

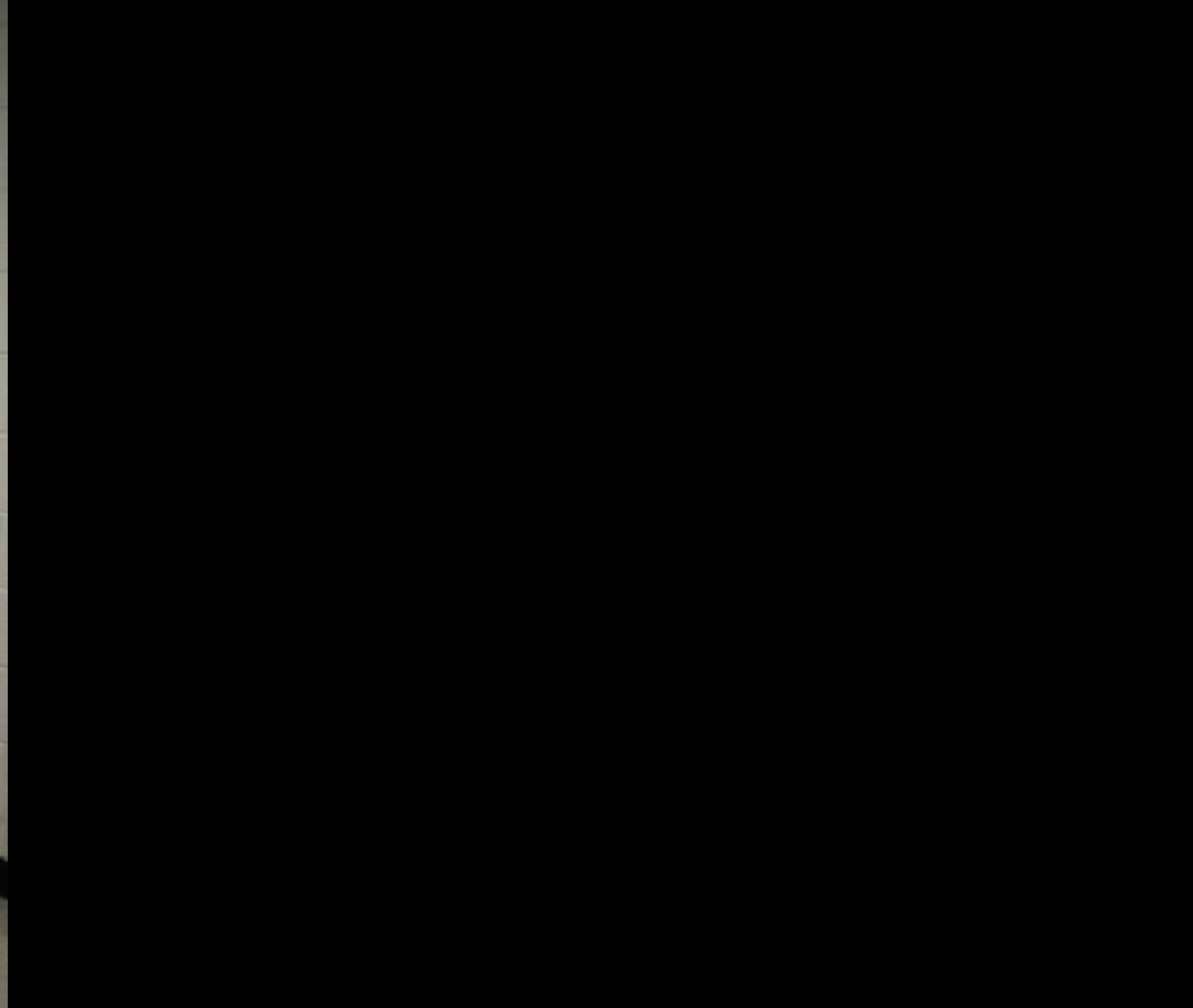
Unified System Logs

The key to root cause

Bryce Carlson - November 2024 – MacAdmins Meeting

Agenda

- Intro and Background
- Background on Apple OS logging
- Tools
- Support Support
- Debugging & Streaming with a support perspective
- Filtering
- Real world examples
- Feedback to Apple





Background on Apple OS logging

- Historical
 - macOS - /var/log/system.log
 - iOS - LemonJar iOS Console app
- Unified logging system
 - iOS 10.0 and later
 - macOS 10.12 and later
 - tvOS 10.0 and later

system.log Info

system.log

14 KB

Modified: Today, 7:02 PM

Add Tags...

General:

Kind: Log File

Size: 14,337 bytes (16 KB on disk)

Where: Mac SSD ▶ private ▶ var ▶ log

Created: Sunday, July 7, 2024 at 12:30 AM

Modified: Sunday, July 7, 2024 at 7:02 PM

Stationery pad

Locked

More Info:

Last opened: Sunday, July 7, 2024 at 7:02 PM

Name & Extension:

system.log

Hide extension

Comments:

Open with:

Console.app (default)

Use this application to open all documents like this one.

Change All...

Preview:

Jul 7 00:30:32 MacBook-Pro-9 syslogd[347]: ASL Sender Statistics

Jul 7 00:30:33 MacBook-Pro-9 syslogd[347]: Configuration Notice:

ASL Module "com.apple.cdscheduler" claims selected messages.

Those messages may not appear in standard system log files or in the ASL database.

Jul 7 00:30:33 MacBook-Pro-9 syslogd[347]: Configuration Notice:

ASL Module "com.apple.install" claims selected messages.

Those messages may not appear in standard system log files or in the ASL database.

Jul 7 00:30:33 MacBook-Pro-9 syslogd[347]: Configuration Notice:

ASL Module "com.apple.authd" sharing output destination "/var/log/asl" with ASL Module "com.apple.asl".

Output parameters from ASL Module "com.apple.asl" override any specified in ASL Module "com.apple.authd".

Jul 7 00:30:33 MacBook-Pro-9 syslogd[347]: Configuration Notice:

ASL Module

Sharing & Permissions:

Here's to the crazy ones. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They're not fond of rules. And they have no respect for the status quo.

You can praise them, disagree with them, quote them, disbelieve them, glorify or vilify them. About the only thing you can't do is ignore them. Because they change things.

They invent. They imagine. They heal. They explore. They create. They inspire. They push the human race forward.

Maybe they have to be crazy. How else can you stare at an empty canvas and see a work of art? Or sit in silence and hear a song that's never been written? Or gaze at a red planet and see a laboratory on wheels?

system.log

Reveal Now Clear Reload Share

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: client 0x6000015717c0: phaseName = "IOKit Boot", show progress UI called

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: ISAP: Show progress UI called

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: client 0x6000015717c0: phaseName = "IOKit Boot" is done

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: ISAP: Done with Phase "IOKit Boot"

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: client 0x6000015717c0: phaseName = "IOKit Boot" is being released

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: Releasing Connection

Jul 7 16:24:27 MacBook-Pro-9 loginwindow[380]: client 0x600001571680: handler = 0x600000e6b420

Jul 7 16:24:28 MacBook-Pro-9 loginwindow[380]: client 0x600001571680: phaseName = "loginwindow Boot" is done

Jul 7 16:24:28 MacBook-Pro-9 loginwindow[380]: ISAP: Done with Phase "loginwindow Boot"

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: Calling completion handler for 0x600001571680

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: client 0x600001571680: phaseName = "loginwindow Boot" is already done

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: client 0x600001571680: phaseName = "loginwindow Boot", hide progress UI called

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: ISAP: hide progress UI called

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: client 0x600001571680: phaseName = "loginwindow Boot" is being released

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: Releasing Connection

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: The connection was interrupted, calling interruption handlers

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: USER_PROCESS: 380 console

Jul 7 16:24:29 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: tid:1a03 - This is here just to make sure we empty our found devices queue

Jul 7 16:24:29 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: tid:1a03 - (null)

Jul 7 16:24:29 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: tid:1a03 - Failed to subscribe for booted OS device notifications.

Jul 7 16:24:29 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: tid:103 - (null)

Jul 7 16:24:29 MacBook-Pro-9 loginwindow[380]: There is still an active connection

--- last message repeated 1 time ---

Jul 7 16:24:29 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 16:24:29 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 16:24:29 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

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Jul 7 16:24:29 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 16:24:29 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 16:24:29 MacBook-Pro-9 MobileDeviceUpdater[95844]: tid:2203 - This is here just to make sure we empty our found devices queue

Jul 7 16:24:29 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 16:24:29 MacBook-Pro-9 MobileDeviceUpdater[95844]: tid:2203 - (null)

Jul 7 16:24:29 MacBook-Pro-9 MobileDeviceUpdater[95844]: tid:2203 - Failed to subscribe for booted OS device notifications.

Jul 7 16:24:29 MacBook-Pro-9 MobileDeviceUpdater[95844]: tid:103 - (null)

Jul 7 16:24:29 MacBook-Pro-9 MobileDeviceUpdater[95844]: tid:550b - IPv6 @ locationID=0x2100000, NCM 0x100001e3e: cannot find remote address

Jul 7 16:24:29 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: tid:526b - IPv6 @ locationID=0x2100000, NCM 0x100001e3e: cannot find remote address

Jul 7 17:47:17 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 17:58:20 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 18:08:23 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 18:12:49 MacBook-Pro-9 MobileDeviceUpdater[95844]: Entered:_AMMuxedDeviceDisconnected, mux-device:1

Jul 7 18:12:49 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: Entered:_AMMuxedDeviceDisconnected, mux-device:1

Jul 7 18:12:49 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: Entered:__thr_AMMuxedDeviceDisconnected, mux-device:1

Jul 7 18:12:49 MacBook-Pro-9 AMPDeviceDiscoveryAgent[4522]: tid:5273 - BootedOS mode device disconnected

Jul 7 18:12:49 MacBook-Pro-9 MobileDeviceUpdater[95844]: Entered:__thr_AMMuxedDeviceDisconnected, mux-device:1

Jul 7 18:12:49 MacBook-Pro-9 MobileDeviceUpdater[95844]: tid:d307 - BootedOS mode device disconnected

