

macOS Monterey *Readiness*



Agenda

- Preparing for macOS Monterey
- New Features in macOS Monterey
- New Changes in macOS Monterey
- macOS Monterey Python Help
- Deferring, Blocking, Installing, and Rebuilding macOS Monterey
- Q&A



Preparing for macOS Monterey

As with any major OS Upgrade features will be changed, added, removed, and enhanced. Keep this in mind when preparing for macOS Monterey. Addigy customers can test beta's as soon as they are available to help prepare for upcoming changes.

- Monterey Beta Releases and Support and Supported Devices
- Beta Testing as part of Appleseed
- Reporting issues to Appleseed or Addigy
- Recommended Testing Tools and Tips
- Chipset-based Features in Monterey

Monterey Beta Releases

Beta 1 (21A5248p) 1. 2. Beta 2 (21A5268h) 3. Beta 3 (21A5284e) 4. Beta 4 (21A5294g) 5. Beta 5 (21A5304g) 6. Beta 6 (21A5506j) 7. Beta 7 (21A5522h) Beta 8 (21A5534d) 8. Beta 9 (21A5543b) 9. 10. Beta 10 (21A552) 11. 12.0.1 RC (21A558) 12. 12.0.1 RC 2 (21A559) **13**. 12.0.1 (21A559) And Big Sur 11.6.1 & iOS 15.1 June 7, 2021 June 28, 2021 July 14, 2021 July 27, 2021 Aug. 11, 2021 Aug. 30, 2021 Sept. 21, 2021 Sept. 28, 2021 Oct. 6, 2021 Oct. 13, 2021 Oct. 18, 2021 Oct. 21, 2021 Oct. 25, 2021



Monterey Supported Devices Supported Hardware

- iMac Late 2015 and later
- iMac Pro 2017 and later
- MacBook Air Early 2015 and later
- MacBook Early 2016 and later
- MacBook Pro Early 2015 and later
- Mac Pro Late 2013 and later
- Mac mini Late 2014 and later

Apple Software Beta - How To

- Apple Beta Software Program (*Free!*) <u>beta.apple.com</u>
- Apple Developer Program <u>developer.apple.com</u>
- Apple Seed Program (Invitation Only) <u>appleseed.apple.com</u>

macOS Beta Feedback

Submit Reports to support@addigy.com including

- Specific macOS Version (12 Beta)
- Device Model
- Hardware or Virtual Machine?
- Apple Feedback Assistant
 - Feedback.apple.com
- Apple Developer Forums
 - <u>developer.apple.com/forums/tags/device-management</u>



Recommended Testing Tools and Tips

https://developer.apple.com/documentation/macos-release-notes

Build VMs or Use Test Devices

(Recommended: Parallels or VMWare Fusion)

- Ensure you are on the latest macOS Monterey Build
- VM Tips and Tricks

Set your Device Name to your Mac OS Version you're testing

Experiment with various Hardware Versions

Automated Device Enrollment



- In macOS Monterey, users have the option to erase all content and settings to easily factory reset their device - equivalent to iOS
- This is also be available to MDM as a command. With this addition, MDM has the option to disallow the ability to erase all content and settings within the Restrictions profile
- This feature is available on Apple silicon and Macs with a T2 chip running macOS Monterey



- Devices -> GoLive -> Erase
- Erase Behavior is Different with Monterey and T2 & Apple Silicon vs. earlier hardware & macOS versions
- EACS Behavior
 - Activation Lock (don't delete from Addigy!)
 - Find My (iCloud)
 - Automated Device Enrollment

Devices -> GoLive -> Erase

Erase Device

Set a 6-digit passcode

This passcode must be entered to unlock the Mac.

Re-enter passcode

Preserve Data Plan

Disallow Proximity Setup

Erase All Content and Settings (EACS) Required

If 'checked' EACS preflight and EACS must be successful otherwise do not erase device. If 'unchecked' Device will erase itself if EACS preflight or EACS procedure fails. For more information click here

Note: Addigy will no longer be able to manage the device, however you can still see the event history. This cannot be undone.







