if you want to move, say, all seven seasons of "West Wing" episodes. The best way to transfer very large files, or lots of files, is to use sneaker net. That's the term used for copying files to a disk, then connecting the disk to another computer and copying from the disk. You can use a USB stick or a portable hard drive, and it will always be faster to use sneaker net when you have lots of large files to move. ■

> "SURE, AT FIRST I WAS A LITTLE TAKEN ABACK BY THE WHOLE PEEING STANDING UP THING. BUT I TAUGHT HIM TO THROW A STICK AND NOW HANGING OUT WITH HIM IS THE BEST PART OF MY DAY."

— EINSTEIN
adopted 12-09-10

A PERSON IS THE BEST THING TO HAPPEN TO A SHELTER PET

adopt

theshelterpetproject.org

6 ways to transfer files from your Mac to your iOS device

Use one of these methods to transfer a file from your Mac to your iPhone, iPad, or iPod touch.

BY KIRK McELHEARN

n the preceding story, I wrote about 9 ways you can transfer files from one Mac to another, which is useful if you have, say, an iMac and a laptop, and need to pass files back and forth. But you may also need to transfer files from your Mac to your iOS device, which isn't as simple: iOS isn't designed to accept just any file, and you don't have the same options to open files with different apps. In this article, I'm going to show you 6 ways you can move files of various types to your iOS devices.
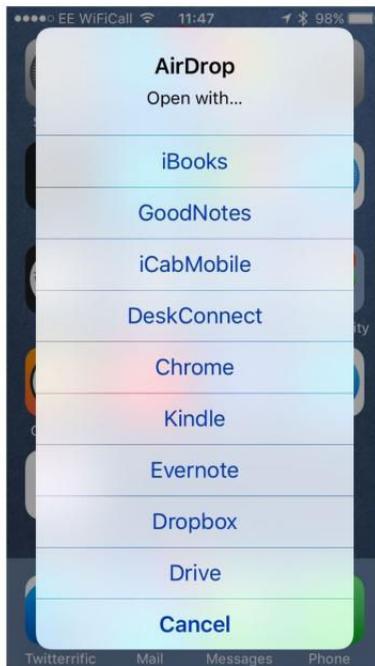
AIRDROP

AirDrop is Apple's technology for sharing files across devices. You can use it to transfer files from one Mac to another, and also use it to transfer files from a Mac to an iOS device, or from one iOS device to another. On your Mac, choose Go → AirDrop in the Finder, and then, on your iOS device, make sure AirDrop is activated in the Control Center (swipe up from the bottom of the screen to access this setting). You can choose to allow transfers from Contacts Only or from Everyone; it's best to choose the former.

Your iOS device needs to be awake for AirDrop to be active. On the Mac, drag a file onto the icon for your iOS device in the AirDrop window. On your iOS device, you'll see a menu offering to open the file; this menu lists the apps that can open the file type.

For some types of files, AirDrop isn't very helpful. For example, if I try to send an AAC audio file from my Mac to my iPhone, the latter offers to

open it with apps such as Voice Memos, Evernote, Dropbox, etc., but not with the iOS Music app, or other music player apps on my device. So

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you can't transfer all types of files that your iOS device can use (but read on to find out about a way to transfer audio and video files).

EMAIL

Using email is a good way to send small files to an iOS device. Just create a new email addressed to yourself and add the file(s) as attachments to the message. Tap the attachment in the message to download and then open the file. Depending on the file type, you may or may not be able to open files on your device. Naturally, you'll want to do this when you're on a Wi-Fi network to avoid potentially using a lot of cellular data if you're sending large files.

DROPBOX OR OTHER CLOUD SERVICES

If you have the Dropbox app on your iOS device (or apps for other cloud services, such as Google Drive, Box, etc.) you can add files to your cloud and then access them on your iOS device. As with email, you're limited as to which types of files you can open. If there are specific files you need to access on your iOS device, you may need to find apps that can read them. For example, if you need to read Excel spreadsheets, you'll need either Microsoft Excel for iOS, Apple's Numbers, or another app that can view (and perhaps edit) these files.
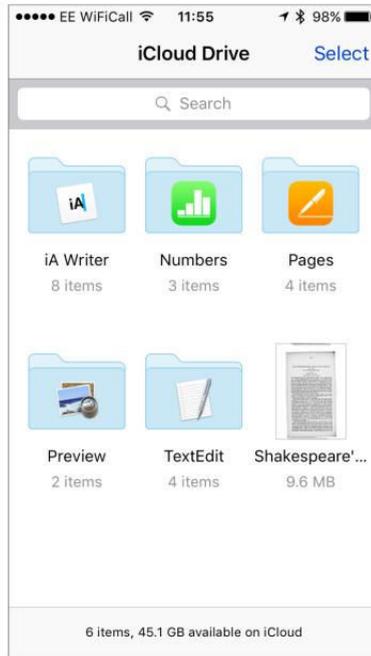
HERE IS WHAT viewing files in the iCloud Drive app on an iPhone looks like.

iCLOUD DRIVE

iCloud Drive is a bit different from the other cloud services. It stores files that you've opened with specific apps in dedicated folders. You can add a file to iCloud Drive and create your own folders, or just copy files to the top level of iCloud Drive. To do this on your Mac, choose Go ➡ iCloud Drive in the Finder, then add the files to the location you desire. If you're adding a file that you can open in a specific app that already has a named folder, you can add it directly to that folder. On iOS, either open the

app that can view the file, or open the iCloud Drive app, tap the file, and then tap the Share button to see your options for opening the file.

iTUNES FILE SHARING

Some iOS apps can use iTunes File Sharing, a way of adding and managing files in iTunes so these apps can access them. To use iTunes File Sharing, connect your iOS device to your Mac, select it in iTunes, and then click Apps in the sidebar. Scroll down to the File Sharing section.
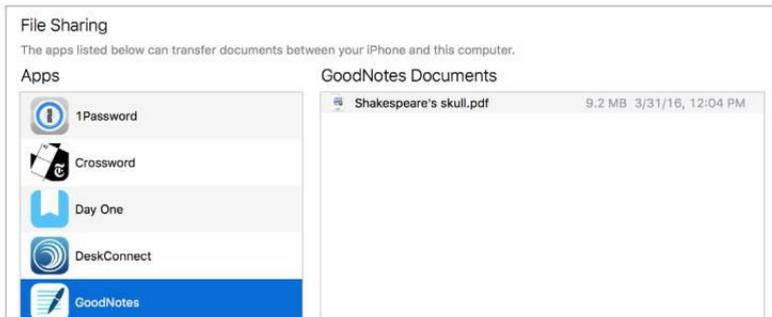
In the example, I've added a PDF file to GoodNotes. When I click Sync at the bottom of the window, iTunes will copy that file (as well as copy any other items selected to sync, such as music, apps, etc.). You can also delete files by selecting them in the File Sharing dialog and pressing the Delete key.

