Photos, My Photo Stream, and iCloud Photos

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- The **My Photo Stream** service (if set exclusively on all devices) sends 30-days worth of new pictures (up to 1000), but no videos, to all devices. They go away after 30 days on non-originating iOS devices. They stay on the originating device. They also stay on a Mac no matter where they came from. No pictures go to the iCloud online space.
- The **iCloud Photos** service (if used exclusively on all devices) sends all pictures and videos from a given device to all other devices as well as the iCloud online space. They do not go away unless one deletes them. All devices show all items and albums.
- If both services are on together, the iCloud Photos service "overrides" the My Photo Stream service
 - On an iOS device, if you have both services turned ON, the "Camera Roll" and "My Photo Stream" albums are replaced by an "All Photos" album and all pictures from that device are sent to all devices and the iCloud online space.
 - On a Mac, if both services are ON, the "My Photo Stream" album goes away. Note that in Catalina 10.15, you can no longer have both services on.
- It's possible to use the two services on some devices and just one service on other devices, such as that used in Scenario 1.2 Mixed" below.

- A few things change with all of this in MacOS Catalina, 10.15, but those are called out where needed below.
- Besides these two services, if you have a Mac, you can also sync photos and videos manually using iTunes (and Finder in Catalina).

SIUTATIONS — What devices do you have?

SIUTATION 1: You have a Mac and at least one iOS device, possibly two, such as an iPhone and an iPad.

Scenario 1.1 — "My Photo Stream only" — You want to share pictures temporarily across your iOS devices. You also want them to get to your Mac and stay there, and will back them up from there. You do not need them to be put into your iCloud online space, perhaps because you have a lot of pictures and don't want to use up that much iCloud space. You also do not want your Mac's pictures to be put in the your iCloud online space, again, perhaps because you have a lot and don't want to use up that iCloud space. You do not need to automatically send videos from any device to another.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection.**.
- Turn the My Photo Stream service ON on all devices.
- Turn the **iCloud Photos** service OFF on all devices.
- If you have a second Mac, you likely will want to set it up the same way as your first Mac so you'll see the same results on that one as you do your first Mac. The second Mac then acts as a back-up of the first, as least as far as what's stored in the Photos library.

- Pictures (but not videos) taken within the last 30 days on an iOS device (the originating iOS device) are:
 - o stored in the "Camera Roll" album on that device and stay there unless deleted.
 - o copied to other iOS devices and stay there for **30 days**. They can be seen in the "My Photo Stream" album on other iOS devices. After 30 days from the date taken they are removed from non-originating iOS devices.
 - o sent to the Mac and stay there. They can be seen in the "My Photo Stream" album.
- Pictures deleted from the originating iOS device are:
 - o removed from that device,
 - o removed from any other iOS devices.
 - o NOT removed from the Mac, but will stay there even after the 30-day period.
- Pictures (but not videos) imported by you within the last 30 days into the Photos app on a Mac are:
 - o seen in the main Photos library, of course, as well as the "My Photo Stream" album.
 - o copied to other iOS devices and stay there for 30 days. They can be seen in the "My Photo Stream" album on other iOS devices. After 30 days from the date of import (I think) they are removed from iOS devices.
 - o copied to a second Mac if it's set up the same way.
- Pictures deleted from the Mac are:

- o removed from Mac, of course.
- o removed from any other iOS devices if it's within the 30-day period. (After that period the picture is removed automatically and won't be there.)
- o NOT removed from a second Mac if it's set up the same way.

- This Scenario is good for those that do not want to keep a lot of pictures on their iOS devices, yet still want to save all their pictures somewhere, in this case, on their Mac. They further have no need to automatically send videos from one device to another.
- No pictures go to your iCloud online place.
- All pictures go to your Mac and stay there. You could say they "stick" there.
- The pictures get backed up with your Mac, of course, but only from there.
- No videos are shared with this service.
- See the My Photo Stream service section below for more notes about this service.

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Scenario 1.2 — "Mixed" — You want to share pictures (and videos) across your iOS devices. You also want pictures (but NOT videos) to go to your Mac and stay there, and will back them up from there. You also want those pictures (and videos) to be put into your iCloud online space as a secondary back-up. You do not mind paying for extra space there, as needed. But, you also do NOT want your Mac pictures (and videos) to go to your iCloud online space, because you have a lot and don't want to use up that iCloud space. You do not need new pictures to go from your Mac to your iOS devices.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection.**.
- Turn the **My Photo Stream** service ON on all devices.
- Make sure the **iCloud Photos** service is ON on any iOS device.
- Make sure the **iCloud Photos** service is OFF on the Mac.
- If you have a second Mac, you likely will want to set it up the same way as your first Mac so you'll see the same results on that as you do your first one. The second Mac then acts as a back-up of the first, as least as far as what's stored in the Photos library.

- Pictures taken on an iOS device (the originating iOS device) are:
 - o are stored in the "All Photos" album on that device. (The "Camera Roll" and "My Photo Stream" albums go away when the **iCloud Photos** service is ON.)
 - o are copied to other iOS devices and stay there "permanently" (due to the iCloud Photos service being ON).
 - o are sent to the Mac and stay there. They can be seen in the "My Photo Stream" album.
 - o are sent to one's iCloud online space.
- Picture deleted from an iOS device:
 - o go away from all iOS devices
 - o go away from one's iCloud online space
 - o stay on the Mac (they are no longer in the "My Photo Stream" album, however).
- Pictures imported by you into the Photos app within the last 30 days on a Mac:
 - o can be seen in the main Photos library, of course, as well as the "My Photo Stream" album.

- will NOT be copied to other iOS devices. (That because the iCloud Photos service is ON on the iOS devices and it takes precedence over the My Photo Stream service. And the iCloud Photos service is OFF on the Mac.)
- o will be copied to a second Mac if it's set up the same way.
- o will NOT be sent to one's iCloud online space.
- Pictures deleted from the Mac are:
 - o removed from Mac, of course.
 - o NOT removed from a second Mac if it's set up the same way.

- This Scenario is good for those that want to send their iOS device pictures and videos both to their iCloud online space and to their Mac, but do **not** want to sent their Mac's library of pictures and videos to their iCloud online space or any iOS device.
- All iOS device pictures and videos will go to your iCloud online place.
- All iOS device pictures and videos will go to your Mac and stay there. You could say the "stick" there
- No Mac pictures and videos will go to your iCloud online place, and nothing comes from that space to the Mac.
- No Mac pictures and videos will go to your iOS devices.
- Any pictures and videos on the Mac get backed up with your Mac's back-up.
- On your iOS devices, the "Camera Roll" and "My Photo Stream" albums went away when the **iCloud Photos** service was turned ON. Those two albums were replaced by the "All Photos" album.
- No videos go from any iOS device to the Mac.
- No videos go from one's Mac to one's iCloud online space or any iOS device.
- Videos DO go from any iOS device to one's iCloud online space and other iOS devices.

Scenario 1.3 — "iCloud Photos only" — You want to share pictures and videos "permanently" across your iOS devices and Mac. You also want all iOS device pictures and videos and Mac Photos pictures

and videos to go into your iCloud online space as a secondary back-up. You do not mind paying for extra space there as needed. All devices act the same way and should have all the same pictures, videos, and albums.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection**..
- Turn the **My Photo Stream** service OFF on all devices.
- Turn the **iCloud Photos** service ON on all devices.
- Set iCloud Photos to Download Originals on your Mac.
- If you have a second Mac, you likely will want to set it up the same way as your first Mac so you'll see the same results on that as you do your first one. The second Mac then acts as an extra back-up of the first Mac and what's in your iCloud online space.

