Washington Apple Pi Journal

Cover Story:

Add a Little Spice to Your Recipes with Paprika Recipe Manager

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Washington Apple Pi Journal

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President's Page

Diana King

early a year has elapsed since I last wrote one of these columns. Fortunately the problems afflicting the Publications Department have not really affected our other operations. We have had a busy year otherwise, with several solid accomplishments. The bylaws revisions were finalized and approved last April. We have made progress with updating our website to make navigation easier on all devices and to provide timely and accurate information. Our General Meetings have brought you speakers like Aaron Davis of Apple and app developers Cameron Conway and Todd Cothron along with our own Lawrence Charters and Larry Kerschberg. The Afternoon Learners SIG is bigger and better than ever. And we are exploring the possibility of using a new email program with enhanced features. These are just some of the initiatives we have begun or continued.

Would you like to learn more about these projects and be able to influence the outcomes? You have at least two ways to do that: first, you could decide to run for the Board of Directors this spring; second, you could join the Management Committee. Either way, the process is simple. For the Board election, give me a recent selfie and a paragraph stating why you want to serve, and you'll become a candidate. For the Committee, it's even easier: just tell Jay Castillo that you want to join, and you're in, no election needed.

In the next few months, our General Meeting presentations will deal with creating animations on webpages, making email secure, and explaining code camps. Responding to popular demand, the March GM will be held at Cedar Lane UUC rather than GMU. During the summer, we hope to have one or more of the Computer Guys And Gal from WAMU as guest speaker(s).

Since I have no idea whether I'll have another chance to write this column before my three years as president come to an end in early June, I'll say now that I have gained a great deal from the experience of serving in this office. I never expected to be president, and I could not have done it without lots of help from the incredible group of Pi stalwarts who keep this club going. They have my abiding respect and gratitude.



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Editor's Page

Jay Castillo

t's been a while since I wrote here. We have produced only one *Journal* issue in the past year. This embarrasses me. Editing is the easy part of my Pi job. The challenge is soliciting articles from you, the membership. We in Pi management have striven to produce a *Journal* written as much as possible by our members. For many years we have succeeded and have maintained a high standard of exclusive content. I try to include no more than two articles reprinted from other sources. Our *Journal* is unique. I don't know of any other Mac user group that produces much more than a newsletter.

So we really need your help. I know that many of you have interesting tales to tell about your Apple and Mac experiences. Share them with us. Write about your involvement with Pi activities, such as the Afternoon Learners' Special Interest Group, the TCS, or Clubhouse Saturday. Send your draft to me at **editor@wap.org**, or to any Pi Board of Directors member. Our alchemy will turn whatever you write into gold.

I already have a bit of leavening for the next issue, but I need much more. I hope you will respond generously. If not, I may have to start printing excerpts from my Ph.D thesis, "Theory and Performance of Radially Inhomogeneous Waveguide Junction Circulators," and you wouldn't want to read that.





Hot Links

• Drop it on me! Use AirDrop to move stuff between your Mac and iOS device: http://www.macworld.com/article/2846284/how-to-copy-items-between-your-mac-and-ipad-using-airdrop.html - tk.rss_all

• Use the Finder, Luke! Navigate the Finder more efficiently using the mouse or touchpad: http://www.intego.com/mac-security-blog/how-to-navigate-the-os-x-finder-from-the-keyboard/

• More magic using your iPad or iPhone with Yosemite. Hint: use *QuickTime:* <u>http://www.tekrevue.com/tip/record-iphone-screen-quicktime/</u>

• Monitor what's going on under the hood of your Mac with MenuMeters: http://mac360.com/2014/10/free-meters-for-your-macs-menubar/

• Here is a good thing to try when you are struggling with a slow internet response: Edit your DNS settings: http://www.macworld.com/article/2824564/slow-internet-edit-your-dns-settings.html - tk.rss_all

• Why can't Apple decrypt your iPhone? A short course in cryptology: <u>http://blog.cryptographyengineering.com/2014/10/why-cant-apple-decrypt-your-iphone.html</u>

• Please don't use that thumb drive you found at Starbucks: http://www.wired.com/2014/07/usb-security/



Cover Story

Add a Little Spice to Your Recipes with *Paprika Recipe Manager*

Richard Orlin

Like anyone who has been cooking for any length of time, I have a bookshelf with a large collection of cookbooks that I never open. All of my go-to recipes are printed out, placed in plastic sleeves, and stored in two large loose-leaf binders. I generally grab a recipe from the binder and scotch-tape it to the kitchen cabinet next to the stove. Since the go-to collection is not stored in any particular order, though, it takes some time to locate a particular recipe. My wife is constantly

Figure 1: *Paprika* recipe collection list.

