

M Treasure Coast Macintosh® Users Group

Living and playing with iOS,
watchOS, macOS and tvOS devices!

Mouse Tales
Newsletter



September 2016 • Vol. 29 - 9

MEETING

Thursday, Sep. 15

LOCATION - Children's Services Council • 101 SE Central Parkway, Stuart 34994

- In the Green building between Unity Church and Bridges Montessori. Click on this map link - <http://tinyurl.com/clq2mkk>

5 - 8 P.M. "Here To Help"

Bring your laptop, iPad or iPhone and enjoy a format with Beginners tables throughout the room, where you can just join any group:

- iPad
- iPhone
- iPhoto
- Basic Help
- Email & Internet
- How can I ...

6:30 - 8 P.M.

"Credit & Identity Theft"

Our President, Chris Kilbride will explain how credit and identity theft relate to our computers, data, phones, financial information and everyday living. Chris will then answer your questions about these important topics. Members will receive a 60-page booklet "Taking Charge: What To Do If Your Identity Is Stolen" by the Federal Trade Commission.



- Early Front Page Edition •
<http://www.tcmug.net>

MISSION: Since 1988, TCMUG has provided a forum for Apple users by creating a member network to share information and offer support in the evolving world of technology.

Apple Turns 40 - <http://www.macrumors.com/2016/04/01/apple-turns-40-history-timeline/>

Oh, you're having a bad day?

In 1976, Ronald Wayne sold his 10% stake in Apple for \$800.

Now it's worth \$58,065,210,000



IN THIS ISSUE -

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- iCloud Photo Library (part 3)
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- Bob Jorritsma: MacOS Sierra Release Date Sept. 20, great features - but should you upgrade right away?

iCloud Photo Library: The Missing FAQ (part 3)

~ by Joe Kissell

If I enable iCloud Photo Library on multiple devices that already have overlapping photos in their respective libraries, will the resulting merged library contain duplicates?

It shouldn't. In my testing, merging libraries did not result in duplicate images.

As to whether Photos sorts out the duplicates locally or in the cloud, my test results were ambiguous. On one Mac, I turned off iCloud Photo Library, manually uploaded a very large photo to iCloud Photo Library using my Web browser, and also added the photo to Photos manually. Then I reenabled iCloud Photo Library while watching network activity in Activity Monitor, and the amount of data transmitted was only a small fraction of that photo's size. That test (which I repeated, with variations, several times) implied that before uploading a photo, Photos somehow determines (presumably by means of a checksum or similar mechanism) whether that photo is already in the cloud, and if so, it skips uploading that one — and it does the reverse when considering which images to download.

However, on another Mac, my results were less positive. This Mac started out with a Photos library that greatly overlapped what was already in iCloud Photo Library, yet after I enabled iCloud Photo Library on this second Mac, it transmitted a massive quantity of data over the next couple of days. While the data volume was significantly smaller than the total size of my Photos library, it was also several



orders of magnitude larger than what it should have been if only checksums were being transmitted. I can't account for this difference, because Photos tells me only how many photos are left to be uploaded or downloaded, not which ones (or whether they're being transferred in their entirety). This lack of transparency is disturbing — a clear indication of exactly what Photos is doing now (and what it did recently) would be welcome.

In any case, if the photos in two locations aren't identical, you could certainly have duplicates, and I would not be at all surprised if Photos failed at matching duplicates from time to time.

On the plus side, library merging appears to err on the side of data retention. For example, suppose there's a photo already synced to the cloud. You delete that photo from a non-System Photo Library, and then tell Photos to make that library the System Photo Library. In the process of merging your newly selected library with the cloud, Photos will download the photo you previously deleted, rather than deleting that photo from the cloud. So, you could end up with unwanted photos, but that's better than not having photos you do want.

What happens if you turn on iCloud Photo Library on a Mac, allow its System Photo Library to

sync, and then set a different library as the System Photo Library?