- Pictures and videos taken on an iOS device (the originating iOS device) are sent everywhere, which means they are:
 - o stored in the "All Photos" album on that device.

- o copied to other iOS devices and stay there "permanently" (due to the iCloud Photos service being ON).
- o sent to the Mac and stay there. They can be seen in the "Photos" library and "All Photos" album.
- o sent to one's iCloud online space.
- Picture and videos deleted from an iOS device are deleted everywhere, which means they are:
 - o removed from all iOS devices
 - o removed from one's iCloud online space
 - o removed from one's Mac
- Pictures and videos imported by you into the Photos app on a Mac are sent everywhere, which means they are:
 - o seen in the main library, of course.
 - o copied to other iOS devices.
 - o copied to a second Mac if it's set up the same way.
 - o sent to one's iCloud online space.
- Pictures and videos deleted from the Mac are deleted everywhere, which means they are:
 - o removed from Mac, of course.
 - o removed from all iOS devices
 - o removed from one's iCloud online space
 - o removed from a second Mac if it's set up the same way.

- This Scenario makes all Macs and devices act the same way and shares all pictures and videos everywhere.
- All iOS device pictures and videos will go to your iCloud online space and Macs.
- All Mac pictures and videos will go to your iOS devices, other Macs, and your iCloud online space.
- All pictures and videos on the Mac get backed up with your Mac's back-up, of course.
- As all pictures and videos are sent to one's iCloud online space, it's likely you'll need to buy extra
 space there from Apple to accommodate everything (pictures and videos as well as all the other
 iCloud stuff used by your iOS devices).
- Albums made on any device are duplicated in one's iCloud online space as well as all other devices.
- See the **iCloud Photos service** section below for more notes about this service.

SIUTATION 2: You have two or more iOS devices and no Mac.

Scenario 2.1 — "My Photo Stream only" — You want to share pictures (but not videos) temporarily across your iOS devices. You do not need pictures and videos to be put into your iCloud online space, perhaps because you do not care to save them in any way. This scenario is **not** recommended as your pictures or videos are not backed up in any way.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection.**.
- Turn the **My Photo Stream** service ON on all devices.
- Turn the **iCloud Photos** service OFF on all devices.

Results:

- Pictures taken within the last 30 days on any iOS device (the originating iOS device) are:
 - o stored in the "Camera Roll" album on that device and stay there unless deleted.
 - o copied to other iOS devices and stay there for **30 days**. They can be seen in the "My Photo Stream" album on other iOS devices.
- Videos taken on any iOS device (the originating iOS device) are:
 - o stored in the "Camera Roll" album on that device and stay there unless deleted.
 - o NOT copied to other iOS devices.
- Pictures deleted from the originating iOS device are:
 - o removed from that device,
 - o removed from any other iOS devices (it they are still present because they are less than 30 days old)
- Videos deleted from the originating iOS device are:
 - o removed from that device,
 - o not present on any other iOS devices in the first place.

Notes:

- This Scenario is good **only** for the VERY casual user.
- No pictures or videos will go to your iCloud online place.
- This is **not** recommended as your pictures and videos are not backed up or synced in any way. The
 only "saving grace" is, if a photo or video is accidentally deleted, it's held in the "Recently Deleted"
 album for 30 days, than is removed.
- There is no recovery in case of the loss of any pictures or videos from a device.
- See the **My Photo Stream service** section below for more notes about this service.

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Scenario 2.2 — "iCloud Photos only" — You want to share pictures and videos "permanently" across your iOS devices. You also want all pictures and videos to go into your iCloud online space as a backup. You do not mind paying for extra space there as needed. All devices act the same way and should have all the same pictures, videos, and albums.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection**...
- Turn the **My Photo Stream** service OFF on all devices.
- Turn the **iCloud Photos** service ON on all devices

- Pictures and videos taken on an iOS device (the originating iOS device) are:
 - o stored in the "All Photos" album on that device.
 - o sent to other iOS devices
 - o sent to one's iCloud online space
- Picture and videos deleted from the originating iOS device are:
 - o removed from all iOS devices
 - o removed from one's iCloud online space

- This scenario makes all devices act the same way and shares all photos, videos, and albums everywhere.
- All pictures and videos go to your iCloud online place.
- As all pictures and videos are in one's iCloud online place, it's likely you'll need to buy extra space there from Apple.
- This Scenario is **recommended** over Scenario 2.1 because your pictures and video are synced to your iCloud space.
- If a picture or video is deleted, it's held in the "Recently Deleted" album for 30 days than is removed.
- See the **iCloud Photos service** section below for more notes about this service.

SIUTATION 3: You have no iOS devices and two or more Macs.

Scenario 3.1 — "My Photo Stream only" — You want to automatically share pictures (but not videos) across your Macs. You do not need them to be put into your iCloud online space, likely because you do not want to use up that space.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection**..
- Turn the **My Photo Stream** service ON on all Macs.
- Turn the **iCloud Photos** service OFF on all Macs.

Results:

- Pictures imported by you into the Photos app on a Mac within the last 30 days are:
 - o seen in the main Photos library, of course, as well as the "My Photo Stream" album.
 - o sent to other Macs and stay there. They can be seen in the "My Photo Stream" album as well as the main Photos library.
- Pictures deleted from a Mac are:
 - o removed from that Mac, of course.
 - o NOT removed from a second Mac.

Notes:

- This scenario is good for those that want to copy all their pictures (but not videos) to another Mac but do not need to put them into their iCloud online place.
- No pictures or videos will go to your iCloud online place.
- All pictures will go to all Macs and stay there.
- The pictures get backed up with your Macs, of course.
- Recommended because you get a secondary back-up via the second Mac of the pictures that are on your first Mac.
- NO videos are copied across to other Macs.
- Unlike on iOS devices, in this case, apparently nothing happens after 30 days.
- See the My Photo Stream service section below for more notes about this service.

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Scenario 3.2 — "iCloud Photos only" — You want to copy pictures and videos across to your other Macs You also want all pictures and videos to go into your iCloud online space as a back-up. You do not mind paying for extra space there as needed. All devices act the same way and should have all the same pictures, videos, and albums.

To set up:

- Sign in to the same Apple ID on all devices.
- All devices must have an **Internet connection**..
- Turn the **My Photo Stream** service OFF on all Macs.
- Turn the **iCloud Photos** service ON on all Macs.
- Set iCloud Photos to Download Originals on your Mac.

Results:

- Pictures and videos imported by you into the Photos app on a Mac are:
 - o seen in the main Photos library, of course.
 - o copied to other Macs
 - o sent to one's iCloud online space.
- Pictures and videos deleted from the Mac are:
 - o removed from that Mac, of course.
 - o removed from all other Macs.
 - o removed from one's iCloud online space.

Notes:

- This scenario is good for those that do want to automatically copy all their pictures and videos to another Mac, but also want to put them into their iCloud online space, for some reason (maybe only because you have no choice if you want to use this service).
- This scenario makes all devices act the same way and shares all pictures, videos, albums everywhere.
- All pictures, videos, and albums go to your iCloud online place.
- As all pictures and videos are in one's iCloud online place, it's likely you'll need to buy extra space there from Apple.
- If you do NOT back up your Mac for some reason (but you SHOULD BE), at least your pictures and videos are backed up to your iCloud space.
- If you DO perform back ups your Macs, putting your pictures and videos in your iCloud online space is redundant and will likely just cost you for more online space. Consider Scenario 3.1 instead, although that scenario does not share videos.
- If a picture or video is automatically deleted, it's held in the "Recently Deleted" album for 30 days, then it's removed.
- See the **iCloud Photos service** section below for more notes about this service.

