



# The *GAB'er*

The Newsletter of the Greater Albany Apple Byters

Volume 31, Number 9 - May 2015

## Apple's Worldwide Developers Conference Kicks Off June 8



Apple announced that it will hold its 26th annual Worldwide Developers Conference (WWDC) June 8 through June 12 at San Francisco's Moscone West, with more sessions than ever before streamed to developers. At WWDC, Apple's renowned developer community will come together to learn about the future of iOS and OS X®, helping them continue to create the most innovative apps in the world. WWDC will feature more than 100 technical sessions, over 1,000 Apple engineers, hands-on labs to help developers integrate new technologies and fine tune their apps, as well as the Apple Design Awards which showcase the best new apps in the last year.

Select Worldwide Developers Conference sessions will be live streamed throughout the week via the WWDC website and the WWDC app, giving more developers around the world access to the latest information in real time. Videos from all technical sessions will also be available by the end of each day.

## May 2015 GAAB Meeting

There will be no April 2015 GAAB Meeting because of the Spring Break and the Holidays. The next GAAB meeting will be Tuesday, May 12, 2015.

**Meeting: May 12, 2015  
7:00 PM**

**Panera Bread  
161 Washington Ave Ext, Albany, NY**



A map can be found at the GAAB website at [http://applebyters.com/index.php/meeting-information/meeting\\_map/](http://applebyters.com/index.php/meeting-information/meeting_map/)

GAAB Meeting Agenda:  
Discussion of June 2015 Dinner Meeting  
Apple Changes and Updates  
Member Topics

**Next GAAB Meeting**  
**May 12, 2015**  
**7:00 p.m.**

**Panera Bread**  
**Crossgates Common, Albany**

**Featured in this Issue**

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## Apple Ambassador

by John Buckley

### Everything You Need to Know About Apple's New Photos App for Mac

by Josh Lowensohn and Nathan Ingraham

*Apple's new photo-syncing setup is a huge improvement — but the devil is in the details*



One of the biggest problems right now is [what to do with all our photos](#). Taking them is easier than ever. So is sharing them. But storing and organizing them all in different places still manages to be an experience filled with gotchas, and one that varies wildly depending on what companies you've sworn allegiance to with your phone and computer. And if that company's been Apple, you've basically been a guinea pig in a good idea that was hastily ([and poorly](#)) executed.

Apple might have just fixed that for Mac users with the new Photos app. It's the final piece in a plan that [Apple unveiled last June](#), and one that both fixes and unifies a patchwork system it rolled out in 2011. It's a rethink of how people manage their photo library on a Mac, something that's been iPhoto's home turf for more than a decade. Apple's [discontinuing that software along with Aperture](#) (which is aimed at pro photographers), in favor bringing the tools people have on their iPhones and iPads to the Mac. It's also been built with Apple's iCloud in mind instead of an afterthought, [which feels years overdue](#).

At a high level here's three things that anyone thinking of using Photos for OS X should know:

- You should probably use the iCloud Photo Library feature, which syncs all your photos across all your devices — but you'll almost certainly need to buy more iCloud storage to take advantage of it.
- Everything you shoot with your iPhone or import into the new Photos app is backed up to iCloud and shared

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#### Officers & Special Interest Group Leaders

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### 1. Security Camera



You don't need a complete security system just to watch a single room, closet, drawer or jewelry box. A single Internet-connected security camera can do the job, but why spend the money?

With a simple free app, you can transform your Android or Apple gadget into a motion-activated security camera that records images and alerts you when someone comes snooping. Check out [Salient Eye](#) (Android; Free) or [Manything](#) (Apple; Free). Then, [click here](#) to learn how to make them work and what to do if you need more security in your home.

### 2. Digital Photo Frame

If you want to frame a digital picture to hang on the wall, you have to print it out. Of course, thanks to easy digital photography, you probably have hundreds or thousands of great pictures to choose from.

Instead of trying to choose, turn an old tablet into a digital picture frame. It can sit on a table or counter and display hundreds of great photos in row.

For an Android tablet, grab the [Dayframe app](#) (Free). Not only does it let you set up photo slideshows from local photos, it can pull images from Facebook, Instagram, Twitter and other major photo and social media sites. Plus, if you have a Google Chromecast, you can easily stream photos to your TV and turn it into a giant digital photo frame.

For an iPad, [Digital Photo Frame](#) (Free) and [Picmatic](#) (Free) are two good apps. Digital Photo Frame lets you pull images from online sources while Picmatic lets you add filters and create interesting layouts.