Jul 7 18:18:24 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

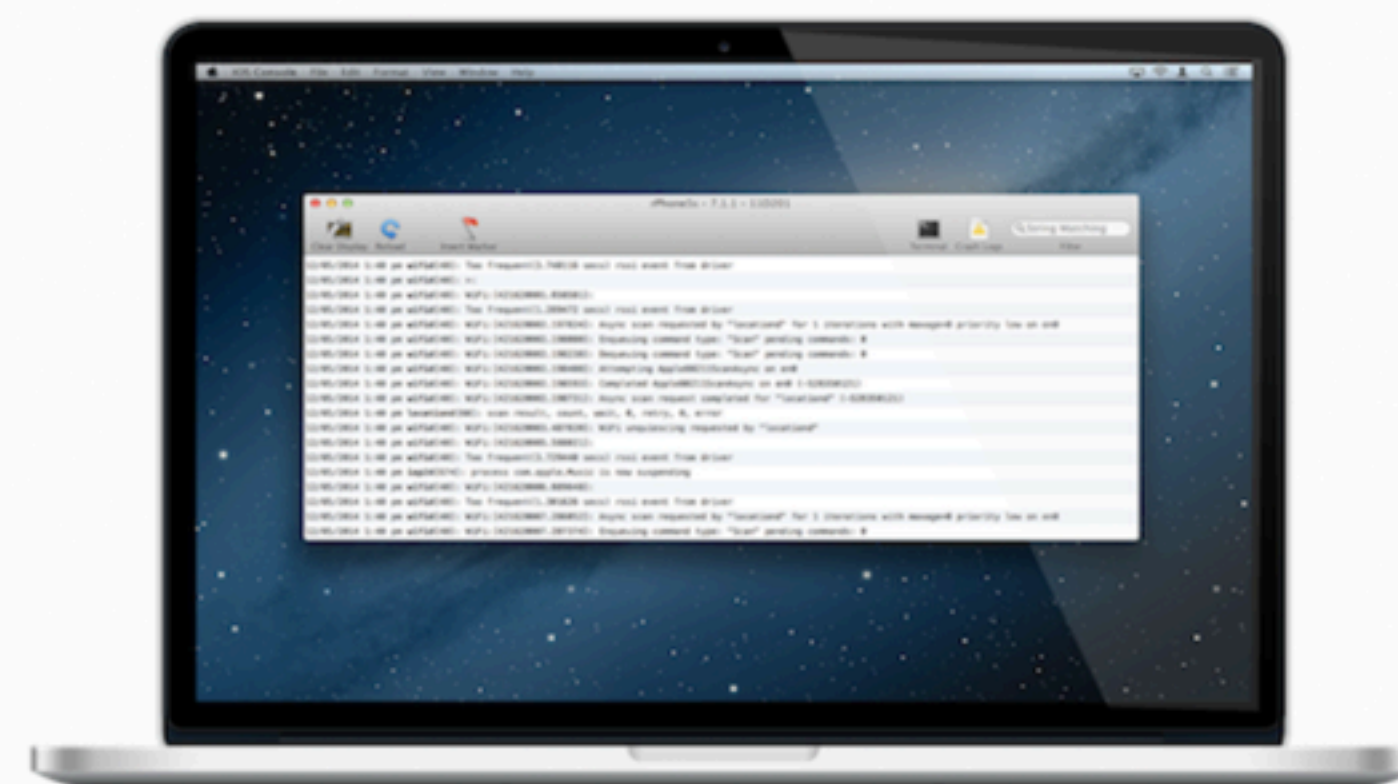
Jul 7 18:29:20 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 18:40:59 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 18:51:27 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 19:02:47 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics

Jul 7 19:13:59 MacBook-Pro-9 syslogd[344]: ASL Sender Statistics



iOS Console

The most awesome iOS console log viewer. Ever.

Download Now

Tweet

Have you ever wished for new world order?
How about a better way to view iOS console logs?
Well, iOS Console can help with at-least one of these!

iOS Console allows you to view iOS console logs directly from your Mac, and now



Clear Display



Reload



Insert Marker



Terminal



Crash Logs

Filter

rPhone5s - 7.1.1 - 11D201

```

12/05/2014 1:40 pm wifid[40]: Too frequent(3.740116 secs) rssi event from driver
12/05/2014 1:40 pm wifid[40]: >:
12/05/2014 1:40 pm wifid[40]: WiFi:[421620001.858581]:
12/05/2014 1:40 pm wifid[40]: Too frequent(1.289472 secs) rssi event from driver
12/05/2014 1:40 pm wifid[40]: WiFi:[421620002.197824]: Async scan requested by "locationd" for 1 iterations with maxage=0 priority low on en0
12/05/2014 1:40 pm wifid[40]: WiFi:[421620002.198080]: Enqueuing command type: "Scan" pending commands: 0
12/05/2014 1:40 pm wifid[40]: WiFi:[421620002.198238]: Dequeuing command type: "Scan" pending commands: 0
12/05/2014 1:40 pm wifid[40]: WiFi:[421620002.198408]: Attempting Apple80211ScanAsync on en0
12/05/2014 1:40 pm wifid[40]: WiFi:[421620002.198593]: Completed Apple80211ScanAsync on en0 (-528350121)
12/05/2014 1:40 pm wifid[40]: WiFi:[421620002.198731]: Async scan request completed for "locationd" (-528350121)
12/05/2014 1:40 pm locationd[60]: scan result, count, wait, 0, retry, 0, error
12/05/2014 1:40 pm wifid[40]: WiFi:[421620003.487820]: WiFi unquiescing requested by "locationd"
12/05/2014 1:40 pm wifid[40]: WiFi:[421620005.588021]:
12/05/2014 1:40 pm wifid[40]: Too frequent(3.729440 secs) rssi event from driver
12/05/2014 1:40 pm iap2d[674]: process com.apple.Music is now suspending
12/05/2014 1:40 pm wifid[40]: WiFi:[421620006.889648]:
12/05/2014 1:40 pm wifid[40]: Too frequent(1.301626 secs) rssi event from driver
12/05/2014 1:40 pm wifid[40]: WiFi:[421620007.286052]: Async scan requested by "locationd" for 1 iterations with maxage=0 priority low on en0
12/05/2014 1:40 pm wifid[40]: WiFi:[421620007.287374]: Enqueuing command type: "Scan" pending commands: 0
                    
```


[More Videos](#)

System Frameworks

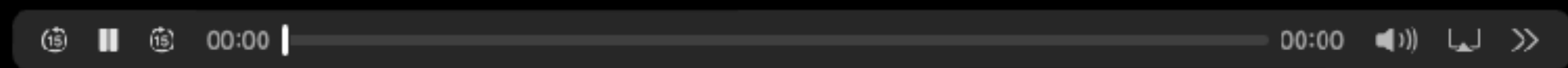
#WWDC16

Unified Logging and Activity Tracing

Logging for the future

Session 721

Steven Szymanski Core OS Engineering
Matthieu Lucas System Applications



Overview

Transcript

Related Videos



Unified Logging and Activity Tracing

The new Unified Logging and Tracing System for iOS and macOS uses Activity Tracing for performance, consolidates kernel and user-space logging, and has many other improvements. Learn how Logging and Tracing can help you debug and troubleshoot issues with your apps.

WWDC 2016 - Session 721 - iOS, macOS

Resources

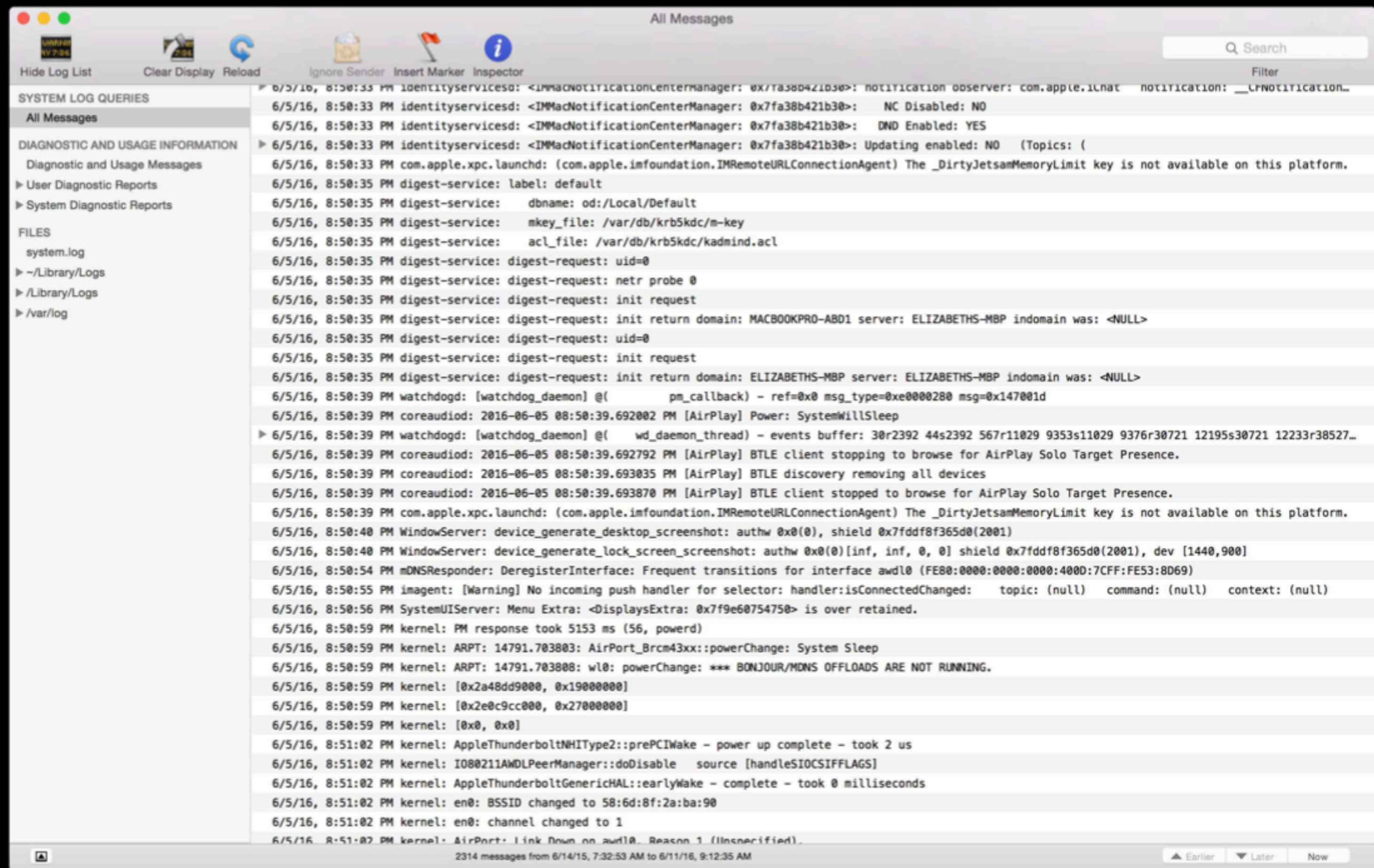
[Unified Logging Reference](#)

[HD Video](#) | [SD Video](#)

[Presentation Slides \(PDF\)](#)

Leave feedback for videos using the [WWDC app](#).

Current Console



Console Revisited...

The screenshot displays the macOS Console application window, titled "Console (779 activities)". The interface includes a top toolbar with buttons for "Now", "Clear", "Reload", "Activities", "Info", and "Sharing". Below the toolbar, there are tabs for "All Messages", "Errors and Faults", "nsurlsessiond", and "accountsd".