With some apps, you have to click + or Import, and choose to import the file(s) from iTunes. This is the case

even if the files have been copied to your iOS device. Other apps may show the files immediately.

COPY AUDIO OR VIDEO FILES WITH WALTR

Normally, the only way you can copy audio or video files to an iOS device—at least to be able to play them in Apple's Music or Videos app—is by syncing with iTunes. You can use iTunes File Sharing to transfer this type of file to certain apps, such as VLC (go.macworld. com/vlchandson), for example. Softorino's $30 Waltr (go.macworld. com/waltr) can copy almost any type of audio or video file to an iOS device, converting it, if necessary, to a format that Apple's apps can play. All you do is connect your iOS device, quit iTunes, and then drag your file(s) on Waltr's window. The app converts and transfers the files, and you can then access them in the Music or Videos app. ■

File Sharing
The apps listed below can transfer documents between your iPhone and this computer.

Apps	GoodNotes Documents	
1Password	Shakespeare's skull.pdf	9.2 MB 3/31/16, 12:04 PM
Crossword		
Day One		
DeskConnect		
GoodNotes		

CREATE

Using the Web for Video, Graphics, Publishing, Photography, and Other Creative Pursuits

10 tips for getting started with iMovie for iOS

Splice together your iPhone & iPad videos with slick-looking transitions, add titles, lay down custom soundtracks, and more.

BY BEN PATTERSON

Your iPhone videos don't have to be boring just because you shot them with iOS. With a little help from Apple's iMovie, you can add quite a bit of polish to your clips, spiffing them up with titles, transitions, slow and fast motion, and even background music. (Note: iMovie is available as a free download for all iOS devices purchased since September 2013; for everyone else, it's a $5 download.)

We've collected a few pointers that'll help you make sense of iMovie's (go.macworld.com/imovie) overall workflow. We'll also decipher the app's simple (if occasionally head-scratching) interface as well as try out some basic editing tools. With a little practice, you'll be splicing together video like a pro in no time.

GETTING STARTED

The first step to making a movie in iMovie is getting a hang of the overall process—and for that, it's best to understand the three main tabs of the iMovie app: Video, Projects, and Theater.

The first tab, Video, displays all the video clips stored on your iOS device or in iCloud. Think of the Video tab as your warehouse of raw video clips.

The next tab, Projects, is where you'll be doing all the work. To make a movie, you'll need to create a project, stir in some clips from the Video tab, and then start editing.
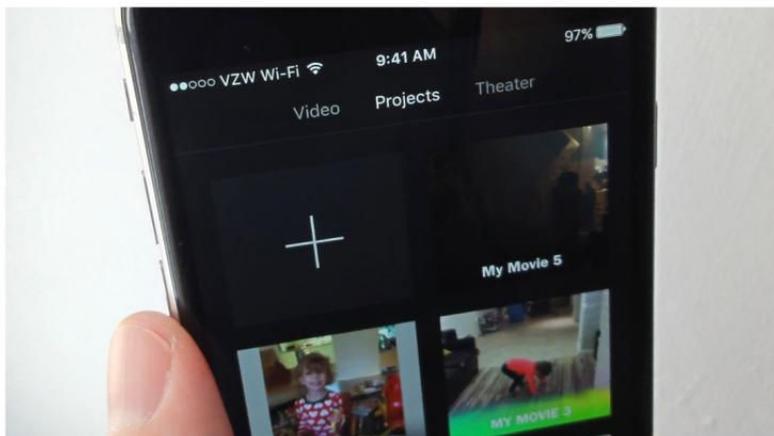
THE PROJECTS TAB in iMovie is where you'll do most of your editing; the Video tab is where you'll find videos to edit; and the Theater tab is where you'll go to export your finished movies.

The last tab, Theater, is where your projects will go once they're fully baked. Once you've "exported" a project to the Theater tab (aka, "iMovie Theater"), you'll be able to play your new movie on all your iCloud-connected devices, stream it to an Apple TV, or even upload it to YouTube.

CREATE A NEW PROJECT & PICK A THEME

Now that you have a general idea of how to make a movie in iMovie, go to the Projects tab and tap the big + (plus sign) button to create a new project.

You'll be presented with two choices: make a movie, or create a trailer. Let's stick with the Movie option for now. (Making a trailer involves collecting a just-right sequence of action shots, profiles, landscapes, two-shots, and more, so it's more complicated than it may seem.)

Next, you'll be asked to pick a theme, anything from Modern and Bright to News and even CNN iReport. Each theme comes with its own title design, transitions, and (optional) background music. For this example, I selected the Simple theme, but it can easily be changed later. Once a theme is selected, tap Create.

ADD SOME VIDEO CLIPS

Once you've created a project, you'll jump right into the My Movie interface. Tap the Media button (the one that looks like a film strip) and tap the Video tab. (If you're using iMovie on your iPad, the Media window will already be sitting in the top corner of the My Movie screen.)

Next, tap a clip, then tap the curved arrow—when you do, the clip will fly

into the My Movie interface. Go ahead and tap the Media button again, then add one more clip to the mix.

Back on the My Movie screen, tap the Play button to watch your two video clips cut together, complete with a dissolve transition between them. In the bottom half of the screen, try dragging your new movie back and forth with your fingertip; the vertical line in the middle of the display shows the exact point in the clip that's being displayed in the preview area above.

Bonus tip: You can add still photos to your video, too—just pick them from the Media tab. You'll be able to trim your still just as you would a video clip.