### 3. Universal Controller

Tired of juggling remotes for your TV, streaming box, Blu-ray player and more? You can turn your old gadget into a universal remote control for your entire home entertainment system.

Most new Internet-connected TVs, Blu-ray players and streaming video boxes have remote apps. Simply load the app on your gadget and you have complete control over Wi-Fi. For older gadgets, you can get an IR transmitter adapter like the Zmart Remote PRO or a Wireless-to-IR base station like the Logitech Harmony Hub.

If you have other Wi-Fi enabled appliances in the house, like smart light bulbs or thermostats, you can control those as well. And you don't have to stop at your entertainment system and appliances. An app like [Remote Mouse](#) (Android, Apple; Free) lets you control your computer using your smartphone or tablet over your network.

### 4. For the Kids

If your children are clamoring for a gadget of their own, an old one is perfect for watching videos, reading eBooks or playing games. You can set it up so they stay safe. And if they destroy it, it isn't a real loss.

On Android tablets with version 4.3 and up, you can create Restricted Profiles under Settings>>Devices>>Users so you have complete control over what your kids are doing. Apple lets you enable restrictions on in-app purchases and some apps.

You can also install a third-party app like [Famigo](#) (Android, Apple; Free) that locks the gadget into a kid-friendly mode. [Click here](#) to learn more about sharing tablets with people and still keeping your privacy.

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## Education SIG

### The 20 Digital Skills Every 21<sup>st</sup> Century Teacher Should Have

by EdTech Team, Educational Technology and Mobile Learning

The original list that was created in 2011 comprised 33 skills, after reviewing it we decided to do some merging and finally ended up with the 20 skills below.

**The 21st century teacher should be able to:**

**1- Create and edit digital audio**

Here are some tools for teachers to develop this skill:

[Free Audio Tools for Teachers](#)

**2- Use Social bookmarking to share resources with and between learners**

Here are some tools for teachers to develop this skill:

[A List of Best Bookmarking Websites for Teachers](#)

**3- Use blogs and wikis to create online platforms for students**

Here are some tools for teachers to develop this skill:

[Great Tools to Create Protected Blogs and Webpages for your Class](#)

**4- Exploit digital images for classroom use**

Here are some tools for teachers to develop this skill:

[Web Tools to Edit Pictures without Installing any software](#) [Tools to Convert Photos into Cartoons](#)

**5- Use video content to engage students**

Here are some tools for teachers to develop this skill:

[Web Tools to Create Videos without Installing Any Software](#)

**6- Use infographics to visually stimulate students**

Here are some tools for teachers to develop this skill:

[Tools for Creating Educational Posters and Infographics](#)

**7- Use Social networking sites to connect with colleagues and grow professionally**

Here are some tools for teachers to develop this skill:

[23 Excellent Tools for Teachers Professional Development](#)

[5 Ways to Use Twitter for Professional Development](#)

[20 tips for Teachers Professional Development](#)

**8- Create and deliver asynchronous presentations and training sessions**

Here are some tools for teachers to develop this skill:

[Presentation Creation Tools for Teachers](#)

**9- Compile a digital e-portfolio for their own development**

Here are some tools for teachers to develop this skill:

[Great Tools to Create Digital Portfolios](#)



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**10- be able to detect plagiarized works in students assignments**

Here are some tools for teachers to develop this skill:

[Plagiarism Detector Tools for Teachers and Educators](#)

**11- Create screen capture videos and tutorials**

Here are some tools for teachers to develop this skill:

[Some Very Good Screen Capture Tools for Teachers](#)

**12- Curate web content for classroom learning**

Here are some tools for teachers to develop this skill:

[Great Tools for Web Curation](#)

**13- Use and provide students with task management tools to organize their work and plan their learning**

Here are some tools for teachers to develop this skill:

[A List of Great Task Management Tools for Educators](#)

**14- Use polling software to create a real-time survey in class**

Here are some tools for teachers to develop this skill:

[15 Free and Easy Poll/ Survey Tools for Teachers](#)

**15- Understand issues related to copyright and fair use of online materials**

Here are some tools for teachers to develop this skill:

[Great Resources for Learning More about Copyright Issues](#)

**16- Use digital assessment tools to create quizzes**

Here are some tools for teachers to develop this skill:

[Free Tools to Create and Administer Quizzes](#)