SIUTATION 4: You have just one Mac and no iOS devices.

Scenario 4.1 — "iCloud Photos" — If you want to have all your pictures, videos, and albums copied from your Mac to your iCloud online space.

To set up:

• Sign in to your Apple ID.

- The Mac must have an **Internet connection**
- Turn the My Photo Stream service OFF
- Turn the iCloud Photos service ON
- Set iCloud Photos to Download Originals

Results:

- Pictures and videos imported by you into the Photos app on a Mac are:
 - o seen in the main Photos library, of course.
 - o are sent to one's iCloud online space.
- Pictures and videos deleted from the Mac are:
 - o removed from Mac, of course.
 - o removed from one's iCloud online space

Notes:

- Using **iCloud Photos** service in this scenario gives you a secondary backup in your iCloud online space (assuming you also back up your Mac, which you SHOULD be).
- But if you have a lot of pictures and/or and videos, you may have to pay for extra iCloud online space with Apple.
- If a picture or video is automatically deleted, it's held in the "Recently Deleted" album for 30 days, then is removed.
- See the **iCloud Photos service** section below for more notes about this service.

SIUTATION 5: You have just one iOS device and no Macs.

Scenario 5.1 — "iCloud Photos" — If you want to have all your pictures, videos, and albums copied from your iOS device to your iCloud online space.

To set up:

- Sign in to your Apple ID.
- The device must have an **Internet connection**..
- Turn the My Photo Stream service OFF
- Turn the iCloud Photos service ON

Results:

- Pictures and videos taken on the iOS device are:
 - o stored in the "All Photos" album on that device.
 - o sent to one's iCloud online space.
- Pictures and videos deleted from taken on the iOS device are:
 - o removed from that device, of course.
 - o removed from one's iCloud online space

Notes:

- This Scenario is highly recommended as a back-up for your pictures and videos.
- Because otherwise, if the iCloud Photos service was OFF and a picture is deleted, it's gone for good. But at least if a photo is accidentally deleted, it's held in the "Recently Deleted" album for 30 days than is removed.

- If you have a lot of pictures and/or videos, you may have to pay for extra iCloud online space with Apple.
- Note that using the My Photo Stream service makes no sense for just one iOS device, but the iCloud Photos service does.
- See the **iCloud Photos service** section below for more notes about this service.

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- "All Photos" album— an album showing original pictures and videos taken on (or imported to) a device as well as those that come in from the iCloud online space. (In MacOS 10.15 Catalina, the All Photos feature has been moved to a tab in the Photos library.)
- **Albums** subsets of pictures from the Photos library. You can create your own albums to organize images if you want. Some albums are built-in and created by the Photos app. A few examples of those are All Photos, Camera Roll, Last Import, and My Photo Stream.
- "Camera Roll" album a Photos-app-created album on iOS devices that is the default storage location for photos taken with the camera on an iOS device. It is present only if the iCloud Photos service is OFF. If iCloud Photos is ON, the "Camera Roll" album is replaced by the "All Photos" album on an iOS device. This album is also used by other image processing apps, and when saving images from the Web, emails, and text messages. The "Camera Roll" album can be accessed from the Camera app and the Photos app (tap the Albums tab at the bottom of the screen).
- **Device** an iOS device, such as an iPhone, iPad, or iPod Touch, or a Mac computer.
- iCloud online space storage space at one's iCloud online account at www.icloud.com. Please note that it's used by iCloud back-ups and other iCloud services for all Apple devices, as well as for one's pictures and videos (if you have the iCloud Photos service turned ON). So do not be surprised if you have to buy more space to contain it all.
 - o 5 gB: free
 - o 50 gB: 99 cents per month
 - o 200 gB: \$2.99 per month
 - o 1 tB: \$9.99 per month
- **iCloud Photos service** for all devices that have this service turned on, this service puts the entire Photos app library for each device in your iCloud online space *and* shares those pictures and videos across all devices. It was formerly called the **iCloud Photo Library service.**
- "Imports" album on a Mac in Catalina 10.15 and beyond this is the replacement for the "Last Import" album. It displays as the previous "Photos" library feature did all or most pictures in order by date. (There is no "Last Import" album in the Photos app in Catalina.)
- Internet connection for these two services (iCloud Photos service and My Photo Stream service) to work, before iOS 11, an iOS device needed to be connected to the Internet using a non-cellular connection. With iOS 11 and later, a cellular connection can be used. Any iOS device must also have a charge for 20% or better, Any Macs or Windows machine must also be connected to the

Internet. The speed at which items reach icloud.com and other devices depend on the speed of the Internet connection.

- **iOS** the operating system that runs on iOS devices. (Just recently Apple now calls the OS for the iPad iPadOS, but we do not single that out in this document.)
- iOS device a device that runs the iOS, such as iPhone, iPad, and iPod Touch.
- "Last Import" album a Photos-app-created album on the Mac (but not on iOS devices) that contains the last batch of pictures and video you've imported, sorted by the date they were added to the Photos app. This album is very useful because unlike the Photos library and the "My Photo Stream" album it really does sort according to when the images were *added*. (Note, in Catalina, there is no "Last Import" folder. It's replaced by a new "Imports" album which displays as the previous "Photos" library feature did *all or most* pictures in order by date.)
- **Library file** a.k.a. the Photos app library the computer file where the Photos app stores all pictures and videos. By default, imported pictures and videos are copied into the Photos app library. On a Mac, the library file is in the Pictures folder and named "Photos Library.photoslibrary". iOS devices also have a library file but it's behind the scenes. On a Mac, the Photos app has a "Photos" library section in the sidebar which provides various views into the library. Note that pictures (and videos, I assume) can exist outside of the library, such as anywhere on the hard disk. See "Referenced files" in the Photos App section below.
- "My Photo Stream" album an album that is present up in the Photos app ONLY if the iCloud Photos service is OFF and the My Photo Stream service is ON. It is used to by the My Photo Stream service in the Photos app to see pictures (but not videos) shared by this service..
- My Photo Stream service —an Apple service that shares the last 30 days of pictures (but not videos) that where taken on or imported into a device across to iOS and macOS devices. If the My Photo Stream service is ON and iCloud Photos is OFF on all devices, then the pictures are seen in the album named "My Photo Stream" on all devices. No videos are shared with this service.
- Originating device the device that took the picture or video (or acquired via a Save operation) on an iOS device, or acquired via an import the picture or video initially on a Mac. (If the device received the picture via the My Photo Stream service, it is not the originating device.)
- **Photos app** the Apple app for storing, organizing, and editing pictures and videos. It runs on both iOS and macOS devices.
- **Picture** a photograph file in JPEG, TIFF, PNG, and most RAW photo formats, or a GIF file. (The **My Photo Stream** service does not handle GIFs. The **iCloud Photos** service does, however.) The original version of this document used the term "image" in place of "picture" and may be encountered in sections below.
- "Photos" library feature a view of all of the pictures and videos that are stored in the Photos app library. It includes what's in the Camera Roll album of an iOS device. To see this "Photos" library on a Mac, click on "Photos" in the sidebar. To see this "Photos" library on an iOS device, tap the "Photos" tab at the bottom of the screen. (Note, in Catalina on a Mac, the "Photos" library now

has an "All Photos" tab that displays just as the previous "All Photos" album did, showing all your pictures in a matrix. But you can also choose to view them by year, month, or day.)

