KEYSTONE
MacCentral

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The Nik Collection and Snapseed
from Google

Google recently released their Nik Collection into the wild. It's free for the downloading. The Nik Collection is comprised of seven desktop plug-ins that provide a powerful range of photo editing capabilities — from filter applications that improve color correction, to retouching and creative effects, to image sharpening that brings out all the hidden details, to the ability to make adjustments to the color and tonality of images.

Snapseed 2 is a mobile app for your iPhone by Google. Perfect your photos in a snap with the new Snapseed 2. This app brings to your mobile device the power and control of professional photo editing software, previously only available on the desktop. Now with the tap of a finger you can retouch, adjust perspective, re-edit, and more.

Wendy, our resident photo diva, will discuss and demonstrate both the Nik Collection and Snapseed. Plan to join us for this informative session. ✿

Meet us at

Bethany Village Retirement Center
Education Room
5225 Wilson Lane, Mechanicsburg, PA 17055

Tuesday, October 18 2016 6:30 p.m.

Attendance is free and open to all interested persons.

Contents

Keystone MacCentral Essentials

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by Josh Centers

Setting Up and Using Find My iPhone

Once a selling point for Apple's premium MobileMe service, Find My iPhone went free with the advent of iCloud and is now an essential tool in protecting the privacy of your digital life.

Find My iPhone isn't limited to the iPhone — it's also available for the iPad, iPod touch, Apple Watch, and Mac, and the name changes for each platform. A little confusingly, Find My iPhone is both an iCloud-based service controlled by a setting on your device and an app for iOS and iCloud.

As its name implies, Find My iPhone helps you find your iPhone by displaying its GPS location on a map. You can also use Find My iPhone to play a sound on your device (handy for finding a misplaced iPhone around the house) or display a status message (perhaps to offer a reward for a lost iPad). You can also use Find My iPhone to lock or wipe a device remotely.

Even more importantly, Find My iPhone enables Activation Lock, which prevents a thief from activating a stolen iPhone with a cellular carrier. It also prevents anyone from disabling Find My iPhone or erasing the device, rendering a stolen device useless. Activation Lock is credited with worldwide drops in iPhone thefts of up to 50 percent! For that reason alone, you should keep Find My iPhone enabled at all times unless you plan to sell your phone or take it to Apple for service. For more on Activation Lock, see "What You Need to Know about Activation Lock" (8 October 2014).

New iPhones are coming soon, so now is a good time to understand how to activate and use Find My iPhone if you aren't already doing so, or turn it off if you plan to sell your existing iPhone.

Enabling Find My… — Both iOS and the Mac prompt you to enable Find My… during setup, but if you skipped it for some reason, here's how to set it up.

In iOS, go to Settings > iCloud > Find My iPhone, and turn on Find My iPhone (or Find My iPad). It's that simple, assuming that you're already signed into iCloud. You should also enable Send Last Location, which sends Apple the device's last known location when the battery is critically low. This way, even if your iPhone dies before you can find it, you'll at least have a lead on where it is.

As long as Find My iPhone is enabled, Activation Lock is also enabled, making the device useless to anyone who doesn't know your Apple ID and password. If you have an Apple Watch running watchOS 2 or later, enabling Find My iPhone also triggers Activation Lock on any paired Apple Watches.

Turning off Find My iPhone in Settings > iCloud > Find My iPhone is a bit more involved than turning it on because you have to enter your Apple ID password to do so. You will also receive an email informing you that Find My iPhone has been disabled.

Be sure to disable Find My iPhone if you sell or give your phone to someone else, or if you take the device to Apple for service. Apple won't repair a device that has Find My iPhone enabled. Of course, if you're going to pass on an iPhone to another person, be sure to clean it off first with Settings > General > Reset > Erase All Content and Settings.

To enable Find My Mac, go to System Preferences > iCloud, select Find My Mac, and allow Find My Mac to use your Mac's location when prompted. Wi-Fi must be on, since comparing accessible Wi-Fi networks to Apple's database that ties Wi-Fi networks to locations is the only way a Mac can determine its location. As in iOS, you must enter your Apple ID password to disable Find My Mac.

Also be sure to set a firmware password. As Adam Engst explained in "Disable Find My Mac by Resetting NVRAM" (22 July 2016), a thief can otherwise easily disable Find My Mac with a simple NVRAM reset.

Using the Find My… Apps — Using the Find My iPhone app on an iOS device is straightforward. The app displays a map showing your devices, along with a list of your devices. If you belong to a Family Sharing group, you should also see family members' device locations.
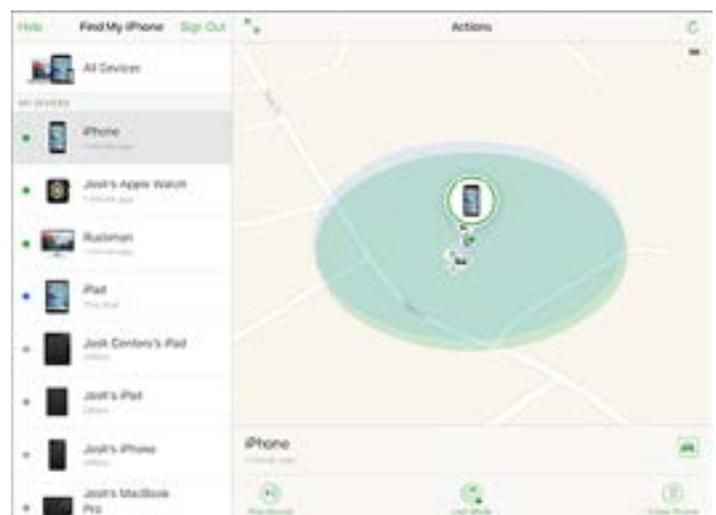
Tap an iOS device or Apple Watch on the map to see the following options. If you don't see them, tap Actions:

- **Play Sound:** This command causes your lost device to begin playing a sound at full volume until you find and unlock it. The sound plays even if the device is set to mute. It's handy if you forget where in the house you left your iPhone.

This isn't related to Find My iPhone, but for many people, one of the best features of the Apple Watch is that you can ping your iPhone from the watch. Swipe to the Settings glance and tap the ping button to play a homing sound on your iPhone. (In watchOS 3, Apple moved the ping button to the new Control Center, which you access by swiping up from below the bottom of the screen.)

- **Lost Mode:** If your device is so lost that playing a sound won't help find it, Lost Mode locks the device, displays your phone number and a message, attempts to suspend any Apple Pay payment methods, and sends you regular location updates via email.

To begin, tap Lost Mode. On the next screen, tap Turn On Lost Mode. Next, enter a phone number at which you can be reached. After that, you can enter a message for the person who finds your phone.

Your device will then be locked. Anyone who finds it will see Lost iPhone, your message, your phone number, and buttons to call you or place an emergency call.
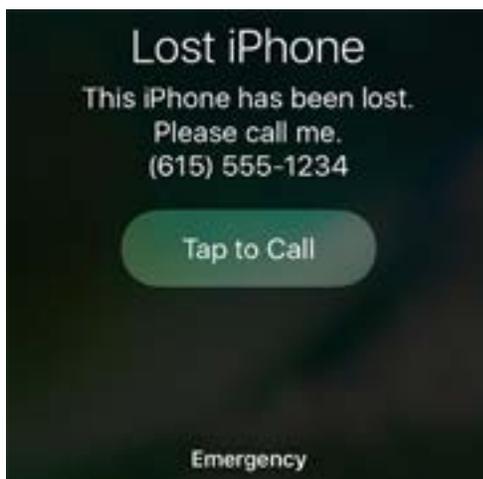
To disable Lost Mode, you either need to tap Turn Off Lost Mode in the Find My iPhone app or unlock the device with your passcode. After unlocking a lost iOS device, you must also enter your Apple ID password to finish disabling Lost Mode.