**17- Find and evaluate authentic web based content**

Here are some tools for teachers to develop this skill:

[A Great Rubric for Evaluating Web Content](#)

**18- Use digital tools for time management purposes**

Here are some tools for teachers to develop this skill:

[Some Very Good Tools for Better Time Management](#)

**19- Use note taking tools to share interesting content with your students**

Here are some tools for teachers to develop this skill:

[Good Apps for Note Taking](#)

**20- Use of online sticky notes to capture interesting ideas**

Here are some tools for teachers to develop this skill:

[Sticky Notes Apps for Teachers and Students](#)



## Apple Ambassador

*Continued from page 2.*

seamlessly across your devices. Using it is a pretty great experience.

- If you don't want to try iCloud Photo Library, you can keep using the new Photos app as an iPhoto replacement, but you'll be stuck with the old My Photo Stream feature (and its [odd restrictions](#)) for syncing photos across your devices.

As simple as Photos is, the devil is in the details, and there are quite a few details here. Familiar features have moved or changed, and in classic Apple fashion, some have also been quietly removed. Here are some things you should be aware of now that the software's available to everyone.

### How it works

If you've been using the iCloud Photo Library beta for iOS 8, you'll be pretty familiar with how Photos for OS X works. Rather than the old "My Photo Stream" feature, which pushed 1,000 photos (or 30 days worth of photos) across your Mac and iOS devices, everything you shoot on your iPhone will [automatically get uploaded to iCloud](#). When you open up Photos on your Mac, you'll see everything you shot in a view that's nearly identical to what you see in iOS — all your photos are organized by date and location. You can zoom out to a year overview or zoom in and see any particular photo or video. Apple's also included the see-every-photo-as-a-microscopic-thumbnail view to navigate several hundred photos at a time.

### Every image in the cloud, if you want

What is probably most noteworthy about the new app is that Apple is no longer simply using iCloud to share your photos across devices — if you choose, you can now store every image and video you shoot on your iPhone in iCloud. To help make this work without taking up a ton of storage, Apple is also giving users the option to optimize storage on their devices. Instead of locally storing every image in full resolution, you can opt to have the full images live in iCloud; smaller, optimized images that take up much less storage space will instead be displayed on your mobile devices and even on your Mac. At any time, you can choose to download the full-size image if you're so inclined. Of course, if you buy into this setup, you'll be trusting Apple to keep all the originals safe in iCloud. Fortunately, you can set it up so that the Photos app on your Mac keeps all the original, full-size images stored locally if you so choose.

You're still free to choose the optimized setting on your iOS devices to save space there.

Photos will happily import both JPG and RAW files

If you're a photographer who shoots with a standalone digital camera, Photos will happily import both JPG and RAW files and treat them much like the photos you shoot on an iPhone. If you have Photos set to upload everything to iCloud, it'll store the original, full-size images in the cloud and sync them across your devices. It's worth noting that Photos for OS X obfuscates the file system even more than iPhoto or Aperture do — once you import photos from your camera, it seems to be impossible to locate the original file in the Finder, even if you have Photos set to store the original, full-size images on your computer rather than only keep them in iCloud. Those who want to maintain absolute control over their images will probably want to save original files in Finder and then import the best shots into Photos for further work and sharing.

Beyond simply providing a much better way of organizing your photos and videos across multiple devices, the new Photos app for OS X does much of what its predecessor did — you can make a wide variety of edits (more on this later), create calendars and books, use face detection to sort photos by the people that are in them, share them with iCloud or across some third-party services, and more. Nearly every feature included in iPhoto is present here in Photos, and Apple has finally fixed its confusing cloud-syncing solutions in favor of something much simpler and smarter.

### Is this better than iPhoto or Aperture?

It really depends on how you were using those two apps. This is eminently more lightweight than either of those two, and more familiar to iOS. You basically get the same set of filters, controls, and effects you'll find on iOS, and everything gets synced up the second it's done. Also, the photos you have stored in your iCloud Photo Library no longer feel tacked on the way the My Photo Stream feature did in iPhoto and Aperture.

This isn't an Aperture replacement

Now, if you were one of the people who loved Aperture because you like adjusting every possible little setting, and having things like a loupe for pixel-peeping, adjustment brushes for fixing dust spots or blown highlights, and plugins to add extra features, here's some bad news: none of these things are present in Photos. Dedicated iPhoto users should find plenty to like about the new OS X Photos app, though.