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Categories Im All Recipes Most Recent	Biolys **** * *** Prep: Cook: Difficulty; Medium	
Concategorized	Bolognese Sauce (Ragu di Carne Alla Bolognese) ************************************	
	Concia (Zucchini with Mint and Vinegar) Prep: 2 hr Cook: 0 min Difficulty: Easy	
	Green Beans with Lemon and Garlic Prep: 5 min Cook: 12 min Difficulty: Easy	
er .	Perp: 18 min Cook: 25 min Difficulty:	
	Pork Marsala	
	Shrimp Scampi V Prep: 15 min Cook: 10 min Difficulty: Easy	
	Spicy Szechuan Stir-Fry	
	Thai Shrimp Stir-fry with Tomatoes and Basil - Slimmed Prep: 20 min Cook: 10 min Difficulty: Easy	
	Zucchine alla Scapece: Zucchini Finished in Vinegar	
	10 Recipes	0

reminding me that I have both a MacBook and an iPad and it would be more convenient if I computerized my recipes. I agree that this is a splendid idea, and I've really tried to do it in the past. Most of the apps I have looked at, however, are either not very user friendly, not compatible with both the Mac and the iPad, or just too expensive to consider. That is, until I discovered *Paprika Recipe Manager* (http://Paprikaapp.com).

I installed *Paprika* on both my Mac and my iPad, and after I set up a user account, *Paprika* synced seamlessly across the devices. I really like the fact that I can search for a recipe on the web using *Paprika*'s internal browser, instantly import it into the app, and then see it on either device. Figure 1 shows my recipe collection list. Figure 2 shows a recipe I imported from the web.

I can also add a recipe manually. Occasionally I have come across a recipe on a website that can't be automatically imported into *Paprika*. No problems there. I just highlight the ingredients and click on the "ingredients" button, and the highlight is instantly pasted into the proper space. I do the same for "directions," "servings," "nutrition," etc., and then click on "Create Recipe" and it's done. I can also add my



Figure 2: Recipe imported into Paprika.

own recipes that are not on the web, by typing the ingredients and other information into the spaces provided.

I can plan weekly or monthly menus, prepare shopping lists, and organize my recipes in custom categories, all using any device. I can generate a shopping list automatically from within a recipe, and a nice feature is that the list is sorted by department: dairy, produce, meat, and so on (see Figure 3). Then, when using the iPad app (and I assume the Fire and Nook apps also), I can cross off each ingredient as I use it (see Figure 4). The app also has multiple timers to keep track of separate preparations. They are automatically detected in the directions; I just tap on one to start.

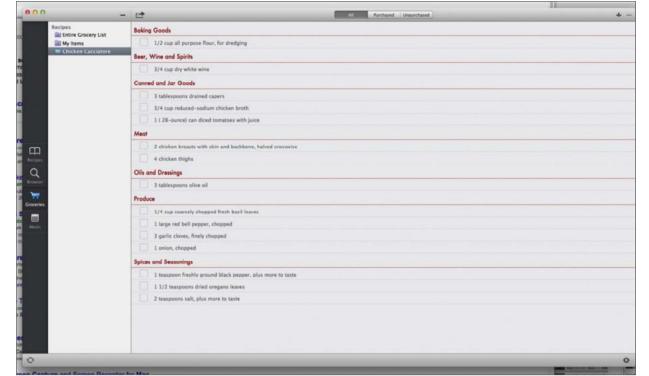


Figure 3: Shopping list sorted by department.



Figure 4: Cross off each ingredient as you use it.



There are other nice features as well. *Paprika* keeps the screen on when I open a recipe, so I don't have to worry about it turning off while I'm cooking. I can also print from *Paprika* and share recipes on Facebook and Twitter. (By the way, I use this very nice—and cheap (\$8.99)—Amazon Basics tablet stand: http://tinyurl.com/kdpgzb3.)

The only downside I could find is that the developers have decided to charge separately for each platform. It would have been nice to buy it once and then download a version for each device.

To learn more about *Paprika*, take a look at the Mac User Guide here: http://Paprikaapp.com/help/mac/

Paprika is available for the Mac, the iPhone, and the iPad, and for Windows, Android, Kindle Fire, and Nook. It is \$19.99 for the computer versions and \$4.99 for the other devices. Check the website, where it goes on sale from time to time.



Tips and Tricks **iOS Keyboard Shortcuts**

© 2014 Jonathan Bernstein

ave an iPhone or iPad and are tired of having to repeatedly type your email address or other basic information? Use iOS Keyboard Shortcuts.

Go to Settings/General/Keyboard/Shortcuts to view your shortcuts. The default on your device will already include the shortcut "omy" for "On my way!"

You can add your own custom shortcuts. Just type the full text you want to appear in the "Phrase" field, and the shortcut in the "Shortcut" field. See Figure 1 for a look at my shortcut list.

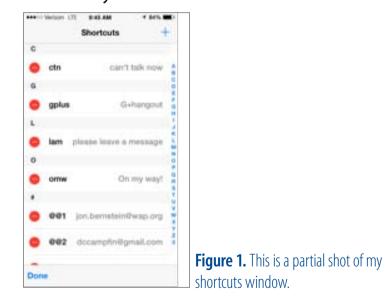




Figure 2. My email address is an important shortcut for me. I can access it by typing "@@1."