The main content area is divided into two sections. The top section is a table with columns: "Devices", "Time", "Process", "Library", and "Activity". It lists various system activities, including "QuickLookThumbnails", "CloudDocsDaemon", "CloudKit", "CloudKitDaemon", "clouddd", "MMCS", "nehelper", and "CloudKitDaemon". The bottom section shows details for a specific activity, "clouddd (CloudKitDaemon)", with fields for "Activity ID", "Parent Activity ID", "Thread ID", and "PID".

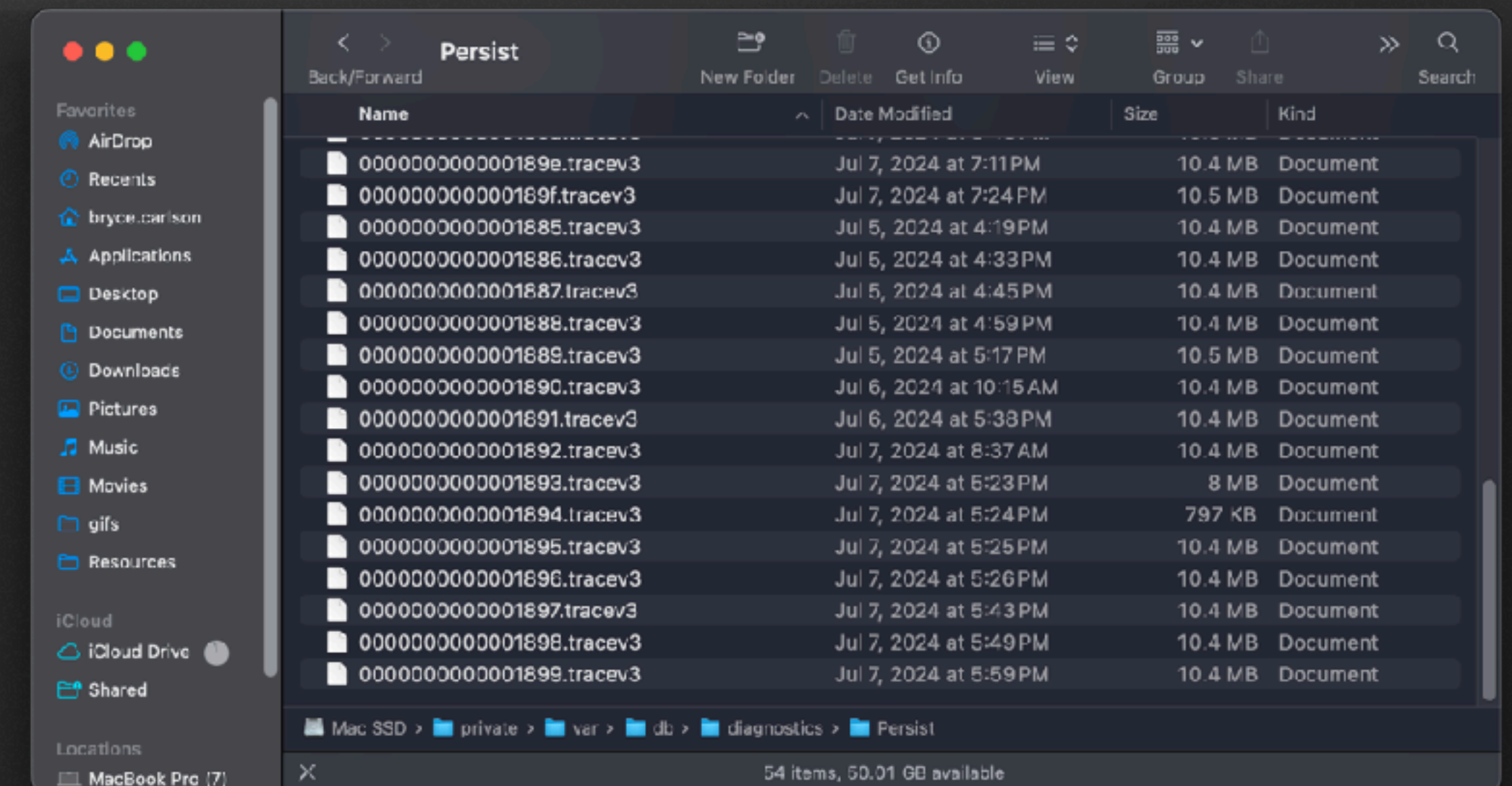
The bottom section also contains a table with columns: "Type", "Time", "Process", and "Message". This table lists various system messages, including "Created DB, header sequence number = 13932", "CCDS: requirements {", "activity [0x7f9d96552b80] <_DASActivity: ", "SUBMITTING: com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "TIC [0x7f9d965446c0]: DAS scheduler submitted activity 0x7f9d96552b80", "Start network path monitoring for activity:com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "Activity:com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "With com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "Running activities : (", "Stop network path monitoring for activity:com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "STARTING: com.apple.CFNetwork-cc-331-4121-Task <com.apple.clouddd>.", "TIC [0x7f9d965446c0]: activity 0x7f9d96552b80 start handler called", and "TIC TCP Conn Start [4121:0x7f9d965446c0]".

Unified Logging

- Introduced at WWDC 2016
- Standardized logging format across apps
- Maximize information collected with minimal footprint
- Formatted at read back
- Coordinate log message life cycle (file limit)
- PII redacted

Unified Logging - Where?

- .tracev3 files
 - /var/db/diagnostics
 - /var/db/diagnostics/persist
- ~50-55 files are maintained
- ~5-10.5 MB in size



Unified Logging - How?

- Use built-in tools
- Console.app
- `log` command line tool



Unified Logging - What?

Message	Level Enabled
Default	Always
Info	Yes, streaming
Debug	No
Error	Always
Fault	Always

Tools

- Console.app
 - GUI
 - Limited to streaming on device
 - Open archives
 - RIP Intel 🚀 go silicon 😎
- `log` command line
 - `show`
 - `stream`
- Fast and could be used in scripts

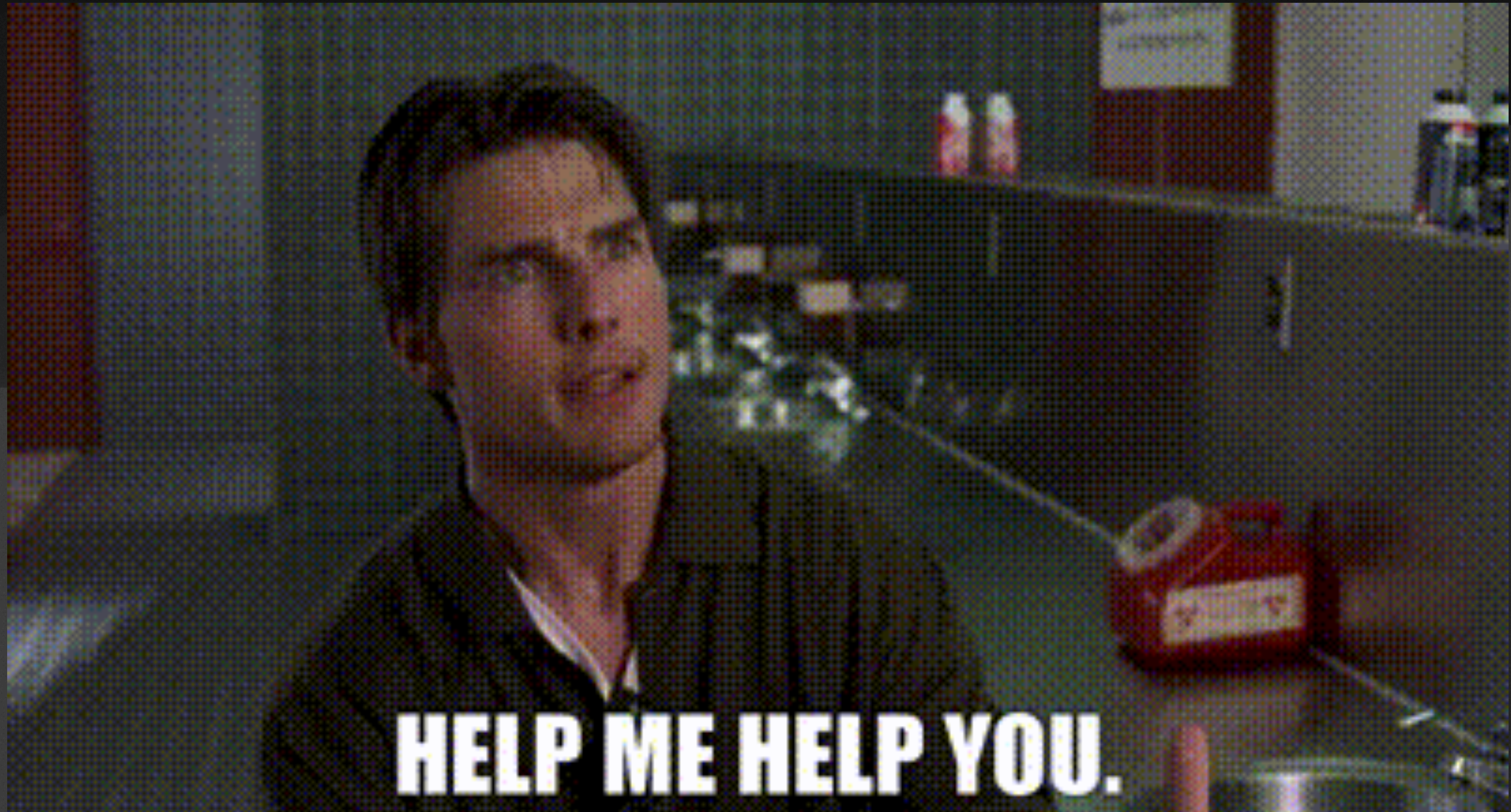
WARNIN
AY 7:36

> _

Support Support

- Jamf Support historically has been built on the idea of ONIT
 - Objective
 - Not working
 - Investigated
 - Tried
- All support has levels of escalation it is the nature of what happens at scale
 - The more information and context you can provide
- How can you best state your case at opening of a ticket
- Be open and honest