[For more details on this, see our in-depth preview.](#)

### What's new?

As mentioned before, this is a completely new app with changes to both its look and feel, and how you edit photos. But there are a few new features.

- If you're an iPhone or iPad shooter, there's now a way to **sort between specialty photos and videos** from Apple's newer devices. That includes things like panoramics, burst shots, slow motion, and timelapse video. This is basically the same thing you can do on iOS, now on Mac.
- Apple's changed up **its shared Activity View** to look less like albums, and more of a running update log — just like it does on iOS. The big difference here is that any shared albums you have with friends show up in the main source list instead of hidden away within the app.
- **A new auto-crop tool** that looks at your photo to figure out where the horizon is, then adjusts it according to [the rule of thirds](#).
- **A new zoomed out view** for collections and years that makes thumbnails absolutely tiny. You can see what pictures are by clicking and scrubbing, just like how it works on iOS.
- **New square book formats** if you're printing photos through Apple.

### What's missing?

Pretty much everything that is in iPhoto can be found in Photos, but some things did not make the cut. It's worth noting we were using a pre-release version of the software, and things could be added in future releases.

- The long-running **star rating system** has given way to favoriting photos with hearts, though existing star ratings are preserved from your old photos and accessible through search.
- iPhoto's odd **built-in mail tool** is also gone, and has been replaced with kicking photos out to Yosemite's Mail app. That's an extra thing to have set up outside of Photos, but on the plus side it means that those messages will actually show up in your sent folder instead of into the ether of Apple's internet as they did before.
- The syncing tools for **Flickr and Facebook**, which let you set up an album to automatically post to either of those places, are gone. They've been replaced with Apple's system-wide sharing tools, which means a little more legwork is required if you're relying on iPhoto for keeping online albums up to date.
- You cannot **geotag photos**, though you can see, sort, and search by where photos were taken.

- **Editing and color correction tools for photos on your videos**, that's still iMovie's territory; you can't even trim a video that's stored in your library without jumping out to another app.

### How does this handle storing photos on my Mac versus iCloud Photo Library?

Either you keep everything on your Mac, or sync up everything in your Photos library with your iCloud Photo Library. That means no selecting certain photos of events to sync up. Power users might hate that, but the feature's been designed so you don't have to remember to flag items — something that's tedious with larger libraries. It's worth noting that even if you choose to sync your photos with iCloud Photo Library, you can still keep the original files stored locally on your Mac while having your library mirrored across multiple devices.

### Do I need to buy iCloud storage now?

Photos can be used without iCloud Photo Library, and thus your iCloud storage. You can keep both photos and videos in the Photos app, just like you could with iPhoto and Aperture. You can also keep using iCloud's Photo Stream feature, though it does not store full quality versions of your photos and won't even transfer videos. Once you've upgraded to iCloud Photo Library, Photo Stream as we've known it is replaced by All Photos.

If you do want to flip on iCloud Photo Library, Photos provides an estimation of how much storage it will take. If that goes over the free amount you have from Apple, you can subscribe to one of its various storage tiers, just like you can from iOS devices. Apple gives you 5GB for free, but keep in mind that you're also sharing that space with things like iCloud backups, as well as files you have stored in iCloud Drive. Photos you've taken on your iPhone count separately from those backups, but can eat into that space quickly. Apple Photos won't make this worse if you're just snapping shots with your iPhone or iPad, but it definitely will if you plan to store RAW photos from a DSLR and 1080p videos.

Currently, Apple offers four different tiers of [extra iCloud storage](#), which have varying costs depending on what country you're in. In the US, at least, it's 99 cents a month for 20GB, \$3.99 a month for 200GB, \$9.99 a month for 500GB, and \$19.99 a month to jump to 1TB.

### What's happening to iPhoto and Aperture?

Both pieces of software will live on, for now, though are no longer being developed by Apple. Photos is the



new iPhoto, basically, so your library is transferred over. Aperture users, however, can continue to use Aperture if they want to make more advanced edits. But those edits made in Aperture won't sync over to Photos and vice versa.

### **Do I need to do anything to my photo library on iOS, iPhoto, or Aperture?**

No. Apple will let you move your iPhoto or Aperture library into Photos and preserve your edits. However, because Apple changed some of its organizational tools, some things do get lost or changed in translation from an iPhoto or Aperture library. Star ratings get turned into hearts (or favorites), and projects are turned into albums. Other metadata is retained but will only show up in search. You need to search for things like color labels and flags. Also, if you've added custom metadata fields to any photos in Aperture, those fields do not carry over.

