



How to Initiate a Sysdiagnose on your Apple Devices





What is Sysdiagnose?

Sysdiagnose is a utility on most Apple devices that can be used to gather system-wide diagnostic information. It includes logging from different services and reports on the state of systems. What is contained in a sysdiagnose will vary depending on what type of device and which version of the macOS, iOS, iPadOS, tvOS and watchOS.

What do you get?

Among the tools which have been run, and whose output has been collected for you may consist of the following:

- **ps** which lists information about all processes running at present, and its thread-aware variant
- **fs_usage** which reports system calls and page faults related to filesystem activity
- **spindump** which profiles your entire system for a period of time
- **vm_stat** which shows Mach virtual memory statistics
- **top** which displays sorted information about all processes running at present
- **powermetrics** which shows CPU usage statistics
- **lsop** which lists details of all open files
- **footprint** which gives memory information about processes
- **vmmap and heap** on process(es) using large amounts of memory, showing their virtual memory and heap allocations
- **diskutil** checking mounted drives
- **gpt** detailing GUID partition tables
- **hdiutil** checking mounted disk images
- **BootCacheControl** checking caches used during startup
- **df** checking disk free space
- **mount** checking mounted file systems
- **netstat** giving detailed network status
- **ifconfig** detailing network interfaces
- **ipconfig** detailing IP configuration
- **scutil** checking system configuration
- **dig** checking name service (DNS) lookup
- **pmset** detailing power management settings
- **system_profiler** which compiles a full system profile just as the System Profiler app does
- **ioreg** gives details of all input and output devices registered with I/O Kit.

Decompressed, its reports will typically occupy over 200 MB with more than 1500 files and folders.





How to Trigger a Sysdiagnose Manually

You can actually start gathering a system diagnostics log on your devices at any time using a "keychord" - a combination of keys or buttons pressed at the same time. On every kind of device, it can take several minutes for the sysdiagnose to finish running and compress all the log files for upload, so let it run for awhile in the problematic state before dismissing any dialogs, quitting apps, switching to other activities, etc.

On iPhones and iPads

With any iOS device, the keychord is three buttons together:

Both volume buttons + the Side or Top button (See figures below on where the buttons are located)

Press and hold all three buttons for about one second, then release. A screenshot should be taken at the same time. On an iPhone, you will also feel a short vibration when the sysdiagnose starts. The vibration will not occur on an iPad. Be careful not to hold the buttons too long, or you may trigger the screen for Power Off / Emergency SOS as well. If this happens, hit Cancel to exit back to the regular Lock Screen. Your sysdiagnose will continue running.

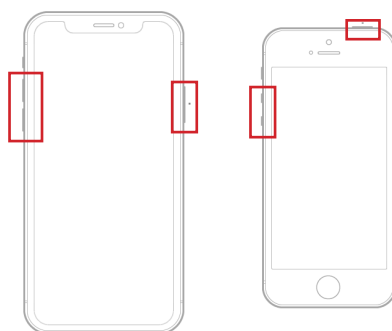
After the sysdiagnose has run for a minute or two, a notification will appear, asking if you want to file feedback. If you confirm, Feedback Assistant will launch into a new feedback report and your currently-running sysdiagnose will automatically be associated with it. You can finish writing the feedback right then, or save the draft to finish later. When you are done writing your feedback and submit it, the "live" sysdiagnose that you triggered will upload with it.

If you choose to cancel the notification, you can still add your sysdiagnose to a feedback report later, as described below.