I use @@ as a shortcut precursor. So in any text field, when I type @@ and the number of a shortcut, my iPhone shows the text that shortcut is for. In Figure 2, you can see that when I type @@1, my email address pops up.

Note that hitting the space bar or return automatically inserts the shortcut. If you don't want to use the suggested shortcut, just hit the small "x" in the upper right of the shortcut box.

You can also use keyboard shortcuts for common typing mistakes. For example, when I try to type "for" on my iPhone, it often comes out "fir" or even "fur." So my shortcuts change those last two words to "for" with no muss or fuss.



These shortcuts can be very useful too for things like Twitter postings, to make it easier to access commonly used Twitter handles or hashtags. See Figure 3.

Lastly, you can easily sync these shortcuts with your other iOS devices and your Macs. In your *iCloud* settings, if you sync "Documents & Data," then your shortcuts will be available on all your Apple devices.



Hardware Tutorial

Wireless Time Machine Backups: Make Your Own Time Capsule

© 2014 Jonathan Bernstein e have a desktop Mac Mini and a laptop MacBook Pro at home, along with another laptop MacBook Pro that just arrived back from Spain with my daughter. Plugging external hard drives into each of these Macs has been getting pretty old. I wanted to go to wireless *Time Machine* (TM) backups, but I was put off by the expense of a cloud service or an Airport Time Capsule.

I recently bought the new Apple Airport Extreme (<u>https://www.apple.com/airport-extreme</u>, Figure 1) to replace an old Netgear router that had become less



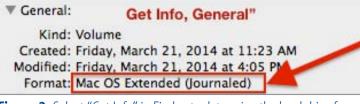


Figure 2. Select "Get Info" in Finder, to determine the hard drive format.

reliable. I was pleased by the ease of setup and the robust wi-fi connection. Also, I had read that it was possible to attach an external hard drive to the USB port of the Extreme. I thought, why not connect a 2 TB hard drive to the Extreme and see if *Time Machine* could use it as a TM Backup drive? It worked. You could do it too, if you wish.

You will need an Airport Extreme that is set up and working. You will also need a USB external hard drive large enough to handle backups from several Macs (2-3 TB is optimal). If your hard drive has a FireWire or Thunderbolt port, you'll want to see if has a USB port you can use with an appropriate cable. Here's what you do.

Be sure your external hard drive is formatted so that *Time Machine* can see and use it. If you've already



Figure 3. The cable arrangement on my Airport Extreme.

used the drive for *Time Machine*, you are all set. If you haven't already used the drive, connect it to your Mac, select it in Finder, and choose "Get Info." If the drive is formatted as "Mac OS Extended (Journaled)" (Figure 2), you're all set.

With the Airport Extreme activity light showing green, connect your external hard drive's power supply and plug your hard drive into the USB port of the Airport Extreme. Figure 3 shows the back of my Extreme, with WAN (Wide Area Network) cable from my Verizon ActionTek cable modem (Verizon is my ISP), two LAN (Local Area Network) cables, one to my desktop Mac Mini and the second to our networked

⊖ ⊖ ⊖ ⊲ ► Back	SS III III	Arrange Share Edit Tags	
FAVORITES	Connected as: Wonder who		
DEVICES	Name	External Hard Drive	
SHARED	2TB Ext	is now a shared network Drive	
AirPort Extreme		Hetwork Drive	

Figure 4. The Finder shows the Airport Extreme as a shared drive.

4 = Show All	Time Machine	(q.)
Time Machine	Backapa: July 14, 2014 - Tinday, STB Time Machine for MP G23 CB of 1 TB available Backapa: March 21, 2014 - Tinday Mode Add or Remove Backup Dist	7 8 ap, 1:51 PM
	Time Machine keeps: + Local snapshots as space permits	So with this on, Select this
ON - OFF Toggle	Hourly backups for the past 24 hours Daily backups for the past month Weekly backups for all previous month The oldest backups are deleted when yo	
Click the lock to prevent further thanges.	Show Time Machine in menu bar	Options] (?)



0	1TB Time Machine 624.72 GB	for MPB
9	Travel 174.11 GB	
Availa	ble Disks	
0	1TB Time Machine 1 624,72 GB	for MPB Woo Hoo! My External
-	2TB Ext	 Hard Drive that I plugged into my Airport Extreme!

Figure 6. This window shows that I was successful in adding my hard drive as a *Time Machine* backup disk.

Canon printer, and last, my 2 TB hard drive plugged into the Extreme's USB port.

Make sure that the cables are snug and open a Finder window on your Mac. Do you see your Airport Extreme under "Shared" in Finder's Sidebar? Select it and you'll see your external hard drive now connected as a shared network drive (Figure 4).

