



# Mac OS 10.12 Sierra

# Introduction:

- + Sierra 10.12 is the latest Macintosh operating system from Apple.
  - + Previous Systems:
    - + OSX 10.5 Leopard
    - + OSX 10.6 Snow Leopard
    - + OSX 10.7 Lion
    - + OSX 10.8 Mountain Lion
    - + OS X 10.9 Mavericks
    - + OS X10.10 Yosemite
    - + OSX 10. 11 El Capitan
- + Yosemite, Mavericks, and El Capitan and now Sierra are using locations instead of Big Cat Names
- + Unlike 10.8 and before; THIS ONE IS FREE!

# Requirements:

- + Must be a 64 bit Intel based Macintosh with 64 bit EFI. Last Power PC version was OSX 10.5 Leopard
- + Models supported:
  - + iMac (Late 2009 or newer)
  - + MacBook (Late 2009 or newer)
  - + MacBook Pro (Mid 2010 or newer)
  - + MacBook Air (Late 2010 or newer)
  - + Mac mini (2010 or newer)
  - + Mac Pro (Mid 2010 or newer)
- + 2GB RAM memory (not enough) , at least 8.8 GB available Hard drive space

# Upgrading:

- + A common question is can you upgrade from versions before the last one OS X 10.11 El Capitan? Yes with a couple of caveats:
  - + Apple says you now must be running at least 10.7.5 to upgrade.
  - + If you are still running 10.6.8 Apple suggests you will need to upgrade to 10.11 first. There is a workaround where you make a usb install drive from the download, erase 10.6.8 and install.
    - + <http://www.macworld.com/article/3092900/mac/how-to-create-a-bootable-macos-sierra-installer-drive.html>
  - + 10.4 and 10.5 users probably have machines too old to run Sierra
    - + See Appendix for El Capitan OS X 10.11 requirements
- + Yes OSX 10.7 did offer a \$69.95 Thumb drive, but Apple has dropped that option on subsequent versions. Online only.

## Upgrading (cont'd):

- + Check to make sure that your software, especially third party software (non Apple) will work in MacOs 10.12 Sierra
  - + Check Vendors websites. A good resource is [Http://www.roaringapps.com](http://www.roaringapps.com) Note a downside is that some software has not had user input on them or they don't specify versions.
- + If you are updating from OSX 10.6 or earlier, you may have PPC only programs. This requires a optional install of Rosetta (10.6) or was built in earlier. You can't run these 10.7 and beyond
  - + One option is to have 10.6 system on a external hard drive to boot into when you need to run PPC programs (That's what I do) or run a Virtual machine with OSX 10.6 server. This is a advanced topic perhaps we can do it as a later presentation.

# Tips:

- + Have a least one, preferably more Backups before updating!
- + Power off and remove external Hard drives before installation.
  - + Hard drives have been messed up, and external Hard drives could hang up installation process. It happened to me on OSX 10.8
- + It is a big download ~ 5+ GB! It will take awhile.
- + The post download installation will take some time too

## Tips (cont'd):

- + Clicking on the Install button will force a restart
  - + This time around the progress bar was saying 30 minutes for several, then advancing more quickly than elapsed time, then slowing again. .. Approximate time; not exact
  - + Will pause a few minutes on “completing installation”
- + There will be a second forced restart:
  - + This will also take a few minutes, a progress bar is shown. You will then see your finder window show up.
- + You may see additional updates after you install Sierra.
- + You will be asked will you want to use SIRI, and about Optimized storage, and possibly have you sign into iCloud.

# Why Upgrade?

- + To Use and enjoy the new features in MacOS 10.12! Have the "latest and greatest!"
- + However I know many have strong opinions on not upgrading
  - + "If its not broken don't change"
  - + But the issue is the rest of the industry does change and fast
    - + Yes you still can drive a 1950's car today, but something like a Mac Plus is more like a Roman Ox cart!
  - + Direct from Intuit "Note that after the 2016 tax year, Mac OS X v10.9 and v10.10 will no longer be supported." Itunes 12.5 for use with IOS 10 has a minimum of OSX 10.9.5 (mavericks)
  - + Support can become an issue
  - + Security. Apples Security update 2016-007 is only available for Yosemite (10.10) Earlier versions not supported



# When to Upgrade?

- + Question is hard to answer.
- + Software can't be perfect out of the gate.
  - + If you wait till 10.X.1 or better 10.X.2 version a lot of large bugs are fixed
  - + Ideally all third party software vendors would have updates ready to go with the release date of a new Mac OS.
    - + However big vendors can run into issues of bureaucracy etc.
    - + Small vendors ( 1 or few persons) may have too much work to finish on time.
- + But if you have more than one Mac, select one for the upgrade, then evaluate upgrading the rest.