• Admin Users Can Choose Erase All Content and Settings

Syster Preferences	Edit	View	Window	Help		
About System Preference	es					
Erase All Content and Se	ttings	>				
Services			> >	Syste	em Preferen	ces
Hide System Preferences Hide Others Show All	5	ж ж 7	H H Suto	C liffe ud, Media & Ap	op Store	
Quit System Preferences		¥	Q			
	.	ĺ				(
and the second second	General	De	sktop &	Dock & Menu Bar	Mission	

- Restrict EACS & iCoud Private Relay
 - Allow Erase Content and Settings (supervised only)
 - 🗸 Allow iCloud Private Relay

iCloud Private Relay

- Restrict iCloud Private Relay
- Requires iCloud+ Subscription

https://developer.apple.com/support/prepare-your-network-for-icloud-private-relay/

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John Sutcliffe	 Photos Reychain Reychain Reychain Reychain Relay (Beta) Hide My Email Hide My Email ICloud Drive ICloud Mail Contacts 	 Private Relay (Beta): On Turn Off Cloud Private Relay keeps your internet activity private. It hides your IP address and protects your unencrypted internet traffic so that no one – including Apple – can see both who you are and what sites you're visiting. Private Relay is currently in beta. Some websites may have issues, like showing content for the wrong region or requiring extra steps to sign in. Learn More D Address Location Mu can keep using your general IP address location so that websites can provide local content in Safari, or you can choose to use a broader IP address location in your content in Safari, or you can choose to use a broader IP address location in your content in general location Maintain general location Use country and time zone. 	
		Ac Beth Anne's iPho iPhone 12 mini	?

Apps & Books v2

- Apps & Books MDM API v1 Deprecated
- Apps & Books v2 Implementation Beta planned Q4



iOS Compatibility with Apple Silicon

- Apple added the ability to determine if a Mac can install and run iOS apps. This is true for Apple Silicon Macs.
- For custom apps, M1 Macs now support provisioning profiles similar to iOS.

Remote Lock on Apple Silicon

- The Remote Lock command on macOS (11.5) allows admins to remotely lock devices with a 6-digit PIN.
- Apple silicon devices now support the ability to specify a message on the lock screen as well as a phone number. Both of these are optional.



Set Recovery Passwords

Apple has added a new security feature that gives admins the ability to enforce a password that must be entered by the user in order to boot a Mac into Recovery Mode. This password can only be set and removed by MDM. The password is automatically removed if a device is unenrolled from MDM.

This feature can be used alongside the existing Activation Lock mechanism to secure your Macs even when they are erased.

https://addigy.atlassian.net/browse/IP-2547 - Set Recovery Lock

https://addigy.atlassian.net/browse/IP-2548 - Verify Recovery Lock

https://addigy.atlassian.net/browse/IP-2549 - Set Settings New Key

https://addigy.atlassian.net/browse/IP-2550 - SecurityInfoResponse New Key

Apple Configurator Updates

Previously, Apple Configurator was only available via the macOS App Store (meaning the app could only run on a Mac) and could only be used to manage iOS and tvOS devices.

Now, Apple Configurator provides management functionalities for macOS devices with the T2 or M1 chip. The two main functionalities are Restore and Revive. Restore will erase all user data, restore the firmware, and re-install the latest macOS version. Revive will update the firmware and recoveryOS while preserving user data. These functionalities are available today.



Apple Configurator Updates

Apple Configurator previously supported the ability to add iOS and tvOS devices that were purchased outside of a formal business channel to Apple Business Manager or Apple School Manager using what is known as provisional enrollment. Apple **now supports the ability to add macOS to Apple Business Manager or Apple School Manager using provisional enrollment. This is achieved using an Apple Configurator application that is available via the App Store on iOS devices.**

Provisional enrollment is available for macOS devices with a T2 or M1 chip with macOS Monterey installed. Apple Configurator for iOS will be available in Fall 2021.





Python2 was deprecated by the Python Software Foundation on January 1, 2020.