- **Erase:** As a last resort, you can erase the device entirely, which still leaves it unusable by anyone else. You'll no longer be able to see your device in the Find My iPhone app after you do this. You must enter your Apple ID password to erase the device. You can also add a phone number and message to be displayed on the screen after the device is erased.

In the event that you manage to recover the device, you can restore the device using an iCloud backup. You have been backing up to iCloud (via Settings > iCloud > Backup) and/or iTunes all along, haven't you?

Should your device be unrecoverable, and if it has a cellular plan, be sure to contact your carrier and have service cut off or transferred to another device. However, if you're on a contact or payment plan, you may still be on the hook for the monthly bill.

- **Navigate:** Tap the car icon to get directions to your device in Maps, which could be useful if you left your iPhone behind at a bar the night before, but be careful with this if your device has been stolen! Jeremy Cook of Ontario, Canada was shot to death after trying to retrieve his iPhone from thieves. Even if you think you're Charles Bronson, Find My iPhone might lead you to the wrong house! In the event of theft, contact the police.

Tracking a Mac offers slightly different options: Play Sound, Lock (instead of Lost Mode), and Erase Mac. Lock differs from the iOS-specific Lost Mode in that you cannot erase a locked Mac. You set a PIN and confirm it, and then enter an optional message.

Once you lock the Mac remotely, it reboots into a special locked mode. To unlock it, you have to enter the PIN you set, after which the Mac reboots into normal operation. You cannot unlock a Mac remotely with the Find My iPhone app.

While there isn't a Find My iPhone app for the Mac, iCloud.com offers a Web app that's almost as good. The chief differences from the iOS app are that you access your device list from a menu, and the Web app doesn't provide directions to the device.
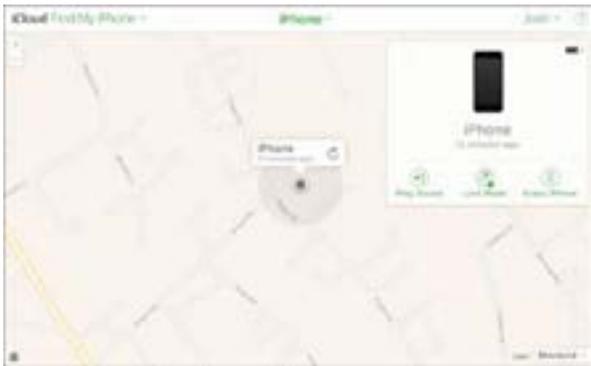
Now that you know the ins and outs of Find My iPhone and Find My Mac, there's no excuse not to use them! They should be enabled on all of your devices until the time comes to get rid of them or have them serviced. ⌚

by Julio Ojeda-Zapata

Comparing iPad Pro Technologies and Intangibles

The **iPad Pro**, released in a 12.9-inch model in September 2015 and a 9.7-inch flavor in March 2016, has been touted as a breed apart.

Though the iPad Pros resemble previous iPad models, they're tricked out with a magnetic Smart Connector for use with a **Smart Keyboard** cover, and they also work with the new **Apple Pencil** stylus.

Apple's emphasis with the iPad Pro is on productivity, an angle I've embraced with gusto. Though I have long been fond of writing and doing other work on an iPad, the iPad Pro has taken over for an Apple laptop as my preferred workhorse while on the go.

The question is, which iPad Pro? There's the rub.

I've made extensive use of both models in recent months and love them both for different reasons. While they seem nearly identical on the surface – apart from size and weight, of course – they are quite distinct in some ways.

The newer 9.7-inch model boasts certain advanced features that its older 12.9-inch sibling lacks, while the big iPad Pro outpaces the smaller one in several significant ways.

Advantages of the 9.7-inch iPad Pro — The smaller iPad Pro, because it's newer, incorporates cutting-edge technology that presumably wasn't ready when Apple released the bigger iPad Pro.

- **Display:** Apple advertises the small iPad Pro as having the "brightest and least reflective" screen anywhere, with colors that "are more vivid, true to life and engaging." It adds that the smaller tablet "uses the same color space as the digital cinema industry," with a wider color gamut that gives the device up to 25 percent greater color saturation than previous models.

Fair enough, but I'm not sure I would have noticed this without being prompted. And, after much squinting at the two displays, I can't honestly think a user of the bigger iPad would feel cheated.

In another respect, the display on the smaller tablet is starkly different. It offers a "True Tone" screen with built-in sensors that alter its appearance based on ambient lighting conditions. This feature adjusts the display color and intensity to match lighting around it.

I found True Tone jarring at first but grew to like it. Peering at the two iPads in my customarily dim home office on a late afternoon, for instance, the screen on

the larger iPad Pro had a decidedly bluish tint while the smaller iPad appeared warmer and more inviting.

True Tone is different and separate from the Night Shift feature that aims to make a screen more comfortable to read in low-light conditions. True Tone and Night Shift often seem to behave similarly, although Night Shift is based on timers and not physical sensors. I solved the confusion by keeping Night Shift switched off on the 9.7-inch iPad.

- **Cellular access:** Integrated support for cellular data connections in some iPad models sets them apart from Apple laptops, none of which can yet boast such connectivity. However, the two iPad Pro models have different cellular capabilities.

The 9.7-inch model supports a cellular data feature called LTE Advanced that is available from some carriers, including AT&T. LTE Advanced can boost Internet performance dramatically. In my speed tests, cellular downloads tended to be as much as 50 percent faster on the smaller iPad Pro model than on the large one.

Apple also eliminated the need for an add-in Apple SIM in the 9.7-inch iPad Pro, though the tablet still has a nano-SIM tray if your carrier requires a physical SIM. Instead, it has a new feature called embedded Apple SIM that internalizes the SIM card's features.

Regardless of whether the Apple SIM is embedded or not, it exists to make life easier for those who need cellular service in foreign lands. Obtaining a physical SIM for such service has been a longtime ritual for overseas travelers, but Apple SIM users can sign up for cellular service right on their tablets as they move from place to place. So the difference between the two

Apple SIM types seems a minor one, allowing most users of the smaller iPad Pro to ignore the nano-SIM tray.

- **Camera and photos:** People like taking photos with their iPads, no matter how awkward it may look, and those who do should know that the cameras on the iPad Pro models differ in significant respects.

The larger iPad has an 8-megapixel rear-facing camera with an f/2.4 aperture that shoots 1080p video. Its front-facing camera has a 1.2-megapixel resolution with an f/2.2 aperture and takes 720p video. Neither camera has a flash, which is a distinct disadvantage.

The smaller iPad has a 12-megapixel rear-facing camera with an f/2.2 aperture that shoots 4K video. It adds a True Tone flash, found on certain iPhone models, whose white and amber LEDs can produce more than 1000 different color temperatures to achieve a better white balance.

Its front-facing camera has a 1.2-megapixel resolution with an f/2.2 aperture and shoots 720p video. It adds a Retina Flash feature that, as on the iPhone 6s and 6s Plus, turns the screen into a flash and makes for an unusual selfie experience as the screen momentarily turns bright white for subtle illumination.

The smaller iPad can take Live Photos, a capability absent from the larger model.

- **Hey Siri:** Only the smaller iPad boasts the always-on feature that puts Apple's intelligent assistant at your beck and call.

Advantages of the 12.9-inch iPad Pro — The larger of the iPad Pro models, though older, is superior to the small one in several tangible ways.

- **Lightning port:** The Lightning port on the bigger iPad incorporates the zippy USB 3.0, while the one on the smaller iPad offers only the slower USB 2.0.

This difference likely means little to most people, but it has serious ramifications for certain types of users, such as photographers.

"For photographers who want to transfer photos for review or editing from a camera to the iPad, this is almost crippling," my TidBITS colleague Jeff Carlson recently observed on his personal blog. Jeff found that transferring 1.5 GB of images took 30 seconds via USB 3 and 2 minutes 20 seconds via USB 2.

- **Performance:** Though roughly similar to the 9.7-inch model in terms of internal specs, the 12.9-inch model offers slightly superior performance.