Now open *Time Machine* Preferences either from the *Time Machine* menu bar icon or from *System Preferences*. (You can select "Show *Time Machine* in menu bar" in the *Time Machine* Preferences pane).

With *Time Machine* on, select "Add or Remove Backup Disk" (Figure 5).

Now look to see that your external hard drive is available to *Time Machine* to wirelessly back up your Macs (Figure 6).

Now that you have created your own 'time capsule,' you will want to visit each Mac that you want to back up this way, and open *Time Machine* Preferences to add the networked drive.

Let us know if you find this article helpful. Send us feedback about other topics you would like to read about in the Pi *Journal*. The Pi is all about "members helping members," so consider something you've done with your OSX or iOS device that other members might be interested in, and write it up for the Pi *Journal*.



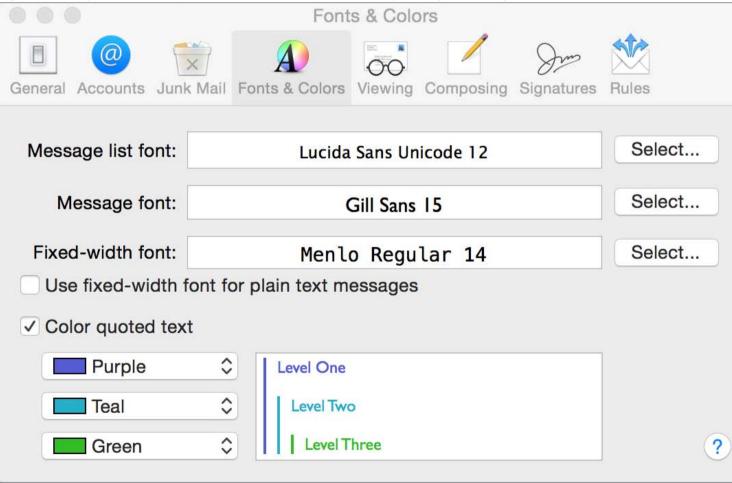
Software Tutorial

How to Adjust the Text Size in Apple's Mail Program

Neil McNamara

he *Mail* program that comes with OS X is an outstanding tool for managing your email, but I often hear people ask, "How can I make the text size larger?" Well, it's actually very easy to adjust the font size, type, and color of the text in your emails, both incoming and outgoing,

Figure 1. When you click on *Mail* preferences and then on Fonts and Colors, you will get this dialog box.



using *Mail's* Preferences. Here's how:

- Launch Mail.
- Click on Mail.
- Click on Preferences.
- Click on Fonts & Colors.

(See Figure 1)

You will see that there are three categories of fonts that you can adjust:

- Message list font
- Message font
- Fixed-width font

The font that is currently being used for each of those categories appears in the box to the right of the category. Then, to the right of that box you will see a button labeled, "Select."

If you click one of the "Select" buttons, the font dialog box will appear (see Figure 2). In this dialog box, you can select whatever font you like and also set the type size and typeface, for example, regular, bold, or italic.

	Fonts		Q Search
* ~			
Collection + -	- Family	Typeface	Size
All Fonts	Iowan Old Style	Regular	12
English	Jazz LET		9
Favorites	Kino MT		10
Recently Used	Lucida Blackletter		11
Classic	Lucida Bright		12
Comic Life	Lucida Calligraphy		13
Fixed Width	Lucida Console		14
Fun	Lucida Fax		18
Modern	Lucida Grande		24
My Selections	Lucida Handwriting		36
PDF	Lucida Sans		
Web	Lucida Sans Typewriter		48
Windows Office Compatible	Lucida Sans Unicode		64
	Luminari		72
	Marion		96
	Marker Felt		144
	Matura MT Script Capitals		288
	Menlo		
	Microsoft Himalaya		
	Microsoft Sans Serif		
	Microsoft Tai Le		

Figure 2. Click one of the "Select" buttons and this font dialog box pops up. Here you can change the font, the size, and the type.

Select the 'Message font' and change its size and type, and you will see the new font. However, if you select the 'Message list font' and change it, it appears to have no effect. Here's the catch: The Message list font settings are only effective when you switch to 'Classic View' elsewhere in *Mail*'s preferences.

To see changes in the Message list font, click on the 'Viewing' tab at the top of the *Mail* preferences pane, and check the box for 'Classic View' (see Figure 3). This will change the layout and appearance of *Mail* back to what it was several years ago. Now you will see the changes you make in the Message list font. You may not care for this classic view, though.