Note that a sysdiagnose can be triggered on an iPhone or iPad while it is sitting at the Lock Screen. However, the alert will not appear and Feedback Assistant will not be able to launch. The sysdiagnose will still be accessible to you later (see page 5).



iPad



iPhone



On Macs

With any desktop or laptop Mac, the keychord is always the same five keys together:

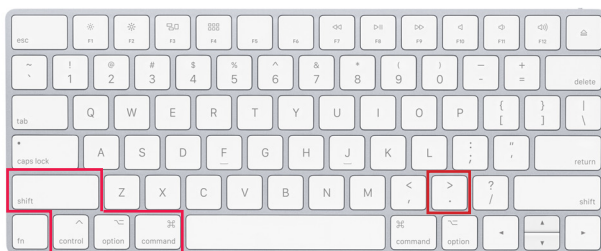
Shift + Command + Control + Option + period (see figure below)

Press all five keys at the same time. The screen should flash for a moment to indicate it has successfully begun.

After the sysdiagnose has run for a minute or two, a notification will appear, asking if you want to file feedback. If you confirm, Feedback Assistant will launch into a new feedback report and your currently-running sysdiagnose will automatically be associated with it. Although Finder will show you the location of your finished log file later, you do not need to drag it into your feedback report to link them. You can finish writing the feedback right then, or save the draft to finish later. When you are done writing your feedback and submit it, the "live" sysdiagnose that you triggered will upload with it.

If you choose to cancel the notification, you can still add your sysdiagnose to a feedback report later, as described below.

Note that a sysdiagnose can be triggered on a Mac while it is sitting at the login screen, unless the Mac is using FileVault. However, the alert will not appear and Feedback Assistant will not be able to launch. The sysdiagnose will still be accessible to you later (see page 5).



On Apple TVs

On 4th Generation and later Apple TVs, the keychord uses two buttons on the remote:

PLAY/PAUSE + VOL – (See figures to the right)

Press and hold both buttons for 6 seconds, then release. A message will appear onscreen indicating that analytics are running. Then an alert will appear asking if you want to Export the log file. When you choose to export, you can AirDrop the log file to a macOS or iOS device, where you will be able to attach it from Feedback Assistant later (see page 5).



On Apple Watches

In order to enable sysdiagnose logging on an Apple Watch, you will first need to download and install the watchOS logging configuration profile (See page 6). Instructions are included at the end of this newsletter for the profile installation process. After you've installed the logging profile, your watch's keychord will be two buttons:

Side + Digital Crown (see figure to the right)

Press and hold both buttons for 2 seconds, then release. You should feel a haptic vibration to indicate it has successfully begun. When the sysdiagnose has finished collecting, it will sync the log file to the iPhone that it is paired with. This can take up to 15 minutes, so make sure the watch and phone both have sufficient power and are close to each other. You will then be able to attach the sysdiagnose in Feedback Assistant on your phone later (see page 5).





Adding a Sysdiagnose to an Existing Feedback

On iPhones and iPads

If you start a manual sysdiagnose but choose to cancel the notification that appears, Feedback Assistant will not launch or start a new feedback report. However, when the sysdiagnose is done running, you can move it from the location where it is initially created into the Files app, where Feedback Assistant can select it later.

1. Go into Settings > Privacy > Analytics & Improvements > Analytics Data.
2. Scroll down the list of analytics files until you see the files that start with "sysdiagnose".
3. If there is more than one sysdiagnose, the file name also contains the date and time it was started.
4. Select the one you want to attach to a feedback report. There will be a share icon in the upper right corner.
5. Tap the share icon, then select "Save to Files".
6. Pick which Files location you want to save it to, then hit Save.

Any sysdiagnose that was captured on your Apple Watch and synced over can be found in the Analytics Data as well.

Later, when you are working on a feedback report in Feedback Assistant, you can then attach it to your feedback from Files by tapping on Add Attachment, then selecting Files as the location to get the attachment from. This is also how to attach a sysdiagnose from your Apple TV that was transferred to your iPhone or iPad using AirDrop.

On Macs

If you start a manual sysdiagnose but choose to cancel the notification that appears, Feedback Assistant will not launch or start a new feedback report.