It has 4 GB of RAM, compared to the smaller tablet's 2 GB. And while both tablets have an A9X chip, both raw processing and graphics are zippier on the larger iPad.

Honestly, though, I seldom noticed the difference while using both iPads.

- **Faster charging:** As I noted in "iPad Pro Charges Faster with MacBook Adapter and New Cable" (27 April 2016), charge times on the large iPad can be reduced by about half by swapping out its standard charger for the 29-watt USB-C Power Adapter that comes with the 12-inch MacBook and pairing it with one of Apple's new USB-C to Lightning cables.

The fast-charging capability in the 12.9-inch iPad makes this trick possible; alas, the 9.7-inch model lacks the fast-charging feature.

The Intangibles — In many ways, purchasing an iPad is a highly personal decision. One potential buyer might find the larger iPad Pro too big and heavy, while it might be just right for another. For some, the version of the Smart Keyboard for the 9.7-inch iPad might feel intolerably cramped, but not for others.

I'll focus here on my experiences while broadening my discussion to include others who might be considering a purchase.

- **Smart Keyboard:** The dimensions of the Smart Keyboard for the bigger iPad are deliciously ample. I expected the smaller Smart Keyboard, like other keyboards and keyboard cases designed for 9.7-inch iPads models, to feel scrunched to me.

However, my concerns were laid to rest when I started using it. I did serious work on the thing with little discomfort. Your mileage may vary; I recommend trying both in a store.

- **Screen considerations:** The larger iPad's generous screen size can be critically important for some people. On the larger iPad, each side of the screen in Split View has as much display area as the smaller iPad's display, which is great for productivity. Split View on the smaller iPad is less useful given the narrowness of each panel.

This, of course, assumes app developers have updated their offerings to support Split View. Some have not. As I've previously noted, Google's refusal to implement this basic feature in some of its iOS apps (such as Google Docs, which I'm using to type these words) is one of the great mysteries of the universe.

That issue impacts both iPad Pro models, but there's a related one that involves only the big iPad. In many cases, developers have been slow about updating apps to take advantage of the 12.9-inch screen. I'm looking at you, Facebook. Google has been maddeningly inconsistent in this regard, updating some apps (such as Inbox) but not others (like Gmail).

- **Size and weight**: At just under 1 pound (454 g), the 9.7-inch iPad Pro feels much more portable than the 12.9-inch model, which weighs 1.6 pounds (726 g).

The larger iPad Pro initially struck me as ridiculously large. It seems like a cafeteria tray – and I have even used it to transport meals from the kitchen to the front porch a few times.

For those with similar concerns but lusting after that big screen, I'd suggest a couple of strategies. Go for the Smart Cover (and, optionally, the matching Silicone Case) instead of the bulkier Smart Keyboard. With the cover and the case, the 12.9-inch iPad Pro struck me as a thin and light laptop.

Then, when you need it, add an external Bluetooth keyboard. There are many such options, some of which I covered in "Three Alternatives to the iPad Pro's Smart Keyboard" (8 February 2016).

One of the accessories in that article, the Zagg Messenger Universal, remains my favorite as a large and comfy keyboard with an integrated fold-out stand that is more than stable enough to hold the larger iPad (in either portrait or landscape orientation). I get a ton of work done on it at home. The Zagg Messenger Universal is thin enough that I have been known to take it on the road with the iPad despite the added weight and bulk, though it is mostly for home use.

Keyboard cases for the larger iPad Pro don't make a lot of sense to me — why bulk up the already large device? They make more sense for the smaller iPad.

Again, numerous options are available. I prefer Zagg's Rugged Book, which bulks up the tablet a bit, but seems indestructible (I throw it into my bike pannier every morning for my commute without a second thought) and has four positioning/viewing modes. The tablet detaches, as well, when I just want a touch experience. When I need to type, the Rugged Book's keyboard feels fantastic, though, of course, a bit cramped.

Be sure to buy the version for the iPad Pro. The similar iPad Air 2 model will fit the iPad Pro form factor, but does not have its magnets correctly positioned to activate the tablet's sleep mode when the lid is closed.

Conclusion — Most people won't have both iPad Pro models available to compare. I'm lucky to have both versions on loan from Apple, which has been a revealing experience.

I've found a role for each tablet. The larger iPad Pro is mostly for home use – on my front-porch workstation, for instance, when I want to get some serious work done while enjoying a bit of fresh air.

The smaller iPad Pro is my mobile model. It goes with me everywhere. I tuck it into a small messenger bag if I'm walking, chuck it into my pannier when biking, and have it with me in my car at all times.

If I had to choose? I'd get the 9.7-inch model because it does everything the bigger tablet can, though sometimes in a more cramped manner, and it has some cool new features.

You'll make your own decision based on your particular set of needs and circumstances, but you can't lose. Both models are great, though with key differences that you should mull over carefully before making your purchase. ⬧

by Adam C. Engst

Myths and Misconceptions about macOS Sierra

After writing about Apple's announcement of macOS Sierra at WWDC and seeing comments in a variety of online venues, I'm a little depressed and disappointed (see "macOS 10.12 Sierra to Succeed OS X 10.11 El Capitan," 13 June 2016). Not with macOS Sierra itself, but with how many people are responding to its unveiling. All that anyone can accurately say about macOS Sierra is what Apple has shared; even the developer preview release is so new that it would be unfair to criticize any problems it may have.

However, that hasn't stopped the curmudgeon brigade from calling the keynote a "disaster" and referring to macOS Sierra's changes as "fluff," before complaining that they were being forced to upgrade.

I have no doubt that many people find change of any sort unsettling, but I'd like to encourage some calm and understanding. To go further, can we have some optimism for the future? The only way our experience as Apple users will improve is if Apple and its community of developers are excited to make things better. Not every change makes a positive difference, but just as with evolution, a lot of changes must be tried before we can benefit from the successes.

With that in mind, let me address three common myths and misconceptions:

#1: Apple is forcing me to upgrade. -- Not true. Apple's black helicopters will not land in your front yard to disgorge an elite upgrade team that will hold you at gunpoint until you install macOS Sierra.

You can wait as long as you like to update. Just last weekend, I helped my aunt move from a 13-inch MacBook Pro running Mac OS X 10.6 Snow Leopard to a new 13-inch MacBook Pro with Retina display running 10.11 El Capitan. She had been using Snow Leopard since 2009 or so, and she skipped 10.7 Lion, 10.8 Mountain Lion, 10.9 Mavericks, and 10.10 Yosemite with no ill effects. She was ready to upgrade to El Capitan because she could no longer do online banking without a current Web browser, but she decided that after six or seven years, it was worth buying a new MacBook Pro.

Although you don't have to upgrade, I think swearing off updates entirely is foolish, which is why I wrote "Why You Should Upgrade (On Your Own Terms)" (4 September 2015). But you can certainly put off any upgrades until early kinks have been worked out and it's a convenient time.

#2: The new features are useless (because I don't want to use them). -- It's easy to look at the list of new features in macOS Sierra and scoff because you can't imagine using them.

> "Siri on the Mac? It's not like it works that well on the iPhone. Desktop and Documents folder sharing across devices? Why would I want all that crud on my iPad? Universal Clipboard? I probably wouldn't even remember how to use it the once or twice I might need it per year. Auto Unlock? The Apple Watch is an overpriced toy. Big emojis? Invisible ink messages? What are Apple's developers smoking?"

Here's the thing we all have to remember: No one of us is Apple's target audience. Not you, not me, not anyone. Apple is a global company that wants to sell hardware — iPhones, iPads, Macs, Apple Watches, and Apple TVs — to as many people as possible. Yes, Apple very much wants to sell you at least one of each, and it's going to create features that encourage buying into the overall Apple ecosystem. To do anything else would be, to quote Spock, illogical.

Plus, Apple is looking for broad appeal. While many long-time Mac users may be nonplussed by the emphasis Apple put on emoji frippery in Messages, for instance, those sort of features already exist in other messaging apps, and they're huge in Asia, particularly among younger users. Attracting that audience is key for Apple.