- "Recently Deleted" album when you delete a picture or video, it is stored on this album for 30 days. After that, it's deleted permanently. This is a handy safety net.. But it's best to also back-up your Mac (if you have one) regularly as a permanent back-up.
- **Referenced files** pictures and videos stored outside of the Photos library but are still seen in the Photos app.

PHOTOS App

The Photos app is a picture and video storage system, organizer, and editor which runs on iOS and MacOS devices. It replaces the *iPhoto* and *Aperture* programs.

The **library** file used by the Photos app is also known as the *System Photo Library* and is recognized by other apps that need to access your pictures. Even though you can easily get to the library file on a Mac, it's best to interact with it only via the Photos app, unless you're an expert.

Importing pictures

In the Photos app on a Mac in the general preferences, I have this set:

Importing pictures: Copy items to the Photos app library.

This is highly recommended. With this item checked, which is the default, the Photos app will keep all of its pictures in its own library where it can best keep track of and maintain its library.

If you **uncheck** this, imported items will be *referenced* but **not** be copied into the Photos app library. The Photos app can still work with pictures and videos as *referenced files* that exist outside of the library, but things might very easily get messed up if you change their location.

Albums

In the Photos app you organize pictures and videos into albums which are subsets of the complete library, similar to how iTunes playlists are subsets of the song library. Pictures and videos in user-created albums are copies of what's in the library and so they can be removed from albums without deleting them from the library. An item can also be in more that one album. But please note — deleting an item from the library deletes it from all albums.

There are also Photos-app-created albums — such as "Camera Roll" and "My Photo Stream" — seen on iOS devices when the **My Photo Stream** service is on. On iOS devices, these two albums can be accessed from the "Albums" tab. On a Mac, the "My Photo Stream" album is accessed from the sidebar on the left. Macs don't have a "Camera Roll" album.

- On a Mac, the "Photos" library at the top of the side bar sorts pictures by "Moments" date **taken**. See **Test 2** below (in the **Tests** section) which shows that the Creation, Created, or Original date is used.
- The "All Photos" album sorts items by date **added** to the library (on iOS devices) and date **taken** (on Macs) according to Apple.
- The "Last Import" album sorts items by date **added**.
- In Catalina, MacOS 10.15:
 - o the "Last Import" album has been replaced by the "Imports" album and displays as the previous "Photos" library feature did all or most pictures and videos in order by date taken.
 - o the "All Photos" album is gone but has been moved to be the "All Photos" tab in the "Photos" library feature and displays as the previous "All Photos" album did showing all your pictures and videos in a matrix in order by date taken. But you can also choose to clump them by year, month, or day.

Deleting

If you accidentally delete a photo, you can find it in the "Recently Deleted" album for 30 days after you deleted it. After that time, it's permanently deleted.

Deletions when an Apple service is on

When the **My Photo Stream** service is ON on all devices, on iOS devices, pictures in the library can be affected by deletions occurring on other devices. On the Mac, pictures (but not videos) that have passed through the service are stored "permanently". They "stick" on the Mac. See the "**My Photo Stream** service" section below for details.

If the **iCloud Photos** service is ON on all devices, changes made on one device affect all other devices — additions, deletions, etc. Also, user-created albums are copied across to all devices. (Otherwise, user-created albums would exist only on the device where they were created.) So all devices act the same way and show the same items. See the "**iCloud Photos** service" section below for details.

Summarize photos

By default, the **Summarize photos** setting is ON — the Photos app displays a representative subset of your photos when you view by Years or Collections. On an iOS device, to see all your photos, go to Settings > Photos, and turn OFF Summarize Photos. On a Mac, go to Photos > Preferences > General tab > Summarize photos, and uncheck it. But note on a Mac, in Photos 2.0 the Years or Collections views are not present. And in Photos 5.0, the Summarize photos setting has been removed.

Live Photos

The Photos app DOES support Live Photos. It can store and organize them right alongside your other image files. See Instructions > "How to: Upload iOS videos and images to a Mac without using My Photo Stream" below to get these files to a Mac.

For more information:

Photos app user guides for iPhone, iPad, Mac, and iCloud

https://support.apple.com/photos

Use Photos on your Mac https://support.apple.com/en-us/HT206186

Organize and find your pictures in the Photos app https://support.apple.com/en-us/HT207368

MY PHOTO STREAM Service

NOTE: For people creating their Apple IDs after 5/4/2019, they might not be offered the **My Photo Stream** service — it's being phased out.

This section applies to those who are using the **My Photo Stream** service (and only that service) set up on all devices. (Because if the **iCloud Photos** service is also ON, it overrides the **My Photo Stream** service and several things change. See Scenario 1.2, for example.)

Before the iCloud Photos (formerly called iCloud Photos Library) syncing service came along, we had the **My Photo Stream** service. This is an Apple service that shares pictures across your Apple (iOS and MacOS) devices that are signed into the same Apple account and have an **Internet connection.** It uses the "My Photo Stream" album in the Photos app of each device.

Use the My Photo Stream service to:

- share 30 days worth of new pictures, up to 1000 (but not videos) across devices.
- send pictures from an iOS device to the Mac to be "permanently" stored there.
- send pictures from a Mac to any iOS device for 30 days.
- send pictures from one Mac to another Mac to be "permanently" stored there
- keep new pictures OFF of the iCloud online space.
- leave videos alone (there's no automatic sharing)

Albums

- On an iOS device, in the Photos app, there is are "My Photo Stream" and "Camera Roll" albums.
- On an Mac, there is a "My Photo Stream" album in the Photos app but no "Camera Roll" album.
- New pictures taken on an iOS device are seen in the "Camera Roll" album
- New pictures imported by you to a Mac are seen in the "My Photo Stream" album (as well as the one or two other main albums) and are copied to the "My Photo Stream" album of another Mac and on any iOS device.

Deletions

- A picture deleted from a "My Photo Stream" album on any iOS device removes it from the "My Photo Stream" album of all other iOS devices. It will not be deleted from the "Camera Roll" album on of the originating iOS device or from any Macs involved.
- A picture deleted from a "My Photo Stream" album on any Mac device removes it from that Mac, all iOS devices, but **not** from a second Mac.

• In general, any picture you delete is put into the "Recently Deleted" album. You have 30 days to get it back. After that time, it's deleted permanently.

General Notes

- No pictures or videos are uploaded to one's iCloud online space (as expected, since the iCloud Photos service is turned OFF).
- No videos are shared across any devices with this service.
- Pictures that you take on an iOS device are uploaded to the **My Photo Stream** service once you exit the Camera app and have an **Internet connection**.
- On a Mac, new pictures imported by you to the Photos app are uploaded to the **My Photo Stream** service when there's an **Internet connection**.
- On the Mac, pictures shared from other iOS devices (or from another Mac if it's set up the same way), are imported into the Photos app library (and stay put there). So anything in the "My Photo Stream" album will also show in the "Photos" and "All Photos" albums in the left column.
- You can't add pictures directly to "My Photo Stream" albums. For example, on a Mac you can't drag any pictures into My Photo Stream in the sidebar.
- Any edits you make to a picture will NOT show up in that picture on other devices.
- On any iOS device, if you move a picture from the "My Photo Stream" album to another album (including Photos, Cameral Roll, and your own album), adds it to the library on that device, then it will not be affected by deletions on other iOS devices.
- To save a picture on a non-originating iOS device, within the 30-day period from when it was taken (iOS device) or imported (Mac), copy it from the "My Photo Stream" album to an album on that device.
- You can use the **My Photo Stream** service with iPhone, iPad, iPod Touch, Mac, Apple TV, and Windows PC.