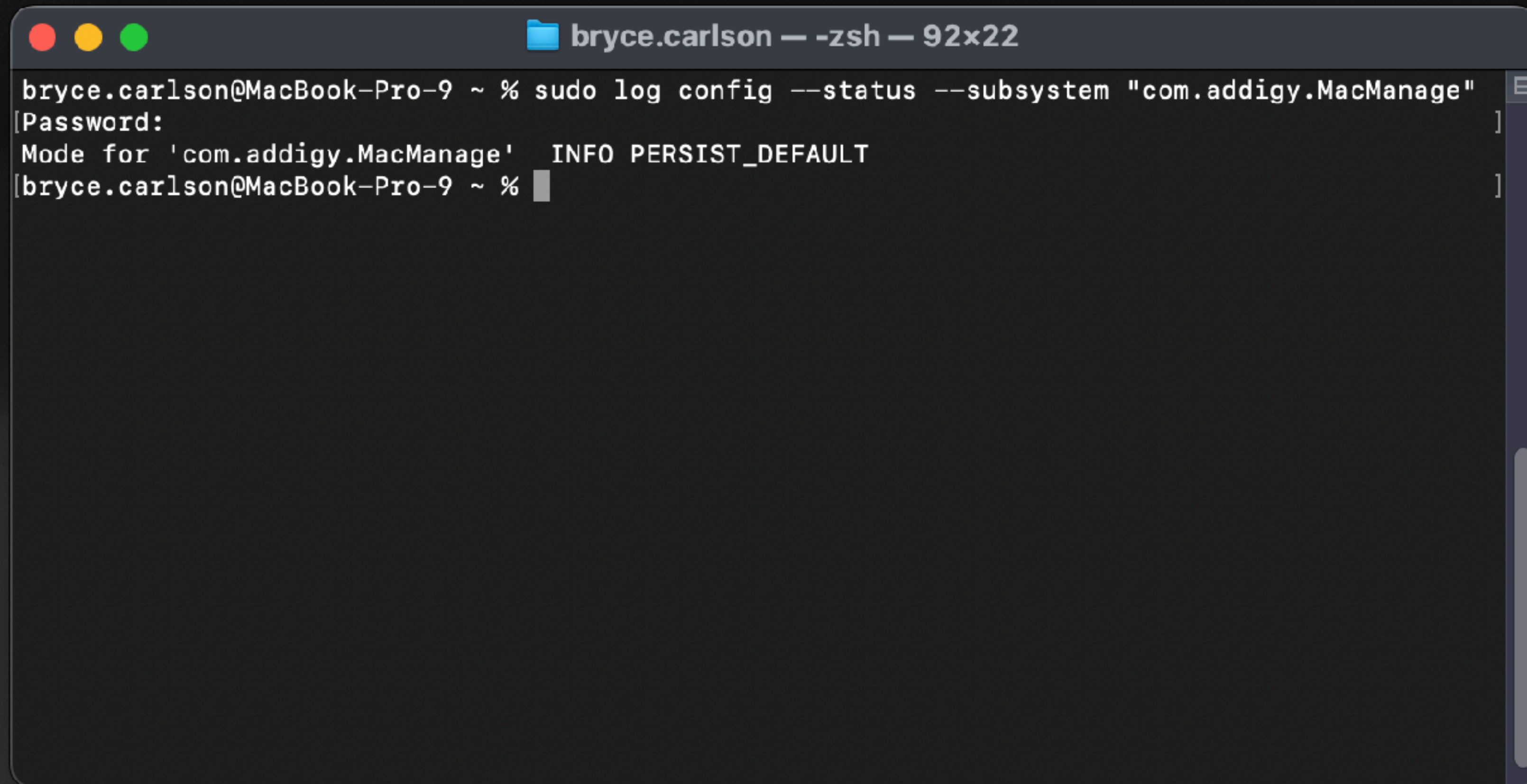
Support Support



Debugging & Streaming

- Log level setting read
 - `sudo log config --status --subsystem "com.vend.app"`
- Enable debug logging per subsystem
 - `sudo log config --mode "level:debug" --subsystem com.vend.app`
 - Creates a plist in /Library/Preferences/Logging/Subsystems

Debugging & Streaming



```
bryce.carlson@MacBook-Pro-9 ~ % sudo log config --status --subsystem "com.addigy.MacManage"
[Password:
Mode for 'com.addigy.MacManage' INFO PERSIST_DEFAULT
bryce.carlson@MacBook-Pro-9 ~ %
```

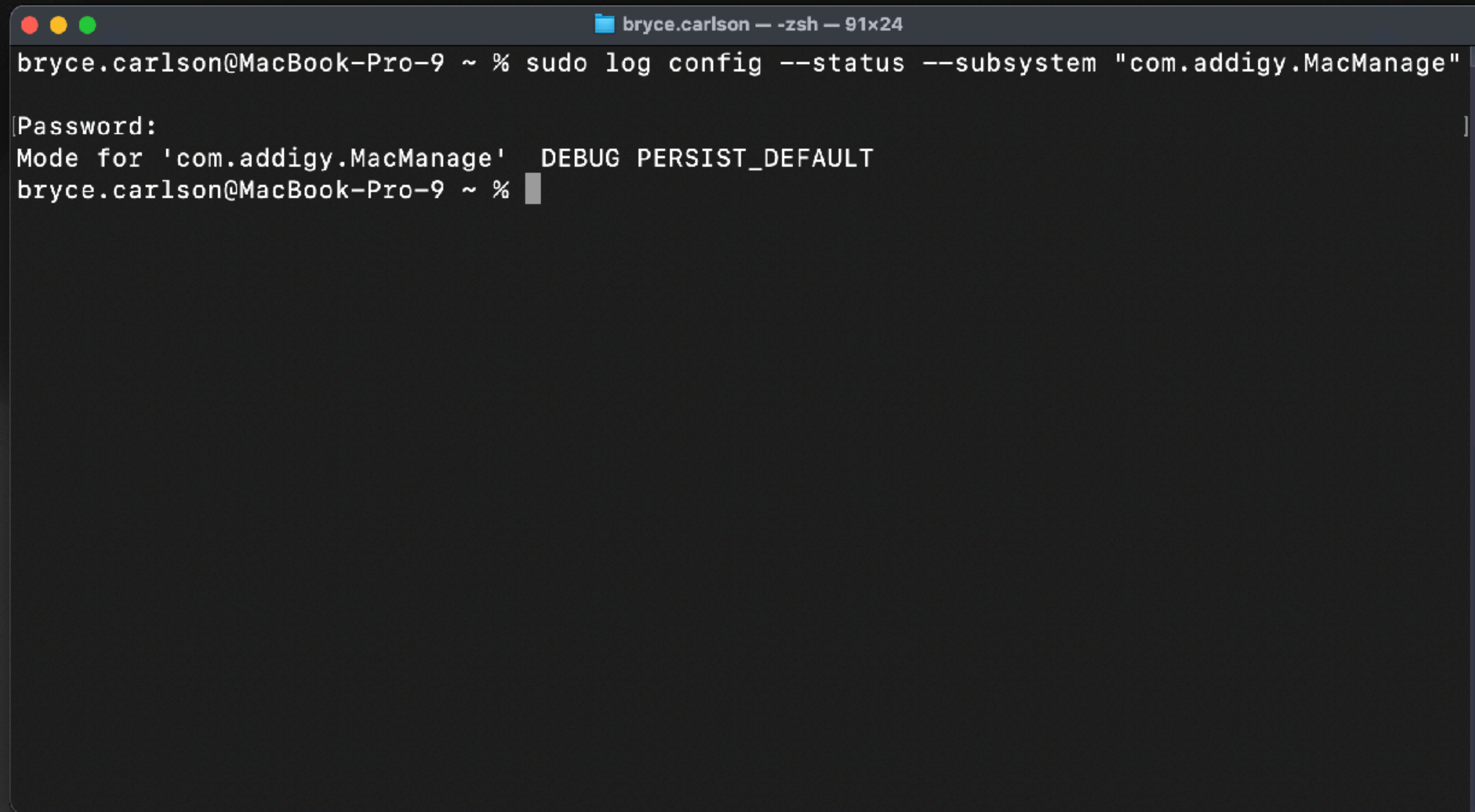
The image shows a macOS terminal window with a dark theme. The title bar at the top indicates the user is 'bryce.carlson' in a 'zsh' shell, with a window size of '92x22'. The terminal content shows a command being executed: 'sudo log config --status --subsystem "com.addigy.MacManage"'. The output consists of two lines: '[Password:' followed by a cursor, and 'Mode for 'com.addigy.MacManage' INFO PERSIST_DEFAULT'. The prompt 'bryce.carlson@MacBook-Pro-9 ~ %' is visible at the bottom of the terminal.

Debugging & Streaming

```
com.Addigy.MacManage.plist
Open with Xcode-beta

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>DEFAULT-OPTIONS</key>
  <dict>
    <key>Level</key>
    <dict>
      <key>Enable</key>
      <string>debug</string>
    </dict>
  </dict>
</dict>
</plist>
```


Debugging & Streaming

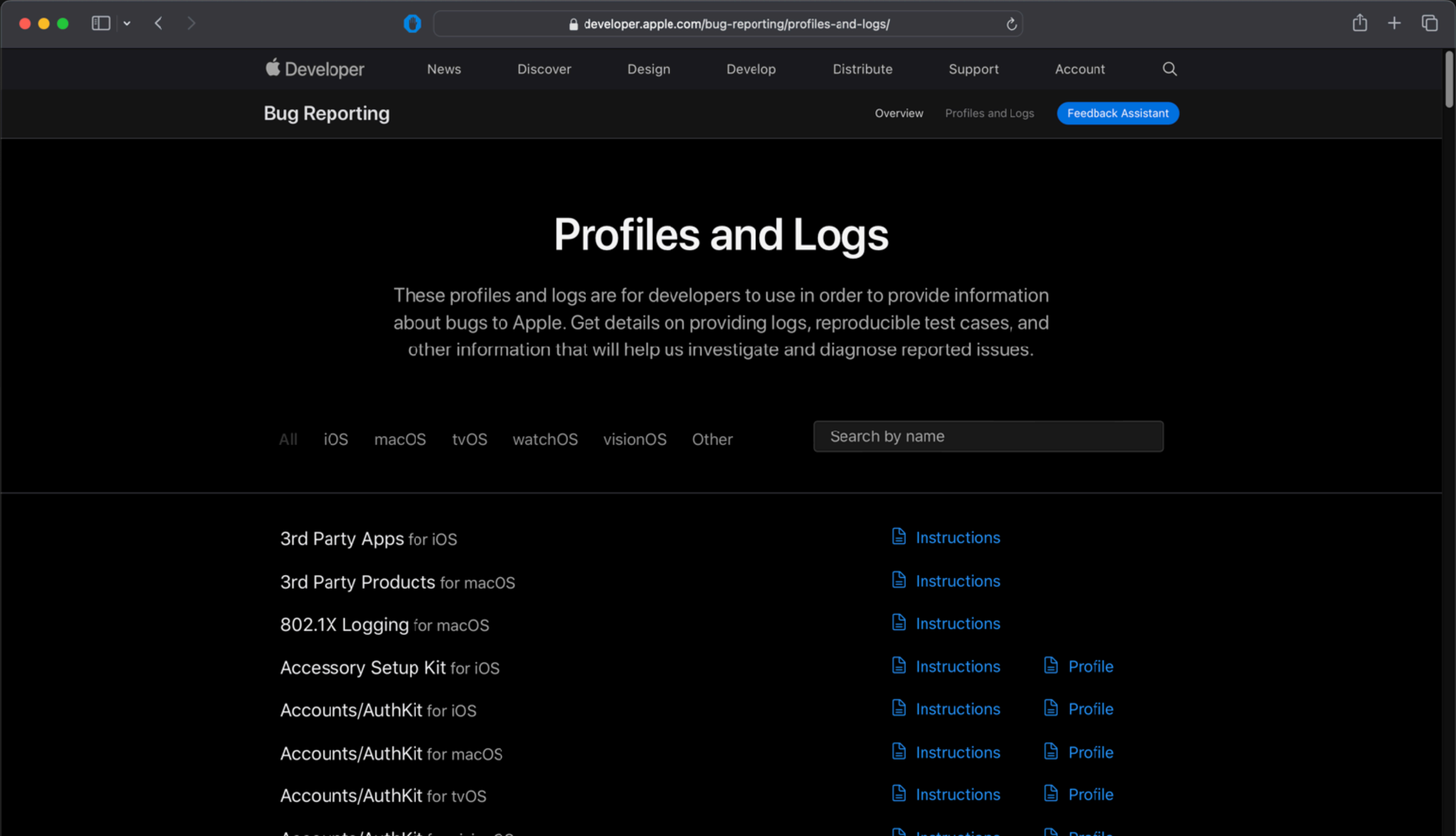


```
bryce.carlson@MacBook-Pro-9 ~ % sudo log config --status --subsystem "com.addigy.MacManage"
[Password:
Mode for 'com.addigy.MacManage' DEBUG PERSIST_DEFAULT
bryce.carlson@MacBook-Pro-9 ~ %
```