First, Photos warns you that switching the System Photo Library will turn off iCloud Photo Library (which is a good thing, because you might want to switch your System Photo

Library temporarily without syncing it to iCloud). Assuming you really do want to sync a different library, you must go to System Preferences > iCloud, click the Options button next to Photos, and select iCloud Photo Library to reenable it. (It looks like you can reenable it in Photos > Preferences > iCloud, too, but in my testing, that checkbox had no effect; as soon as I switched panes or closed the window, it deselected itself.) Reselecting iCloud Photo Library also selects My Photo Stream by default, but you can deselect it if you want.

Once you've reenabled iCloud Photo Library, your newly selected System Photo Library merges with the one already synced to iCloud.

So at that point, after syncing has completed, my new System Photo Library would contain all the photos from my previous library, and I could just delete the old library, right?

Yes. But don't make me remind you about the importance of backups, because something can always go wrong.

What happens if I delete a photo from Photos with iCloud Photo Library enabled?

Deleting photos is a two-step process, much like using the Trash in the Finder or in an email app.

>>> continued on next page

If you delete a photo from Photos on any of your devices that have iCloud Photo Library enabled, that photo will be moved to a “Recently Deleted” area — not only on that device but also in the cloud and on your other devices. (In Photos on a Mac, choose File > Show Recently Deleted; in iOS, tap Albums > Recently Deleted.) You can retrieve photos from this area before they’re deleted permanently, and if you do, they’ll be restored on all your devices. You can also select one or more photos in this view to delete them permanently, or click Delete All (in Photos on a Mac) to delete them all.

Now, here’s a curious twist. Ordinarily, iCloud Photo Library keeps deleted photos for 30 days, after which it erases them completely and they disappear from the Recently Deleted view on all your devices. But Photos says that the deletion process may itself take up to 40 days (whether you erase a photo from Recently Deleted manually or wait for it to age out). I assume that means Apple still has a copy somewhere — perhaps in a backup — even though you can’t see or access it. So if you’re trying to erase evidence of a crime or indiscretion, you might be out of luck.

What happens to my photos if I sign out of iCloud on a Mac that is (or was) using iCloud Photo Library?

Nothing. Your photos stay right in your Photos library. Turning off iCloud Photo Library merely turns off syncing; it does not cause any photos to be deleted from your Mac.

What happens to my photos if I sign out of iCloud on a Mac that is (or was) using iCloud Photo Library and then sign back in using a different iCloud account that already had its own iCloud Photo Library?

The two libraries merge for the newly selected iCloud account. That is, Photos on your Mac will, after the sync completes, contain all the photos that were in either library, and so will all the other devices signed in with that Apple ID, with iCloud Photo Library enabled. Meanwhile, the set of photos stored in the cloud for your previously selected iCloud account will remain unchanged, unless you switch libraries again or access that account from another device.



What happens if you pay for iCloud Photo Library storage and then stop paying?

Nothing happens to the photos stored on your Mac(s) and iOS device(s). What you pay for is the service of syncing your data to the cloud and storing copies there. If you stop paying, the cloud copy of your library will disappear and your devices will stop syncing, but your local copies remain unchanged.

If all your devices were so low on space that you had no local, full-resolution copies and the originals were stored only in the cloud, that could theoretically leave you with only low-resolution versions of some of your photos. I have found no information on Apple’s Web site about what happens in this situation, but I’d tend to assume the worst. (So, a reminder: back up everything!)

Will iCloud Photo Library be considerate of my bandwidth and data cap?

No. Not even remotely. As soon as you turn on iCloud Photo Library, your Mac will start transferring photos to (or from) the cloud as fast as your Internet connection can handle them. If you have a couple hundred gigabytes of photos, they’ll all be uploaded, which could have such unpleasant effects as saturating your Internet connection (and thus slowing down everything you want to do on the Internet with all your other devices) and blowing out your monthly data-transfer allowance in a big hurry.

So, is there anything I can do about that whole bandwidth issue?