So no, these features aren't useless. They may not be useful to you, but they may be compelling to a teenage girl in China. Apple is just as happy to take her money as yours, and since the company has posted over $1 trillion in revenue in the past decade, it's hard to argue with the strategy.

New features also help Apple compete with Microsoft and Google. In terms of desktop market share, Windows remains at about 90 percent, and on the mobile side, Android smartphones control 80 percent of the market. Apple may be one of the most valuable companies in the world, but there's plenty of room for it to expand, if it can attract switchers.

#3: Apple is abandoning professionals. -- This myth is related to the earlier complaint about unwanted features, but debunking it requires a different perspective. Professionals don't work in the operating system, they work in apps, most of which Apple doesn't provide. Apple does make Pages, Numbers, Keynote, Logic Pro, and Final Cut Pro, but I can't think of any category of productivity apps for which Apple is the sole supplier.

Your needs are undoubtedly different from mine, but for my work, I rely on BBEdit, Nisus Writer Pro, Adobe InDesign, Google Chrome, Mailplane, Preview, Slack, Trello, and Automator. As long those apps and the workflows I've built up around them continue to work, I can ignore literally every change in macOS Sierra.

That's an important point. No one is going to force you to use new features in macOS Sierra. If Siri, Auto Unlock, Universal Clipboard, and Desktop and Documents folder syncing don't make you more productive, don't pay attention to them. I've never found Launchpad, Handoff, AirDrop, or Notification Center to be helpful in my work, so I don't use them, and they don't get in my way.

Some may say that Apple should put more effort into specific operating system or usability improvements. There's no harm in that, but if you want to make suggestions, please be specific for two reasons. First, vague criticisms are worthless, and second, it's likely that enterprising Mac developers have already provided a solution — cue Keyboard Maestro, LaunchBar, TextExpander, and a host of others. Just as Apple doesn't provide all our

productivity apps, the company shouldn't be relied on to offer every imaginable interface or workflow tweak.

More generally, the job of an operating system is to provide a stable foundation and set of frameworks upon which developers can build. Apple has aimed many operating system changes at providing developers with capabilities they couldn't afford to implement on their own. That results in more powerful apps or upgrades appearing more quickly, and that in turn makes professionals more productive. Taking advantage of new capabilities may require you to update, but time is money, and if the latest app lets you get your work done faster, it's worth it.

Onward and Upward — I won't pretend that all change is good, or even that every change in macOS Sierra is likely to work out. As I said in "macOS 10.12 Sierra to Succeed OS X 10.11 El Capitan," lots of questions surround the Optimized Storage feature that's supposed to move rarely used data to iCloud. Personally, I wouldn't trust it or encourage anyone to use it without a truly solid backup strategy. Even then, I'd want to wait until enough people had put it through its paces with no ill effects.

Although healthy caution is always warranted, it's essential to realize that in the end, all this change does move our technology experience as Apple users forward. It might happen in fits and starts, but speaking as someone who has spent every working day over the last 26 years on a Mac, I have never been more productive or capable than I am today, working in my favorite apps in Apple's current Mac operating system on recent Mac hardware.

I can't guarantee that any given upgrade will make you or anyone else more productive, but productivity gains are inevitable in the long run. Do you remember when a Mac could run only a single app at a time, or when we wasted a lot of time scrolling because Mac screens were so small, or when extension conflicts required constant rebooting, or when attaching a hard drive needed SCSI termination voodoo, or when…. You get the picture, I hope.

We've come a long way, and how far we have left to go is limited only by our imaginations and those of the developers who provide our tools. So let's not get bogged down in petty criticisms about an operating system that won't even be released for several months. ⬧

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by Josh Centers

macOS Hidden Treasures:
15 Startup Key Combinations

When the proverbial manure hits the fan and prevents your Mac from booting as you want, knowing the right startup key combination can save

the day, whether you boot into Safe Mode, Recovery, Apple Diagnostics, or from another disk entirely.

Here are fifteen startup key combinations that can save the day when things go wrong. Not all of them are useful on today's Macs, but we wanted the list to be complete.

Option: Invoke Startup Manager — The first startup key every Mac users should know is the Option key. Press and hold Option as your Mac boots to enter the Startup Manager, which lets you select which disk to boot from.

Startup Manager is primarily useful for booting from an alternative drive, like a system clone, USB thumb drive, or a Boot Camp partition. However, you can also use it to force a boot from your primary drive if your Mac is stubbornly booting from another disk. Startup Manager can also help identify a flaky hard drive; if the drive you're looking for doesn't appear in Startup Manager, you know you have a problem.

If you have a bootable external drive, booting from that can also help you isolate problems or provide a different environment, such as a different version of OS X.

T: Target Disk Mode — What if you want to boot from another Mac's drive using Startup Manager? You can connect the Macs via FireWire or Thunderbolt, and then put the other Mac into Target Disk Mode, which lets it serve as an external drive. Hold T during boot to enter this mode. If either Mac lacks a FireWire or Thunderbolt port, you're out of luck.

In addition to troubleshooting, Target Disk Mode can also be useful for quickly transferring many gigabytes of files. And if your main Mac's display fails, you can use Target Disk Mode to turn it into the boot drive for another Mac with a working screen.

Shift-Control-Option: Reset SMC — When your Mac is exhibiting truly odd behavior, it may be worth resetting the System Management Controller (SMC), which controls all manner of things, such as batteries, keyboard backlight, and cooling fans. Apple has a full list of all the things an SMC reset can fix.

On desktop Macs, you reset SMC by unplugging the power cable for 15 seconds, plugging it back in, and turning the Mac on after five seconds. On older Mac notebooks, you can reset SMC by removing the battery and power adapter, holding down the power button for five seconds to drain

the capacitors, reinserting the battery, and turning it back on again.

However, for newer Mac notebooks, where it's impossible to remove the battery, you need to know this key combo: Shift-Control-Option — using the keys on the left side of the keyboard. Shut down your Mac, connect it to power, press Shift-Control-Option, and then press the power button while holding those keys down. Release the keys and press the power button again to fire up the Mac, hopefully with a fresh set of SMC settings.

Command-Option-P-R: Reset NVRAM — The other quick fix is resetting Non-Volatile Random Access Memory (NVRAM), which you do by holding Command-Option-P-R during startup. The Mac startup chime should sound a second time. After that, release the keys. (The reason for using P and R in the key combination is that Apple used to call this bit of non-volatile memory "PRAM," for Parameter RAM.)

NVRAM controls things like speaker volume, screen resolution, and startup disk selection. Like an SMC reset, an NVRAM reset can fix a host of seemingly random issues.

Shift: Safe Mode — If your Mac gets stuck during the boot process, booting in Safe Mode might help you diagnose what's wrong. To invoke Safe Mode, hold the Shift key while booting. It does a few things:

    Verifies and repairs your startup disk
    Loads only essential kernel extensions
    Ignores startup and login items
    Disables user-installed fonts
    Deletes all system cache files

Simply booting in Safe Mode may solve your problem, if it was related to directory corruption or a messed-up cache file. If a Safe Mode boot works fine, try a regular boot immediately, and if it proceeds normally, you're all set.

However, if your Mac boots fine in Safe Mode, but has problems booting regularly, you probably have a software problem related to something that loads at startup. You might guess that a third-party kernel extension was the culprit, but it could also be a corrupt font. Start poking around in the various Library folders on your Mac.

Command-R: Recovery — Every modern Mac can boot into a special mode called Recovery, which provides tools to resolve a variety of problems. The system disk of most Macs contains a small partition containing a stripped-down version of OS X, which you can boot from by holding Command-R as your Mac boots. If, for some reason, the recovery partition is missing, you can load the Recovery software from the Internet by holding Command-Option-R at startup. Needless to say, loading Internet Recovery will take quite a bit longer; happily, it does give you a time estimate.