The image shows a macOS terminal window with a dark background. The title bar at the top indicates the user is 'bryce.carlson' in a 'zsh' shell, with a window size of '91x24'. The terminal content shows a user running the command 'sudo log config --status --subsystem "com.addigy.MacManage"'. After entering the password, the terminal displays the output 'Mode for 'com.addigy.MacManage' DEBUG PERSIST_DEFAULT'. The prompt 'bryce.carlson@MacBook-Pro-9 ~ %' is shown again at the end of the line.

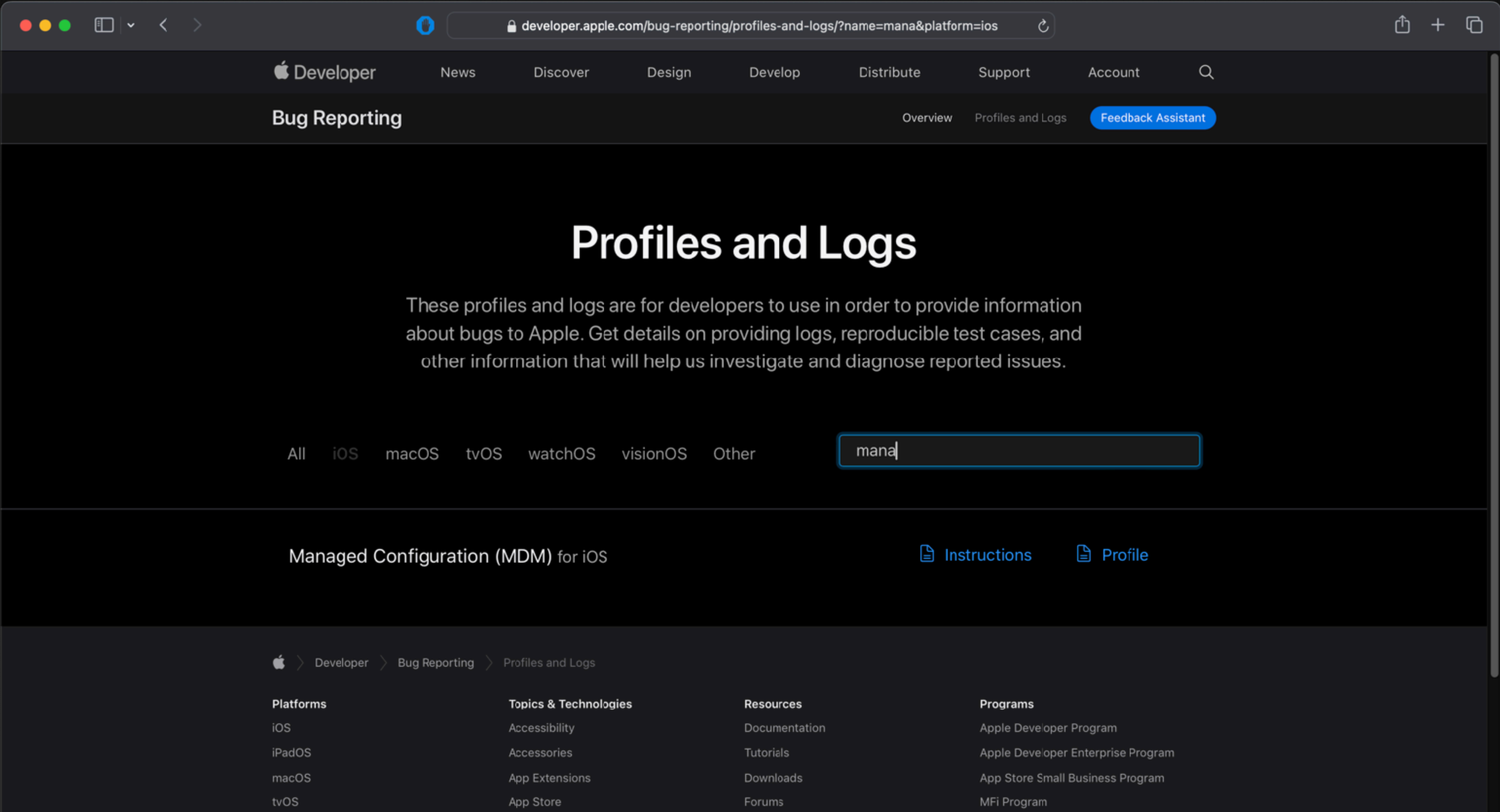
Debugging & Streaming

https://developer.apple.com/bug-reporting/profiles-and-logs/



Debugging & Streaming

https://developer.apple.com/bug-reporting/profiles-and-logs/



Debugging & Streaming



- Console.app
- Limited to streaming on device
- `log` command line
- Past as well as present



Debugging & Streaming

- sysdiagnose
 - MDM vendor support
 - Apple Support
 - ADE, VPP, or any testing workflow with flushing or multiple steps

A screenshot of a macOS terminal window. The title bar shows the user 'bryce.carlson', the window title 'sysdiagnose - sudo', and the size '80x24'. The terminal text shows the user running 'sudo sysdiagnose -f ~/Desktop'. It prompts for a password, then displays a detailed privacy notice about data collection for Apple's diagnostic tools. The notice lists various types of data collected, such as device name, serial numbers, user information, and network data. It concludes with a statement that the information is used by Apple to improve products and is not shared with other companies. The prompt 'Press 'Enter' to continue. Ctrl+\ to cancel.' is shown at the bottom with a cursor on the first line.

```
bryce.carlson — sysdiagnose - sudo — 80x24
Last login: Tue Jul  9 10:44:57 on ttys001
bryce.carlson@MacBook-Pro-9 ~ % sudo sysdiagnose -f ~/Desktop
Password:
This tool generates files that allow Apple to investigate issues with your
computer and help improve Apple products. The files might contain personal
information found on your device or associated with your iCloud accounts,
including but not limited to your name, serial numbers of your device,
your device name, your attached peripheral devices, your user name, your
email address and email settings, file paths, file names, Siri suggestions,
your computer's IP addresses, and network connection information.

This information is used by Apple in accordance with its privacy policy
(www.apple.com/privacy) and is not shared with any other company. By using
this tool and sending the results to Apple, you consent to Apple using the
contents of these files to improve Apple products.

Press 'Enter' to continue. Ctrl+\ to cancel.
█
```


Debugging & Streaming

bryce.carlson — sysdiagnose • sudo — 80x

Last login: Tue Jul 9 10:44:57 on ttys001
bryce.carlson@MacBook-Pro-9 ~ % sudo sysdiagnose -f ~/D
Password:
This tool generates files that allow Apple to investigate your computer and help improve Apple products. The files might contain information found on your device or associated with you, including but not limited to your name, serial numbers, your device name, your attached peripheral devices, your email address and email settings, file paths, file names, your computer's IP addresses, and network connection information.

This information is used by Apple in accordance with its privacy policy (www.apple.com/privacy) and is not shared with any other company. If you use this tool and sending the results to Apple, you consent to the collection and use of the contents of these files to improve Apple products.

Press 'Enter' to continue. Ctrl+\ to cancel.
█

Back/Forward

New Folder

Delete

Get Info

View

Group

Share

Add Tags

Action

Search

PREsysdiagnose_2024.07.05_11-03-33-0500...

Name	Date Modified	Size	Kind
security-sysdiagnose.txt	Jul 5, 2024 at 12:04 PM	222 KB	Plain Text
sfltool.LSSharedFileList.FavoriteItems.txt	Jul 5, 2024 at 12:04 PM	2 KB	Plain Text
sfltool.LSSharedFileList.FavoriteVolumes.txt	Jul 5, 2024 at 12:04 PM	912 bytes	Plain Text
sfltool.LSSharedFileList.iCloudItems.txt	Jul 5, 2024 at 12:04 PM	796 bytes	Plain Text
smcDiagnose.txt	Jul 5, 2024 at 12:04 PM	25 KB	Plain Text
spindump.txt	Jul 5, 2024 at 12:04 PM	7.6 MB	Plain Text
summaries	Today at 2:01 PM	--	Folder
sw_vers.txt	Jul 5, 2024 at 12:04 PM	63 bytes	Plain Text
swcutil_show.txt	Jul 5, 2024 at 12:04 PM	Zero bytes	Plain Text
sysctl.txt	Jul 5, 2024 at 12:04 PM	60 KB	Plain Text
sysdiagnose.log	Jul 5, 2024 at 12:05 PM	157 KB	Log File
system_logs.logarchive	Today at 2:01 PM	318 MB	Log Archive
SystemConfiguration	Today at 2:01 PM	--	Folder
systemextensionsctl_diagnose.txt	Jul 5, 2024 at 12:04 PM	105 bytes	Plain Text
SystemProfiler	Today at 2:01 PM	--	Folder
tailspin-info.txt	Jul 5, 2024 at 12:03 PM	46 bytes	Plain Text
talagent-501.txt	Jul 5, 2024 at 12:04 PM	4 KB	Plain Text
taskinfo.txt	Jul 5, 2024 at 12:03 PM	3.4 MB	Plain Text
taskSummary.csv	Jul 5, 2024 at 12:05 PM	22 KB	CSV Document
tbtDiagnose.txt	Jul 5, 2024 at 12:04 PM	151 KB	Plain Text
thermal.txt	Jul 5, 2024 at 12:04 PM	1 KB	Plain Text
TimezoneDB	Today at 2:01 PM	--	Folder
top.txt	Jul 5, 2024 at 12:03 PM	1.4 MB	Plain Text
transparency.log	Jul 5, 2024 at 12:04 PM	6 KB	Log File
uptime.txt	Jul 5, 2024 at 12:04 PM	59 bytes	Plain Text
var_run_resolv.conf	Today at 2:01 PM	--	Folder
vm_stat.txt	Jul 5, 2024 at 12:03 PM	11 KB	Plain Text
WiFi	Today at 2:01 PM	--	Folder
WindowServer.external.wininfo.plist	Jul 5, 2024 at 12:03 PM	121 KB	Property List
xartutil.txt	Jul 5, 2024 at 12:04 PM	168 bytes	Plain Text
zprint.txt	Jul 5, 2024 at 12:03 PM	108 KB	Plain Text