Apple announced with macOS Catalina (10.15 - End of 2019) that "certain scripting language runtimes such as Python, Ruby, and Perl are included for compatibility with legacy software" (<u>https://developer.apple.com/documentation/macos-release-notes/macos-catalina-10_15-release-notes/</u>)

Specifically, Use of Python 2.7 isn't recommended as this version is included in macOS for compatibility with legacy software. Future versions of macOS won't include Python 2.7. Instead, it's recommended that you run python3 from within Terminal. (51097165)

In macOS Monterey, Apple took it to the next level of the deprecation for Python 2.

Also, for those still using PHP, it's completely gone now too.

In macOS Monterey, Apple took it to the next level of the deprecation for Python 2.



- 1. All Addigy Binaries and utilities have been migrated to `Go` utilities.
- 2. Addigy's native facts have been migrated over the summer to no longer rely on Python as Apple deprecated support for Python.
- 3. Read more here: (https://support.addigy.com/hc/en-us/articles/4405450788755-Addigy-Device-Fact-Migration
- 4. We don't know when Python2 may disappear, but we have removed reliance on it.
- 5. We updated the MacManage App and MacManage Helper Utility to never show these prompts to your user via Self-Service.
- 6. Custom Software that included Python would trigger OS warnings around the coming deprecation of Python. You don't have to worry about that now, and will show different messaging instead.

We made some changes to prevent the macOS prompting end-users with a unhelpful popup showing the text "MacManage needs to be updated. This app will not work with future versions of macOS and need to be updated to improve compatibility".

In Self-Service now the following status may show if python is being used:

"Installation status could not be determined." - This message will show when the specified software package has python in its condition script. If the install script does not have python in it, then the software package's install script will still execute.

"Not Available. Please contact your IT Administrator." - This message will show when the specified software package has python in its install script. The software package will not be available to install unless corrected.

More information can be found here: <u>https://support.addigy.com/hc/en-us/articles/4403542357139</u>



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Additionally, we have seen in the community, users suggesting that these prompts can be blocked entirely, and some of the details and ramifications around it:

https://grahamrpugh.com/2021/10/25/monterey-disable-python-2-deprecation-warnings.html

Note: Shout out to Graham Pugh for putting this blog post together!

Software Updates

A significant aspect of Apple device management is managing operating system (OS) updates. Apple previously allowed pushing OS updates to devices via MDM. Additionally, the Restrictions profile allowed admins to enforce up to a 90 day delay period to prevent OS and software updates from installing. Apple now includes additional granularity to control update restrictions (to defer update notifications shown to the user), as well as additional options when pushing OS updates via an MDM.

As of macOS 11.3 and later, an admin can delay major OS upgrades longer than minor releases, which allows security updates for existing OS versions to be installed without permitting a major upgrade. With Apple Silicon, updates require authentication, which can be done manually by the user or using an MDM bootstrap token.

Software Updates

Available Updates

On Apple Silicon devices with macOS Monterey or later, Apple supports MDM-initiated updates using the "InstallLater" command on devices that have a bootstrap token, which installs OS updates without user interaction at a time when it is detected that the device is not in use. Apple added the option to allow the installation of OS updates when a device is detected as not currently in use.

Apple also includes additional messaging to the user when performing updates that inform them that an update is scheduled to be performed, that the device must be connected to a power source, and so on.

Name Version Restart Size Status Actions Required ✓ Download and/or install macOS Big Sur 11.2 Yes 11.37GB Undetermined (? Send Download only Download and notify user Download and install later Download and show countdown 3 Install with forced restart

Software Updates

For macOS devices running Monterey, Apple now provides the option to specify the number of times that the user will be prompted to install an OS update before the update will be forced. For example, an admin could specify that a user can elect to skip the update up to three times, after which they are forced to install the update. This option allows admins to ensure that users install important OS updates in a timely manner. When this is set, this also displays a notification to users informing them of how many deferrals they have left and/or when the update will be forcefully installed.

Additionally, Apple added more abilities to control which OS versions are displayed to users and/or pushed to devices.