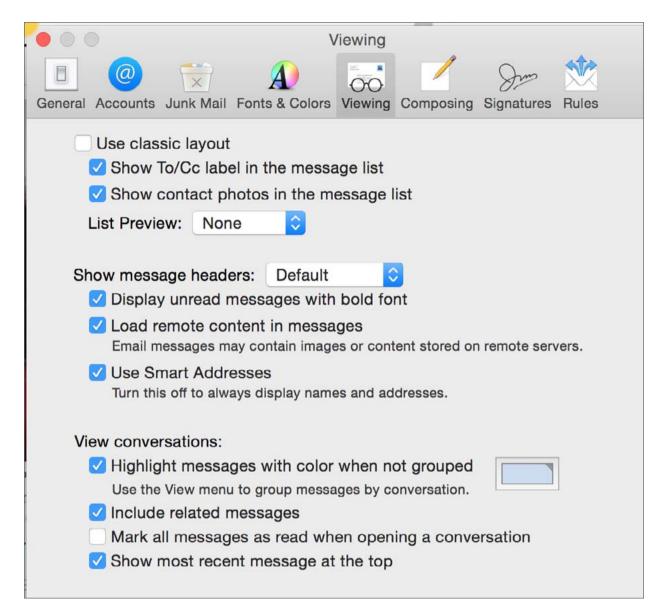


Figure 3. Click the top box on this Viewing dialog box to go back to Classic View if you want to see changes in the Message list font.

Finally, if you want to use a fixed-width font, you should click on 'Fixed-Width' in the 'Collection' column at the left side of the font dialog box. The small collection of fixed-width fonts can be sized to fit your preferences — although they look rather odd.



How Spotlight Suggestions Handles Privacy

Rich Mogull

ack in 2005, Apple added Spotlight to Mac OS X 10.4 for finding files. Rather than merely searching through filenames, Spotlight could also find files based on metadata, and it could even look inside common file types, like PDF. Although often a source of frustration (thanks to spotty results and performance-eating indexing), Spotlight has improved with every version of OS X to provide better results with fewer performance hits. iOS even gained a simplified version of Spotlight, capable of finding apps, contacts, events, and email messages.

New in iOS 8 and OS X 10.10 Yosemite is Spotlight Suggestions, a new feature that extends Spotlight to the Internet, enabling it to search common information sources like Wikipedia and even the Web at large, via Microsoft's Bing search engine. Welcome as this is for providing a single search interface for finding whatever you need, it's not new — independent search applications have offered similar features for years.

However, building such a feature into iOS and OS X opens it up to added scrutiny, and on 20 October 2014, <u>the Washington Post re-</u> <u>ported that Spotlight Suggestions was a major privacy concern</u> [1], leaking your information to Apple and potentially other sources. Unfortunately, the article contained multiple factual errors, many of which could have been avoided had the authors read <u>Apple's</u> <u>iOS 8 security documentation</u> [2] and <u>Apple's privacy page</u> [3], which includes a section on Spotlight Suggestions.

Semi-Anonymous Search — To save you the time of reading those documents, and to add some details provided by other Apple sources, here's how Spotlight Suggestions works, and how it manages your privacy.

The primary concern most people likely have is the possibility of a local file search revealing private information to Apple, but various privacy mechanisms prevent that.

When you open Spotlight and start typing a search string, Spotlight uses predictive search to start generating results. This is the same technique used by nearly every modern Web browser and search engine. Spotlight simultaneously searches its index of your local files while checking with multiple Internet sources via a connection to Apple's own servers. The requests go to Apple first, not directly to Internet sources like Wikipedia.

To manage your session, Apple uses a one-time session ID that lasts for 15 minutes.

Neither the session ID nor the search query contain your IP address or any other device identifier. Session IDs also aren't coordinated or correlated, so there is no way for Apple to track historical usage by chaining session IDs together. In short, your query exists within a 15-minute bubble that isn't tied to you directly. This is different from Siri, which uses a more persistent device identifier since it requires more context over time (due in large part to the overhead of voice recognition).

Queries do include location information, but Apple added a "fuzzing" feature to mask your exact location. The degree of fuzzing varies based on the density of the area you are in. In a city, it will likely be relatively precise, down to the block, in order to direct you to the closest coffee shop (really, what else matters?). In a suburban or rural area, it might be no more specific than the town. Fuzzing happens on your device, not Apple's servers, so they never see your exact location.

You can disable Spotlight Suggestions location tracking on your Mac in System Preferences > Security & Privacy > Location Services > System Services. Click the Details button, then deselect Spotlight Suggestions. Even if you do this, your IP address will still be used for higher-level location tracking, since Apple needs to know at least what country you are in. In iOS 8 the setting is under Settings > Privacy > Location Services > System Services (scroll all the way to the bottom to find it).

It's important to remember that Spotlight Suggestions and Siri use different search mechanisms, with different privacy settings.

To provide Bing search engine results in the Spotlight window, Apple keeps track of "common queries." Apple does not pass every search query to Bing, merely those identified as common. For example, I search for "US Airways" a lot due to constant work travel. That query pops up the airline's Web site (and Wikipedia entry) since it's relatively common. But when I search for the title of a Keynote presentation that I need to edit on my upcoming flight, I don't get any Web results, even though I would if I searched for it directly in Bing (since I've used that presentation at conferences and in blog posts).