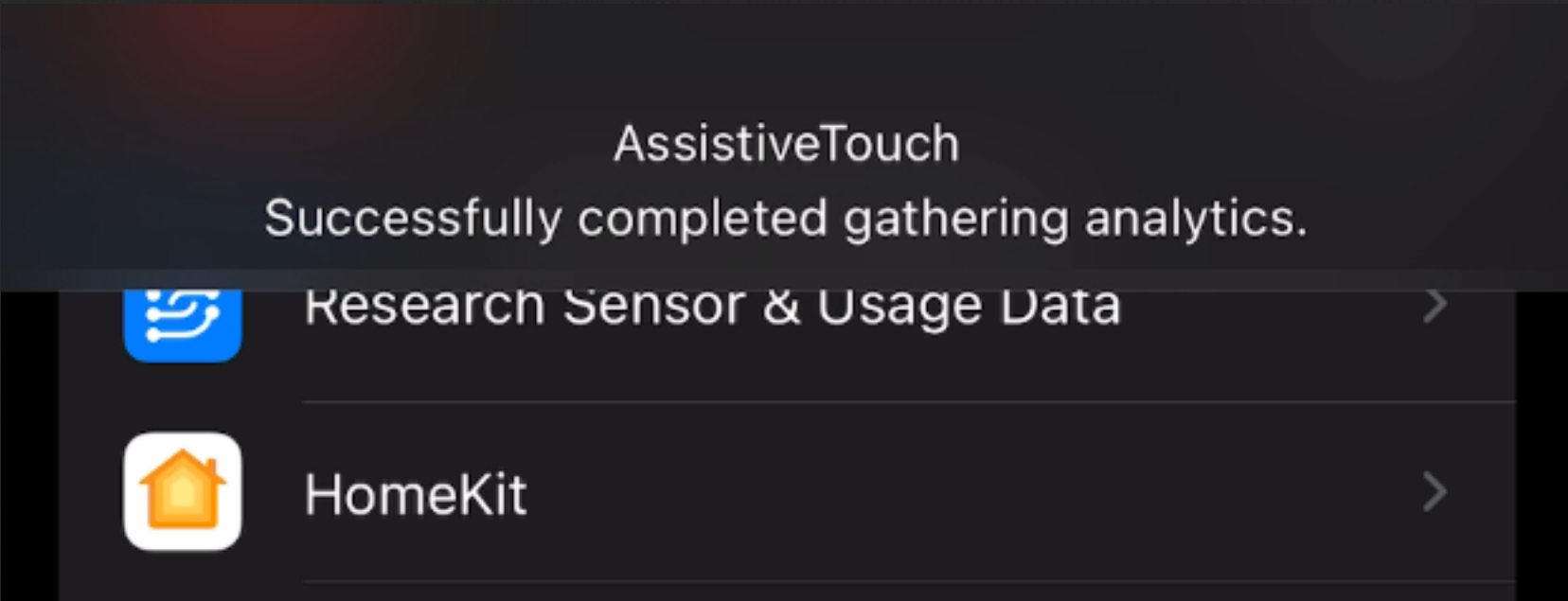
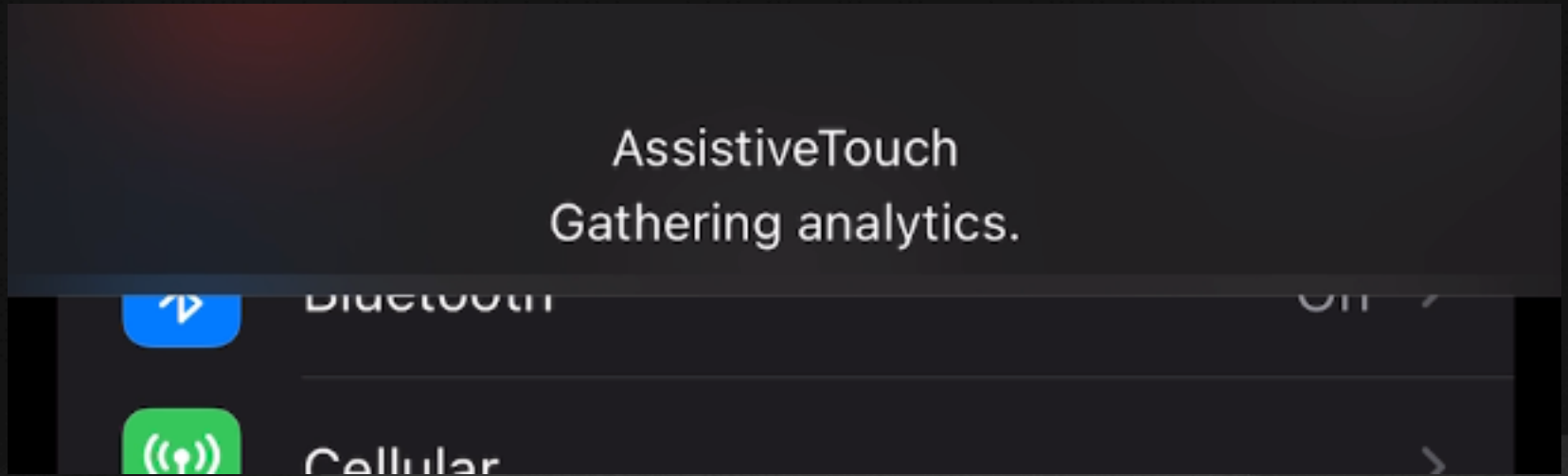
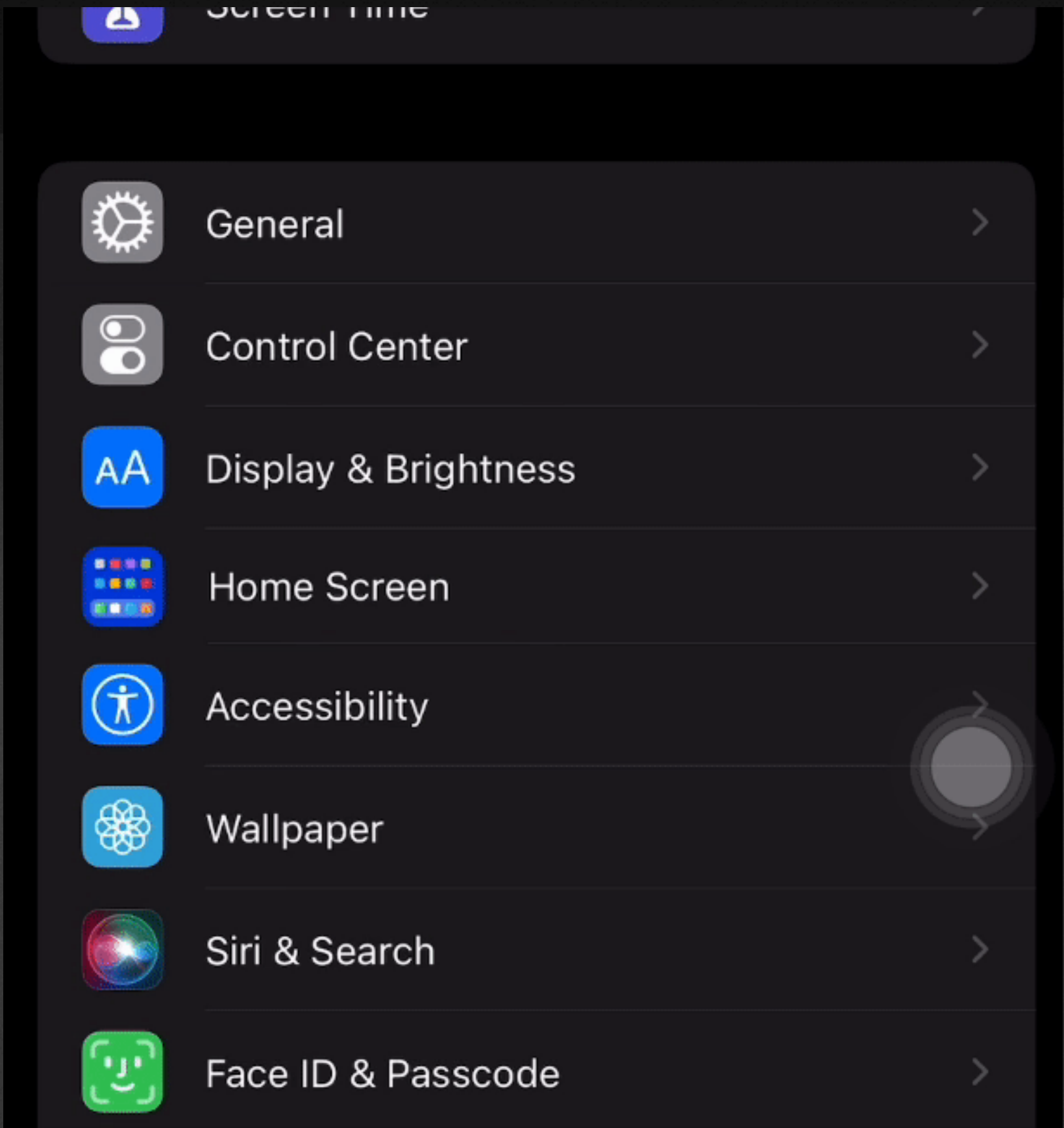
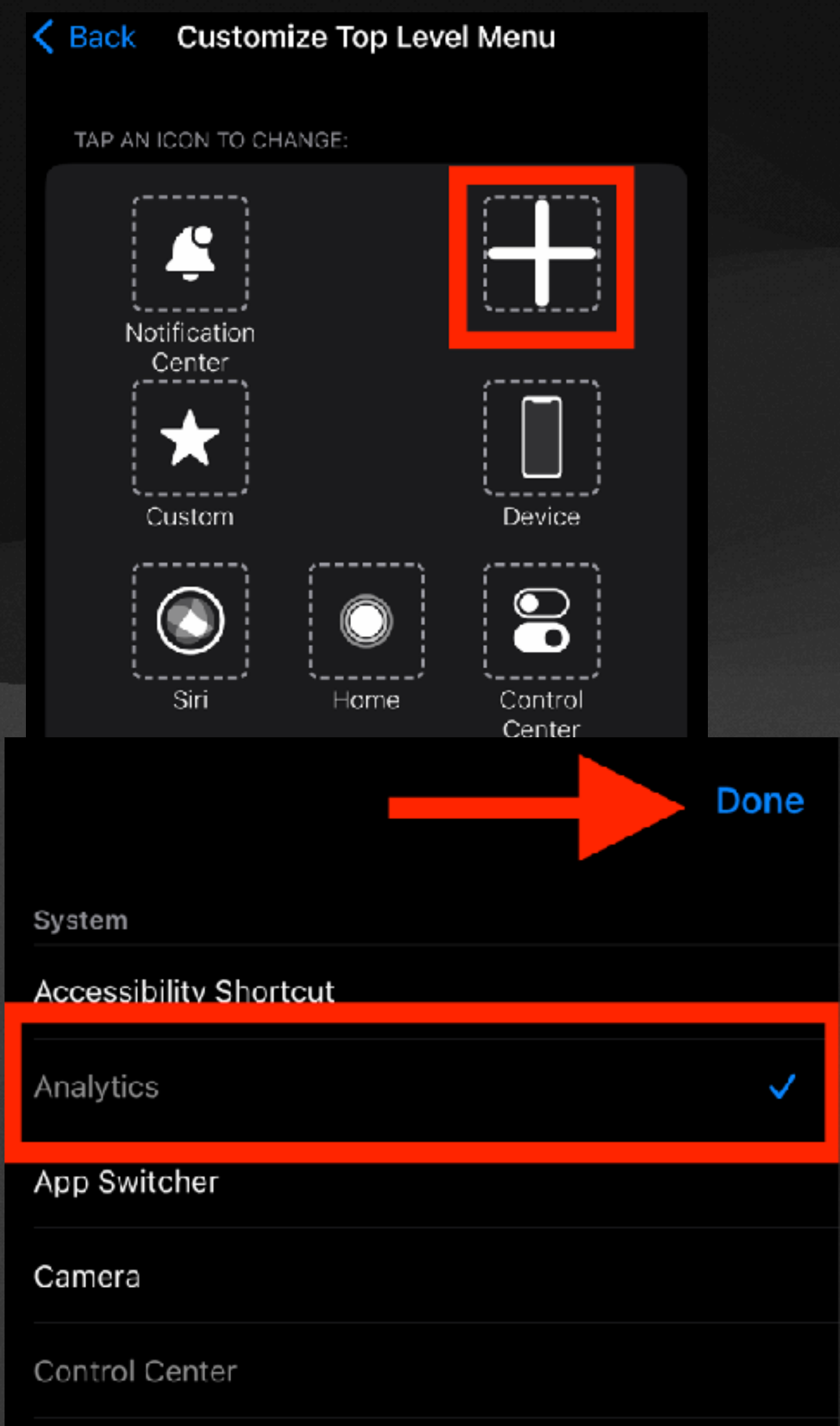
Mac SSD > Users > bryce.carlson > Downloads > DDM Update Logs Example Archive > PREsysdiagnose_2024.07.05_11-03-33-0500_macOS_MacBookPro15-2_23F79 > system_logs.logarchive