Recovery gives you seven options:

Restore from a Time Machine Backup: You do have a Time Machine backup, right? Right?

Reinstall OS X: You don't have to wipe your disk and start from scratch; this option reinstalls the currently installed version of OS X over your existing install, which can fix missing or corrupted system files. If you use Internet Recovery, you get the version of OS X that originally came with your Mac instead.

Get Help Online: This option opens Safari so you can browse Apple's support site for help.

Disk Utility: This brings up the Disk Utility app, which can check and repair your disks, and if absolutely necessary, erase your system disk, onto which you can then reinstall OS X and restore your data from a Time Machine backup. (You do have that backup, right?)

Firmware Password Utility: Choose Utilities > Firmware Password Utility to launch this app, which lets you set and turn off a firmware password. You might want to enable a firmware password to make Find My Mac more secure (see "Disable Find My Mac by Resetting NVRAM," 22 July 2016).

Network Utility: Also available from the Utilities menu, Network Utility lets you test local and Internet connectivity using tools like Netstat, Ping, Traceroute, and more. It's more easily used when the Mac isn't in Recovery mode, but it's here if you need it.

Terminal: For those who are more comfortable at the command line, you can also launch Terminal from the Utilities menu. It's a stripped-down installation that may lack some of the Unix tools you're accustomed to having, but you can move around, look at files, and delete things. Be careful!

D: Apple Diagnostics — If nothing mentioned so far is solving your problem, you could have a hardware issue. Hold D at startup to boot into either Apple Hardware Test or Apple Diagnostics.

Which you get depends on the age of your Mac; Macs produced before June 2013 have Apple Hardware Test, while later Macs have Apple Diagnostics. They do basically the same thing, but Apple Hardware Test is a blast from the past — it looks like the old, pre-OS X Mac OS! Apple Diagnostics is a lot slicker looking and more or less automatic, while you have to click a button to initiate Apple Hardware Test. Apple Hardware Test also gives the option of an extended test, which takes a lot longer and isn't usually necessary. Apple recommends disconnecting all external devices except the keyboard, mouse, display, and Ethernet adapter before starting either test.

If you can't boot into one of these tests for some reason, try holding Option-D instead to load an Internet-based hardware test.

Command-V: Verbose Mode — Holding Command-V during startup puts your Mac in verbose mode. Instead of a tasteful gray screen, you instead see every single Unix system message as your Mac boots. Verbose mode could be useful for troubleshooting if you're already a Unix expert.

Command-S: Single-User Mode — To go one step beyond verbose mode, hold Command-S during boot, which puts your Mac in single-user mode. After the Mac finishes displaying all the Unix messages during its boot sequence, you're given a command-line prompt, just as though you were in Terminal. As with using Terminal from Recovery, single-user mode is useful mostly if you're already comfortable in Unix. Some people use single-user mode to run the Unix fsck utility, although it's easier to boot into Safe Mode or run Disk Utility from Recovery for that purpose.

To leave single-user mode and continue booting, type exit and press Return. Or, to start over fresh, type reboot and press Return.

Neither single-user mode nor verbose mode is accessible if you have a firmware password enabled.

C: Boot from Removable Media — If you hold the C key during boot, the Mac will start up from removable media, such as a CD, DVD, or USB thumb drive. Since Apple has largely away with optical drives and physical installation discs are long gone, this shortcut isn't as useful

as it used to be. The Startup Manager is a better option because then you know exactly which disk you're going to boot from.

Eject, F12: Eject All Removable Media — Here's a neat trick: if you hold the Eject key (if your Mac has one), F12, or the mouse or trackpad button during boot, the Mac will eject all removable media. Like the C shortcut, this technique isn't as necessary as it used to be when it was the standard way of getting non-bootable floppy disks out of a Mac quickly, but it's worth remembering should you ever end up working on an old Mac.

N: NetBoot — If you hold N at startup, the Mac will boot from an available NetBoot server. Holding Option-N will boot from the default boot image on a NetBoot server. For those who have never even heard of NetBoot, it's an Apple technology in OS X Server that enables a Mac to load the operating system from a network server, rather than from a local drive. Large networked environments sometimes use NetBoot to ensure that every Mac is using a consistent, approved version of the operating system. Chances are, you will never have to worry about booting from NetBoot.

X: Force a Boot into OS X, instead of Classic — Finally, there's X, which Apple says causes the Mac to "Start up from an OS X startup volume when the Mac would otherwise start up from a non-OS X startup volume." This one threw us for a loop, but Phil Dokas, our shadow editor Chris Pepper, and several commenters informed us that it's a holdover from the early days of Mac OS X, when it was used to keep the Mac from booting into the Classic environment. Kevin Patfield said there was even a companion option — holding 9 — that forced a boot into Classic. If you know a contemporary use for this key, let us know in the comments! ♉

by Adam C. Engst

Dealing with Send to Kindle's 50 MB Limit

We release all Take Control ebooks in three formats: PDF, EPUB, and Mobipocket. PDF is the format we started with back in 2003, and it remains the best option for reading on a computer or a large-screen iPad, since we put significant effort into keeping text and associated screenshots together on pages, avoiding widows and orphans, and creating an attractive two-column layout for our Crash Courses. EPUB gained popularity after Apple's release of iBooks, and it's best for small-screen iOS devices because it reflows to match the screen and your desired font size. Mobipocket, generally abbreviated to just Mobi, is similar to EPUB, but is relevant only for those who prefer to read on one of Amazon's Kindle devices or apps.

How popular would you expect each of these to be? We tracked some downloads recently and found that about 55 percent of the downloads were PDF, about 35 percent were EPUB, and about 8 percent were Mobi. (These numbers are a bit rough because people can download multiple formats.)

Since Mobi is our least used format, and since issues that affect the EPUB generally apply to the Mobi as well, we put less effort into checking and tweaking the Mobi version of each book. Nonetheless, we were a little surprised recently to get email from a reader complaining that the Mobi version of "Take Control of iTunes 12: The FAQ" was too big to copy to a Kindle. Could it really have been that much larger than our other books? Some research was necessary.

It turns out that 50 MB is the magic file size over which Amazon's Send to Kindle app and Send to Kindle email service refuse to work. Only three of our books had ever exceeded that size, with "Take Control of Preview" and "iOS 9: A Take Control Crash Course" joining the iTunes book. "Photos for Mac: A Take Control Crash Course" snuck under the wire at 49.6 MB.

File Format Background — Why were the Mobi files so large? The Mobi file for the iTunes book was 53.4 MB, but the EPUB was only 21.9 MB, and the PDF weighed in at a svelte 6.4 MB. A little background about each format will explain the difference.

> PDF: Since PDF was first released in 1993, when networks were much slower and storage devices much smaller, reducing the size of PDF files was important. As a result, Adobe has long provided tools in Acrobat Pro to reduce the size of images automatically by downsampling and compressing them. Those capabilities are extremely effective, dropping the source PDF of the iTunes book from 28.2 MB to 6.4 MB, a savings of 77 percent.