When these queries are sent to Bing, they come from Apple's servers, not your computer, so Bing

can't track them. If location is sent (e.g. you are performing a search for local movies) it is provided to Bing only at the level of the city you are in, not even the fuzzed location Apple uses. Lastly, Apple's contract with Microsoft prevents Microsoft from retaining queries and results.

Keeping It Local — Apple doesn't view or share your local device index, but the queries themselves will always hit their servers. Apple does track what you select in Spotlight search results. If it's a local file, Apple tracks only the file type, not the filename or other specifics (the company may track a little more; we don't have an exact list, but names, contents, and other personalized metadata are explicitly excluded). This is still tracked only to the session ID level.

If you don't like any of this, you can disable Spotlight Suggestions completely via System

Preferences > Spotlight in Yosemite, or Settings > Spotlight Search in iOS 8. Spotlight searches will then be limited to the contents of your local device's index. Apple doesn't always get security and privacy right as it continues to tighten the links between Apple devices, software, and services, as I recently highlighted in "<u>You Are Apple's</u> <u>Greatest Security Challenge</u> [4]" (14 October 2014). But aside from <u>Tim Cook's privacy</u> <u>message</u> [5], it's clear that Apple not only <u>sees privacy as a competitive advantage</u> [6], but is doubling down on the engineering to support it.

As a security analyst, I worry constantly about becoming biased, especially with a company like Apple whose products are so deep a part of my life. To avoid this, I spend a tremendous amount of time researching and validating my findings before publishing them. While this may be pie-in-the-sky thinking, I believe journalists and publications should make similar efforts to avoid bias, and tamp down the desire for explosive headlines that leads to inaccurate reporting, particularly when such articles increase paranoia unnecessarily.

While Apple has made, and continues to make, security and privacy mistakes worthy of criticism, the original Washington Post story in this particular case was not only factually wrong, but incorrect in ways even basic research would have revealed. On the upside, we all now have a better understanding of how Spotlight Suggestions works, and it's certainly important to continually evaluate how — and if! — Apple is keeping its privacy promises.

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[1]: <u>http://www.washingtonpost.com/blogs/the-switch/wp/2014/10/20/apples-mac-computers-</u> <u>can- automatically-collect-your-location-information/</u>

[2]: https://www.apple.com/privacy/docs/iOS_Security_Guide_Oct_2014.pdf

[3]: <u>http://www.apple.com/privacy/privacy-built-in/</u>

- [4]: http://tidbits.com/article/15101
- [5]: http://apple.com/privacy

[6]: http://www.macworld.com/article/2366921/why-apple-really-cares-about-your-privacy.html

Welcome Wi-Fi Changes under Yosemite's Hood

Glenn Fleishman

i-Fi is a mature part of OS X, but Apple likes to tinker, and OS X 10.10 Yosemite brings a tinkling cascade of tiny changes, from new information and a new way to display data in the Wi-Fi menu to removing the last vestiges of the long-outdated and completely broken WEP (Wired Equivalent Privacy) encryption protocol.

With iOS 8.1 installed, Yosemite also adds a nifty way to activate Personal Hotspot from your Mac instead of your iOS device.

An Expanded Menu of Hidden Data — The Wi-Fi menu (previously known as the AirPort menu) has long concealed a hidden treasure trove of performance and connection data that's revealed when you press the Option key before clicking the menu bar icon. For the last few releases, it has contained seven pieces of data about any network to which you're connected and five items about others, visible when you hover over their names (Figure 1).

Yosemite adds a new option to the hidden menu as well as several new bits of network data. These help

MAR PER LA		
Wi-Fi: Looking for Networks Turn Wi-Fi Off		
' The Office		(((:-
Disconnect from The Office		
IP Address: 10.0.200.70		
Router: 10.0.200.1		
Internet: Reachable		
Security: WPA Personal		
BSSID: c2:9f:db:b1:54:b5		
Channel: 149 (5 GHz, 20 MHz)		
Country Code: US		
RSSI: -58 dBm		
Noise: -90 dBm		
Tx Rate: 54 Mbps		
PHY Mode: 802.11a		
Ada's Free WiFi		10.
Ada's Staff	0	(11-
Awesome		(11-
HP-Print-3B-Officejet 6600		(:-
HP-Print-7F-Officejet 6600		(10-
HP-Print-e9-LaserJet 200 color		(11:-
The Office AirPort		(((-
The Office Daily		(((-
The Office Daily WPA		((:-
Voodoo	0	((:-
Join Other Network		
Create Network		
Open Network Preferences		

Figure 1.

you diagnose network problems quickly, without the need for other software.

Network information is now scattered about. At the top of the menu, the Unix-based interface name (like en0) appears, along with the Wi-Fi adapter's factory-

	The Office Daily		(:-
Security: WPA Personal	The Office Daily WPA	0	ŝ
BSSID: c6:9f:db:b2:54:b5 Channel: 6 (2.4 GHz, 20 MHz)	Voodoo		(((;
RSSI: -33 dBm Noise: -76 dBm PHY Mode: 802.11g	Join Other Network Create Network		
	Open Network Preferences		

Figure 2.

set unique MAC (Media Access Control) address. Below a currently connected network, in addition to the previously available details, you see the Mac's assigned IP address, the router's address, and whether or not the Internet is reachable.