When you get a new device

- When you get a new device, I assume the **My Photo Stream** service will copy pictures (but not videos) currently in the 30-day period to that device, but NOTHING else. This is because the service may temporarily use your iCloud account to store pictures. This has not been tested,
- If you want more of your pictures and videos than you already have on other devices and/or Macs to come over to the new device, you have to do that manually (there are several ways to do that).

Format

- The My Photo Stream service supports JPEG, PNG, TIFF, and most RAW photo formats.
- The **My Photo Stream** service does NOT fully support Live Photos. Live Photos get transferred, but only as stills.
- The My Photo Stream service does NOT transfer videos.

Resolution

- On a Mac or PC, pictures are downloaded and stored in full resolution in the "My Photo Stream" album.
- On iOS devices and Apple TV, pictures are delivered to the "My Photo Stream" album in a deviceoptimized (smaller) resolution that speeds downloads and saves storage space.

Back up

- It is recommended to back-up the Mac regularly, because except for being on the originating device, the pictures are stored nowhere else. A Time Machine back-up will pick up all items stored in the Photos app library, as well as pretty much everything else on the main storage drive.
- If you do not have a Mac, your photos and videos are not backed up anywhere! In that case, try to use the **iCloud Photos** service, instead, if possible.

For more information, go to:

About iCloud Photos and My Photo Stream https://support.apple.com/en-us/HT205743

My Photo Stream — for all devices https://support.apple.com/en-us/HT201317

Get help with My Photo Stream https://support.apple.com/en-us/HT203511

Delete photos from My Photo Stream https://support.apple.com/en-us/HT204022

My Photo Stream Album — covered in the subsection just above.

Camera Roll Album

- The "Camera Roll" album is an exclusive "feature" of the My Photo Stream service.
- The "Camera Roll" album is seen only on iOS devices when the My Photo Stream service is ON and the iCloud Photos service OFF.
- The "Camera Roll" album is local and specific to a device; it's not seen/used in iCloud.
- Macs don't have a "Camera Roll" album.
- The Camera Roll album is a subset of the Photos app library which shows pictures (and videos) taken with the Camera app. Pictures are also stored there by other apps and when saving pictures from the Web, emails, and text messages.
- Only pictures and videos taken on an iOS device appear in Camera Roll on that device.
- Seeing a picture or video in Camera Roll confirms that it's actually saved to that device and will remain on that device, even when that image it us deleted from the "My Photo Stream" album of other devices. or goes away via the "My Photo Stream" service after 30 days.
- You can get to Camera Roll from both the Camera app and the Photos app.
- To find Camera Roll album in the Photos app on an iOS device, click on the "Albums" tab at the bottom of the screen. Camera Roll will be displayed with other built-in and user-created albums.
- New pictures (but not videos) in Camera Roll are added to the "My Photo Stream" album. This doesn't happen until the Camera app is exited and an **Internet connection** is established.
- Deleting an picture from Camera Roll...
 - o will also delete it from "My Photo Stream" album and any other albums on that device.
 - o will delete the image from "My Photo Stream" album on all other iOS devices. On a Mac, it will stay in the main library, however.
 - o on non-originating iOS devices, will NOT delete it not if it's been added to an a user-created album on that device.

ICLOUD PHOTOS service

This section is for those that are using the **iCloud Photos** service (an only that service) set up on all devices.

The **My Photo Stream** service is OK, but has limitations — for example, videos are not shared and nothing is put up at one's iCloud online space. (It also has some advantages — for example, pictures are sticky" on Macs.) The **iCloud Photos** service "fixes" the limitations. All pictures and videos on each device (the entire the Photo app library) is shared across to all other devices, if they are signed in to the same Apple ID and have an **Internet connection**. All devices act the same way. So all pictures and videos are present on all devices and stay there unless you delete them. This is very convenient if you need to see your entire library on all devices.. But, if you delete a picture or video from a device, it's removed from all devices — nothing "sticks" on a Mac as it does with the **My Photo Stream** service. If you accidentally delete an item, your only "saving grace" is that it will be in the "Recently Deleted" album for 30 days.

It's a very nice service, but it may require you to pay for extra storage online space, **if the size of your library is large**. It also may overwhelm the storage space on your iOS devices. If you have a Mac:

- You may want to consider Scenario 1.2 in that case which mixes two services.
- Or, transfer the item you want to keep to your own folder system in the Pictures, in dated folders and using the subject matter for the names of subfolders. This has the huge advantage of not filling up your iCloud online space or the storage space in your iOS devices. But I know, it's not as convenience as using Photos to organize things into albums.

Albums

Unlike the My Photo Stream service, the iCloud Photos service uses no special albums.

Any albums you create are replicated on all other devices and in your iCloud online space.

If the My Photo Stream service is also on

On a given device, if the **My Photo Stream** service is also ON, the **iCloud Photos** service overrides it. and there is no "My Photo Stream" album. (In fact, in Catalina MacOS 10.15, you can no longer have both services on.) But sometimes you want both services on — see Scenario 1.2.

Also... on a given device, if you have the **iCloud Photos** service ON and the **My Photo Stream** service OFF, but still use the **My Photo Stream** service on other devices, pictures coming from other devices using the **My Photo Stream** service will show up in the "All Photos" album. (There is no "My Photo Stream" album on a device if the **iCloud Photos** service ON.)

Resolution and file format

The **iCloud Photos** service stores full-resolution of your pictures in your iCloud online space on Apple's server. It can be set to do the same on your devices, or to keep only device-optimized versions if space is low on devices.

The **iCloud Photos** service supports these file formats: GIF, JPEG, HEIF, HEVC, MP4, PNG, RAW, and TIFF. The service also supports special formats used with the iPhone: Slo-Mo. 4K, Time Lapse, and Live Photos.

Edits make to pictures or videos affect that picture on all devices

Any edits you make to a picture **will** show up in that picture on other devices and in your iCloud online space. When you make edits in the Photos app on your iOS device or on your Mac, the photo automatically updates across all your devices. So when you crop or enhance a photo from your iPhone, you will see the changes when you access your library from your Mac, for example. Note that your **original photos and videos are stored in iCloud** and you can go back to those at any time, and revert any changes you made.

Windows users, please note — edits made to a picture or video on another device after it's been downloaded to a PC will NOT be seen. And edit made on the Windows PC will not be upload to other devices. See the "ICLOUD for Windows" section below for details.

Back-up

It is recommended to back-up the Mac regularly, because if a picture or video gets accidentally deleted, your only long-term insurance is your own back-up. (Although you do have 30 days to get it back from the "Recently Deleted" album.)

