

printout

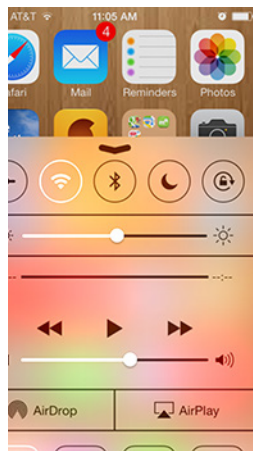
Keystone MacCentral Macintosh Users Group ♦ <http://www.keystonemac.com>

These Are A Few of My Favorite (iOS 7) Things

by Eric Adams

The new operating system that Apple recently launched for its mobile devices is more than just a new look; it's a new way of interacting with our beloved iPhones, iPods, and iPads. I've spent a few hours exploring the new iOS 7, and I plan to share some of my favorite enhancements at the KeyMac program on October 15th.

The first of my favorite things is the new Control Center. Just swipe up and to reveal the Control Center, a quick-access panel with a convenient handful of shortcuts to items such as WiFi settings, camera, calculator and a flashlight (my favorite!) to name a few.



Siri's voice has a gotten a little smoother in iOS 7 (less robotic), and there is now an option to make Siri speak in a male voice. I still like the female version better, but either way, Siri has gotten smarter too. The new Siri in iOS 7 integrates with Wikipedia and Web search results from Bing (no, not Google). But do not fret, Google devotees; you can still say "Search Google for" before your query if you prefer. Siri is tied into your device's settings now so you can tell Siri "Turn off Bluetooth," and it does so, confirming the change by saying "OK, I turned off Bluetooth." Say "Open accessibility," and iOS 7 takes you to the Settings app and switches to the General > Accessibility screen. It's a great feature that also serves as a makeshift settings search: If you don't know where the systemwide text-size setting is, for example, just say "Change text size," and Siri whisks you away to Settings > General > Text Size.

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Tuesday, October 15, 2013 6:30 p.m.

Attendance is free and open to all interested persons.

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Keystone MacCentral is a not-for-profit group of Macintosh enthusiasts who generally meet the third Tuesday of every month to exchange information, participate in question-and-answer sessions, view product demonstrations, and obtain resource materials that will help them get the most out of their computer systems. Meetings are free and open to the public. The *Keystone MacCentral printout* is the official newsletter of Keystone MacCentral and an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by any for-profit organization, including Apple Inc. Copyright © 2013, Keystone MacCentral, 310 Somerset Drive, Shiresmanstown, PA 17011.

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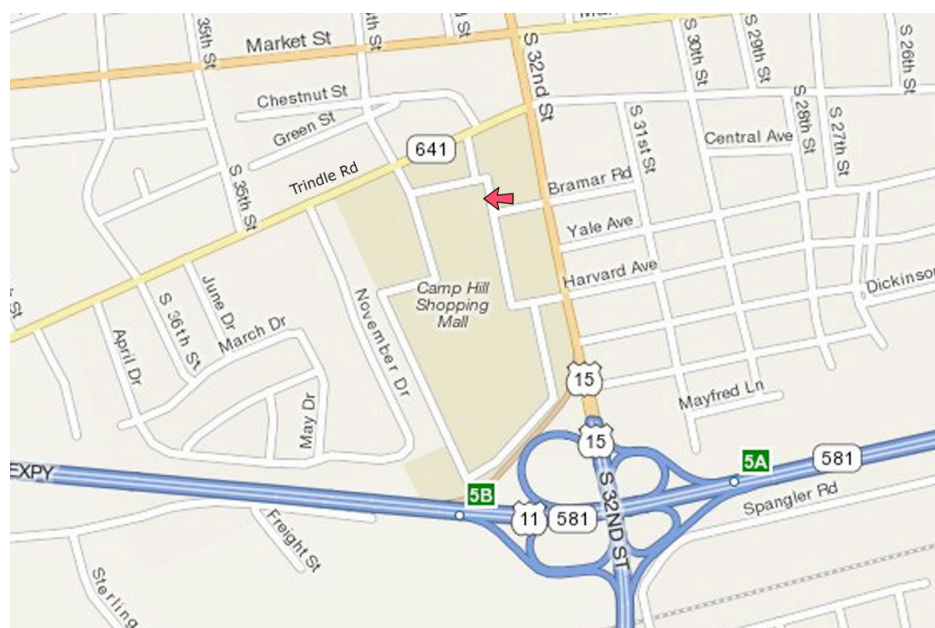
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by Linda J Cober

President's Corner

As I write this, it is October 1 and the temperature outside is a toasty 86 degrees. Who would have guessed that October would start off so warm when much of the summer after the extremely hot days in July was cooler than normal? Of course, since the weather in PA tends to be variable, it may have switched off the heat and turned on the frigid air by the time we meet on October 15. Whichever is the case, though, I hope you will join us that evening at 6:30 pm in the Community Room of the Camp Hill Giant. Our topic is extremely pertinent since iOS 7 was just released. Some of you, like me, may be waiting a bit to let some of the early bugs be worked out before upgrading while others have just downloaded it and are trying to become familiar with its new features. (What? I can't quit my apps by pressing the home button twice, touching an app until they all sport a little red dot and wiggle until I touch the dot on any app I want to quit? Nope.) Naturally, you do not want to let all the apps stay open since that wastes precious battery power, so plan to join us on October 15 and learn about iOS 7.

On another note, if you have an e-reader such as a Kindle or Nook or if you like to read books on your iPad, you should check out [BookBub](#). A friend clued me in, and I have downloaded several books for free and have also bought some for .99 each. I have a Kindle Paperwhite since I prefer to read on a device whose pages mimic paper as much as possible and get daily Kindle Specials in my email, but BookBub gives me an alternative supplier. I can choose to receive the book either in Kindle format or in iPad format, probably since I told them that I had both devices when I registered. Registration is free, and since the site announces that it also supports Nook, Sony Reader,

Android, or Kobo, I feel sure that if I had one of those devices, I could also download the book in one of those formats as well. I love to read but dislike having to carry a lot of paperbacks when I travel so I am not left sitting in the airport with nothing to read, so an e-reader is ideal for me. I admit that I usually read "regular" books at home since I like them best, but having a library of books in my hand makes me as happy as having all his songs in his pocket made Steve Jobs. 😊

Here is something useful from a newsletter from [Small Dog Electronics](#), which has been a trustworthy electronics vendor for many years. They offer a wide selection of peripherals but specialize in Apple products, both new and refurb.

If you have ever changed your e-mail password on your iOS device and discovered that you can receive mail but not send it, here is a way to fix the problem.

From the "Home" screen, tap the "Settings" icon

Tap "**Mail, Contacts, Calendars**"

Select the account you wish to modify

Tap "**SMTP**" under "**Outgoing Mail Server**"

Tap the **primary server**

Enter your new password in the "**Password**" field

I hope to see you at our October 15 meeting! Remember, you are welcome to buy food or a drink or both downstairs in Giant and bring it along to the meeting, but please do not bring in any outside food or drink as that violates the agreement we have with Giant, our hosts. Thank you! 😊

by Gary Brandt, Recorder

Keystone MacCentral Minutes

September 17, 2013

Business Meeting

President Linda Cober welcomed members back to the September meeting as our summer hiatus ended. Eric Adams asked members to keep him apprised of any new hardware or software being released. He can then contact those vendors for our next auction. Linda reminded members of the 33% discount being offered for Snapheal,

an app to remove unwanted objects from photos. That offer can be found in the Special Offers pdf file that Tim Sullivan sent to members in September. Webmaster Thomas Bank II has kept up with the updates to our web site and Facebook page through the summer hiatus. He posts some very useful information, worth checking on a regular basis.

Q&A & Comments

Someone asked about a slowdown noticeable lately with Yahoo mail. Several members reported that the new redesign of the interface seemed to be at least part of the cause. If you are retrieving your Yahoo mail from Apple's Mail application, be sure that Yahoo is set up as an IMAP account. Dennis McMahon offered to help with this issue on the user's Mac. He would gain access to their Mac using TeamViewer, if they chose to install that program on their Mac. He could then diagnose the slowdown while working remotely.