Yes. First, you can pause transfers. To do this, go to Photos > Preferences > iCloud and click Pause for One Day, which does exactly what it says. (You can manually resume transfers before the day is up by clicking Resume.) But if you need transfers to pause for a longer period of time, you’ll have to click that button every day. Your second option is to temporarily disable iCloud Photo Library altogether by going to System Preferences > iCloud, clicking the Options button next to Photos, and deselecting iCloud Photo Library. There’s no penalty for doing so; this merely disables syncing, and does not affect any photos on your Mac (except that if iCloud Photo Library has downloaded low-resolution versions of any photos but not the full-resolution copies at the moment you disable syncing, Photos may delete the low-resolution versions, and will warn you that it’s about to do so). If and when you later reselect it, syncing will resume. ■

So, you don't care about the iPhone 7? Here are 10 reasons why you should

~ Barney Britton

The iPhone 7 has a newly designed 12MP camera with a six-element, optically stabilized lens. As well as stills it can shoot 4K video at up to 30p, and the iPhone 7 Plus offers a twin-lens camera providing 28mm and 56mm focal lengths.

Another year, another iPhone, the usual chorus of Internet commenters going to great lengths to tell the world how little they care. But we'd be foolish to ignore the world's most popular camera - and so would you.

1: 12MP is good enough

Ok, most DSLRs and high-end compacts offer 20MP+ but if we're being honest, 2MP is good enough for Facebook, 3MP is good enough for a magazine cover, 6-8MP is good enough for a large-ish wall print and anything more than that is a bonus, most of the time. In short, the chances are that 12MP is good enough for you.

2: It shoots Raw

It was only a matter of time before Apple added a Raw capture option to its iPhone series, and the day has come. As such, the iPhone 7 and 7S are arguably more enthusiast-friendly than the majority of low-end zoom compact cameras, and almost all tough cameras.

Adding Raw capture to the iPhone gives photographers a lot more creative freedom, and should allow them to mitigate - if

not entirely overcome - some of the limitations of shooting with a control-limited device and a small sensor format. Raw shooting is coming to older iPhones soon too, with the upcoming release of iOS 10.

3: The iPhone 7 Plus has a proper zoom. Kind of.

The iPhone 7 and 7 Plus feature 12MP imaging sensors - most likely a 4.9 x 3.7mm BSI-CMOS which gives an equivalent crop factor of around 7X. The 7 Plus has two of them, which form twin cameras shooting at 28mm and 56mm equivalent. Their F1.8 and F2.8 apertures are equivalent in depth of field terms to ~F12 and ~F22 respectively.



The iPhone 7 Plus features a twin-camera design, which comprises 28mm F1.8 and 56mm F2.8 equivalent prime lenses. A forthcoming update will enable a computationally-derived bokeh simulation effect.

A 28-56mm two-step zoom might not set your heart 'a flutter, but for the average beginner, or keen smartphone photographer, the added versatility of a proper choice of optical focal lengths is a serious selling point of the iPhone 7 Plus over every other phone on the market. A true optical zoom would be hugely complicated, but Apple's

approach makes sense. One lens for landscapes, one for portraits.

4: The iPhone 7 Plus can do bokeh. Kind of.

We've seen attempts to blur out backgrounds using software before, but they don't tend to end well. Typically, in the devices which offer some kind of algorithmic background blur feature, the effect is inconsistent. Even when it works, it doesn't hold up well to critical examination.

We won't be able to properly test the iPhone 7 Plus's bokeh simulation effect for a while, but early samples look very encouraging indeed.

Apple seems to be doing two things a little differently. The first is that the feature only works in 'Portrait' mode (when the iPhone 7 Plus's 56mm equivalent lens is employed), and the longer focal length probably gives it a bit of a head-start in terms of baseline background blur for portraits compared to a bog-standard wide-angle cellphone lens.

The second is that rather than just identifying your subject, making a mask, then blurring everything which looks like it probably isn't your subject, the iPhone 7 Plus's software makes a very complex depth map of the scene, and selectively applies blur based on the calculated distance of the background from your intended subject. For now, we only have Apple's sample images to go by, but it seems to work impressively well.

>>>> *continued*



5: It's optically stabilized

Here's an exploded view of the iPhone 7's camera, showing its six-element construction.