So a Time Machine back-up is recommended. But that copies only the *current state* of what's in the Mac Photos app library. But that can change based on deletion and additions from other devices. If you run Time Machine often (such is of your external hard drive is always plugged in) you should OK. But it you run it only sporadically, pictures could come and go before they are backed up. A better back-up is to drag the pictures and videos you really want saved to some other location on your main storage drive. That batch of times is not subject to changes via the **iCloud Photos** service. A Time Machine back-up will pick up those items not in the Photos app and pretty much everything on the main storage drive.

What I do — For pictures and videos I take on an iOS device and want to keep, after the **iCloud Photos** service puts them on my Mac, I drag them into: Pictures > My Pictures > dated folder > location-named folder. For me, this is my main storage location. I then delete the items from the Photos app so no space is taken by those items in my iCloud online space or on any iOS device.

When you get a new device

When you get a new device, all your pictures, videos, and albums will be brought down to that device via **iCloud Photos** service — a very convenient feature.

For more information, go to:

About iCloud Photos and My Photo Stream https://support.apple.com/en-us/HT205743

Set up and use iCloud Photos https://support.apple.com/en-us/HT204264 _____

ICLOUD for WINDOWS

Know that an iCloud app is available for Windows computers which provides access to many iCloud services. Although there is no Photos app, the **My Photo Stream** and **iCloud Photo** services are available. But the way photos are download and uploaded is done differently and from their own special folders.

Set up

- You must be using Windows 7 or newer.
- The computer must have an **Internet connection**..
- Download iCloud for Windows https://support.apple.com/en-us/HT204283
- Install and then set up iCloud for Windows.
- Restart your computer.
- Sign in to your Apple ID.
- In this document, we care only about pictures and video, so uncheck everything EXCEPT Photos in the iCloud window.

Using the My Photo Stream service on a Windows computer

This service appears quite limited on Windows machines.

- It may only allow *downloads* to your PC (which will appear in your Pictures > iCloud Photos > Downloads folder), but NOT *uploads*.
- We already know it only handles photos taken during the last 30 days, then they go away.
- It does not do videos.

Also, the My Photo Stream service isn't available on iCloud for Windows 10 and later. To learn more, check the system requirements for iCloud.

So using this service is not recommended and not covered.

A few notes, anyway —

- When you turn the iCloud Photos service ON on your PC, the My Photo Stream service is turned off automatically. I called that "overriding" in other places in this document.
- When the iCloud Photos service is on, the My Photo Stream folder goes away. You will see your My Photo Stream photos in Pictures > iCloud Photos > Downloads.

Using the iCloud Photos service on a Windows computer

- In the iCloud window in the Photos option, the iCloud Photos service is ON by default. (To change this or how its configured, click on the Options... button next to Photos.
 - o Make sure iCloud Photos Library is ON and My Photo Stream is OFF.
 - o Turn on "Keep High Efficiency Originals" if you do not need the full-quality originals. Instead it keeps "device-optimized resolution" pictures.

- o Make sure the Download and Upload features are checked.
- o Turn on iCloud Photo Sharing only if you are using that feature.)
- Click Done.
- When you turned on the "Photos" here, iCloud for Windows created a folder in your Pictures folder called "iCloud Photos". In that are three folders, "Downloads", "Shared", and "Uploads".

Results

- Pictures and videos taken on your iOS devices and imported by you to your Mac appear in your in the "Downloads" folder. (You can also "manually" copy any pictures or videos from your iCloud online space to a folder on your PC.)
- Pictures and videos that you put in the "Uploads" folder on your Windows PC will be uploaded to your iCloud online space, your iOS devices, and your Mac. (You can also "manually" copy any pictures or videos from a folder on your PC to the Photos Uploads folder in iCloud.)
- The "Shared" albums lets you view, share, and comment on the photos and videos you share with other people.
- The service downloads and uploads any pictures or videos JUST ONE TIME only.
- Edits made on the PC will not affect the items anywhere else.
- Edits made anywhere else will not be sent to the PC.

Deletions

When you delete a picture or video on any other device, it will NOT be deleted from the PC (unless you happen to delete in the short time before it's shared across the system).

Also, when you delete a picture or video on your PC, they will not be deleted from any other device

Edits made to pictures or videos

Any edits made to a picture or video on another device after it's been downloaded to a PC will NOT be seen as the service downloads any pictures or videos JUST ONE TIME only. If you want to save the edited version to your PC, you can download it from your iCloud online space at iCloud.com.

Likewise. the service uploads any pictures or videos JUST ONE TIME only, so any edit made picture or video on the Windows PC that's already uploaded will not be upload again to other devices. But change the filename of the item and will upload.

For more information

Download iCloud for Windows https://support.apple.com/en-us/HT204283

Set up and use iCloud for Windows https://support.apple.com/en-us/HT201391

Set up and use iCloud Photos on your Windows PC https://support.apple.com/en-us/HT205323

Get help with iCloud Photos (and My Photo Stream) on your Windows PC https://support.apple.com/en-us/HT205328

NITTY GRITTY

Using My Photo Stream service

This section uses the example of taking a picture with an iPhone to see what happens to it on an iPad and Mac on the same Apple account.

Remember that a picture or video seen in "Photos" library feature can be said to be IN the Photos app on that device. The "Photos" library feature is everything in the Photos app library and includes all albums, including the "Camera Roll" and all user-created albums. It also show what's in "My Photo Stream" album, but only for the 30 days those pictures are present.

On an iPhone, when you take a picture or save an image:

- on that originating device, it is added to "Photos" library and can also be seen in "Camera Roll" album. When that device connects to the Internet (and if the battery is charged), soon it also shows in the "My Photo Stream" album.
- I think it goes away from the My Photo Stream 30 days from the date it was taken or added.
- on the iPad, the picture is appears in the "Photos" library and "My Photo Stream" albums. It will go away 30 days from the date it was taken or added to the originating device.
- on the Mac, the picture is appears in the "Photos" library and "My Photo Stream" albums. It does NOT go away it ""sticks" on the Mac. It will go away after 30 days from the "My Photo Stream" album but it stays n the "Photos" library.

When you delete the image from the originating iPhone (either from "Photos" library or "Camera Roll: album -- same thing in this case),

- on that device, it will be deleted from "Photos" library and "Camera Roll", and "My Photo Stream" albums.
- on other iOS devices, it will be deleted from "Photos" library and "My Photo Stream" album.
- On the Mac it will be deleted from "My Photo Stream" album but not from "Photos" library, as it "sticks" on the Mac.

If you delete an image from a non-originating iOS device:

- On a Mac it will be deleted from the My Photo Stream but not from main Photos library. It "sticks' there.
- On the iPhone the originating device it will be deleted from "My Photo Stream" album but not from Photos or Camera Roll.

It you delete the image from "Photos" library on the (non- originating) Mac,

- On the Mac, it will also be deleted from "My Photo Stream" album
- On the (non- originating) iPad it will be deleted from "Photos" library and "My Photo Stream" album.
- On the (originating) iPhone, it will be deleted from "My Photo Stream" album but not from "Photos" library or "Camera Roll". (Because the image sticks on the originating device, too.)