However, when the sysdiagnose is done running, Finder will open a window to the location of the log file, in the /var/tmp directory. From there, you can drag it into any file attachment space in an existing feedback report in Feedback Assistant - in new feedback or one you've already submitted.

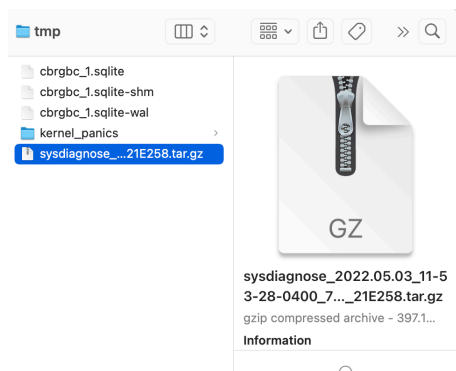
You can also access your feedback in a web browser by signing into feedbackassistant.apple.com and attaching the sysdiagnose there.

On Apple TVs

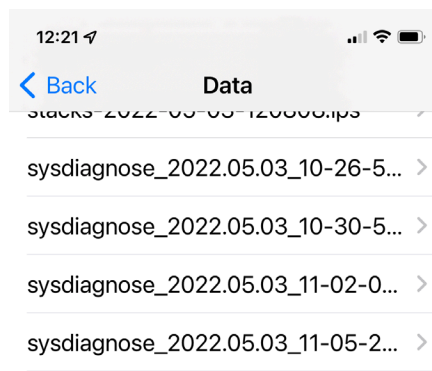
After you've chosen to Export your log files, you can AirDrop it to a Mac, where it will go into your Downloads folder, or to your iPhone or iPad, where it will be in the Files app. Then you can attach it to your feedback in Feedback Assistant for iOS or macOS as described above.

On Apple Watches

After the watch has had enough time to sync the sysdiagnose to its paired iPhone, you can find it in Analytics Data, then move it to Files and attach it in Feedback Assistant, as described above.



sysdiagnose on a Mac



sysdiagnose on iPhone



Addendum: How to Install the watchOS sysdiagnose profile

Please follow these instructions in order to download and install the watchOS sysdiagnose configuration on your Apple Watch. Note that this profile automatically expires three days after being installed, so you will periodically need to re-install it if you need to submit more watchOS feedback.

1. On your companion iPhone, download the profile from this URL:

<https://appleseed.apple.com/sp/download/1014119>

If you are a developer, you can download it from this URL instead:

https://developer.apple.com/services-account/download?path=/iOS/watchOS_Logs/watchOSlogging.mobileconfig

You will need to sign in with the Apple ID you use for accessing the Beta Program and submitting feedback.

2. The browser will tell you the website is trying to download a configuration profile. Allow it.
3. The phone will switch to an Install Profile pane in the Watch app, indicating you are able to install the WatchOS Logging Profile. Tap "Install". You will need to enter your phone's passcode.
4. The phone will then show you a consent form. Please read it. If you agree to the terms for submitting data as part of your feedback, tap "Install" in the corner again, then tap "Install" one more time when it appears at the bottom of the screen.
5. The profile is now installed. Tap "Done".



Links

Sysdiagnose (iOS)

https://download.developer.apple.com/iOS/iOS_Logs/sysdiagnose_Logging_Instructions.pdf

Sysdiagnose (macOS)

https://download.developer.apple.com/OS_X/OS_X_Logs/sysdiagnose_Logging_Instructions.pdf

Sysdiagnose (tvOS)

https://download.developer.apple.com/iOS/tvOS_Logs/sysdiagnose_Logging_Instructions.pdf

Sysdiagnose (watchOS)

https://download.developer.apple.com/iOS/watchOS_Logs/sysdiagnose_Logging_Instructions.pdf

Feedback Assistant User Guide

<https://support.apple.com/en-mt/guide/feedback-assistant/fba2e39e53f5/mac>

Feedback Assistant Program

<https://feedbackassistant.apple.com>