This is old news in the mainstream camera market, but optical stabilization still isn't included in some fixed-lens cameras. Optical I.S. will make the iPhone 7 and 7 Plus cameras more useful in poor light, extending the potential of the products for social and environmental photography.

6: It's quick, and powerful

Modern smartphones incorporate an incredible amount of processing power, and compared to most cameras they're capable of churning through much more data. With the cameras activated, the iPhone 7 and 7 Plus are constantly sampling a scene in preparation for exposure. So effectively, when you tap the shutter button, they've already taken the picture. On-sensor phase-detection autofocus using dedicated pixels means there's virtually no hunting for focus, either.

Apple claims that the iPhone 7/Plus' imaging processor manages more than 100 billion operations every time a picture is taken. Think about that the next time you take a photo of your cat.

7: It shoots 4K

Maybe you think you don't care, but trust us - even if you're not a

filmmaker, the ability to capture 8MP frames at up to 30fps can be pretty handy.

8: It's water-resistant

You can take the iPhone 7 and 7 Plus out in the rain, or drop them in the bath without worrying. How many photographers can say the same thing about their 'proper' cameras?



Supposedly, the iPhone 6S was almost water-sealed, but not quite. With the removal of the headphone jack, the iPhone 7 and 7 Plus have been made fully water resistant, and are both capable - apparently - of being submersed for up to 30 minutes without damage.

9: Good iPhone cameras lead to better 'proper' cameras.

Even if you're one of those people who has an almost religiously-held indifference to cellphones, consider this:

The greater the public's expectations of the cameras in their cellphones, the more they expect of 'proper' cameras, if and when they buy one. There is certainly an argument to be made that the only reason we have things like beautiful high-resolution touchscreens, wireless connectivity, GPS and 4K video in cameras now is the iPhone. That ten years ago, Apple kicked off a smartphone revolution with the original iPhone which led to the inclusion of these

features in cameras becoming an expectation on the part of smartphone upgraders.

Habitual smartphone photographers won't put up with laggy low-resolution touch-screens on DSLRs, or the omission of features like 4K video and wireless connectivity that they're used to from their phones. This drives camera manufacturers to add more features to their products, and we all benefit. Right?

10: It's an iPhone camera.

This is an obvious point, but bear with me. Remember what I just wrote about this being the 'world's most popular camera?' Apple has been phenomenally successful when it comes to putting its devices in people's pockets. More people are taking photographs now than ever before, and the iPhone, in its various versions, is the most popular picture taking device (or strictly speaking, series of devices) in the world.

What that means is that like it or not, when Apple does something, even if it didn't do it first, (and several of the features I've listed here are not unique to the iPhone 7) it tends to have a certain significance. It's safe to assume for instance that there are a lot of people talking about the words 'Bokeh' and 'Raw' today who had never heard the terms before Apple's launch event this week. Maybe I'm just a misty-eyed optimist, but I think that's kind of cool.

How to Enable a Grid in an iOS Camera for Perfectly Straight Photos

~ Matt Klein

If you like to use your iPhone's camera for than mere selfies and portraits, then you probably want to make sure you frame everything as straight as possible. This is much easier if you enable iOS' camera grid.

A grid is a fairly typical feature on most digital cameras and phones. It simply overlays a grid over the top of the display, which then lets you better line up your photos so they're straight, thus saving you time later straightening them in post-processing (if you even get around to that).



For example, if you want to take a photo of a sweeping vista with a distant horizon line, it can often be difficult to get it lined up perfectly straight. With a grid enabled, however, you can align up the horizon with one of the grid's lines, guaranteeing a straight photo.

To start, open the **Settings** app and scroll down to **Photos & Camera**.

Tap into the Photos & Camera settings, then scroll down to the Camera section and tap on the **Grid** switch.

Now just exit the settings, open the camera app, and you will now have a simple 3x3 grid that allows for easier framing.

Without the grid, it would be a bit more difficult to keep the camera straight with the top of the fence.

If you decide later you would rather not use the grid, then simply repeat the steps above and turn it off.

At least the feature exists, and you can kiss crooked photos goodbye!