> We use Apago's PDF Enhancer to optimize our PDFs in a variety of ways while still keeping the quality high. (PDF Enhancer hasn't been updated in years, but it continues to work well for us. Many of its capabilities are also available in Acrobat Pro, albeit in a form that requires more manual intervention.)
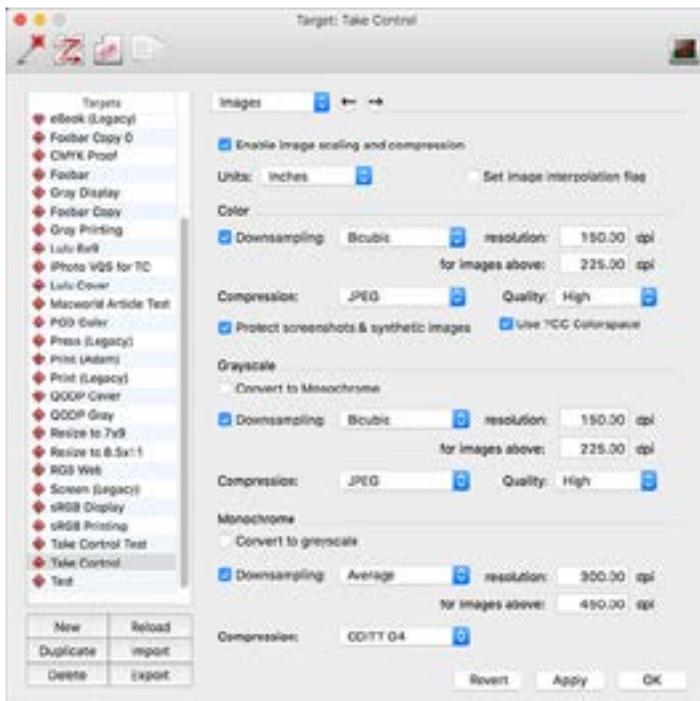
EPUB: At its heart, an EPUB is actually a Web site made up of HTML files and images, all Zip-compressed into a single file. Unfortunately, lossless Zip compression may not do a lot for what is essentially a Web site. The files that make up the EPUB of the iTunes book are 23 MB, but the EPUB itself is only 5 percent smaller, at 21.9 MB.
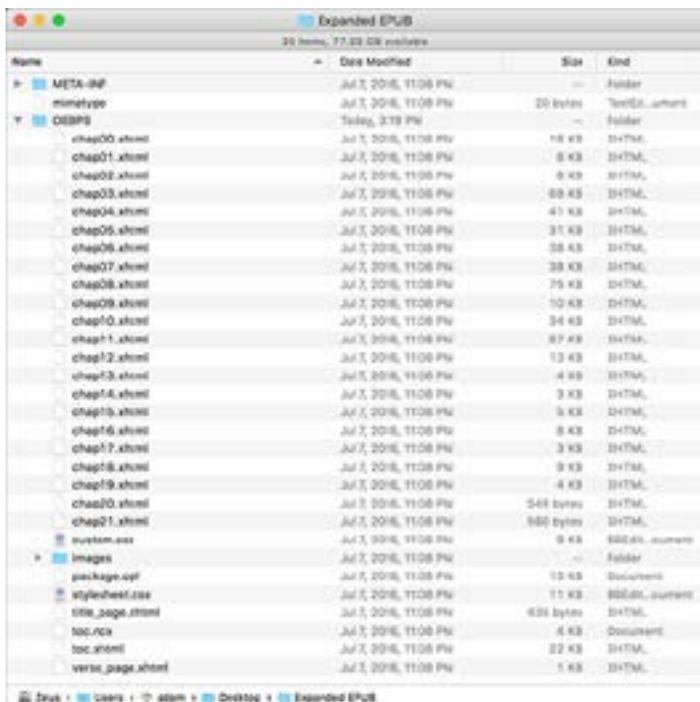
Mobi: Mobipocket was purchased by Amazon in 2005 and has changed quite a bit since then. Nowadays, a Mobi file contains the book in two formats, the original Mobipocket version (actually Amazon's AZW format, which is very slightly modified Mobipocket) and Amazon's KF8, also known as AZW3, which debuted alongside the first Kindle Fire tablet. Since most Mobi

files are created from an EPUB source document by Amazon's KindleGen tool, bundling two versions of the book into the same file means that the Mobi is generally roughly twice the size of the EPUB.

Working around the 50 MB Problem — Now that we're aware of the Send to Kindle 50 MB limitation, we'll try to ensure that our books don't exceed this size. The solution to that is quite simple.

We take our screenshots in PNG format, which is ideal for images with large areas of solid color. However, screenshots that show the Mac's Desktop or the iPad's Lock screen, for instance, are essentially photos, and converting those PNG files to JPEG can drop the size significantly without a perceptible loss of quality. Converting the five or six largest images in the iTunes book to JPEG and then regenerating the Mobi file were all that was necessary to bring it down in size. (We did the same with the Preview book, so neither should cause problems anymore.)

Should we have a book that can't easily be brought under 50 MB, or if you should run into a Mobi file from another source that's larger than 50 MB, there are other ways you can load the files onto a Kindle or into the Kindle app.

Kindle: For a Kindle tablet, connect the device to your Mac via a USB cable. A KINDLE disk appears on the Desktop. Open it, and then copy the Mobi file to the Documents folder inside. Eject the KINDLE disk and then look for your file in the Docs part of the Kindle interface. Don't put files in the Books folder; that won't work.

Kindle Apps: If you prefer to maintain your ebook library in the Kindle app on an iOS device, the trick is to use your Mac to put a copy in Dropbox, Google Drive, or iCloud Drive and then download it in the corresponding app on the iOS device.

In Dropbox, once you've loaded the document, tap the triple-dot More button, tap Export in the popover, tap Open In in the bottom row in the Share sheet, and then tap Copy to Kindle in the top row of the Share sheet.
The process is essentially the same in Google Drive; in iCloud Drive, Copy to Kindle appears in the top row of the first Share sheet, eliminating the need for the Open In step.

You might wonder why I don't recommend downloading from your Take Control library to a Kindle Fire. The reason is that downloaded files end up in KINDLE/Download and must be moved into KINDLE/Documents manually, using an app like File Expert. The instructions in "How to Download EPUB, PDF, and Mobipocket to the Kindle Fire" (22 April 2012) are still accurate, although File Expert doesn't seem to be available any longer, so you'll need to find another file management app to move downloaded files if you want to use this technique.

I suspect that Amazon limits the file size to 50 MB for historical reasons related to the low-throughput Whispernet network that the early Kindles used. My understanding is that when the Send to Kindle app or email service transfers the actual file to a particular Kindle, it sends only the format that makes sense for that device. But in a world of fast Wi-Fi, this limitation seems annoyingly quaint — here's hoping that Amazon lifts it soon.

In the meantime, you can work around the restriction with a USB connection or an Internet file sharing service. 🍎

by Frank Petrie

Freshly Squeezed Reviews: A Stand That Delivers

If you were to assemble your dream iPad case, you'd have to gather numerous accessories to meet all of your desires. But what if there was a one-stop-shop bundle available?

I've spent too long reviewing software, as of late. And I'm not a member of the crowd that Apple is going to send review copies of their products to. (Please, oh please, Tim! Just one 27" 5K iMac! I promise, I'll write a review for the ages …)

So what hardware can I get my mitts on to review? I have always been a fan of people who see a need and then design a simple, pragmatic solution. And today we review a bundle of products that satisfies numerous desires.

"The [Touchfire] iPad … case is packed with innovative features that are simply not available in any other iPad case. But perhaps most importantly, our case provides a rock-solid typing platform with a wide range of positions."

All of this is focused around the Touchfire keyboard, a transparent silicon cover that you attach to your touchpad's keyboard via four small magnets, providing you with a tactile feel, somewhat like a laptop keyboard. You now have the ability to anchor your hands on the home row and keep your eyes on the screen.

(Before I go any further, understand that I reviewed the Mini version, which has several slight differences from the regular sized model. The experience on the regular sized model may be somewhat different.)

As the silicon overlay is transparent but three dimensional, it can distort the vision of the keyboard's text and symbols, making it difficult to read the keys unless you 'hunt and peck' (guilty) To help alleviate this problem, the manufacturers recommend that you go into Settings>General>Accessibility. Locate the button to turn on bold text. I found that this did make reading the keys significantly easier.

The keyboard can be quickly retracted for full screen access. You can store it inside the case when closed by merely leaving it in position. If you'd prefer, you can purchase a separate carrying case to house the keyboard.

There are magnets built into the case to serve several functions. Of course, the obvious one being used as a latch to secure your cover and protect your screen while in transit. Depending on which model you're using, full size, the Air, or Mini, the same strategically positioned magnets function to position your iPad at various angles for typing and viewing. Naturally, you have more choices with the full-sized models as opposed to the mini version. You can also stand the case on it's side if you wish to view your iPad in Portrait mode for reading.