For iOS users, there's nothing to do. If you've turned on iCloud Photo Library, all your photos and albums will show up in Photos.

For iOS users, there's nothing to do

### **How do I get this?**

Apple has built it into OS X 10.10.3, which was released today. Once you've updated (through the Mac App Store), the app will be automatically installed.

### **This all sounds really complicated, can I just use something else?**

On the Mac? Of course. The same thing goes with your iPhone or iPad. Pretty much every company now, including [Amazon](#), [Box](#), [Dropbox](#), [Google](#), [Flickr](#), and [Microsoft](#) have apps that will perfectly and seamlessly sync your camera roll to their servers. The key reason to use this is if you're the kind of person who does not want to deal with setting up another service, and both likes and wants to use Apple's tools.

Casey Newton contributed to this report.

**Update April 8th, 12:30PM:** This post was originally published February 5th, 2015 and has been updated to reflect that the Photos app [has been released as part of OS X 10.10.3](#).

## Internet SIG

*Continued from page 3.*

You'll also want to install an app like [DinnerTime](#) (Android, Apple; Free) that lets you shut down the gadget when the kids start misbehaving or it's time for family dinner.

### **5. Ebook Reader**

A good use for an old tablet is a dedicated eBook reader. You can install the free [Kindle app](#) (Android, Apple; Free) to read any of your Amazon eBooks, or buy new ones from Google Play or iTunes Books.

You can also rent eBooks from your local library through the [OverDrive app](#) (Android, Apple; Free). Or download free ones online from [Project Gutenberg](#) or other online eBook collections.

### **6. Alarm Clock**

I know a lot of people use their smartphones as their alarm clock. While this gives you more alarm options than your typical clock radio, it can disturb your rest if you get texts or other notifications pop up during the night.

Using an old smartphone (or tablet) means you can turn off any distractions and just use the gadget as an alarm. Apple and Android both have good built-in alarm functions, but you can do more.

Grab an app like [Sleep Cycle Alarm](#) (Apple; \$1), [Sleep As Android](#) (Android; Free) or [Sleepbot](#) (Android, Apple; Free). These track your sleeping patterns and wake you up at exactly the right moment so you're refreshed.

### **7. Dedicated Car Player**

Tired of getting in the car and taking spending a minute or two plugging in your phone so you can listen to your music? Load your music library on your old phone and stick it in your car permanently. Click here to learn how you can turn an ordinary binder clip into a smartphone holder for your car.

Turn on the Wi-Fi so it connects to your network while the car is parked at home to grab new music or your favorite podcasts. You can also grab an app like [MAPS.ME](#) (Android, Apple; Free) that gives you navigation without a cellular connection.

Bonus tip: If you are going to sell your gadget, or give it away, make sure you completely wipe your personal information off of it first. Click here for step-by-step instructions to keep snoops from getting their hands on your information.





# 8 Tips to Help Your Mac Run More Efficiently

by Kraig Becker, [AppleGazette.com](http://AppleGazette.com)

Today's Macintosh computers are unquestionably the very best that Apple has ever made, combining elegant design with impressive technology under the hood. When paired with the latest version of OS X, a Mac is not only easy to use, but extremely powerful and productive too. But from time to time, even the best computers can become slow and unresponsive. Here are 8 tips for helping your Mac run more efficiently.



## Restarting

It may seem like a no-brainer, but restarting your computer on a regular basis can do wonders for how well it performs. Sure, the modern Mac hardware and operating system are designed to run for long periods of time without a restart, but the longer you go between shut-downs, the more likely the computer's memory is to become fragmented or other issues can arise. An occasional restart not only clears up these issues but allows the operating system to install any pending updates as well. A restart can cure any number of strange behaviors, and is always the first thing a Mac owner should try when his or her computer is behaving strangely.

## Slow App Switching

OS X is capable of handling multitasking very well, allowing users to have numerous programs open at the same time. But sometimes switching between those applications can seem ponderous and slow. This is usually due to the fact that your Mac's RAM is full and the computer must swap information from virtual memory instead. Virtual memory is actually a temporary file that is created on your hard drive and reading that file is slower than accessing it directly from RAM. To solve this problem, close any open programs that you aren't actively using. This will free up memory and allow your Mac to respond more quickly in general.