The Disconnect from [Network Name] item is a nice addition. Previously, the only way to sever a Wi-Fi link was to turn Wi-Fi off and on or join another network.

The Channel item now shows not just the channel (such as 149) and band (like 5 GHz), but also the "width" of the band. With 802.11n, a base station can use 20 MHz or 40 MHz in 5 GHz. In 802.11ac, that can jump to 80 MHz. The same extra information also appears in other networks when you hover over their names, shown in Figure 2. The menu also now displays the country code of the base station, which could be useful if it has been set up wrong, and the noise measurement. Available signal is the ratio of signal to noise, and the lower (further away from zero) the noise value, the better. The -90 dBm (decibels below 1 milliwatt) figure here is pretty good. Noise is the only new item in the hover-over display for non-connected networks.

Taken together, this information can help you sort out network difficulties. If you always see 20 MHz in the Channel line, but the PHY (physical protocol mode) is 802.11ac, you have other networks in the vicinity on the same or adjacent channels that are forcing the base station and client to negotiate a slower rate; moving the base station or forcing a different channel could help.

If your noise value is very high (like -30 dBm instead of -90 dBm), there's interference from other devices, Wi-Fi or otherwise, in the same band, and you again may need to move the base station or pick a different channel.

Apple also added a number of tweaky options in its Wireless Diagnostics program, which you can open

\sim		twork you want to crea	
Network Name:	Glenn's M	acBook Air	
Channel:	11		
		Cancel	Creat
		Cancel	C

from the hidden Wi-Fi menu. I'll go into the particulars in the next edition of "Take Control of Your Apple Wi-Fi Network [3]." Apple has a perverse need to fiddle with this app; this is the fifth distinctly different version across four operating system releases.

The Final Death of WEP — WEP was Wi-Fi's first encryption standard and was almost intentionally designed to be weak. It had to work on the slow silicon of the day, and couldn't be too robust due to issues surrounding U.S. export policies related to encryption. Starting over a decade ago, effective attacks rendered WEP protection essentially useless, and it was abandoned beginning in 2003 with WPA and then in 2004 with the full-fledged WPA2. The only encryption that may be used with 802.11n and 802.11ac networks is WPA2. Every Wi-Fi adapter released starting in 2003 included or could be upgraded to use WPA2. (A lot of point-of-sale systems continued to use WEP until recently — some still do!)

Apple persisted for the longest time in allowing only WEP encryption for ad hoc computer-to-computer networks (a special Wi-Fi mode) and in the software base station mode available by sharing a networking connection in the Sharing preference pane. Finally, in 10.8 Mountain Lion, Apple let the software base station use WPA2, but had a hidden Option-click trick shown in Figure 3 to bring up WEP (see "Software Base Station in Mountain Lion Adds Modern Encryption [4]," 30 July 2012).

Yosemite kills WEP once and for all. Ad hoc networking offers only unencrypted connections, which I can recommend only if there are no other computer users in your vicinity. There is now no way to prevent someone from joining an ad hoc network or sniffing the traffic passing by. Use other approaches to sharing files, like AirDrop or Dropbox. The software base station now exclusively offers WPA2. I think users have had enough time to make the transition (see Figure 4).





Hands-free Hotspot — Personal Hotspot dates back to iOS 4 as a way to use your iPhone (and later an iPad) as a Wi-Fi bridge to a cellular data connection. The feature improved substantially in subsequent releases, but it still requires a few steps to enable unless you both leave the feature turned on in iOS and tether via USB or Bluetooth.

The combination of Yosemite and iOS 8.1 removes that pain — oh, the pain of a few taps, I know! with Instant Hotspot, if you have a recent Mac that supports the Continuity suite of features. The cutoff is mid-2012 for some models and later for others; Apple has a complete list [7] of which Macs support which Continuity features.



Figure 5.

Instant Hotspot [8] shows nearby iOS devices in Yosemite's Wi-Fi menu as long as the Mac and the iOS device are logged in with the same Apple ID in iCloud. The device appears with its battery life, cellular network connection type, and signal strength. Choose it from the Wi-Fi menu, and you're connected (see Figure 5).

Shown Instant Hotspot is pretty clever, too: it disconnects when the network isn't in use to save battery life (both of your Mac, if it's a laptop that's not plugged in, and your iPhone or iPad), and it skips downloads of system updates and other large files to avoid using up data transfer allocations on cellular data plans.



Overall, these features aren't groundbreaking, but for those of us who work with Wi-Fi networks, they're entirely welcome, particularly the passing of WEP. At long last, I can say with confidence, "It's dead, Jim."