1 of 112 selected, 46.62 GB available

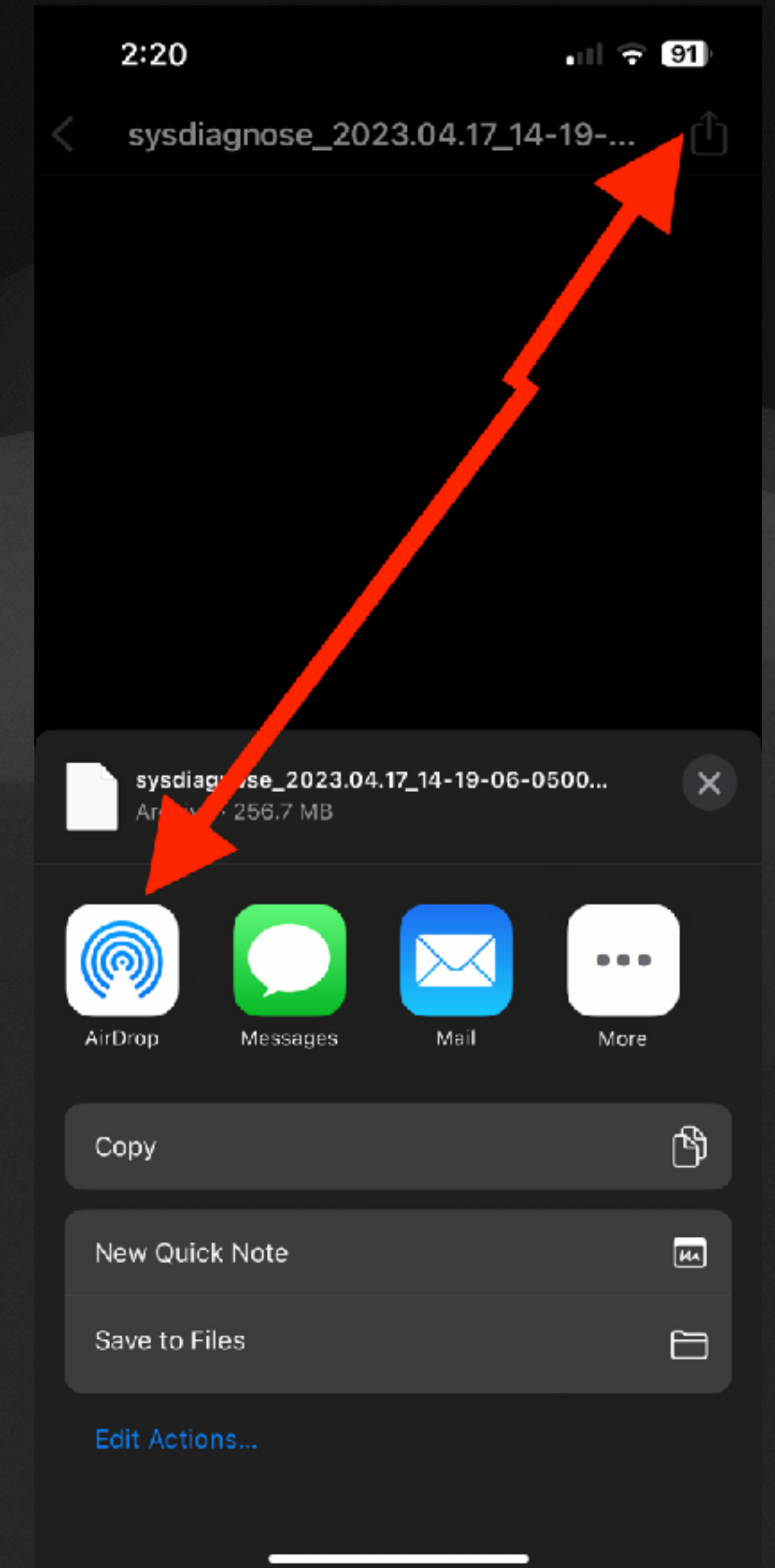
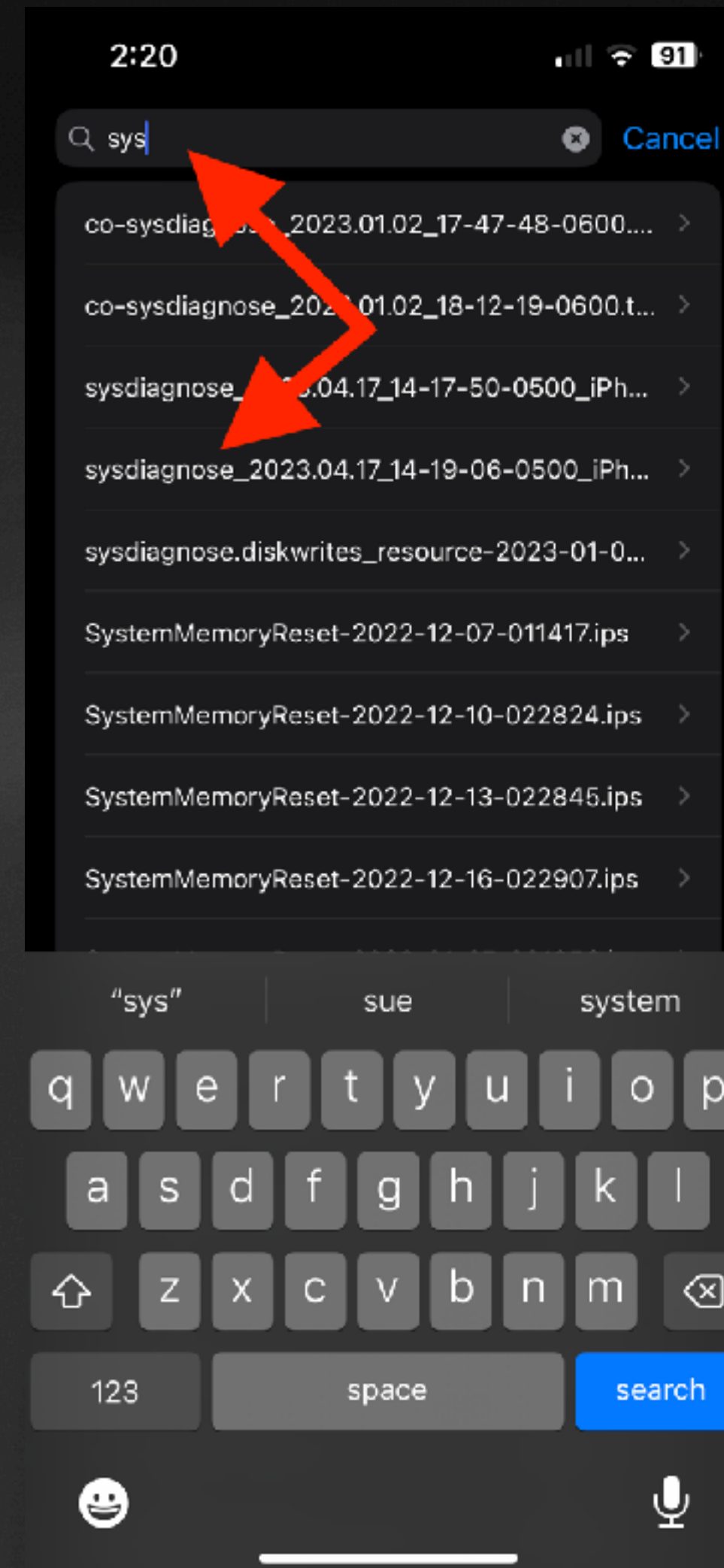
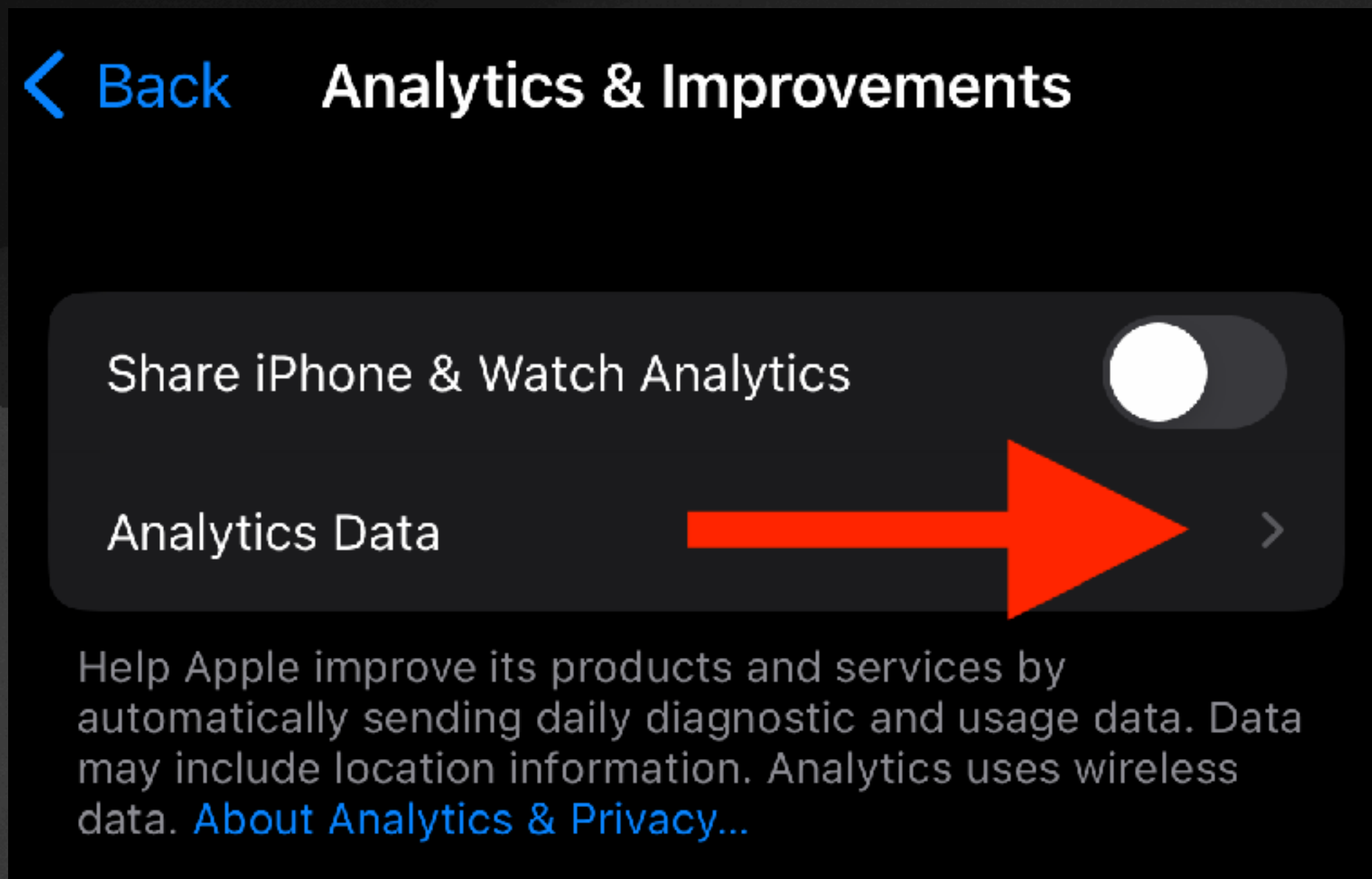
Debugging & Streaming