These new features will be coming out soon, as more Software Updates for macOS Monterey become available.

Declarative Device Management

Apple announced a new MDM functionality called "declarative management", which allows devices to be more autonomous and proactive in their configuration.





69 **Python Help?** Q A 200'

Python Check

The most worrisome macOS Monterey change from our perspective is around the Python deprecation.

If you would like assistance validating your Python usage, please contact us at support@addigy.com. We will process your request and attempt to find any python usage in your custom software, custom facts, and other custom scripts within Addigy.

We have assisted several customers with this already, so please let us know if you do need help identifying these items. Requests can take up to 2-3 business days to process, so please submit your request prior to your upgrades.



Deferring macOS Monterey

- Software Updates available on macOS can only be deferred using an MDM Configuration.
- Restrictions MDM Configuration allows you to set the amount of days to defer (1-90)
- Keeping in mind the `softwareupdate` command no longer supports the ignore functionality

nd Name						
General	iCloud	Media	AirPrint	Software Updates	Apps	Desktop and Finder
evices						
efer Software Update	es (supervised only)					
	lay in Days (Minimum: 1 da	ay, Maximum: 90 days)				
Software Update De						

Defer App Updates. Default 30 days or value for Defer Software Updates. (supervised only) (MacOS only)

Cancel



Blocking macOS Monterey

- Addigy's macOS Monterey Blocker still works and will prevent users from upgrading to macOS Monterey.
- To remove the blocker just remove it from the Policy.
- You can use the removal script to remove blocker from device at any point if necessary.
- The blocker will prompt the user and send a notification to your email or ticketing system.

The software titles below can be added to any of your policies on the left.

Name	Created By	~	Rating
block ×	addigy	×	
Block Install Mojave (10.14.4.1)	Addigy		
Block Install Catalina (10.15.0.4)	Addigy		****
S Block Install macOS Big Sur (11.0.1)	Addigy		****
S Block Install macOS Monterey (12.0.2)	Addigy		****

Upgrading macOS Monterey

- Addigy's macOS Monterey Installer Install macOS Monterey (12.0.1.1)
- System Preferences > Software Update > Upgrade
- Reported issues of Monterey Upgrade Stalling: <u>https://support.addigy.com/hc/en-us/articles/4409284999571</u>
- We STRONGLY recommend deploying through GoLive. This prompts the user to accept the install, then installs macOS Monterey 12.0.1. If no user is logged in, then the install will proceed automatically. Logs can be found in /Library/Addigy/logs/Install macOS Monterey

Name	Created By	~
Install macOS Monterey ×		
S Block Install macOS Monterey (12.0.2)	Addigy	
Install macOS Monterey (12.0.1.1)	Addigy	

Rebuilding macOS before Monterey

Addigy has published the following blog post, workflow, and scripts to support a one click rebuild similar to EACS discussed earlier.

Note: macOS Big Sur does require username and password to allow this script to execute.

Knowledge Base Article and Script: https://support.addigy.com/hc/en-us/articles/4404507103251-Rebuild-macOS-Devices-with-one-button

Blog Post: <u>https://addigy.com/blog/rebuild-macos-devices-with-the-click-of-a-button/</u>

Addigy Support Training Sessions

Addigy Support Training Sessions will be running on a regular cadence to discuss specific Advanced Support Topics or Important New Release Changes like macOS Big Sur, macOS Monterey, and other changes.

Addigy Support: <u>https://support.addigy.com</u> or <u>support@addigy.com</u> Addigy Release Information: <u>https://releases.addigy.com</u> Addigy Status Page: <u>https://status.addigy.com</u> Addigy Documentation Page: <u>https://docs.addigy.com</u>



macOS Monterey Readiness

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Thank You



Coming Soon from Addigy

Coming Soon From Addigy

- Stand Alone Catalog (In Beta Now)
 - Multi Policy Assignment for Public Software
- Brand New Polices
- Devices Living in Multiple Policy
 - Automatic Assignment by Filter Values
- Addigy Innovate look for news soon
- Declare Device Management
- And more...