# What's New? - SIRI

- + The Intelligent Personal Assistant/ Mac File manager comes to the Macintosh.
  - + Formally just on IOS devices
- + Works with any Sierra capable Mac. Microphone needed for Mac Mini
- + Ask questions, find files, control brightness, volume, etc
- + Search and drag results ( to a document or email message)
- + Demo
- + <https://support.apple.com/en-us/HT206993>

# New Features- Universal Clipboard

- + Copied items are available on your other Apple devices for a short time. (iPhone, iPad, etc)
- + All devices must also have Wi-Fi, Bluetooth, and Handoff turned on in System Preferences (on your Mac) and in Settings (on your iOS devices). You must be signed into iCloud with the same Apple ID on all devices.
- + Mac hardware requirements:
  - + Macbook (Early 2015 or newer)
  - + Macbook Pro (2012 or newer)
  - + MacBook Air (2012 or newer)
  - + Mac Mini (2012 or newer)
  - + iMac (2012 or newer)
  - + Mac Pro (Late 2013)

# New Features- Universal Clipboard (cont'd)

## + IOS Device Requirements:

- + iOS 10
  - + iPhone 5 or newer
  - + iPad Pro
  - + iPad (4th generation)
  - + iPad Air or newer
  - + iPad mini 2 or newer
  - + iPod touch (6th generation) or newer
- + One item copied at a time. This is not a clipboard manager application.

# New Features –Apple PAY

- + Yes you can now use Apple Pay on your Macintosh to buy things.
  - + But only Directly on the New Macbook Pro's with touch bar (2016)
- + You can use older Macs, but will need to use a iPhone or an iPhone/Apple watch to use Apple Pay
  - + Macs:
    - + Macbook (Early 2015 or newer)
    - + Macbook Pro (2012 or newer)
    - + MacBook Air (2012 or newer)
    - + Mac Mini (2012 or newer)
    - + iMac (2012 or newer)
    - + Mac Pro (Late 2013)
- + Iphone 6 7 with Touch ID, IOS 10. Watch needs Watch OS 3

# Optimized Storage

- + Optimized Storage is storage management
  - + Probably a result of ever growing storage needs and that SSD's are not as large as spinning hard drives.
- + Some complexity, shows up in two locations:
  - + System Preferences: iCloud ; then iCloud Drive then click Options button. Optimize storage checkbox. Note this is a question that comes up on the initial launch of a new Mac OS Sierra installation.
  - + About this Mac under the Apple menu. Click on Storage button. Then click on the Manage button. You have choices on iCloud storage, removing iTunes movies and TV shows after playing, Empty Trash after 30 days, and finally manually checking and removing items.

## Optimized Storage (cont'd)

- + Seems to be a good solution for those with small hard drives that seem to run of space. However think about these issues with iCloud storage.
  - + iCloud's free 5 GB only, 50 GB is not too bad, but 1 or 2 TB options are more expensive.
  - + Need to be in a Fast Wi Fi connected spots.
  - + ISP edicts, Oh my work creates 1.5 TB per day of content. Long upload times, and your ISP may restrict upload speed, charge penalties, or cancel your service.
  
- + Demo of controls, (not the functionality)

# Other New Features

- + Apple Watch Unlocking. Use your Apple Watch to unlock your Mac. Will not login, just unlock. Needs Watch OS 3, iPhone 5 or above, Mid 2013 or later Mac model
- + Photos App adds Memories feature. Takes photos and videos, based on people, locations, and times and presents them together.
- + Messages App Large Emoji's, other updates
- + Tabbed Applications, only if the application supports it.
  - + Demo textedit
- + Picture in Picture- Play video in a floating window
  - + <https://support.apple.com/en-us/HT206997>



## Other New Features( cont'd)

- + The 10.12.4 Update added Night Shift to post 2012 Macs.
  - + It is designed to cut down on blue light and shift it more yellow
  - + This should reduce effect of the light on your Circadian rhythm, so you should get better sleep
  - + You can set in preferences auto sunset and sunrise to shift or set specific hours for this to occur.

# Appendix:

- + El Capitan OS X 10.11 Requirements:
  - + iMac (Mid-2007 or later)
  - + MacBook (13-inch Aluminum, Late 2008), (13-inch, Early 2009 or later)
  - + MacBook Pro (13-inch, Mid-2009 or later),
  - + MacBook Pro (15-inch or 17-inch, Mid/Late 2007 or later)
  - + MacBook Air (Late 2008 or later)
  - + Mac mini (Early 2009 or later)
  - + Mac Pro (Early 2008 or later)
  - + Xserve (Early 2009)