TRIM YOUR CLIPS AND CHANGE THE TRANSITION

Now, let's do a little snipping. Tap the first clip in the lower editing section; when you do, it'll be outlined in yellow. Go to the beginning or the end of the clip, tap and hold the thick yellow side, then drag to snip out a portion of the clip. (Don't worry, you're not trimming the original video.) If you want to trim the second clip in your project, go ahead and repeat the process.

Now, see the little square with the bow tie between your two clips? That's your transition. Tap it, and you'll see a series of transition styles at the bottom of the screen, including

TAP THE CURVED arrow to add a video to your iMovie project.
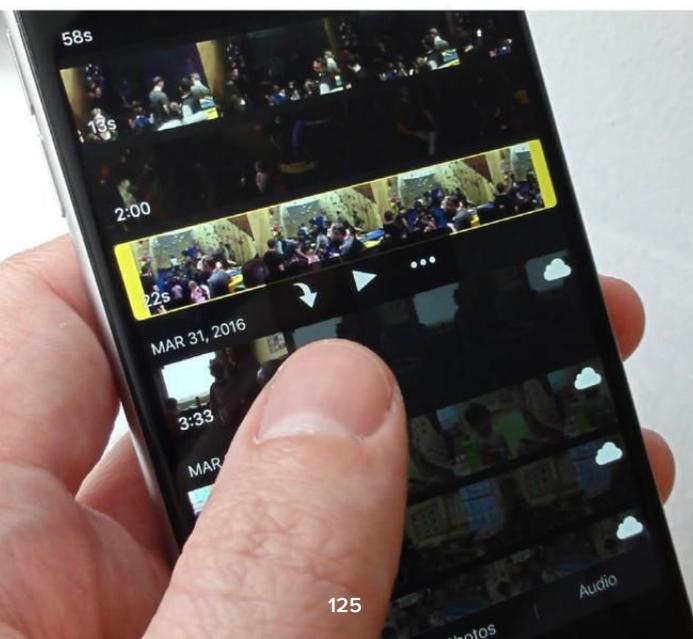
Dissolve, Slide, Wipe, and Fade. Tap one and press Play to see how each transition looks; you can also pick the None option for a "hard" cut.

What's the Theme transition, you ask? It's a transition that's styled after the theme you picked when you first started your project; for example, Modern will give you a smooth, "swoosh"-type theme, while the News transition features a digital globe that flies up the screen, not unlike something you'd see on *World News Tonight.*

And by the way: To change your theme, tap the Settings button (the one that looks like a gear), and then pick a new theme from the list.

Bonus tip: To add fade-in/out effects to the beginning and end of your iMovie, tap Settings, then flip the switches next to Fade In From Black and Fade Out From Black.

ADD SOME TITLES

What would a movie be without opening titles? Tap the first clip in your project to select it, then tap the Titles button (T) at the bottom of the screen.

Next, pick a style from the choices at the bottom of the screen—anything from Standard to Pop-Up. You can also pick a style based on one of the movie themes we mentioned earlier; to do so, just tap the button next to the None button.

AMONG THE TRANSITIONS from which you can choose: Dissolve, Slide, Wipe, and Fade.

Once you've settled on a style, tap a title in the preview window, then type in whatever title you like—such as **Claire's 4th birthday party**, for example. Depending on the style you picked, there may be multiple titles to fill in.

SPLIT YOUR VIDEO CLIPS

You may have noticed that the titles you just added to your video clip are staying on the screen for the entire length of the clip you selected. That's not exactly desirable if, say, the selected clip is five minutes long.

Here's how to fix it—and indeed, this is a trick you'll be using for many different iMovie effects.
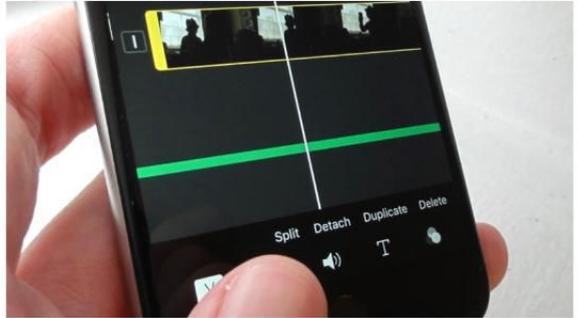
Move the clip with your fingertip until about four or five seconds have elapsed in the preview window, then tap the clip to select it. Next, tap the Edit button (the one that looks like a pair of scissors) at the bottom of the screen, then tap Split.

JUST SELECT A video clip and tap Split to divide one of your clips in two.
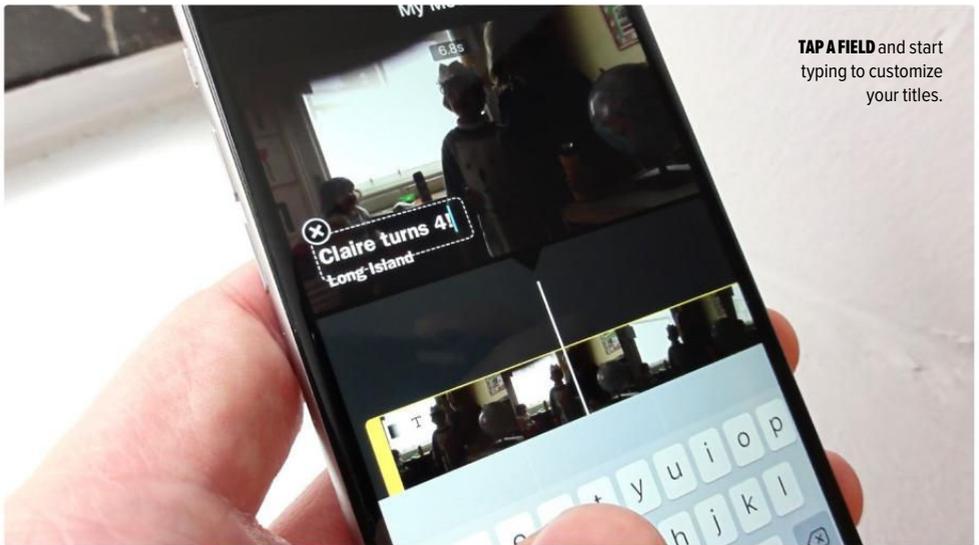
TAP A FIELD and start typing to customize your titles.
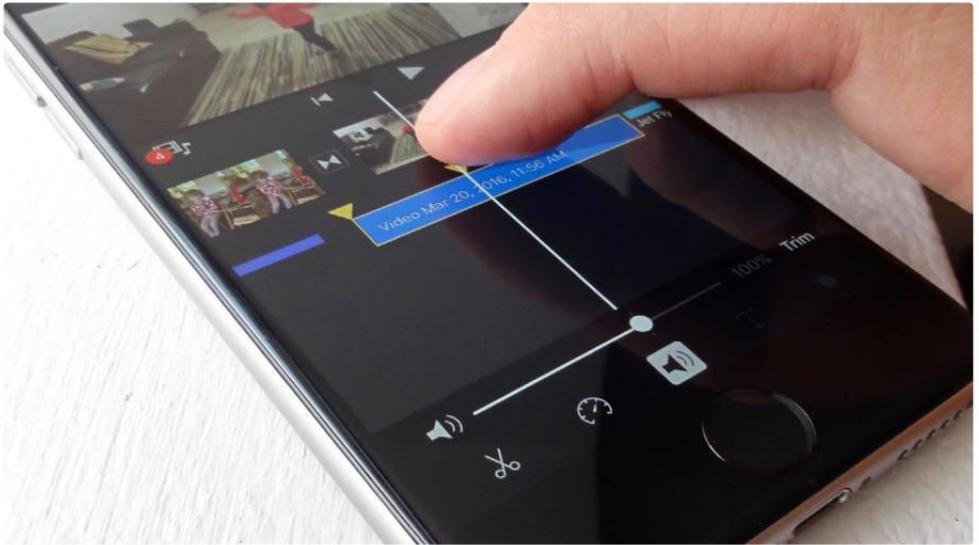
Now, play back the entire clip, and the titles will disappear at the precise moment where you split the clip.