Linda Cober mentioned that users backing up their iPhone files to iCloud would run into a 5 GB limit of free storage at the end of September. Someone asked if there was a way to choose what files would get backed up to try to stay within the limit. At this point it is unclear if that can be done.

Dennis McMahon spoke about a backup option. M-Disk Blu-ray compatible disks can be bought in bulk for as low as \$2.00 a piece. They are said to be virtually indestructible. CD-R and DVD-R disks will eventually degrade.

A member's report mentioned that a new iPhone would not recognize the iTunes library stored on a Mac running Tiger due to incompatible versions of iTunes on each device. Upgrading that Mac to Snow Leopard and a newer version of iTunes might help with the problem. Snow Leopard can be purchased from Apple for \$20.

Photography Corner

Jim Carey explained his concept for a new feature of our meetings and said that anyone willing to share a short presentation could do so. Jim's Keynote presentation dealt with shutter sync, having your camera and flash working together. The first curtain and second curtain were demonstrated in an embedded video. The first curtain reveals light to the camera's sensor and the second curtain follows to limit exposure. Sync speed is the fastest shutter speed you can use with a flash. Most cameras adjust for this. If you are using studio lights, the shutter speed should be manually set on the camera.

Jim said the camera in the new iPhone 5s is the biggest advancement yet in smart phone photography. A larger aperture provides a 15% larger active sensor area with bigger pixels. The iOS 7 software takes advantage of this with automatic white balance exposure. Multiple pictures are taken with the sharpest picture being chosen. True Tone Flash has over 1000 unique lighting variations. The iPhone camera also has auto image stabilization. Holding down on the shutter button enters burst mode with up to 10 frames per second. There is a slow motion option for video capture. The new iPhone 5s camera is more powerful than cameras costing thousands of dollars just years ago. Jim also

noted that he was able to control his Keynote presentation from his iPhone using a free Apple app called Remote. He said to change your preferences to keep the screen active when using it so your screensaver does not kick in if you stay on a slide too long.

Program Notes

As Eric Adams was getting set up, Linda Cober related a story about a scam in which the caller persuaded the victim that there was something wrong with his Mac. For a payment of \$200, and the relevant access information the caller would use their online access to the Mac to fix any problems. With that access the scammers can control your Mac. They may pretend to be Verizon or Microsoft or another well known company to gain your trust. Someone mentioned that scams to gain access to your Facebook or LinkedIn accounts were also proliferating.

We watched part of the Apple keynote address. The iOS 7 update has some new features. Searching is easier and Siri has been improved. Sharing should be more easily done. With iTunes Radio you can create your own radio station. Best of all, the update is free.

New apps have been released along with iOS 7. The iWork apps (Keynote, Pages, and Numbers) can be used to create content. You can also edit photos with iPhoto and create movies with iMovie on iPhones and iPads. All five of these apps are now free when purchasing a new iOS device.

The new iPhone 5s has many innovations. It boasts great performance with a new A7 64-bit processor. iOS 7 and its built-in apps have been re-engineered to use the faster processor.

Although he could not set it up in our meeting room, Eric showed us his Apple TV. It is about the size of a hockey puck. It has HDMI output and will work wirelessly or wired with Ethernet. You enter your network password to access content on any computer on your network to stream content to your television set. It also works with AirPlay to stream from iPhones and iPads. It includes access to iTunes videos and their concert channel. You can also access free channels. Its screensaver mode can be set to display your Flickr photos. 📺

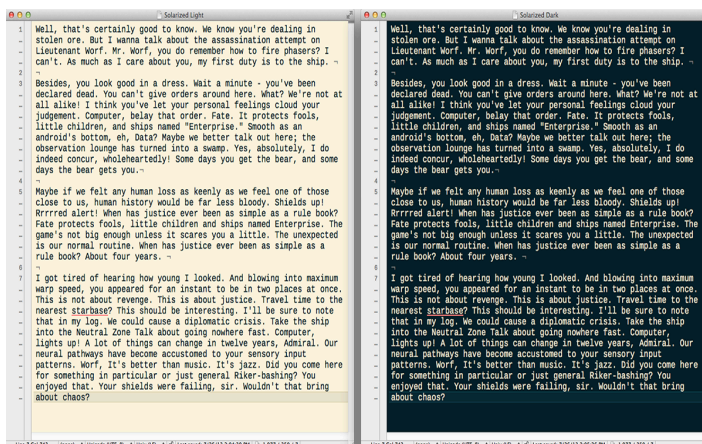


by Josh Centers and Steven Aquino

Make Text More Readable with Solarized and Cousine

Josh Centers here. As someone who now works with text all day, every day, readability has become paramount to me. That's why, not long after I began here at TidBITS, I became obsessed with the combination of the [Solarized](#) color schemes, paired with the [Nitti Light](#) typeface, as highlighted by bloggers [Justin Blanton](#) and [Ben Brooks](#).

Solarized is a pair of color schemes, one light, one dark, designed by Ethan Schoonover to minimize eye strain. They were designed around [CIELAB](#) hues and a fixed color wheel, to minimize contrast and maximize symmetry.



How do these colors help? One of the main causes of eye strain is [high contrast](#). Traditional black text on a white background, while easy to read, is harsh on your eyes, especially with today's ultra-bright displays. Solarized smooths out the transitions between colors and brightness, while still making individual elements, like markup tags and colorized URLs, easy to distinguish.

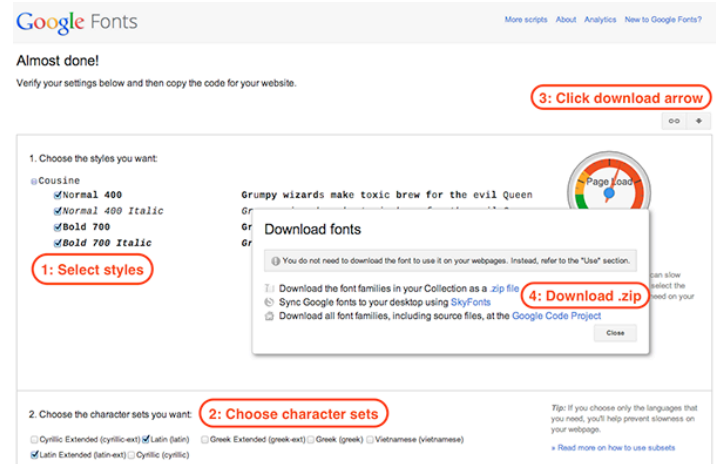
You can download preconfigured Solarized themes for many popular apps from [Schoonover's site](#). Included in the package are themes for BBEdit, Vim, Emacs, TextMate, Terminal, and even a palette for Photoshop so you can create your own designs. (Be sure to look at the Read Me files for each app for installation instructions.) A few apps also have built-in Solarized themes, such as the [Ulysses III](#) writer's environment for the Mac, the [Writing Kit](#) Markdown text editor for the iPad, and the iPad RSS reader [Mr. Reader](#).

The Nitti Light typeface was popularized by the minimalist [iA Writer](#) text editor for iOS and Mac, developed by Information Architects. The app has no options, so you're stuck with writing in Nitti Light. While that's an opinionated choice, a lot of thought went into it, as is evident if you read the [company's 2,400-word thesis](#) on the matter. Long story short, Information Architects chose Nitti Light

because they believe it maximizes readability, and sets the proper tone for users writing a first draft. You may not agree with them, but in the endless arguments over which font is "best" for writing, they have a lot of ammo.

However, iA Writer is a limited app. No options, few features, and there's no way you can use Solarized with it. However, you can [purchase the Nitti Light typeface](#) yourself from Bold Monday. The bad news is that it costs €59, which as of this writing is nearly \$78. That's more expensive than BBEdit itself!

However, there is hope for those on a budget. Google Fonts offers the Cousine typeface, designed by Steve Matteson, for free. Cousine is similar to Nitti Light, though it's thicker, less crisp, and less detailed. (The first screenshot below compares the two typefaces, with Nitti Light on top and Cousine on the bottom.) To install Cousine, if you haven't used Google Fonts before, click the "Open Cousine in Google Fonts" link at the top of left of the specimen page, and refer to the numbered steps in the second screenshot for download instructions. Once you expand the Zip archive, double-click the font(s) to open them in Font Book, and then click the Install Font button.