Things we can learn from the above example:

- Adding an image to "Photos" library on the originating device adds it to "My Photo Stream" album (for just 30 days, I think)
- Deleting an image from "Photos" library on any device where it's seen deletes it from "My Photo Stream" album everywhere.
- Changes picked up by the My Photo Stream service on any device are reflected in "My Photo Stream" albums on all devices.
- Additions and deletions to "My Photo Stream" album are reflected in the "Photos" library and in the "My Photo Stream" albums on non-originating iOS devices.
- For an image not originating on in iPad, **the image is not secure on the iPad**, as actions taken on other devices that delete the image from *My Photo Stream* will cause the image to be deleted from the iPad. Also, 30 days after the image was taken or added to the originating device, it will be removed from it iPad (and any other non- originating iOS devices).
- On non- originating iOS devices, such as the iPad in this example, you can prevent the image from going away by selecting the image from either Photos library or the My Photo Stream album and choosing "Save Image" from the Share menu. A copy of the image will go into Camera Roll and a 2nd copy into Photos *library* and My Photo Stream. Now the image will remain in Photos and Camera Roll on the iPad even when it's deleted from *My Photo Stream*.

JNS Warning: If you delete the "Save Image" copy in Photos *library*, the other copy *will still be deleted* when it's deleted from *My Photo Stream*, leaving no copies of the image on the iPad. If you want to remove the original, "impermanent" copy from Photos *library*, just delete both copies of the image from My Photo Stream album and the correct one will be removed from Photos *library*.

In the end you'll have the image in Photos *library* and Camera Roll on the originating and non-originating iOS devices.

Note: you could also use "Duplicate" or "Add to Album" from the Share menu to save and secure the image on the iPad.

- Additions to My Photo Stream are reflected in Photos library, on macOS devices.
- Deletions to My Photo Stream are not reflected in Photos library on macOS devices. Images remain there until they are deleted directly from there.. That is, they "stick" on the Mac.
- Under normal circumstances, images get delivered to the Photos app on the Mac and remain there. This is a secure location and you don't have to worry if the image originated there or not. They "stick" on the Mac.
- Changes to *My Photo Stream* do not affect the original image in Photos and Camera Roll on originating iOS devices.
- On iOS devices, an image getting added to Camera Roll will also be added to Photos library,
- On non-originating iOS devices, images coming in via My Photo Stream are not added Camera Roll nor are they permanently saved in the Photos library.
- On iOS devices, deleting an image from Photos will delete it from Camera Roll and vice versa.

Instructions

How to: Enable My Photo Stream.

On an iOS device, go to Settings > Photos > My Photo Stream. On a Mac device, go to System Preferences > iCloud > Photos > Options... > My Photo Stream. Or go to Photos app > Preferences... > iCloud > My Photo Stream

How to: Save or back up images from My Photo Stream to your non-originating iOS device.

Images in *My Photo Stream* can be saved to the library on an iOS device by opening *Photos* and tapping Albums > My Photo Stream > Select. Tap the photos that you want to save, then select "Save Image" from the Share menu.

This is not needed on the originating iOS device because the image is automatically saved to Photos and Camera Roll.

This is also not needed on a Mac because *My Photo Stream* images are automatically saved to the Photos library and stay there.

How to: In the Photos app on a Mac, delete an image from My Photo Stream but leave it in Photos.

Select the "My Photo Stream" album in the sidebar. Select the thumbnail of the image or images you want to delete. Press the Delete key on your keyboard.

Note that unlike user-created albums, the "My Photo Stream" album does not have a "Remove from Album" option in the popup contextual menu.

How to: On the Photos app on a Mac, delete an image from an user-created album but leave it.

Select the album in the sidebar. Select the thumbnail of the image or images you want to delete. Press the Delete key on your keyboard, or control-click one of the selected images and choose "Remove from Album" from the popup menu.

How to: In the Photos app on a Mac, delete an image from Photos library and the "My Photo Stream" album.

All of the following methods delete an image from Photos library. Since that's the "master list", when this occurs, the image is deleted from any other albums. The *My Photo Stream service* picks up on this and deletes the image from the "My Photo Stream" album on the Mac and other devices.

Option 1: Select My Photo Stream from the sidebar. Select the thumbnail of the image or images you want to delete. Press command-delete on your keyboard. The deletion will occur without a warning dialog.

Option 2: Select My Photo Stream from the sidebar and select the thumbnails of the images you wish to delete. Control-click one of the thumbnails and select "Delete [#] Photos" from the popup menu. This will present a warning dialog before deleting.

Option 3: Select Photos in the sidebar, click the Photos tab at the top of the screen, select the image or images you wish to delete and press the delete key. You'll get a warning before the deletion occurs

Option 4: : Select Photos in the sidebar, click the Photos tab at the top of the screen, select the image or images you wish to delete and press Command-delete. You won't get a warning before the deletion.

How to: On an iOS device, delete from My Photo Stream but leave in the library.

On the originating iOS device, tap the Albums tab at the bottom of the screen and go to the "My Photo Stream" album. Tap "Select" and then select the image you wish to delete by tapping it. Tap the Trash Can, and tap the delete command.

On a non-originating iOS device, use "Save Image" from the Share menu to save the image to the device. Then you can follow the above instructions. You'll have a 2nd copy of the image in My Photo Stream which was put there as a result of "Save Image". Delete both copies.

How to: On an iOS device, delete from a user-created albums.

In *Photos*, tap the "Albums" tab at the bottom of the screen and then select the album. Tap "Select" and then tap the images you wish to delete. Tap the *Trash Can*. You'll be given two options. "Remove from Album" which will do what it says leaving the images in the library, and "Delete" which will remove the images from the album, the library, and *My Photo Stream*.

How to: Upload iOS videos and images to a Mac without using My Photo Stream.

You might have image files on your iOS device that are not on your Mac. Maybe they weren't picked up by *My Photo Stream* because it was turned off. Or maybe you deleted them from your Mac and want them back. Also, as mentioned above, *My Photo Stream* does not share videos. Here are several solutions for getting those files to your Mac. In all cases, imported image files will appear in Photos, Imports, and My Photo Stream.

Solution #1: USB cable

Connect your device to your Mac with a USB cable. In the *Photos* app on your Mac, select your device in the sidebar. At the top of the window, check "Open Photos" and set the "Import to:" album. On your iOS device choose "Trust" to give your Mac access to the images (you won't always need to do this). On the Mac, click the files you want to import and click the "Import [#] Selected" button at the top. A circle progress indicator will be displayed at the top of the window on the left side.

Solution #2: AirDrop

To use this solution, both devices will need to work with *AirDrop*. If your devices and operating systems are up to date this setup stuff is probably ready to go.

To turn on and set up AirDrop on Macs: in the Finder, choose Go > AirDrop. An AirDrop window opens. If Bluetooth or Wi-Fi is turned off, you'll see a button to turn it on. AirDrop turns on automatically when Bluetooth and Wi-Fi are on. To receive files from everyone instead of only those in your Contacts app, you can use the "Allow me to be discovered by" setting at the bottom of the AirDrop window.

On iOS devices, open *Control Center* and tap AirDrop, then choose whether to receive items from everyone or only from people in your Contacts app.

On your iOS device, go into Photos or Camera Roll. Click "Select" at the top and then tap the images you want to transfer. Tap the "Share" button and then click on your Mac icon in the *AirDrop* area (your Mac icon may take a few seconds to appear). If you're by your Mac you might hear a few beeps telling you the transfer is complete and a notification will appear in the upper right of your screen.

The files will appear in the Downloads folder on your Mac. Open the Downloads folder and drag the files you want into the Photos library or user-created album.

Solution #3: Files app and iCloud Drive

To use this, iCloud Drive should be enabled on your iOS device in Settings > [Your Name] Apple ID, iCloud, iTunes &... > iCloud > iCloud Drive. And also on the Mac in System Preferences > iCloud > iCloud Drive.