TINKER WITH THE SOUNDTRACK

There's nothing that sets the mood like some music. iMovie allows you to add in background tunes, sound effects, and even a little color commentary to your movie.

To do so, move your first video clip to the very beginning, tap the Media button, tap the Audio tab, then select Theme Music. Choose a track—like Bright, for instance—then tap the curved arrow to add it to the editing bay.

Go ahead and tap Play, and you'll

hear a peppy music track to go along with your video.

Naturally, you can edit the audio track just as you can your video clips. Tap the green music track to select it, tap the Edit button, then tap Split. Tap the newly created second segment of the track, then tap Edit ➜ Delete. Now tap the remaining audio track, tap the Volume button at the bottom of the screen, then adjust the slider to change the track's volume. Or, try this: tap Volume ➜ Fade, then tap and drag one of the yellow triangles to make the track's volume fade in or out.

You can also add your own commentary to the video by tapping the microphone button. Tap Record, start chattering, and tap Accept when

JUST GRAB ONE of the yellow arrows and drag to make the audio track fade in or out.

you're happy with the recording. You can then tap the new recording track to edit it, just like you did with the green music track.

Also on deck in the Media screen: sound effects (tap the Media button, then Audio ➜ Sound Effects), as well as songs on your iPhone or iPad.

Last but not least, you can tweak the audio track of one of the video clips in your project. Tap the clip to select it, tap the Edit button at the bottom of the screen (if it isn't already selected), then tap Detach. When you do, the sound for the clip will jump into its own audio track, which you can edit, trim, fade, or adjust its volume.

ADD A VIDEO FILTER

If you want your video—either the whole thing, or just a portion—to look like a vintage movie, complete with film scratches and other nifty effects, just add the correct video filter.

Tap a clip to select it, tap the Filter button (the one that looks like three shaded circles), then pick a filter—anything from Blast and Blockbuster to Silent Era or Vintage.

If you only want a portion of a clip to have a color filter, just split the clip and add the filter to the segment you want.

SPEED UP (OR SLOW DOWN) YOUR VIDEO

You can add fast- or slow-motion effects to your movies in just a few taps. Say, for example, you want to speed up a sluggish scene. Just create a segment of a clip with the Edit tool, tap the segment to select it, tap the Speed button (the one that

WANT YOUR VIDEO to look like a silent movie? Just pick the Silent Era video filter.

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looks like a speed gauge), and then drag the slider right to speed up the clip, or left to slow it down.

Bonus tip: To make the sped-up (or slowed-down) segment more dramatic, grab a "whoosh"-like sound effect from the Media window (Jet Fly By works quite nicely), drag it beneath the segment, then edit it down to fit.

EXPORT AND SHARE YOUR NEW MOVIE

There are still plenty of handy iMovie tricks for you to discover; for starters, we haven't covered how to create a split-screen scene, how to zoom a

video, or how to splice in a freeze-frame. By now, though, you know enough to make a reasonably slick-looking iMovie, and it's time to show it off.

The first step is to export your video to iMovie Theater, a repository for all your completed iMovie projects. When you're ready to export your movie, just tap Done from the My Movie editing screen. Next, tap the Action button (the square one with the arrow), then tap iMovie Theater.

The iMovie app will then begin exporting your video, a process that'll take from a few seconds to several

TO SPEED UP or slow down a video clip in your project, select it and tap the Speed button.

minutes, depending on the length of your movie and the age of your iOS device. (Older iPhones and iPads take longer to process video files.)

Once that's done, your movie will appear under the Theater tab, and it'll automatically sync with your other iCloud-connected devices. Tap on a movie and tap the Action button to send the movie via Mail or Messages, post it to Facebook or Twitter, upload it to YouTube, and more.

Still want to edit the movie? If so, you'll have to go back to the Projects tab, open the project you want to edit, and then re-export it to the Theater tab once you're finished. ∎

The secret to producing subtle photographic color effects in Photoshop

A little bit of easy math is all it takes to make sure your prints look their best.

BY LESA SNIDER

Color trends come and go, though when it comes to photographic treatments, some color effects are here to stay. For example, adding a brown tint to a black and white image produces a sepia tone that evokes a vintage or romantic feel. Likewise, adding pastel pink or blue—Pantone's colors of the year are rose quartz (13-1520) and serenity (15-3919)—to a black and white image evokes a soft, dreamy feel.

These ageless and classy techniques limit the photo's color palette, which puts focus on the image content. Similarly, cross processed looks are wildly popular, though with this effect you keep the image's color yet shift it in interesting ways (the term refers to dark room days where the color shift was produced by processing the image using the wrong chemicals).