The case has a smooth texture, but because of the material that it's constructed from, you need only grasp it with light pressure to obtain a solid grip. It has the necessary cut outs for your camera, Lightning connector, microphone, 3.5mm plug (so long as it remains a thing) and all the other necessary buttons.

There are two redirectors that aim both speaker's sound towards you. The manufacturer claims that it increases the volume by 50%. I wouldn't go so far as to say that it amplifies it by that much but it is certainly more convenient than cupping your hands over them.

The aspect that impressed me the most was the strength of the magnet on the back of the case used to stick your iPad to any ferrous material (i.e., fridge, metal-backed whiteboard, etc.). I'm usually leery of features such as this, fearing that my mobile device will at some point come crashing down. But I was very impressed with how solidly this held my iPad in place.

You can also use adhesive wall mounts for ideal placement on non-ferrous surfaces. Simply find your desired location and place a mark where the top of your iPad will go. Take

the included rubbing alcohol wipe and clean the area where you will place the wall mount.

Pull the cover off of the industrial adhesive on the mount's backing and place it where you placed your mark upon the wall.

You can use it for three hours initially. But it takes the adhesive 72 hours to cure to a point where you can leave the iPad mounted as long as you like. There is a wall mount video tutorial demonstrating how to place the mount and how to remove it. (The mount can only be positioned one time because of the adhesive's properties.)

There were a few cons that I did come across. Occasionally, the Touchfire case didn't completely shut and put my iPad to sleep. As a result, after finishing work on my iPad one evening, I closed the magnetic cover and went to bed. The next morning I awoke, sat down at my desk, only to find that the battery had drained overnight. Perhaps it was an OM issue (Operator Malfunction).

The keyboard was disappointing in one respect. I repeatedly applied it as per instructions but the keyboard remained in place only if I typed with a light touch. Perhaps, like Apple's new keyboards, it takes time to adjust. (To be fair,

I 'hunt and peck.' Possibly, if I had my hands in the 'home row' position, it would have anchored the keyboard more securely.)

The keyboard will not work with most screen protectors. One brand does and is available at Touchfire's site.

Touchfire makes it very simple to get started with both the keyboard and the case by providing several videos on their site.

The Touchfire iPad case is available in four colors: Black, Light Grey, Blue, and Red. The case is currently available for iPad Air, iPad Air 2; iPad 2, 3, 4; iPad mini, Retina mini, iPad mini 3; wall mounts can be purchased in packs of 1 or 3. (Also, I understand that the developer is looking into the feasibility of a version for the iPad Pro.)

Components (the case, the keyboard, the carrying case, and the wall mounts) can be purchased separately or bundled from the site as well.

If you're in the market for a case, a keyboard, or both, the prices are reasonable. And think of it. You can travel with your iPad without having to lug a Bluetooth keyboard additionally and still get your work done. I would say that alone is worth the price of admission. ♻

Software Review

iOS 10.0 - iOS 10.0.2 Information
Sep 23, 2016
System Requirements
   – iPhone 5 or newer
   – iPad 4th generation or newer
   – iPad mini 2 or newer
   – iPod touch (6th generation)
   – Available via OTA and iTunes

iOS 10.0.2

OS 10.0.2 fixes bugs and improves the stability of your iPhone or iPad. This update:

• Addresses an issue that could prevent headphone audio controls from temporarily not working

• Resolves an issue that caused Photos to quit for some users when turning on iCloud Photo Library

• Fixes an issue that prevented enabling some app extensions

iOS 10.0 - iOS 10.0.1

• Messages

   – Expressive Messaging
   – Bubble effects let you send messages loudly, gently, slam or with invisible ink
   – Full-screen effects to celebrate special moments
   – Tapback for quick replies to messages, links, and photos
   – Handwritten messages animate like ink on paper
   – Digital Touch lets you send sketches, taps, and heartbeats
   – Tap to replace can emojify your text with just a tap
   – Rich links show a preview of web pages you share
   – New App Store for iMessage
   – Use the power of apps in Messages to share and collaborate with friends
   – Download stickers to send and place on text bubbles and photos

• Siri

Siri now works with the following types of apps
   – Messaging apps to send, search and read back text messages
   – VoIP apps to place phone calls
   – Photos apps to search for images and photos
   – Ride service apps to book rides
   – Payment apps to make personal payments
   – Fitness apps to start, stop, and pause workouts
   – CarPlay automaker apps to adjust climate, radio, seat, and personal settings

- Maps

  – All new look
  – Proactive suggestions for places you're likely to go next, based on your routine or appointments in Calendar
  – Improved search with new callout design, clustered results and category filters
  – Home, work, favorite locations, and locations from upcoming Calendar events are displayed on the map
  – Displays where your car is parked via CarPlay or Bluetooth
  – Weather for the currently viewed area
  – Extensions: Make a reservation within Maps using extensions from participating reservations apps
  Book a ride to a destination within Maps using extensions from participating ride service apps
  – Turn-by-turn navigation improvements: Search along route for gas stations, food, and coffee shops
  – Automatic view adjustment of the road ahead
  – Use pan and zoom during navigation
  – Option to avoid tolls and highways

- Photos

  – Advanced face recognition designed with deep learning to automatically group similar faces together
  – Object and scene recognition to intelligently search for photos by what's in them using advanced computer vision that scans your library locally on device
  – Places album to see all your photos, videos and Live Photos on a map
  – Memories
      – Intelligently highlights forgotten events, trips, and people, and presents them in a beautiful collection
      – Memory movies automatically edited with theme music, titles, and cinematic transitions
      – Related memories make it easy to rediscover even more photos in your collection, based on location, time, people, scenes and objects
      – Easily share with family and friends
  – Brilliance control applies region-specific adjustments to brightness, highlights and contrast

- Home

  – New Home app to securely manage and control HomeKit enabled accessories
  – Scenes to control groups of accessories with just a tap
  – Rich Notifications with quick actions to control accessories
  – Optionally share home access with family and friends
  – Remote access and automation of accessories with Apple TV or iPad

- Apple Music

  – An all-new design for Apple Music brings greater clarity and simplicity to every aspect of the experience

  – Navigate your Library with an improved menu and see all of the Downloaded Music that you can play on your device while offline
  – See recommendations in For You that highlight mixes, playlists, albums, and Connect posts—selected for you based on the music and artists you love
  – Visit Browse to more easily see exclusive releases, find curated playlists, and discover the most important new releases—picked by our editors each week
  – Listen to Radio more easily—clearly see what's live on Beats 1, hear your favorite shows on-demand, or choose a curated station for any genre of music
  – Play music with an improved Now Playing experience — swipe up to view available lyrics and quickly see or edit songs that are coming up next

- Apple News

  – An all-new design in For You adds bold typography, vibrant color, and distinct sections that make it easier to find stories on specific topics
  – See the most important stories of the day within Top Stories—updated by our editors throughout the day
  – Find the most popular stories right now within Trending Stories—selected based on what others are reading
  – See all of your stories grouped into easy-to-understand sections on the topics you follow or read
  – Discover the best and most interesting stories of the week within Featured Stories—selected by our editors
  – Share stories more easily—just tap the icon on any story to send it to a friend right from For You
  – Receive breaking news notifications from some of your most trusted sources
  – Subscribe to your favorite magazines and newspapers directly in News
  – New personalized Today View widget lets you keep up with the latest stories throughout the day

- Experience

  – Raise to Wake automatically wakes the screen as you raise your iPhone
  – Rich notifications that support real time information, audio, photos and videos
  – Today view is redesigned and supports all new widgets for apps like Weather, Up Next, Maps, Stocks and more
  – Control Center is redesigned with easier to access controls including dedicated cards for music playback and Home
  – Expanded use of 3D Touch
      – Lock screen notifications to support an expanded view and access to quick actions
      – New quick actions for built in apps like Weather, Stocks, Reminders, Health, Home, FaceTime, iCloud Drive and Settings
      – Home Screen widgets
      – Control Center for access to quick actions for Flashlight, Timer, Calculator and Camera
      – Clear all in Notification Center