On the iOS device go into Photos or Camera Roll and select the files you want. Tap the Share button and select "Save to Files". Next select iCloud Drive or a folder inside of iCloud Drive and tap the "Add" button at the top right of the screen.

On your Mac, open up a Finder window and select iCloud Drive. Find the files and drag them into the Photos library or user-created album.

To save space in your iCloud online space, delete the files from the iCloud Drive once the files are safely on the Mac.

How to: Put images from a Mac to an iOS device.

Solution #1: Use the My Photo Stream service

Images added to *My Photo Stream* from other devices will be available on an iOS device. Use "Save Image" from the Share menu on the iOS device to ensure the image won't be lost when it's deleted from *My Photo Stream*.

Solution #2: *AirDrop*

On the Mac, select the image in the *Photos app*, control-click it and select AirDrop from the Share menu. Click the destination device in the popup menu.

Solution #3: Files app and iCloud Drive

Open a Finder window on the Mac and select iCloud Drive from the sidebar. Drag your image into iCloud Drive (or a folder within it). On the iOS device open the Files app and find your image in iCloud Drive. Select the image and use "Save Image" from the Share menu. The image will appear in the Camera Roll, My Photo Stream, and Photos in *Photos* on the iOS device.

To save space in your iCloud online space, delete the files from the iCloud Drive once the files are safely on the desired iOS device.

Tried but didn't work: Via USB cable.

Apparently the USB cable solution in the *Photos app* is a one-way street. I couldn't drag images to the iOS device.

How To: Import images to a Mac without adding them to My Photo Stream.

Solution #1: In *Photos app*, disable "My Photo Stream" in Preferences, import the images, and then re-enable the My Photo Stream service

I'm unsure if there are other ramifications to this method. It may remove all pictures previously shared within the last 30 days from this Mac to iOS devices.

Solution #2: Perhaps a better, alternative way is to import the images and let them go into *My Photo Stream*. Then after the import, delete them from My Photo Stream without deleting them from the library. This will remove the images from other iOS devices.

How To: Use the iPad to choose the best photo taken with the iPhone, and delete the rest.

I might take 20 pictures that are nearly identical with the iPhone. I want use the iPad — where I can see greater detail — to choose the best one, and then delete the others.

Once the best pictures is determined on the iPad, in the *Photos app*, select that image then do any of the following:

- select "Save Image" from the Share menu
- select "Duplicate" from the Share menu
- select "Add to Album" from the Share menu
- select "Copy" from the Share menu and then paste the image into an album.

The image will appear in Photos and Camera Roll which confirms that it has been saved locally. Now you can delete the images on the iPhone — from within Photos or Camera Roll — and the one you saved on the iPad will still be there.

How To: Adjust the date in an image to set its position in Photos and My Photo Stream.

I use an app named Photo Exif Editor to set or modify the original date. In that app the field is labeled "Date/Time Original". This date is favored by the *Photos app* to position the image in Photos and My Photo Stream. See "Test: Find out which date the *Photos app* uses to sort images in Photos and My Photo Stream" section below.

Tests

Test 1: Check resolution of image obtained by iPad vs a Mac

I wanted to make sure that saving an image using an iPad will result in the same resolution as saving the exact same image using a Mac.

- 1. On an iPad, I saved an image from a website. It was saved to Photos, Camera Roll, and My Photo Stream. I checked the image's resolution on the iPad and on the Mac. It was 2592x1944 in both cases.
- 2. On a Mac, I saved the same image from the same website. I saved it to a desktop folder and then dragged it into Photos. It's resolution was the same.
- 3. Curiously, the iPad version was 981 KB and the Mac version at 976 KB (due to the type of storage mechanism, most likely).

Bottom Line: You can safely use the iPad to source images.

Test 2: Find out which date the *Photos app* uses to sort images when viewing the Photos library and the "My Photo Stream" album

Apple says Photos (the library feature) "contains all the photos in your library sorted by the date they were added to the library". **This is NOT true**. I discovered this after importing some images and not finding them anywhere near the current date. They were seen in the Photos library, but way back in some other year. I decided to look closer at this mystery.

Images in the Photos library and the "My Photo Stream" album are sorted by date, with the oldest ones at the top and newest at the bottom. But which date of an imported file is used? Image files contain lots of metadata besides the actual image data, some of which is used by the computer's file system and some is for information purposes. For example, the EXIF metadata in a jpeg file includes camera make/model, ISO, F number, lens, and location information. It also includes original, creation, and modify dates. I wanted to see which of these dates the *Photos app* uses to sort images in the Photos library and the "My Photo Stream" album. I used an app called Photos Exif Editor to manipulate the dates and then looked at the results in the Mac's Finder and in the *Photos app*. There's also a date the photo was digitized (date digitized), which can be seen — when it's present — in Mac's Preview app (go to Tools, Get Info, Details tab, Exif properties). In the Photos app you can select an image and do Command-I (or Control-click on it) to see some of the file's metadata, including the date it uses for sorting. Prior to the tests, I set up a starting point file with the created and modified dates set to 01/01/2014.

This table shows the date values I set in Photos Exif Editor and the resulting changes (or not) in the Finder, Preview app, and the date used by the *Photos app*.

	Photos Exif Editor			Finder		Preview	Photos app
Test	Original	Creation	Modify	Created	Modified	Digitized	Date Used
				01/01/2014	01/01/2014	01/01/2014	
1	<empty></empty>	05/01/2015	05/02/2015	05/01/2015	05/02/2015	05/01/2015	05/01/2015
2	<empty></empty>	05/04/2015	05/03/2015	05/03/2015	05/03/2015	05/04/2015	05/04/2015
3	<empty></empty>	05/05/2015	<empty></empty>	05/05/2015	Today	05/05/2015	05/05/2015
4	<empty></empty>	<empty></empty>	05/06/2015	01/01/2014	05/06/2015	< none >	05/06/2015
5	05/07/2015	05/08/2015	05/09/2015	05/08/2015	05/09/2015	05/08/2015	05/07/2015
6	05/12/2015	05/11/2015	05/10/2015	05/10/2015	05/10/2015	05/11/2015	05/12/2015
7	05/13/2015	05/14/2015	<empty></empty>	05/14/2015	Today	05/14/2015	05/13/2015
8	05/16/2015	05/15/2015	<empty></empty>	05/15/2015	Today	05/15/2015	05/16/2015
9	05/17/2015	<empty></empty>	<empty></empty>	01/01/2014	Today	05/17/2015	05/17/2015
10	<empty></empty>	<empty></empty>	<empty></empty>	01/01/2014	Today	< none >	01/01/2014

Test 1: *Photos* used the **creation date**.

Test 2: *Photos* used the **creation date**.

Test 3: *Photos* used the **creation date**.

Test 4: *Photos* used the **modify date**.

Test 5-8: *Photos* used the **original date**, regardless of the presence or values of other dates.

Test 9: *Photos* used the **original date** over either Finder date.

Test 10: *Photos* used the **created date** from the Finder (no EXIF dates were present).

Changes to the EXIF dates affect the Finder dates as you can see, but my concern is which date affects *Photos* sorting.

Bottom line... Here's my analysis of the data and order of precedence...

- *Photos* uses the EXIF **original** date above all others, when it is present.
- *Photos* uses EXIF dates above all others.
- *Photos* uses the EXIF **creation** date over the modify date, when the original date is not present.
- *Photos* uses the Finder **created** date when no EXIF dates are present.