While crafting these effects yourself can feel daunting, it doesn't have to. As luck would have it, Photoshop CS6 and later include 38 photographic toning presets that you can apply as a gradient to produce subtle yet gorgeous color tints. The trick is knowing where to find them. And since you get slightly different results when using the toning presets on a black-and-white image versus one that's full color, this column takes a look at both.

TONING A BLACK-AND-WHITE IMAGE

The first step is to open an image and then convert it to black and white. There are many ways to do this: you could do it in the Camera Raw plug-in or filter, you can do it in Lightroom and then pass the image off to Photoshop, or you can use a Black & White adjustment layer (the latter method sports a Tint option that lets you apply one color to an image, but not the gradients we're seeking here), etc. We'll use my favorite method: a Gradient Map adjustment layer (which also happens to be where those toning presets live). Because this adjustment layer uses the foreground and background color chips, press the D key on your keyboard to set them to their default values of black and white and then tap the X key to flip-flop them so black is on top and white is on the bottom.

Next, click the half-black/half-white circle at the bottom of the Layers panel and choose Gradient Map. The Properties panel springs open and Photoshop maps image shadows to the first color in the gradient (your foreground color chip, which is black), highlights to the second color (your background color chip, which is white), and midtones to all the shades of gray in between. (This part works in most versions of Photoshop Elements, too.)

AS YOU CAN see here, a Gradient Map adjustment layer can create awesome black-and-white images.

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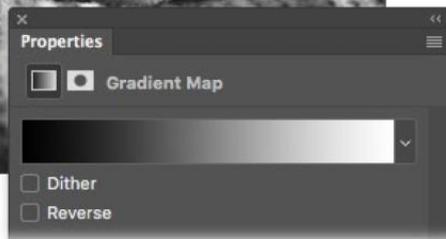
Now let's add a toning preset. With the Gradient map adjustment layer active, duplicate it by pressing Command-J. With the duplicate layer active, trot over to the Properties panel and click the down-pointing triangle to the right of the gradient preview. From the menu that opens, click the tiny gear icon and then choose Photographic Toning. Click on Append in the dialog box that opens and the new presets appear last in the list. The rest is easy: single-click each preset until you find one you like. Use the Opacity setting at the top of the Layers panel to control
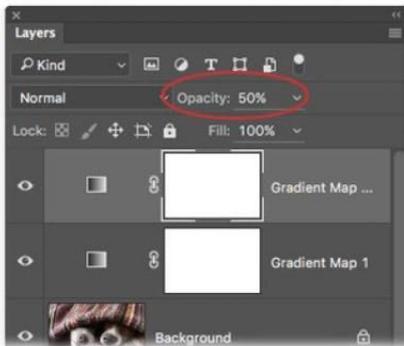
**HERE THE** Copper 2 preset was applied at 50 percent opacity.
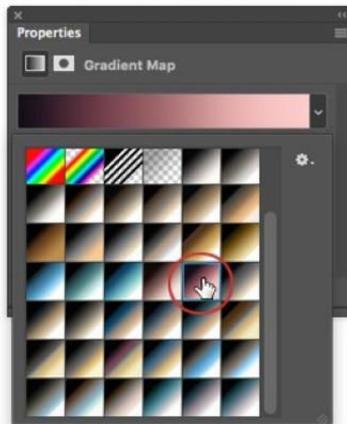
the strength of the tint.

It's worth noting that this method doesn't produce a true grayscale image. If you peek into Photoshop's Channels panel, you still see red, green, and blue channels. This is really only important if the image is headed to an offset printing press wherein the cost of printing can be lowered by reducing the number of colors in the image. To produce a true grayscale image, you must change the document's mode to Grayscale. Once you do that, you gain access to Duotone mode where even more toning presets live (great fodder for a future column).

TONING A COLOR IMAGE

To shift the colors in your image without going black-and-white first, you need one Gradient Map adjustment layer and it doesn't matter what colors your foreground and background color chips are set to. So add a Gradient Map adjustment layer and, if you haven't done so already, load the Photographic Toning presets as described above. Click the preset you want to use and then adjust layer opacity until you're happy with the effect.

As long as you save the file in Photoshop format, you can play with other toning presets anytime you
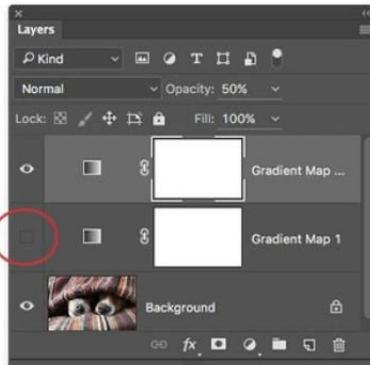
YOU CAN HIDE the black-and-white effect by turning off the layer visibility (circled) of the first Gradient Map adjustment layer.

want by double-clicking the Gradient Map adjustment layer's thumbnail to reopen the Properties panel. You can also experiment with changing the Gradient Map adjustment layer's blend mode, and opening the Gradient Editor to customize the presets—the creative possibilities are endless. ■

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How to access advanced OpenType features in a variety of apps

Up your typography game in Apple, Microsoft, Adobe, and Quark apps.

BY LESA SNIDER

Fancy

Fancier

Fanciest

Fancy typography doesn't require expensive software. Thanks to the OpenType font format, the newest versions of everyday software (and the pro stuff) can tap into a multitude of alternate character designs if you know where to look.

In this column, you'll learn to use a variety of applications to add a special flourish to an important letter in a word—say, the first or last letter of a name—or to change the appearance of any amount of text. It's a wonderful way to enliven an invitation, greeting card, inspirational graphic, logo, headline, stationery, resume, and so on.

ABOUT OPENTYPE FONTS

Released in 2000, the OpenType font format was intended to replace TrueType and PostScript font formats, and it dramatically extended the potential scope and intelligence of fonts. Soon font developers began releasing advanced OpenType fonts—most have Pro in their name— that contain thousands of characters (correctly called *glyphs*).

Over the years, creative and ambitious font developers added multiple versions of some characters—say, different versions of an *F*—enabling you to customize text in special ways. That said, however fun replacing one character with an alternate glyph can be, it gets

tedious because advanced OpenType fonts often include lots of alternates for some characters and zilch for others. Also, some alternates simply don't look good when placed next to specific other characters.