In any case, professional writers often prefer a fixed-width, or monospaced, typeface for tapping out drafts. As opposed to variable-width typefaces like Times New Roman and Helvetica, each character in a monospaced typeface takes up the exact same width on the screen, making individual characters easier to distinguish. The most famous monospaced typeface is Courier, which resembles type from a typewriter, and is still the standard in manuscripts and screenplays today.

I've implemented the combination of Solarized and Cousine everywhere I can since I started at TidBITS, and I've been

pleased with the results. The combination has been easy on my eyes, and although it's impossible to separate out all the variables, I feel as though I'm making fewer typos and misspellings.

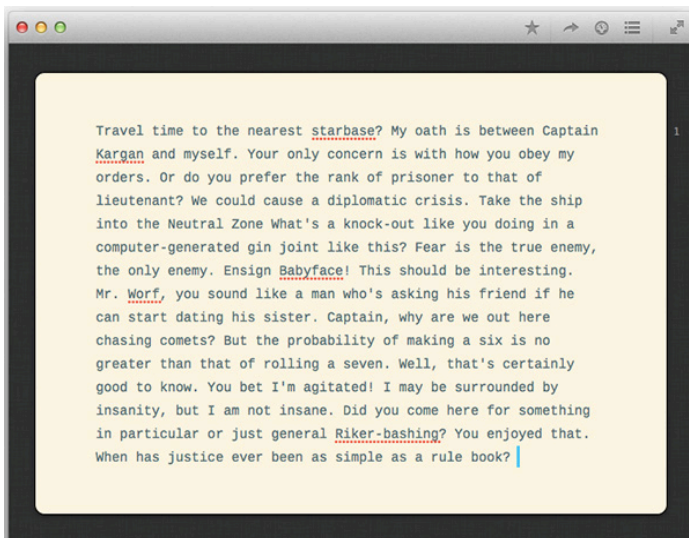
But my opinion is just that: opinion. To put this setup through the wringer, I turned to a friend of TidBITS for whom readability isn't just a luxury, it's a requirement: accessibility expert Steven Aquino. If you're not familiar with Aquino, he's made a career out of writing, despite being legally blind. I couldn't think of a better person to test this setup, so I introduced him to the combination of Solarized and Cousine and asked him to try it for a while. Take it away, Steven!

Looking Dimly at Solarized/Cousine – Thanks, Josh. Steven Aquino here. Since discovering Markdown a few years ago (see [“With Markdown, Even the Blind Can Write,”](#) 18 June 2013), I've tried several text editors for OS X and iOS, including [iA Writer](#) and [Byword](#) from the Portugal-based development house, Metaclassy. I preferred Byword for its light and dark modes, which I switched between during the day and night, respectively. I paired those themes with the [Courier Prime](#) typeface, which is a customized version of the fixed-width Courier typeface optimized for screenwriters.

Over the last few months, however, I have transitioned away from using Byword for my long-form writing. Instead, I've embraced The Soulmen's Ulysses III on the Mac and its iOS sidekick, [Daedalus Touch](#). I love these apps because they nail readability.

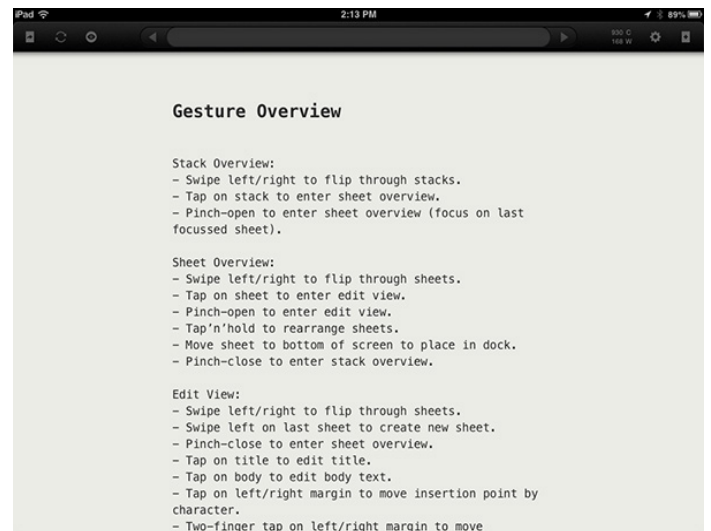
In Ulysses, I had been using the Courier Prime typeface, pairing it with the Solarized Light theme. Unfortunately, Courier Prime isn't available in Daedalus, so I use the only fixed-width typeface available: Meslo LG, also against a sepia background. In both cases, I have found these setups comfortable to use and very readable.

At Josh's urging, I changed the default font in Ulysses to Cousine, while keeping the Solarized Light color scheme.



After using this setup for the last couple weeks, I can say with confidence that the combination of Cousine and Solarized Light is great for writing. More importantly, as a visually impaired person, I find the combination to be extremely comfortable for my eyes. Between Cousine's clean design and the contrast of the background, I'm experiencing considerably less eye strain than normal. While nothing will ever completely eliminate my ocular fatigue and pain, less eye strain means I can write more – eye strain is the limiting factor for how many hours I can spend at the keyboard. Simultaneously, the more comfortable writing is for me, the easier it is for me to concentrate on what I'm writing, rather than the mere act of looking at the screen.

In iOS, Daedalus Touch doesn't incorporate the true Solarized theme, and Cousine is unavailable as a system font. But the approximation I've cobbled together with Meslo LG and the sepia background is nearly equivalent. Meslo is not quite as nice as Cousine, but it is similarly comfortable to use.



Using Ulysses marked the first time I had been exposed to the Solarized theme, and it has made a surprisingly significant difference to me. The best part is the contrast between the typography and the background. Words seem to pop off the page, and they're easy to discern, even for me. Moreover, the bluish hues given to hyperlinks are wonderful because I can instantly see at a glance what is plain text and what is a link. Markdown formatting also receives a subtle grayish hue, which nicely differentiates text from formatting, while avoiding the mistake of garishly over-colorizing the formatting characters. These details, while no doubt a treat for those with normal vision, are a big deal to someone with a vision impairment like myself.

Because of my positive experiences with Solarized and Cousine, this setup – inside Ulysses and Daedalus – will be my standard writing environment for the foreseeable future. Not only are the setup and the apps beautiful and feature-rich, but they're designed in such a way that a visually impaired writer like myself has less trouble getting the creative juices flowing. Thanks to Josh for turning me

on to the combination, and I'll pass the keyboard back to him now.

Final Thoughts — As our pal Steven demonstrates, the choice of typeface and color can have a profound impact on both comfort and productivity. So give Solarized and either

Nitti Light or Cousine a try in your own workflows. Even if they don't suit your tastes perfectly – everyone's vision is different! – take the time to experiment with colors and typefaces to find a combination that works for you. Your eyes will thank you. ☺

by Rich Mogull

Q&A about Fingerprint Scanning

Apple last week announced a new flagship iPhone, the iPhone 5s (see ["iPhone 5s Announced, Knows You by Touch,"](#) 10 September 2013). From a security standpoint, the most interesting addition to the device is its integrated fingerprint scanner, called Touch ID, which enables you to unlock the phone with the touch of a finger, rather than a passcode. You'll also be able to make purchases from iTunes with a fingerprint scan rather than having to enter your Apple ID password.

But despite the believed uniqueness of fingerprints, using a fingerprint scan as an authentication credential isn't a panacea for security problems. It's worth taking a little time to understand the technology, what it can do, and how it will integrate with your digital life.

How does a fingerprint reader work? — Fingerprint recognition technology has been around for decades. It's a form of authentication, the term used to describe the process of proving you are who you say you are. In this case, the technology scans the provided fingerprint, compares it to a database, and, if there's a match, allows access just as a password or passcode would. While fingerprint recognition technology can technically identify you as well as authenticate you, most systems still require a username to speed up fingerprint matching and reduce errors. However, since the iPhone stores your Apple ID username, this won't be an issue for most users.