“Memory” Means RAM, Not Storage

~ Scott Schiller, Justin Ruckman

Memory (also called RAM) is short term. Computers (and smartphones) load data into memory when they're working on it.

Disk space (also called storage, or hard drive space) is long term. Computers store data on their disk until they need to retrieve it later. This is where your apps and personal files are stored.

These are two different types of hardware, and they aren't interchangeable.

Why It Matters

It matters when attempting to describe smartphones, computers, and other devices.

For example, Apple makes a variety of iPhones with different amounts of storage. The iPhone 6s is available in with either 16 GB, 64 GB or 128 GB of storage. All iPhone 6s models have 2 GB of built-in RAM, or memory. It's not correct to say “an iPhone 6s with 64 GB of memory”. Instead, it is correct to say “an iPhone 6s with 64 GB of storage and 2 GB of memory.”

You may be able to figure out what people are talking about when it comes to iPhones, but it gets complicated when talking about other devices.

If someone says they're using a computer with 16 GB of memory, that would generally mean they're using a beefy computer desktop with a lot of RAM. If they're using the term wrong, it could also mean they're using a small Chromebook with very limited local storage and even less RAM.

This is why it's important: If something is wrong with your computer, and you tell your technician that your computer is low on memory, that means you need to install more RAM or close some programs. But, if you're using the term wrong, it could mean that you just need to run Disk Cleanup and free up some space on their disk. Unfortunately, one reason people are confused about this is that storage is a type of memory. After all, they're both even measured in the same units — GB, or gigabytes.

Even more confusing, we've started calling certain kinds of hard drives “flash memory”. An iPhone with 64 GB of disk space has 64 GB of flash memory. But that 64 GB of flash memory is long-term storage rather than short-term RAM. Random access memory (RAM) is distinct from hard disk space and flash storage. ■

TCMUG Tech Tips

with Bob Jorritsma
bob@tcmug.net
Apple Certified
Technical Coordinator



<http://www.apple.com/macOS/how-to-upgrade/>

If there is anything that you need to do before Apple releases Sierra and you install it **making a backup.**

At least a **Time Machine backup**, but also a **clone of your hard drive on another external drive.** This way you can go back if needed. The first few weeks after such an update, is also typically not a great time to do anything where you might need the help of Apple support. Lots of people will typically rush to install the new OS. Even under the best of situations, some of those will have issues resulting in Apple tech support being busier and having longer wait/hold times than normal. (New releases will also make me busier as you can imagine.)

Unless you do not depend on this Mac for business, hobby or personal productivity, or have a legitimate need to do otherwise, as is almost always the case with a new release, I strongly suggest that you wait a bit, before installing Sierra.

The “dot zero” release is often quickly followed by a “dot one” release addressing the most serious issues. But it is still a good idea to **wait until the 10.12.2 or 10.12.3 release** to allow the bugs to be worked out of Sierra, and compatibility issues to be resolved with the third party software that you depend on.

Also, many are expecting some new Mac models to be released with, or soon after, the new OS. I’ve noticed a few Apple Mac sale advertisements lately, which had me wondering if maybe some people were trying to clean out their stock of old models before the new ones arrived?
~ Bob

MacOS Sierra Release Date set, great features - but should you upgrade right away?

It appears that Apple may be planning to release macOS v10.12.0 Sierra on **September 20, 2016.**

<http://www.apple.com/macOS/sierra/>

Look on Apple’s web pages and note the “macOS Available 9.20” in white letters in the upper left part of the screen.

This page shows all important enhancements most Mac owners will enjoy after installing macOS Sierra.

The next page tells you how to upgrade after you verify that your Mac can run Sierra.

2017 MEMBERSHIP

Joining the Treasure Coast Macintosh Users Group will keep you from missing out on the best Mac resource since the mouse — including the *Monthly Meetings • Newsletter • Help Sessions* and more! Membership is just \$30 a year per family - getting your colorful newsletter by e-mail.