To aid you in locating alternate characters that look good together, some advanced OpenType fonts include stylistic sets, specific combinations of alternate characters chosen by the font designer. Some fonts also include more typographic substitutions in the form of additional alternate glyph sets named contextual alternates, swash alternates, and titling alternates. Initially, you needed pro-level software to access advanced OpenType features but not anymore.

To swap glyphs, you have to start with an advanced OpenType font so the biggest challenge may be figuring out which of your installed fonts qualify. If you bought the font, then you'll know; however, some are automatically installed with Adobe applications. If your Mac has a font with Pro in its name, it's probably an

advanced OpenType font (in Adobe apps, you can find them by entering "pro" into the font name field). If you don't have any, you can buy them from Adobe (go.macworld.com/adobetype), FontShop (fontshop.com), P22 Type Foundry (p22.com),

Sudtipos (the maker of your author's favorite, Adios Script Pro, sudtipos.com), and other font developers. If you subscribe to Adobe's Creative Cloud, you have free access to advanced OpenType fonts through TypeKit. However, to try out the
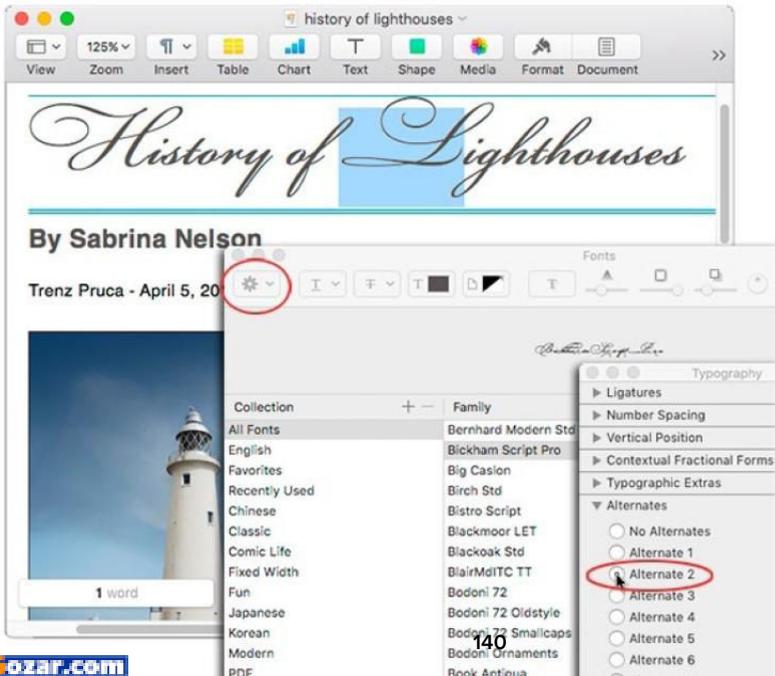
NOTE THE DIFFERENCE between the H and the L using regular Bickham Script Pro (top) vs. the fancier versions using glyphs in Alternate 2 (bottom).

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features in this column without spending money, download Gabriola, a free advanced OpenType font from TheFonty.com.

ACCESSING ADVANCED OPENTYPE FEATURES

The way you access advanced OpenType features depends on the application. However, the first step is to highlight some text and then apply an advanced OpenType font to it. Next, highlight the character(s) or word(s) that you want to swap for something else.

USING APPLE APPLICATIONS

In Apple applications (TextEdit, Pages, Keynote, iBooks Author, etc.) choose Format ➔ Font ➔ Show Fonts or press Command-T. Click the gear menu (circled in the screenshot on the previous page) and choose Typography. In the resulting panel, click the triangle next to the Alternates section and then turn on any of the alternates in the list to change the highlighted text. If the font also includes stylistic sets (not all of them do), you'll see a section named Alternative Stylistic Sets. If it includes contextual alternates, there'll be a section for that, too (the latter also includes swash alternates that can add some seriously ornamental swashes to your text).
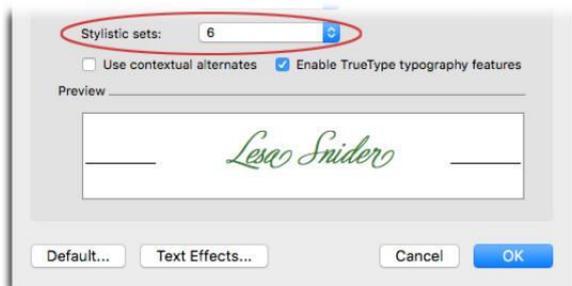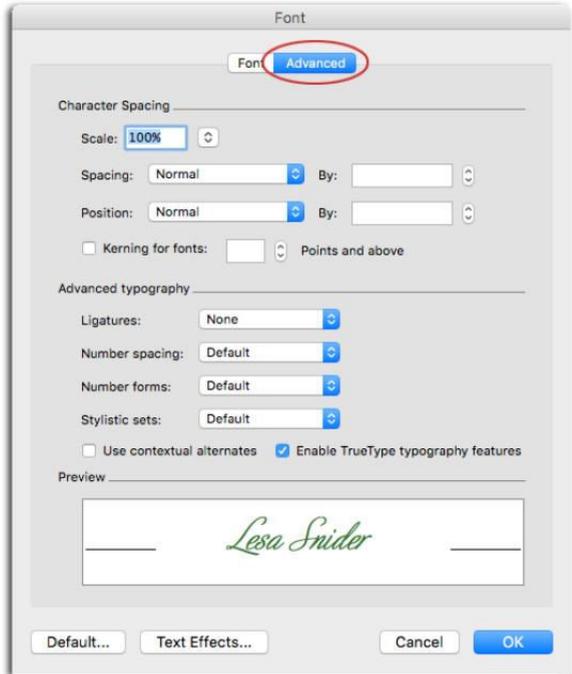
UNFORTUNATELY, WORD doesn't indicate which sets are available for your font, so you have to try them all to find one that works. Adios Script Pro was used here; notice the difference in the *a* and *r* in set 6.

USING MICROSOFT WORD

You can't access alternate glyphs in Microsoft Word, but you can access stylistic sets and contextual alternates in Word 2010 and higher. To do that, choose Format → Font and, in the dialog box that opens, click Advanced and then click the Stylistic Sets menu. The switch for contextual alternates lies beneath that menu.