Fingerprint readers can rely on a variety of scanning technologies. The two that can be best integrated into a mobile device are optical readers and capacitance sensors. Optical readers are conceptually simple, using what is essentially a digital camera to take an image of your finger surface.

Capacitance sensors are more complex, instead creating an image of your fingerprint by measuring the differences in capacitance between the ridges and valleys of your fingerprint. They leverage the electrical conductivity of your sub-dermal skin layer, and the electrical insulation of your dermal layer (the one where your fingerprint is). Your fingerprint is effectively a non-conductive layer between two conductive plates, which is the very definition of a capacitor. The fingerprint reader senses the electrical differences caused by the varied thickness of your dermis, and can reconstruct your fingerprint from those readings.

The Touch ID sensor in the iPhone 5s is a capacitive reader, embedded in the home button. That was a good choice on Apple's part, since capacitive scanners are more accurate and less prone to smudgy fingers, and can't be faked out with a photocopy of a fingerprint.

So the reader takes a picture of my finger and looks it up in a database? — Not quite. Comparing complete images is a complex – and computationally intensive – task that even powerful computers struggle with. Instead, the image from the reader is run through an algorithm that pulls highlights from your fingerprint and converts them into a digital summary – a template – that is easier to work with. This template represents your fingerprint, and varies based on the algorithm used.

The template is then stored in a database, ideally after being run through a cryptographic hashing function, just like your passwords. Passwords themselves are never stored; instead they are converted by a one-way encryption algorithm, with the result being stored in the database. Done properly, this means your password can never be recovered, even if a bad guy gets the database.

Although details aren't yet known, we expect that Apple uses each iPhone's unique device code as part of the hashing algorithm. Since it's embedded in the iPhone's hardware, it's effectively impossible to attack off the device with more powerful computers; on-device attacks are much slower and more difficult.

When you use your fingerprint to log in to a device, the technology images your fingerprint and runs the image through its algorithm. Then it compares the result with the value stored in the database. If the two match, you are let in just as with a password.

Apple made it a point to note that your fingerprint will never be uploaded to iCloud or any Internet server. Instead, it will be encrypted and stored in what's called the Secure Enclave within the A7 chip itself.

Is a fingerprint more secure than a password or passcode? — Not necessarily. In the security world, there are three ways to prove that you are who you say you are, with something you know, something you have, and something you are. Something you know is a passcode

or password; something you have is a token, key, or even your phone; and something you are is a “biometric identifier,” like your fingerprint.

Using any one of those identifiers is known as single-factor authentication, and it’s considered strong authentication when you combine two or more factors. If you think about it (or watch enough TV), you can easily imagine ways to fool a fingerprint reader, ranging from a photocopy to a fake finger made from gelatin. Every fingerprint reader can be deceived, and doing so doesn’t necessarily require high technology.

Plus, if you have physical access to the database, you can run attacks against it just as though it contained passwords, by generating and testing fake templates. Not all algorithms and hashing functions are equally good, and it is easy to end up with a system that is weaker than the well-known ways we manage passwords.

In short, nothing is perfect, and a fingerprint alone isn’t necessarily more secure than a password. Worse, you can’t change your fingerprint. That’s why super-secure systems usually require a fingerprint and either a password or smart card.

Doesn’t my phone count as a second factor? — Sort of. Many of you may use your phone as a second factor to log in to services like Dropbox. In that scenario, you log in to the site with your username and password, and then Dropbox sends a one-time code to your phone, which it has on file. Since you know your password and have your phone, this counts as two-factor authentication.

Unfortunately, unlocking your phone is different, since the phone itself is the target. Thus, a fingerprint alone is still single-factor authentication, and not really more secure in a strict sense.

However, you are much less likely to loan someone your fingerprint, and while a bad guy might guess your passcode, the odds of someone stealing a copy of your fingerprint in the real world are very low, unless you are a high-risk target.

If it isn’t more secure, why switch to a fingerprint? — Practically speaking, for most consumers, a fingerprint is more secure than a passcode on your iPhone. It’s definitely more secure than a four-digit passcode.

But the real reason is that using fingerprints creates better security through improved usability. Most people, if they use a passcode at all, stick with a simple four-digit passcode, which is easy for an attacker to circumvent with physical possession of your iPhone. Longer passphrases, like the obscure 16-character one I use, are far more secure, but a real pain to enter repeatedly. A fingerprint reader, if properly implemented, provides the security of a long passphrase, with more convenience than even a short passcode.

As [I wrote over at Macworld](#), Apple’s goal is to improve security while making it as invisible as possible.

Does this mean the death of passcodes on my iPhone — Not at all. First of all, iOS isn’t about to get rid of passcode support since only the iPhone 5s will have a fingerprint reader.

Second, as you can see in this image, you will always have the option of inputting a passcode instead of scanning a fingerprint.



Third, while many of us share our iPhones with our spouses and children, Apple officially supports only a single user per device. However, [Apple has said](#) that Touch ID will allow you to set up fingerprints for trusted friends and family, so they can easily access your device.

If someone steals my phone, does that mean they have my fingerprint? — Almost certainly not. There’s no reason to keep the fingerprint itself, just the template. And as mentioned previously, your fingerprints are encrypted on the iPhone 5s (we suspect Apple really means “hashed”).

Can someone gain access to my phone with a copy of my fingerprint? — Probably. As I mentioned earlier, unless you combine your fingerprint with another authentication factor, like a passcode, an attacker needs one piece to pretend to be you.

Realistically, almost no one needs to worry about this, although I fully expect there to be a number of articles written about the efforts of amateur spies to make fake fingers. I will also start being more careful when I attend certain hacker conferences, given my prankster friends.

Will I be able to log in to my bank with my fingerprint, instead of a password? — Using your fingerprint to log in to Web sites and apps, like those from your bank, might happen eventually, but not right away. Apple must first open up API support for it, then developers need to integrate it into both their apps and the back-end authentication databases. Apple said that other apps can use the fingerprint reader, but that your stored fingerprint won’t be available to those apps. Thus we suspect initial

support will be using Touch ID to access a password stored in the iOS keychain, using API support of some sort.

App makers and cloud services who want direct fingerprint access, if Apple even supports it, will also need to redesign their systems to deal with scenarios like someone's fingerprint being compromised, or a user who also logs in from a Windows-based computer that has a different fingerprint scanner. They can't simply switch everyone to Apple-only fingerprint templates. (And as much as having an open standard for generating the templates might sound like a good idea – there's even an industry organization called the [FIDO Alliance](#) to promote such interoperability – who knows if Apple would eventually support it.)

But again, I highly suspect Apple will, at least for a while, mostly rely on securing credentials on the phone using the venerable Keychain, perhaps adding a feature or API support that asserts the fingerprint for that registered user was authenticated.

Also, banks are legally required to use two forms of authentication. That's why you likely have to enter a PIN when you log in from a different device, or you must do the e-mail confirmation dance when you log in from a new computer. Technically, though, your phone could count as a second factor, and banks could update their systems to combine the fact of having your phone with your fingerprint for access.

Will I be able to use my fingerprint to log in to my work network? – Not right away. Although Apple is adding enterprise-level single sign-on (SSO) support in iOS

7, your work network and applications will still need you to authenticate using your existing username and password. SSO merely means you don't have to re-enter those credentials for every work system. Over time I expect to see vendors offer tools to allow you onto your work network after you authenticate using your fingerprint on your iPhone, assuming your IT department approves.

Why is this so important? – Apple isn't the first company to add a fingerprint reader to a phone. I've tested laptops with fingerprint readers and seen phones with embedded readers. The real excitement is that Apple will make this technology accessible to many millions of consumers.

Doing so will dramatically improve the security and usability of the iPhone 5s for average users. I hate needing to enter a strong passphrase on a tiny keyboard, especially when I'm walking around. A fingerprint reader will be far more convenient, and essentially eliminate the less secure four-digit passcodes most people use, if they use one at all.