## Sluggish Safari

Is Safari starting up slowly? Does it take too long to switch between tabs? Is it feeling a bit unresponsive at times? Then perhaps it is time to clear the history and website data. You'll find that very option under the "Safari" menu when the browser is running. It'll give you the choice to clear that information from the "last hour," "today," "today and yesterday," or "all history." If the sluggish behavior is a recent thing, than perhaps clearing the data from the day will solve the problem, otherwise it is probably a good idea to purge all of the history. This will eliminate some temporary files that Safari creates over time, which can help the software to run better.



## Speedier Internet

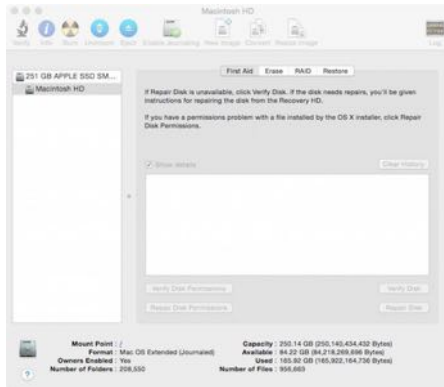
If you find that there is a bit of delay when connecting to the Internet and loading webpages, it could be because your Mac needs to locate a DNS server each time it looks up the IP address for a site. You can make things a bit more efficient by manually adding a DNS server to your Network Preferences. Launch System Preferences, click on the Network pane, and select your Internet connection type (ethernet or wireless). In the Advanced settings click on the DNS tab and hit the "+" button to type in an address. Your Internet Service Provider may be running their own DNS, and you can type in the address to that server that they have provided. Alternatively, Google also offers public DNS servers which can be found at the following addresses: 8.8.8.8 and 8.8.4.4. Performance on those servers is generally quite reliable and they are open to anyone to use.

## Repair Disk Permissions

Every file saved on your hard drive has a set of permissions that are associated with it. Those permissions indicate which users, software processes, and applications have access to those files. With literally thousands of files



on your computer, it is not surprising that sometimes those permissions can get messed up. This can lead to inefficiencies that slow down your computer. To fix this problem launch Disk Utility (found in the Applications folder > Utilities folder) and select your boot drive from the list of available disks on the left side of the screen. With the proper drive selected, click on the option to “Repair Disk Permissions.” The software will then go through all of your files and adjust their permissions to their proper settings automatically. Additionally, it is often a good idea to repair disk permissions after installing new software or an OS update.



### Verify Disk Too

Repairing disk permissions can solve a lot of small, nagging performance issues that can add up over time. But sometimes there can be other things going on with your hard drive that need to be fixed as well. Running Disk Utility and selecting the “Verify Disk” option will give your drive a thorough going over to look for any major errors that may be occurring. Provided that those issues aren’t mechanical in nature, or severely catastrophic, Disk Utility can usually repair them as well. Unfortunately it can’t perform its magic on the active boot drive, so you’ll need to boot into Recovery Mode instead. To do that, restart your Mac while holding the Command and “R” keys down. Once the computer has finished starting up you’ll be able to run Disk Utility again and have it repair any issues that it finds. This can truly help solve some serious performance issues, and Mac users should run these tests every few months just to be on the safe side.

### Full Hard Drive

As mentioned above, when your computer starts to run out of RAM for running applications it will use virtual memory instead. This process involves saving information to a temporary file on the hard drive that is accessed as needed. But if the hard drive is starting to get full, there will be less room available to create this temp file, which can in turn lead to the Mac having to work extra hard to manage its memory requirements. That of course can result in slower performance overall as the computer struggles to keep up. To avoid this try to keep at least 10% of your HDD free at all times. That means clearing up free space by deleting unnecessary files, moving photos, video, and music to an external drive, uninstalling software you don’t need, and so on. This extra space can then be put to good use by OS X, helping the computer to run much more smoothly.



### Too Many Fonts

Everyone loves having a large selection of fonts to choose from when they are carefully crafting their holiday letter to the family or creating signs for that upcoming garage sale. But too many fonts can be a very bad thing, as OS X must load them all, and make them available to the appropriate applications, at all times. Users who have hundreds, if not thousands, of fonts will certainly see a drop in performance out of their computers. Disable or remove fonts using the Font Book app in the Applications folder. This will limit the amount of memory dedicated to fonts, and help keep your Mac running as efficiently as possible. If you absolutely must have thousands of fonts on your computer for whatever reason, use Font Book to create various groups, and switch between those active groups as needed.



## GAAB Internet Addresses

### Names

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