USING ADOBE INDESIGN, ILLUSTRATOR, AND PHOTOSHOP

To access alternate glyphs in Adobe InDesign or Illustrator, choose Window → Type & Tables → Glyphs; in Photoshop, choose Window → Glyphs. In the panel that opens, click the Show menu and choose Alternates For Selection. Double-click an alternate's thumbnail to swap them out.

To access stylistic sets in InDesign, choose Window → Type & Tables → Character. Click the fly-out menu at the panel's upper right, choose OpenType → Stylistic Sets, and then pick one of the non-bracketed sets (those with brackets aren't available in the current font). To apply a different set, deselect the first one and then pick a different one (a frustratingly tedious procedure)—you can apply multiple stylistic sets, sometimes a character or two will change but sometimes not. InDe-
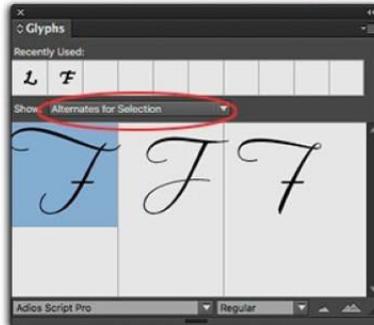
HERE YOU CAN SEE the alternate glyphs for an *F* in Adios Script Pro in InDesign.

sign's OpenType menu also provides options for swash, contextual alternates, and titling alternates. In Adobe applications, enabling each alternate individually provides different combinations of characters, as does enabling more than one at the same time.

Photoshop and Illustrator lack stylistic sets, but they have contextual, stylistic, and titling alternates, which are worth exploring. To find them in Photoshop, choose Window → Character, click the panel's fly-out menu, and choose OpenType to reveal a list of options. In Illustrator, choose Window → Type → OpenType and then click the panel's fly-out menu to get a list.

USING QUARKXPRESS

To access alternate glyphs in QuarkX-Press, choose Window ➡ Glyphs. In the panel that opens, choose Alternates For Selection from the second menu from the top. Stylistic sets aren't available yet, but they will be in QuarkXPress 2016 (set to release in the second quarter of 2016). You'll be able to find them in the Character tab of the Measurements palette—click the green *O* to see them.

As you can see, advanced OpenType font features can set your text apart from all the rest. Until next time, may the creative force be with you all! ■
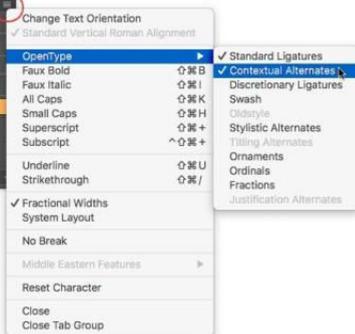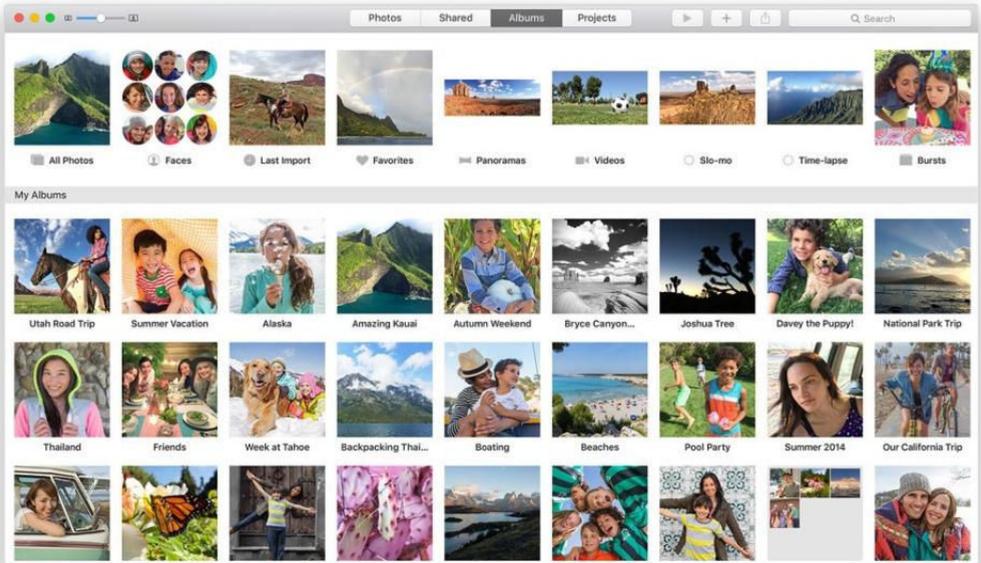

CONTEXTUAL ALTERNATES are worth exploring, as you can see in this before (top) and after (bottom) in Photoshop. The flourish in the lowercase *p* greatly improves the ad.

Mac 911

Solutions to your most vexing Mac problems.

BY GLENN FLEISHMAN

What happens when you can't control the album sort order in Photos when synced

Q: I just edited my albums on my Mac. The photos are in a specific order in certain albums, but this hasn't synced to the iPhone or iPad. The photos are still in random order on those two devices.

— Simone Nixon

A: I haven't been able to replicate this: All photos in my albums (tested under iOS 9.3 and OS X 10.11 El Capitan) retain their order synced using iCloud Photo Library. It's possible there's corrupt data. You can repair the library by quitting

PHOTOGRAPH COURTESY OF APPLE
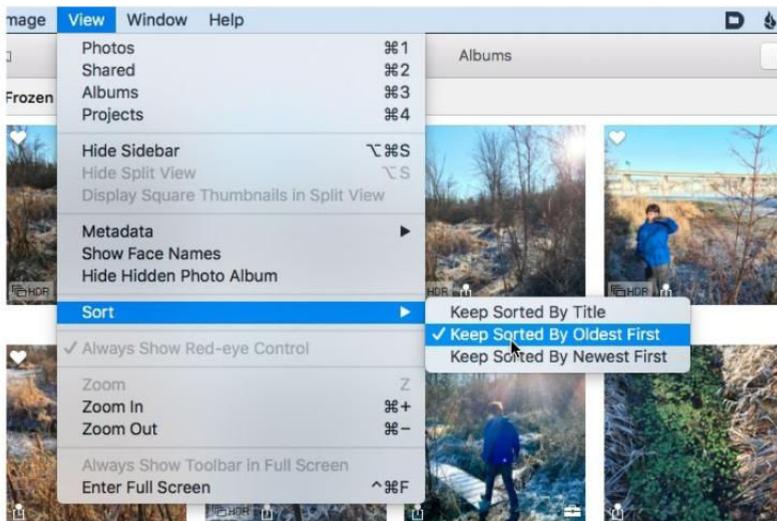
YOU CAN LOCK the order of photos sorted within an album.