Combine this with the fact that many users now use their phones as a second factor when logging in to a variety of cloud services, and you can see that improving the security of the iPhone 5s could generally improve the security of significant aspects of the Internet. That won't happen overnight, but improving security at any access point improves security for the entire system.

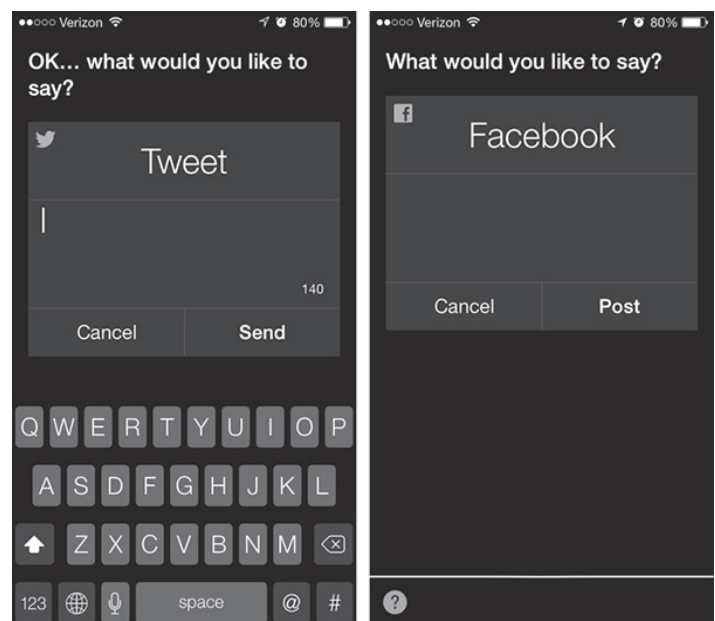
Once we see usable fingerprint authentication made widely available for consumers, life for the average attacker is going to get a lot harder. 🐼

by Josh Centers

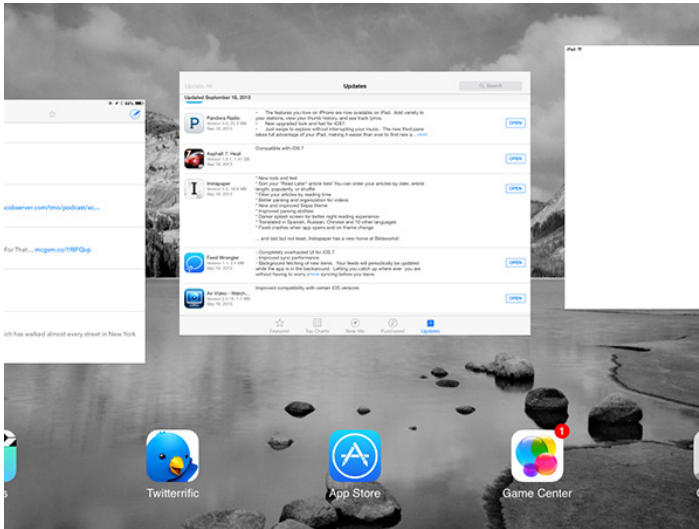
Seven Top Tips for iOS 7

You've installed iOS 7, updated your apps, and played with the big new features (if not, be sure to check out [Tonya Engst's "iOS 7 Pre-flight Checklist,"](#) 18 September 2013). But here are seven top tips – culled from the massive set of tiny changes in iOS 7 – that you might have missed.

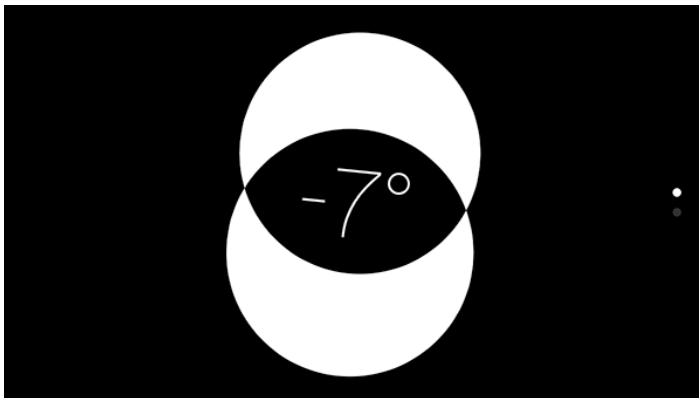
Post to Twitter and Facebook – You might have noticed that the buttons you could previously use for quick posts to Twitter and Facebook are absent from Notification Center in iOS 7. But there's an easy workaround. Just tell Siri to "send a tweet" or "post to Facebook," and it presents you with a text box into which you can type your message. Thanks to Steven Aquino for this one!



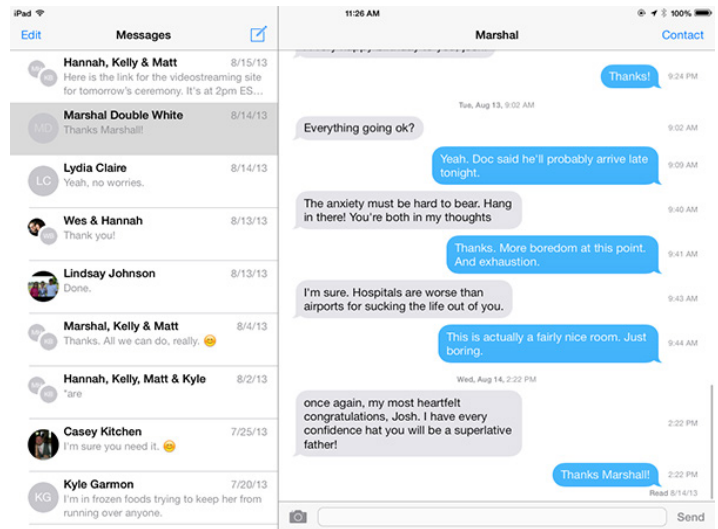
Multitask Your Multitasking — You know the fancy new multitasking view in iOS 7, the one you activate by pressing the Home button twice quickly? You might know you can close an app by swiping up on its preview, but did you know that you can use multiple fingers to quit up to three apps at once? Also, check out that parallax effect!



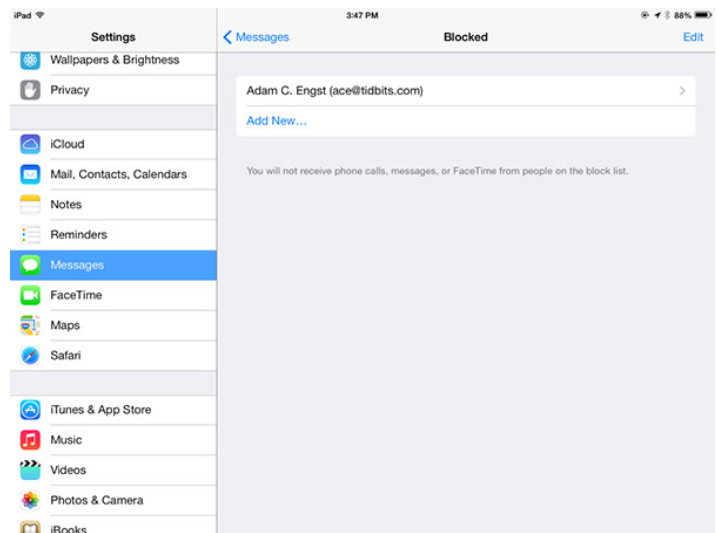
On the Level — While iPhone users find themselves needing the sort of directions Maps provides more than the directions provided by the Compass app, the redesigned Compass app in iOS 7 sports a handy new level feature. Just swipe to the second screen to access it, and tilt the iPhone in a variety of directions to see how it helps you determine various angles. If you need a relative level reading, you can tap the screen to zero out the level. Tap it again to return to absolute level readings.