\$30 Yearly Dues

Check payable to: TCMUG (or Treasure Coast Macintosh Users Group)
Mail to: 1819 SW Willowbend Lane • Palm City FL 34990

Name(s) _____

Address _____ Apt. _____

City _____ State _____ Zip _____

Home Phone _____ Cell _____

Email address _____

Birthday (ex. Sep.24) His _____ Hers _____ Retired? _____

___ Beginner ___ Intermediate ___ Advanced ___ Genius

Computer model(s) _____

Most used programs _____

___ Photos ___ Web design program: _____

___ Photoshop ___ Quicken ___ Skype ___ FaceTime

___ FileMaker ___ InDesign ___ Microsoft Office

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<http://www.tcmug.net>*

Check what devices and items you use:

- | | |
|--------------|----------------------|
| ___ iPhone | ___ Time Machine |
| ___ iPad | ___ Preview |
| ___ iPod | ___ Pages (layouts) |
| ___ iMovie | ___ Keynote (slides) |
| ___ Messages | ___ Numbers (data) |
| ___ iDVD | ___ iBooks |
| ___ iTunes | ___ 2+ computers |

What help content would you like to see in TCMUG meetings & newsletter: _____

Officers

President & Newsletter • Chris Kilbride
(772) 283-5646 • president@tcmug.net

Vice President & Publicity • Mark Weinberg

Hospitality • Anita Farrell
• Moe Goldy
• Guy Reer

Palm Beach Liaison • Dave Sochrin

Photos & Graphics • Richard Lewis

Presenters • LC Campbell
• Holly Tucker

Technical Advisor (Apple) • Bob Jorritsma
(772) 398-0748 • jorritsma@mac.com

Video Production • Bill Farrell

Helpline

Comcast
370-6407

DEVONthink Pro Office • mark@tcmug.net

DropBox
370-6407

FileMaker
283-5646

iDVD
398-0748

iMovie
370-6407

InDesign
283-5646

Internet
398-0748

MagicJack
370-6407

924-1084

OS X
398-0748

Photos & Graphics • Dick Lewis
dick@tcmug.net

Weebly Website • Chris Kilbride
chris@tcmug.net

• Bill Farrell - after 12PM
bill@tcmug.net

• Bill Farrell - after 12PM
bill@tcmug.net

• Chris Kilbride
chris@tcmug.net

• Bob Jorritsma
bob@tcmug.net

• Bill Farrell - after 12PM
bill@tcmug.net

• Chris Kilbride
chris@tcmug.net

• Bob Jorritsma
bob@tcmug.net

• Bill Farrell - after 12PM
bill@tcmug.net

(MagicJack)

• Bob Jorritsma
bob@tcmug.net

• Dick Lewis
dick@tcmug.net

• Chris Kilbride
chris@tcmug.net

2016 CALENDAR

Jan. 14* • Feb. 11*

March 17 • April 21

May 19 • June 16

July 21 • Aug. 18

Sept. 15 • Oct. 20

Nov. 17 • Dec. 15

**All located at the Children's Services Council Auditorium*

• **BOARD OF DIRECTORS** •

** new location **

• **MONTHLY VIDEOS** •

<http://www.youtube.com/user/tcmug/videos>

MEETING LOCATION

Children's Services Council • Stuart

<http://tinyurl.com/clq2mkk>

101 SE Central Parkway, Stuart • (772) 283-5646 •

Green building between Bridges Montessori & Unity Church.

West Palm Beach Apple Store - Gardens Mall:

<http://www.apple.com/retail/thegardensmall/>

West Palm Beach Apple Store - Wellington Green:

<http://www.apple.com/retail/wellingtongreen/>

Find Out How:

<http://www.apple.com/support/sitemap/>

<https://www.apple.com/support/macbasics/>

Manuals for Computers, iPhones & iPads:

<http://support.apple.com/manuals/>



A variety of programs for Beginners to Advanced Mac enthusiasts.

MEETING INFO

(772) 283-5646

<http://www.tcmug.net>

Dues may be paid in person (cash or check), by mail or credit card (tcmug.net)

MAILING ADDRESS

Treasure Coast Macintosh Users Group (TCMUG)
1819 SW Willowbend Lane
Palm City FL 34990