Photos, then holding down the Command and Option keys while launching Photos. You'll be prompted to repair. This can take a while for libraries with thousands of images.

Because you intentionally re-ordered images, you shouldn't be affected by a sorting option you can enable, because manual changes override the option. With an album selected, you can select View ➔ Sort and choose one of the "keep" items that locks image sorting by a particular criteria. That can be by oldest first, newest first, or the photo's title.

Some people also see a related issue: The order into which they sort their albums in Photos on one device doesn't sync and isn't retained to others. I tested this in my setup, and

found that all albums remained in the same sort order and that changing the order in one place was almost instantly propagated to another device. If this stops working, however, I haven't seen any solution to set it right.

How to stop OS X from deleting trashed files immediately

Lana Y. writes in with a problem related to getting rid of files in OS X. Like many people, she wants to use Trash as a way station and then opt to empty trash later.

Q: **My files are deleted immediately, without possibility to access them in Trash. I tried to change the**

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privileges and tried to find Trash in terminal. Nothing helps.

— Lana Y.

A: This is a common and frustrating problem, and Lana isn't alone. The file permissions associated with trash are out of whack, making it impossible for OS X to write new files to the Trash folder, and OS X doesn't have a friendly way to repair it, even though your Mac knows enough that it can't write to the folder! (OS X could note the problem and ask a user, "There's something wrong with your Trash, which prevents files from being put there. Would you like to repair it?" as one possibility. OS X notices similar other problems.)

The underlying Unix directory for files en route to deletion isn't global but is located in each user's home directory. This is transparent to you when using OS X unless the permissions for the directory become messed up. In that case, because OS X can't move the items you want to delete into this temporary location, you're prompted to delete files or folders immediately. (You'll see this warning when deleting files from mounted file servers, too, for the same reason.)

You can solve this via the Terminal although you need to be even more careful than usual in entering a command there, as you could delete other files if you don't copy and paste (or, type in) the exact sequence—it won't just fail, but could delete parts of your drive.

With that warning in place, follow these steps when logged into your account, which has to have administrative privileges for this to work:

1. Launch Application ➜ Terminal.

2. At the command prompt, type (or, preferably, copy and paste):

```
sudo rm -ri ~/.Trash
```

3. Press return.

4. You should first be prompted for your account's password; enter it, and press return.

5. You should next be prompted to remove any files and folders in the `.Trash` folder, followed by the `.Trash` folder itself. Type **yes** and return at each prompt. (This is a great place to notice if you've entered anything incorrectly above, too, and to press Control-C to halt the removal if you have.)

> **THE UNDERLYING UNIX DIRECTORY FOR FILES EN ROUTE TO DELETION ISN'T GLOBAL BUT IS LOCATED IN EACH USER'S HOME DIRECTORY.**

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6. Log out of your OS X account (Apple menu ➔ Log Out *Username*, which closes all programs) and log back in. The problem should be solved, as OS X will create a new `.Trash` folder with the correct permissions.

(If you like to live dangerously, use `sudo rm -rf ~/.Trash` instead to bypass being prompted to delete each file or folder. But I warned you.)

If you continue to have problems, you may have permissions problems on mounted drives. You can repeat the above operation for each volume, which contains a hidden top-level `.Trashes` folder with separate folders for each user in OS X.

In step 3, instead of `~/.Trash`, you use each volume's name. In OS X, you can type `df -H` to find the names of each volume, which are listed under a Mounted On column in form `/Volumes/` plus the drive's name.

Unix doesn't recognize spaces in names as part of the name unless they're handled carefully, by putting a backslash in front of them, such as `/Volumes/My\ Main\ Backup\ Drive`. You can avoid having to do this formatting by dragging the volume in question into the Terminal window after entering the command for step 2:

> Type `sudo rm -ri` plus a space.

> Drag the volume onto the

Terminal window, and it inserts the properly formatted volume name.

> Now press Delete to remove a space after the drive's name that's automatically inserted, and add `/.Trashes`.

Now log out of your account and back in, and you should have your Trash folder restored to normal. (If you'd like to be able to delete immediately, see go. macworld.com/deletefrmtrash on using that function intentionally.)

How to sort files and folders in the Finder

Q: **I have several folders in the Finder, but I can find no way of keeping them in alphabetical order. They move according to when they were last accessed, which, for my work, is confusing.**

— Emily O'Brien

A: I say folks are scared to ask, because it's the kind of thing that *seems* like a novice question (which Emily isn't, given her expert use of the term *Finder*), but it opens up the fact that every person uses the same operating system differently. Even something like sorting items isn't perfectly exposed.

It's possible something is broken

in the Finder causing a sort problem; we should never discount that. But assuming all is well, you can sort items in a Finder window alphabetically by:

> Clicking the Name field at the top of the list view. An upward-pointing arrow following Name indicates sorting alphabetically with numbers first, then A to Z; click again to swap to downwards, and it's sorted Z to A, then reverse numeric order.

> Select the menu item View ➜ Arrange By ➜ Name.

> Click the Arrange By/Sort By icon in the Finder window toolbar (if that icon is displayed) and choose Name.

You can also experiment with Arrange By, which groups items into larger categories, coupled with Sort By. In a downloads folder, for instance, I have Sort By set to descending chronology (oldest files first) using Date Added, and then Arrange By Set to Name. This groups items into Today, Yesterday, Previous 7 Days, Previous 30 Days, and months and years after that (as long as any items fit into each date group). Within each group, the items are alphabetized to make them easier to read through. ∎

Ask Mac 911

We're always looking for problems to solve! Email us at mac911@macworld.com including screen captures as appropriate.

Mac 911 can't provide direct email responses or answers for every question. For that, turn to Apple-Care, an Apple Store Genius Bar, or the Apple Support Communities.