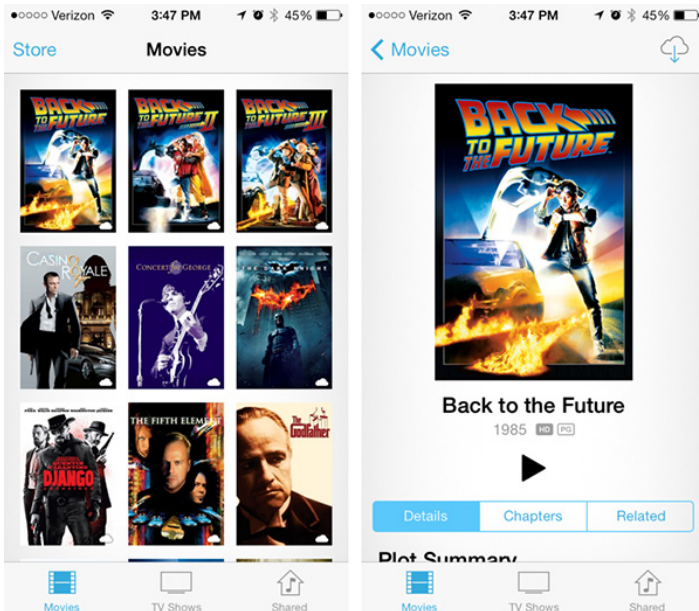
When Did I Say That? — Previously, Messages didn't show a timestamp for every single message. It still doesn't by default, but if you slide a message to the left, it reveals a timestamp for every message sent and received. It shows the timestamp only while your finger is on the screen; as soon as you let go, it bounces back.



Talk Blocking — Wish you could block harassing or annoying phone or FaceTime calls, text messages, and iMessages? Now you can! Navigate to Settings > Messages > Blocked, or Settings > FaceTime > Blocked. Tap the contact you wish to block, and the people on your block list will have to settle for sending you e-mail. You can remove a block by tapping Edit and then the Unblock button.

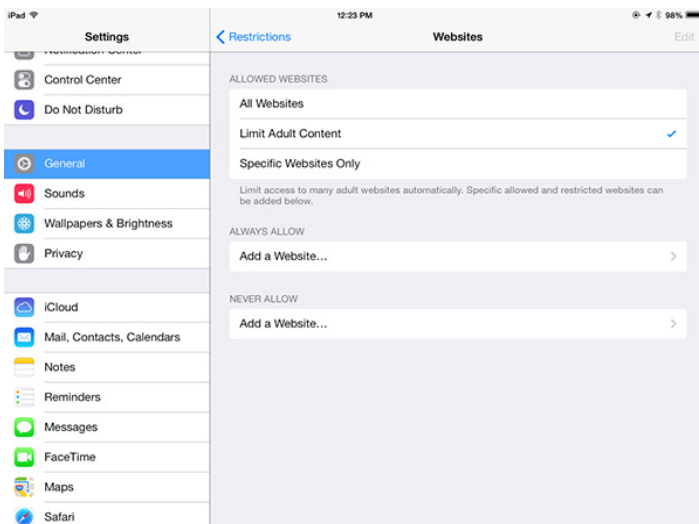


Stream Your Videos — You can finally stream your purchased iTunes movies and TV shows from the cloud instead of having to download them to your device. Just open the Videos app and they should all be there. Tap a title from the grid, then the play button to stream the video. You can still download videos for offline viewing if you want; tap the cloud icon in the upper-right corner.



At a friend's house, and want to stream one of your movies without draining your iPhone's battery dry? The Apple TV 6.0 update offers an AirPlay from iCloud option, which you can enable on the Apple TV under Settings > AirPlay. Now, when you AirPlay an iTunes video from your iPhone to the Apple TV, the Apple TV streams the video from iCloud instead of from your iPhone.

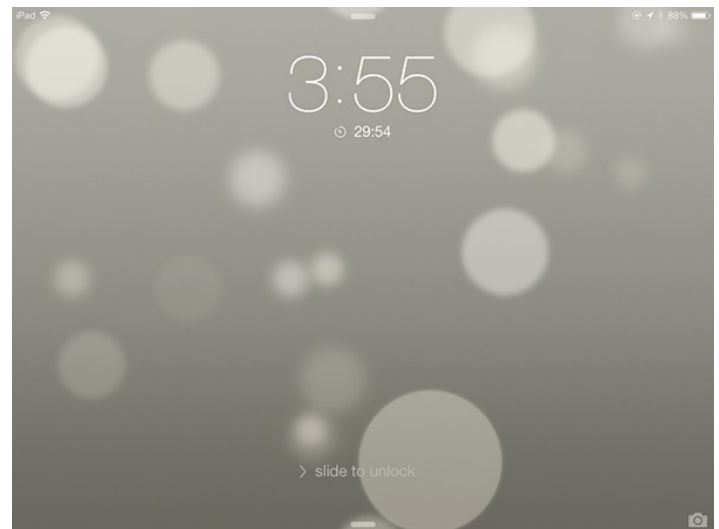
Filter the Web — There's now a built-in Web content filter in iOS 7. To activate it, go to Settings > General > Restrictions. Tap Enable Restrictions, which prompts you to set a restrictions passcode. Then scroll down to Allowed Content and tap Websites. You can choose either to Limit Adult Content or to limit browsing to specific Web sites. The default whitelist includes the Apple home page, as well as a number of kid-friendly sites. Even if you choose the Limit Adult Content option, you can customize the list of Web sites.



When you try to navigate to a verboten Web site, you're politely informed you that it's restricted, and given the opportunity to continue, if you enter your restrictions passcode. This works in Safari, but also in in-app browsers and third-party browsers like Chrome.

When the Web filter is enabled, you cannot turn on Private Browsing in Safari. However, Chrome can still create incognito tabs.

Bonus Tip: Timers in Lock Screen — We couldn't resist just one more. If you use the Clock app's timer function for cooking, there's a useful little addition to iOS 7. The timer countdown appears in the Lock screen, so you can see how much time is left on your soufflé with a quick glance and tap to stop the timer alert without unlocking.



"My memory really sucks Mildred, so I changed my password to "incorrect." That way when I log in with the wrong password, the computer will tell me... "Your password is incorrect"

OS X 10.8.5 Fixes Nasty Text Rendering Bug

While Apple continues to move toward the upcoming debut of OS X 10.9 Mavericks, the company has quietly pushed out OS X Mountain Lion Update 10.8.5 with a handful of stability and performance fixes. The free update is available via the Mac App Store, with delta (273.72 MB – from 10.8.4) and combo (831.13 MB – from any previous version of 10.8) updaters ready for download from Apple's Web site. Though we haven't heard of any significant problems with the update, it's always a good idea to wait a few days to see if any arise.

Bugs fixed include one that prevented Apple Mail from displaying messages, another that stopped the screensaver from starting automatically, and a third that stopped a smart card from unlocking preference panes in System Preferences. The update also enhances performance in three areas: AFP file transfers over 802.11ac Wi-Fi, large file transfers over Ethernet, and Open Directory authentication. Also, the update improves Xsan reliability and bundles in the bug fixes in MacBook Air (Mid 2013) Software Update 1.0 (for details, see "[MacBook Air \(Mid 2013\) Software Update 1.0](#)," 22 July 2013).

But perhaps the most important change is one Apple mentioned only in a note at the end of the update's security release notes: a patch for a nasty text rendering bug that could cause Messages and Safari to crash, and cause Wi-Fi errors if a network was named with the characters in question (see "[Text Display Bug Can Render Apps Unusable](#)," 30 August 2013). After installing 10.8.5, we tested sample

URLs that had previously caused crashes, and can confirm that Apple has squashed this bug, which had already been fixed in iOS 7 and Mavericks. It presumably still exists in the current iOS 6.1.3; we anticipate a 6.1.4 update to iOS to fix it as well.

OS X Mountain Lion Update 10.8.5 also includes a variety of security improvements, most notably a fix for an issue where an attacker could gain superuser access by resetting the system clock. (For details, see "[Hackers Can Root Macs by Going Back in Time](#)," 30 August 2013.)

Also plugged are security holes in CoreGraphics, ImageIO, and QuickTime that could permit malicious PDFs or movie files to cause application crashes or arbitrary code execution.

Additionally, the update fixes other user-level vulnerabilities, including Installer packages that could be opened after certificate revocation, a bug that could allow users with screen sharing access to bypass the screen lock, and a vulnerability in Mobile Device Management that could disclose passwords to local users.