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Washington Apple Pi Meeting Getting the most from Apple Mail Speaker: Larry Kerschberg February 28, 2015, 9:30 a.m., George Mason University

We use our *Email* program – Apple *Mail* – on a daily basis. It allows us to communicate with colleagues, friends and loved-ones.

In order to get the most from Apple *Mail*, we will delve into some of *Mail*'s features for both Yosemite on the Mac and iOS 8 on our iPhones and iPads. These include search, IMAP folders, sending attachments using Mail Drop, setting up Junk Mail filter, and using notifications to manage incoming messages.

Some of us want to send email messages securely. First, we will explain how encryption works, and how you can obtain security keys. Next, we will demonstrate how to encrypt email messages. We will demonstrate signing a message with your "digital signature", and how the recipient of the encrypted message can decrypt it, with the added benefit of knowing that only you could have sent it.

Reference: Joe Kissell, *Take Control of Apple Mail*, Second Edition, Take Control Book Series. http://www.takecontrolbooks.com/apple-mail

As always, check the **Pi website** for additional, updated details on these meetings.

Volunteer Opportunities

Members Helping Members

Dedicated volunteers are the lifeblood of the Pi. Whether it is installing a hard drive at a Clubhouse Saturday event, answering questions at a General Meeting, or placing advice on the TCS Forums, there are many ways to pitch in and help, depending on a member's interests and talents. Please consider making a commitment to ensure that the Pi remains a strong and energetic club dedicated to helping its members. All volunteer efforts are appreciated. Check out these areas where assistance is needed.



Featured Position – General Meeting Webcast Director

The Pi currently captures its General Meetings on videotape for future viewing by members who cannot attend the meetings. Using the same camera, we are able to concurrently produce live webcasts so members can view the meeting in real time via the Internet. We need a dedicated volunteer to oversee the technical and production aspects of this webcast.

There are various technical components to putting up the video on the Pi's Ustream web page. The Webcast Director needs to ensure that the equipment is properly set up and functioning, and needs to monitor the audio and video streaming production from start to finish (or designate someone to do this) to ensure satisfactory audio and video quality. The Webcast Director will not be responsible for any other part of the General Meeting program, but will focus exclusively on the webcast production.

Any previous experience in TV or video production would be advantageous, but is not required. A basic understanding of video and audio equipment and how to connect them would be helpful, but the contracted cameraman has primary responsibility for equipment hookup. The Webcast Director needs to make sure that the meeting presenters do not stray from their predetermined stage positions, so they remain adequately illuminated for the entire presentation. Also, this person should be available in case of a technical or other problem that would require the speaker to temporarily suspend their presentation. Case in point: the Webcast Director will stop the action when the cameraman indicates that a new tape needs to be swapped out in the video camera.

If you are interested in helping out with an eye on taking over this important position, contact office@wap.org.

Journal Managing Editor

The Journal is an established, time-honored publication of the Washington Apple Pi and it is in need of someone to take over as Managing Editor, leading a team of dedicated and highly skilled volunteers. The Journal schedule calls for bi-monthly publications, and most of the activity occurs in the three weeks leading up to the publication date. In addition, this person will be a member of the Pi's Publications Committee, which has oversight of all printed material published by the Pi. The job is challenging, but very rewarding.

If you enjoy writing and want to help the Pi progress, this is the job for you. If you enjoy working with enthusiastic colleagues on meaningful projects, apply today.

Contact the interim *Journal* editor, Jay Castillo, at: editor@wap.org with any questions or to express your interest.



General Meeting Manager

Our General Meeting programs need someone dedicated to the planning and managing of these important club events. The job includes coordinating meeting activities, making any necessary arrangements, and managing the behind-the-scenes tasks. While it sounds like a job for Superman, that really is not the case. If you have juggled household duties or been an office administrator, you have the skills. While another Pi manager emcees the meeting, you will be making him or her look good! Because this activity needs to be approved by the Pi's Management Committee, the volunteer will serve as an adjunct member of that committee. This volunteer opportunity is guaranteed to keep you busy, and when the meeting is over and everything is packed up, lunch is on the Pi.

Send your inquires to **office@wap.org** to express interest and we'll go from there.

iChat Help Volunteer

Apple's *iChat* application offers a way for Pi members to help other members from the comfort of their own home. Interested? Read on.

iChat is an ideal means for direct communication using text, voice, video, or, in the last two versions of Mac OS X, screen sharing. With the Pi having commercial grade servers and server software, we now have the means to host our own *iChat* network. We are currently testing the capability of this interactive networking software, and the first results are positive.

So what will Pi *iChat* Help volunteers do? Basically, the volunteer helps members who have questions or a problem, but instead of meeting face-to-face, you handle the matter using *iChat*. What's that? You don't use *iChat* or haven't even launched it yet? No problem, we will train you. We will also be providing guidance on how to deal with common issues, and on problem-solving techniques, and will supply a list of associate helpers who can help with particular issues. All you need to bring to the equation is your people skills and a genuine desire to help.

If you have even the slightest interest or any questions, contact office@wap.org.