- QuickType

  – New emoji, including gender diverse options to existing characters, single parent family variations, rainbow flag and beautiful redesigns of popular emoji
  – Contextual predictions for current location, recent addresses, contact information and calendar availability using deep neural network technology
  – Emoji predictions
  – Calendar events are intelligently populated using deep learning technology with information from your conversations in Mail and Messages
  – Multi-lingual typing now lets you type in two languages at once without having to switch keyboards
  – Rest & Type on iPad intelligently adapts to your unique typing patterns
  – Predictive typing now uses deep neural network technology for greater prediction accuracy

- Phone

  – Voicemail transcription (beta)
  – Spam call alerts with spam call identification apps
  – Support for third party VoIP apps receiving calls on the Lock screen, including support for Call Waiting, Mute and Do Not Disturb

- Other improvements

  – Apple Pay in Safari
  – View two pages at once using Split View in Safari on iPad
  – Notes collaboration lets you invite people to work on your notes together
  – Markup support in Messages, Photos and PDFs stored in Notes
  – Bedtime Alarm in the Clock app lets you set a regular sleep schedule and receive bedtime reminders
  – Health adds support for health records and organ donation (US Only)
  – Stabilization support for Live Photos for improved camera capture
  – Live Filters support when capturing Live Photos
  – iCloud Drive now supports Desktop and Documents folders from macOS
  – Siri support for Spanish (Chile), Chinese (Cantonese - China), English (Ireland), English (South Africa)
  – Ling Wai and Kaiti Black document fonts for Chinese
  – Yu Kyokasho and Toppan Bunkyu fonts for Japanese
  – New definition dictionaries in Traditional Chinese and Danish and bilingual dictionaries in Dutch and Italian
  – New keyboard for Spanish (Latin America)

- Accessibility

  – Magnifier now uses the camera on your iPhone or iPad like a digital magnifying glass for real-life objects
  – New range of display color filters to support different forms of color blindness or other vision challenges

  – VoiceOver adds a Pronunciation Editor to customize the way words are pronounced, additional voices, and support for multiple audio sources
  – Additional text highlighting options in Speak Screen and Speak Selection, as well as the ability to speak keyboard letters and predictive typing suggestions to support multi-modal learning
  – Switch control now lets you control iOS, macOS and tvOS all from the same iPhone or iPad, so you don't need to configure switches for the secondary device
  – Software TTY allows you to place and receive TTY calls without the need for traditional hardware teletypewriter accessories

Some features may not be available for all countries or all areas, for more information visit: http://www.apple.com/ios/feature-availability and http://www.apple.com/ios/whats-new

iTunes 12.5.1
Sep 13, 2016
System Requirements
   – Apple Music requires OS X version 10.9.5 or later

Now with an all-new Apple Music design which brings greater clarity and simplicity to every aspect of the experience.

This update includes support for iOS 10. It also adds enhancements designed for macOS Sierra including:

Siri. Play music from your Library and Apple Music using your voice.

watchOS 3.0 Information
Sep 13, 2016
System Requirements
   – iPhone 5 or later
   – Available via OTA through the Apple Watch app

- Performance and Navigation

  – Press the side button to access your favorite apps in the Dock
  – Apps in the Dock launch instantly with already updated information
  – Add up to 10 apps in the Dock, control music from Now Playing or launch your most recently used app
  – Swipe edge-to-edge to quickly switch your watch face
  – Swipe up from the bottom of your watch face to access important settings in Control Center

- Watch faces

  – New Minnie Mouse, Activity, and Numerals watch faces
  – Complications now available on Photo, Photo Album, Timelapse, and Motion
  – New complications including Workout, Music, and Messages

– New Face Gallery in the Apple Watch app on iPhone to add and customize watch faces

– Discover and add third party complications in the Face Gallery

• Activity

– Ability to share and compare your Activity rings

– Rank alphabetically, or by progress towards Move goal, Exercise goal, steps or today's workouts

– Automatic notifications when a friend completes their rings, finishes a workout, or earns an achievement

– Customized smart replies for encouragement or smack talk

– New Sharing tab in the Activity app on iPhone to view history

• Workout

– Quick Start for most commonly used workouts

– Multiple metric view, customizable for each workout type

– New gestures for pause, resume, and marking segments

– Labels for "Other" workouts to keep track of Yoga, Pilates, Cross Training, and more

– Auto-pause for running workouts

– Siri support for pause, resume, and end workouts

– Route maps with speed indicators for outdoor workouts

• Wheelchair use

– Activity rings optimized for wheelchair users

– Accounts for varying speeds, terrains, and pushing techniques

– Pushes contribute to all-day calorie goals

– Time to roll notification and roll ring

– New Outdoor Run Pace and Outdoor Walk Pace workouts

• Breathe

– New Breathe app to take a moment in your day for short deep breathing sessions

– Calming visualization and haptic cues guide you while you inhale and exhale

– Adjust session length and breaths per minute

– Summary upon completion including heart rate

– Time to breathe reminders

– Weekly summary

• Communication

– Expressive Messaging

– Full-screen effects to celebrate special moments

– Tapback for quick replies to messages, links, and photos

– Handwritten messages animate like ink on paper

– Send recent built-in or third-party stickers

– View secret messages with invisible ink

– Scribble

– Write words on the display and Apple Watch will convert the handwriting to text

– Use the Digital Crown to scroll through predicted options

– Available in English (US), Traditional Chinese, and Simplified Chinese

– Reply options available in the Messages and Mail notification, including Digital Touch, emoji, and smart replies

– New emoji, including gender diverse options to existing characters, single parent family variations, rainbow flag, and redesigns of popular emoji

– Emergency SOS

– Press and continue to hold the side button to call emergency services

– Automatically notify SOS contacts and share your location

– Display your Medical ID with information about medications, allergies, and medical conditions

– Adjusts the emergency number to your current location

• Home

– New Home app to control HomeKit enabled accessories

– Enable scenes created on your iPhone to control groups of accessories with just a tap

– Control favorite accessories from your wrist, even remotely with Apple TV or iPad

– Support for IP cameras to see live video in rich notifications and accessory controls

• Other improvements

– New Reminders app for managing scheduled reminders, grocery lists, and more

– New Find My Friends app for viewing location of friends and family

– Pay with Apple Pay within third party apps

– Delete events and switch calendars in Calendar app

– Support for FaceTime Audio calls directly from Apple Watch

– Search for Settings in Apple Watch app on iPhone

– Camera app controls for Flash, Live Photos, HDR, Zoom, Burst, and Front or Rear facing

– Siri support for Spanish (Chile), Chinese (Cantonese - China), English (Ireland), English (South Africa)

Security Update 2016-005 (10.10.5)
Sep 1, 2016 — 468 MB
System Requirements

– OS X Yosemite 10.10.5

Security Update 2016-005 is recommended for all users and improves the security of OS X.

Security Update 2016-001 (10.11.6)
Sep 1, 2016 — 414.9 MB
System Requirements
  – OS X El Capitan 10.11.6

Security Update 2016-001 is recommended for all users and improves the security of OS X.

Xerox Printer Drivers 4.1 OS X
Aug 30, 2016 – 75.8 MB
System Requirements

– OS X Lion 10.7
– OS X Mountain Lion
– OS X Mavericks
– OS X Yosemite
– OS X El Capitan

This update installs the latest software for your Xerox printer or scanner.

HP Printer Drivers 5.0 for OS X
Aug 30, 2016 — 574.4 MB
System Requirements
  – OS X Mavericks and later

This download includes the latest HP printing and scanning software for OS X.

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Keystone MacCentral meetings are held at 6:30 p.m. on the 3rd Tuesday of the month at Bethany Village Retirement Center, 5225 Wilson Lane, Mechanicsburg, PA 17055