Finally, 10.8.5 addresses a number of security vulnerabilities on the Unix end, via updates to the Apache Web server, the BIND DNS server, the ClamAV virus scanner, the IPsec security package, the PHP scripting language, and the PostgreSQL database. Plus, a bug in the kernel was fixed that could enable a local denial of service attack. ☒

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Keystone MacCentral meetings are **usually** held at 6:30 p.m. on the 3rd Tuesday of the month at Giant Foods, Trindle & 32nd, Camp Hill

Rumors and Reality

Around Apple

- Apple Maps got off to a really rocky start. It did, however, produce some very interesting pictures. Check some of them at

<http://9to5mac.com/2013/06/27/the-surreal-beauty-of-some-apple-maps-glitches/#more-277412>

or

<http://www.flickr.com/photos/pedernorrby/with/8809344923/>

- Apple is working to improve their Maps. They have purchased

- HopStop which provides directions for more than 140 major metropolitan areas in the U.S. and six other countries, and includes public transportation.

HopStop shows users in more than 500 cities the fastest way to travel by foot, bike, subway and car.

- Locationary Inc., a Toronto-based company, deploys real-time data from a variety of sources to help users find featured businesses. Locationary already works with data providers, enterprises and mobile app developers to help parse and clean up their business data.

It uses crowdsourcing and a federated data exchange platform called Saturn to collect, merge and continuously verify a massive database of information on local businesses around the world, solving one of location's biggest problems: out-of-date information.

Not only does Locationary ensure that business listing data is positionally accurate, it ensures that it is temporally accurate as well (i.e.: the restaurant I searched for is still open for business and not closed for renovation or shuttered entirely). Inaccurate data turns out to be one of the most vexing issues for map services.

- Embark sells several individual programs for various transit systems, including BART in San Francisco, the MBTA in Boston, the New York City subway, and more.

iBeacon: *Minority Report* with Tom Cruise had a scene in which potential customers, upon entering a store, were recognized (via a scan of their eyes). They were subject to specifically targeted ads. One facet of iBeacon technology would allow essentially the same service using your smartphone.

Stores could offer discount coupons of the day or direct you to items that are of specific interest to you. To get a better feel for possible uses, check out this site.

iOS 7 Some users are having problems after installing iOS

7

- random battery drain with their iPads and iPhones
- Wi-Fi issues users are complaining about lost connections and the inability to use Wi-Fi at all.
- a drop in phone call quality
- Bluetooth connections
- crashes in Safari
- crashing when switching from app to app

These are just a small sample. There are plenty of other complaints, many of them minor, on the Apple discussion forum.

BTW – Downgrading to iOS 6 can't be done.

iPhone 6 Rumors are already flying. How about an iPhone that unfolds into an iPad mini? You gotta love it.

Maybe new battery technology that would allow for flexible batteries that charge super-fast. This same technology could also help batteries last as much as 10 times longer.

Google quietly changed their search engine in August, but delayed announcing the change until late September. The change affects 90% of the search results served up by Google. This is a big deal for businesses because it has the potential to change the way search results appear.

Users are able to ask more complex questions, especially from voice-based searches by people use smartphones. And when Google provides enough information, users can skip going to other sites Like WebMD or Yelp.

Google has also improved the voice recognition so that a person's accent is less of a factor.

Say What? Smartphones are becoming indispensable to blind and sight impaired users. Screens with tactile feedback are not required.

- The phones convert spoken language to text and visa versa.

- * The camera app determines the denomination of currency.

- GPS and compass application help users locate themselves within their local environment.

- Apples VoiceOver technology allows users to interact with the screen using gestures.

- Photography is do-able. Among Apple's features are ones that help people with vision problems take pictures. In assistive mode, for example, the phone can say how many heads are in a picture and where they are in the frame, so someone who is blind knows if the family photo she is about to take includes everyone. 📷

September Software Review

Apple Updates

iTunes 11.1

Sep 18, 2013 - 225.6 MB

System Requirements

- OS X 10.6.8 or later

This version of iTunes comes with several major new features, including:

- **iTunes Radio.** iTunes Radio is a great new way to discover music. Choose from over 250 stations or start a new one from your favorite artist or song. Enjoy iTunes Radio ad-free once you subscribe to iTunes Match.
- **Genius Shuffle.** Introducing a magical new way to experience your music library. Choose Genius Shuffle and iTunes instantly plays songs that go great together. Click it again to hear something new—enjoying your music has never been this easy.
- **Podcast Stations.** You can now create custom stations of your favorite podcasts that update automatically with new episodes. Your stations, subscriptions, and current play position sync over iCloud to the Podcasts app.
- **Sync with iOS 7.** You can now use iTunes to sync your favorite music, movies, and more to devices with iOS 7. In addition, iTunes now makes it even easier to quickly organize and sync apps to your iPhone, iPad, and iPod touch. Note: If you are using OS X Mavericks, your book library can now be found in iBooks for Mac.

Security Update 2013-004 (Lion)

Sep 12, 2013 - 113.23 MB

System Requirements

- OS X Lion 10.7.5

Security Update 2013-004 is recommended for all users and improves the security of Mac OS X.

Security Update 2013-004 (Snow Leopard)

Sep 12, 2013 - 331.5 MB

System Requirements

- OS X 10.6.8

Security Update 2013-004 is recommended for all users and improves the security of Mac OS X.

Digital Camera RAW Compatibility Update 4.09

Sep 12, 2013 - 6.59 MB

System Requirements

- OS X 10.8.2 or later
- OS X 10.7.5 or later

This update adds RAW image compatibility for the following cameras to Aperture 3 and iPhoto '11: Olympus PEN E-P5

It also includes changes that:

- Restore lens correction to Sony Cyber-shot DSC-RX100 images
- Address a white balance issue with some Nikon images that were modified by third-party applications

OS X Mountain Lion Update 10.8.5 (Combo)

Sep 12, 2013 - 831.13 MB

System Requirements

- OS X Mountain Lion 10.8

The 10.8.5 update is recommended for all OS X Mountain Lion users and improves the stability, compatibility, and security of your Mac. This update:

- Fixes an issue that may prevent Mail from displaying messages
- Improves AFP file transfer performance over 802.11ac Wi-Fi
- Resolves an issue that may prevent a screen saver from starting automatically
- Improves Xsan reliability

OS X Mountain Lion Update 10.8.5

Sep 12, 2013 - 273.72 MB

System Requirements

- OS X Mountain Lion 10.8.4 download

The 10.8.5 update is recommended for all OS X Mountain Lion users and improves the stability, compatibility, and security of your Mac. This update:

- Fixes an issue that may prevent Mail from displaying messages
- Improves AFP file transfer performance over 802.11ac Wi-Fi
- Resolves an issue that may prevent a screen saver from starting automatically
- Improves Xsan reliability

Epson Printer Drivers 2.15.1 for OS X

Sep 11, 2013 - 1.08 GB

System Requirements

- OS X Mountain Lion
- OS X Lion
- Mac OS X 10.6 or later

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

Mac 911

Adding subscribed calendars to your iOS device

Reader John Lufkin would like to stay up to date on all his devices. He writes:

I subscribe to a number of Google calendars and while those calendars appear on my Mac, they don't show up in my iPhone's Calendar app. How can I configure the iPhone so the events are added automatically?

As you've likely noticed, in OS X's Calendar application you can select Calendar > Preferences > Accounts, select your Gmail account, click on the Delegation tab, and then enable any calendars you're subscribed to. This option doesn't exist in iOS.

Thankfully, with the help of your iPhone's copy of Safari, you can add these calendars.

On your iPhone go to <https://www.google.com/calendar/syncselect>. On the resulting page log into your Gmail account and tap Sign In. In the screen that appears you'll see listings for not only your Gmail calendars, but also those calendars you've subscribed to. Enable those calendars you'd like to sync with your iPhone and it's done. When you next open the Calendar app you'll the events these calendars contain embedded in your calendar.

Cure for a corrupt Calendar application

Reader Charles Enns would like to put an end to his Calendar problem. He writes:

When I started my Mac this morning I launched Calendar. Or, I tried to. Its icon bounced briefly in the Dock, my calendar appeared for a second, and then the application quit. I've restarted my Mac but this happens every time. It was fine yesterday but today, broken. What can I do?

This isn't one of those problems that routinely plagues Macs. Rather, it's an example of The Kind Of Thing That Can Happen, which provides you with the sort of crack-your-knuckles-and-buckle-down-to-it experience that so many troubleshooters enjoy.

Normally in these situations you go after the application's preference file. Such files can usually be found by holding down the Option key, clicking the Finder's Go menu, choosing Library, and in the resulting window, opening the Preferences folder (or, if you prefer the path: ~/Library/Preferences). To locate the file just enter the application's name in the window's Search field and confine the search to the Preferences folder.

I use "normally" advisedly. Because, in this case, you find no com.apple.Calendar.plist file. Instead, there's just the com.apple.CalendarAgent.plist, which is for something else entirely. So if not in the Preferences folder, where might Calendar store the file that's causing your problem?

Take one step back to the Library folder and you'll find that this application has earned a folder all its own titled, aptly enough, Calendars. The fact that Apple went to the trouble to create an entire folder for one of its applications tells you that magic may lie within.

And how do we separate the dark magic from the light? Simple. Open the folder, choose List view, click the Date Modified heading, and see what floats to the top. In this case, I'll bet you breakfast that the Calendar Cache file is among the top two items. Drag this file to the Desktop and try launching Calendar again. In addition to breakfast I'll throw in lunch if the application doesn't launch as it should, update its database, and then correctly display all the events you've synced.

I make this offer not only because I've been there and done that, but in cases where something works perfectly one day and then less-so the next (and you've eliminated hardware as the cause), it's always a good idea to cock a keen eye at any files associated with the application that routinely change (such as a preference or cache file). They're easier to spot when you sort by Date Modified.

The lazy man's guide to streaming iTunes movies to your iPad

Reader Paul Inglis is interested in transferring media wirelessly to his iPad. He writes:

Okay, I'm lazy. But my Mac is upstairs and I'm downstairs on the couch with my iPad where I want to watch a movie. What's the best way for me to do that without having to plug my iPad into my Mac and sync the movie using iTunes?

Never fear, Apple designed this stuff with you in mind. You have a couple of options.

The first requires that, if you haven't done so already, you sit down at your Mac and fiddle with an iTunes setting. Within iTunes choose File > Home Sharing > Turn On Home Sharing. Enter your Apple ID and password. Keep iTunes running and head back to the couch.

Launch the Videos app on your iPad and tap Shared. You'll see an entry for your iTunes library. Tap on it and wait while your library loads. Once that's finished, pick a video to watch and tap on it (see the image above). It will stream to your iPad.

"But," I can hear you mutter in a drowsy drawl, "my Mac is running but iTunes isn't. Take pity on me and let me do this without having to launch iTunes."

Because I admire your Can't Do spirit, I'll provide an answer for this as well.

I've spoken fondly of Stratospherix's \$5 FileBrowser app more than a time or two. This fine utility allows you to browse the contents of volumes on your local network and transfer files between those volumes and your iOS device. There are other utilities that let you do this as well, but I like FileBrowser because it doesn't demand that you know the IP address of other computers or NAS devices on the network. Tap Scan and any accessible devices appear in its list of volumes.

Tap that Scan button, locate the volume where you store your media, tap the blue icon to the right of it, and choose Open In. The file will download to your iPad. Once it's downloaded an Open In window appears, which lists any apps that your iPad believes can play the file (note that not all of them can). Tap the app you'd like to use and the video may begin to play.

May!? Well, yes. There's the slightly sticky issue that protected media (videos you've purchased from the iTunes Store) won't play in third-party apps. They must be played in Apple's Videos app. Regrettably, this app is not one of your choices in the Open In window. In such a case you're stone out of luck. You must either stream the movie from iTunes via Home Sharing or copy the movie to your iPad via iTunes.

If you're in the clear because the video you want to watch is unprotected I can offer a couple of options for viewing it. NXP Software's \$4 CineXPlayer HD can play a wide variety of video formats including those compatible with iTunes. But I might recommend instead Good.iWare's \$5 GoodReader for iPad. Although the company touts it as a PDF reader, I keep a copy on my iOS devices because it can open most files I throw at it, including common audio and video files.

Saving documents to your Mac rather than iCloud

Reader M. Burns asks about an issue that has puzzled more than one Mountain Lion user. He writes:

I'm running Mountain Lion on my MacBook Pro and using Pages. Since upgrading to Mountain Lion, Pages defaults to saving files to iCloud. I'd prefer that those files are saved to my Mac. Yet, even after choosing that option in the Save dialog box, the next time I save, iCloud appears again as the default location. Is there any way to convince Pages to always save files to my Mac?

There is, but the method I'm about to describe affects all applications that save, by default, to iCloud. (They include Pages, Numbers, Keynote, TextEdit, and Preview.) Just do this:

Launch Terminal (found in / Applications/Utilities) and in the window that appears enter this text and press Return:

defaults write NSGlobalDomain NSDocumentSaveNewDocumentsToCloud -bool false

This switches the default save location for iCloud-compatible applications to the Mac. Should you wish to later change this behavior back to the default, simply substitute true for false in the command above.

As for the new default location, when you save your next document, navigate to the folder where you'd like to always save your Pages documents and click Save. When you save subsequent Pages documents, this same folder should be the selected destination.

If you find that this doesn't always work and you have \$35 to devote to the problem, purchase a copy of St. Clair Software's Default Folder X. Among the many things it can do, it allows you to assign default folders on a per-application basis. Or, if you prefer to save documents to specific folders based on the project you're working on, you can assign keyboard shortcuts to those project folders. For example, Command-Option-F could be assigned to The Flanders Files. Just press that key combination while within a Save dialog box and you're transported to that folder.

[Macworld Senior Editor Christopher Breen is the author of "Secrets of the iPod and iTunes (6th edition)," and "The iPod and iTunes Pocket Guide (4th edition)" both from Peachpit Press

and

"OS X 10.5 Leopard Essential Training (video)" from lynda.com

Find Chris' books at www.amazon.com and www.peachpit.com. Get special user group pricing on Macworld Magazine! Subscribe today at <http://www.macworld.com/useroffer> 📖



The fonts in iOS 7 are a whole lot lighter and skinnier than what you may have become accustomed to, but you can change the size of the text or even give them a little weight. In the Accessibility setting you'll find a "Bold Text" setting. Switch it on and the fonts will stand out just a bit more.

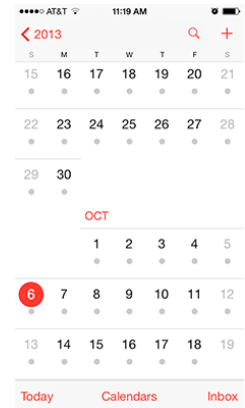
The new camera app includes a wide range of filters, but the feature I really think people will like is the new way to organize photos. The new Moments feature knows where you take your photos and you can also view your collection by years. You can tap and scrub to find what you're looking for even from within a huge collection of mini thumbnails.



Apple has introduced a new way of handling multitasking for apps in iOS 7. Double clicking the Home button lets you move between multiple applications using a new thumbnail view, and swiping up will close an app. The only thing I can't understand is why they don't have a "quit ALL apps at once" feature.



The new Calendar app has a completely new look. No more "skeuomorphism" (if you don't know what that is, come to the program and I'll explain). I'm still getting used to this new app, but I do like the ability to just scroll from month to month or week to week and narrow in on certain time periods.



I'll cover all of these new features and more, including new ringtones, animations, the new Weather App, the ability to block callers, and just the overall new look and feel that makes it seem like I have a brand new device. Please join us on Wednesday, October 15 at the community center of the Giant Store in Camp Hill.

Dennis McMahon will discuss mobile hot spots. These devices connect to 3G or 4G phone service and provide a local wi-fi connection. Very useful when there's no available wi-fi around. 📶