- sysdiagnose
 - macOS
 - Terminal
 - SHIFT + CNTRL + OPT + CMD + “.”
 - Default location `/private/var/tmp`
 - File path can be specified with `-f`
 - iOS/iPadOS
 - Press and hold both volume buttons and the side or top button on device for 1 to 1.5 seconds to start sysdiagnose.
 - When you release the buttons, iOS sysdiagnose starts, and the iPad takes a screenshot. On iPhone, but not on iPad, you feel a short vibration when sysdiagnose starts.
 - tvOS
 - Press and holding PLAY/PAUSE and VOL- for 6 seconds, release the buttons and a dialog confirmation will appear on the TV screen.

Debugging & Streaming



Debugging & Streaming



Filtering - Debugging

- Console.app
 - Process(s)
 - Time Dropdown
 - Look at Process(s) in question then peel back the filter and snap back in full logs
- `log` command line
 - Time range
 - Predicate in question

Filtering - Debugging

- `log` command line
 - Time range
 - `log show --last 1m`
 - `log show --last 1h`
 - `log show --last 1d`
 - `log show --last boot`
 - Show events from an start date
 - `log show --start '2024-07-11 13:30:00'`
 - Show events up to an end date
 - `log show --end '2024-07-11 13:30:00'`
 - Show range
 - `log show --start '2024-07-11 13:30:00' --end '2024-07-11 14:30:00'`

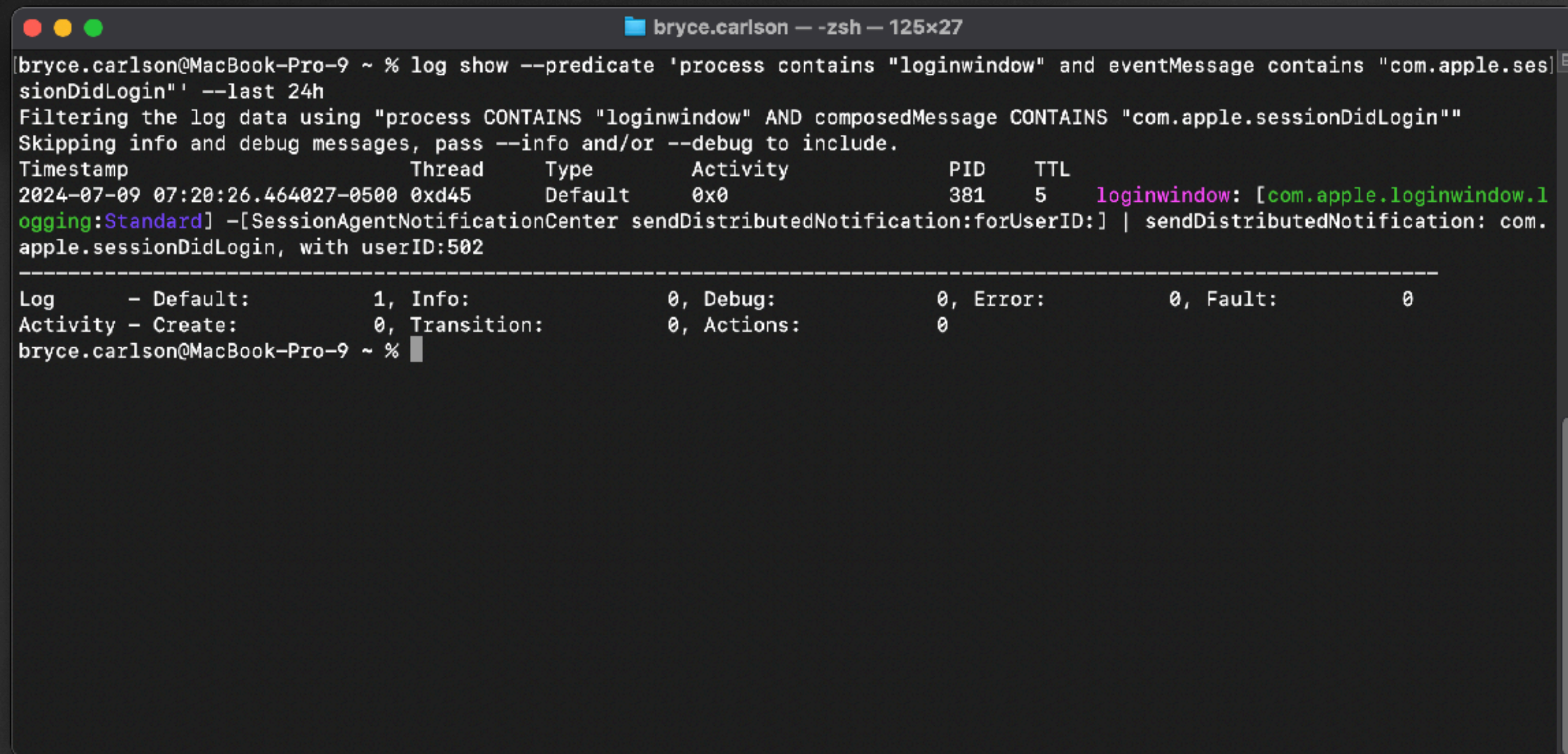


**SHOW
ME THE
MONEY!**

LOGS

Filtering - Debugging

- `log` command line
- `log show --predicate 'process contains "loginwindow" and eventMessage contains "com.apple.sessionDidLogin"' --last 24h`



```
bryce.carlson@MacBook-Pro-9 ~ % log show --predicate 'process contains "loginwindow" and eventMessage contains "com.apple.sessionDidLogin"' --last 24h
Filtering the log data using "process CONTAINS "loginwindow" AND composedMessage CONTAINS "com.apple.sessionDidLogin"
Skipping info and debug messages, pass --info and/or --debug to include.
Timestamp          Thread      Type      Activity          PID    TTL
2024-07-09 07:20:26.464027-0500 0xd45     Default    0x0               381    5    loginwindow: [com.apple.loginwindow.1
ogging:Standard] -[SessionAgentNotificationCenter sendDistributedNotification:forUserID:] | sendDistributedNotification: com.
apple.sessionDidLogin, with userID:502
-----
Log      - Default:      1, Info:      0, Debug:      0, Error:      0, Fault:      0
Activity - Create:      0, Transition: 0, Actions:    0
bryce.carlson@MacBook-Pro-9 ~ %
```


Filtering - Debugging

- `log` command line
 - `log show --predicate 'subsystem == "com.apple.sharing" and category == "AirDrop"' --info`
 - `log show --predicate 'process == "sudo" and eventMessage contains "user NOT in sudoers"'`

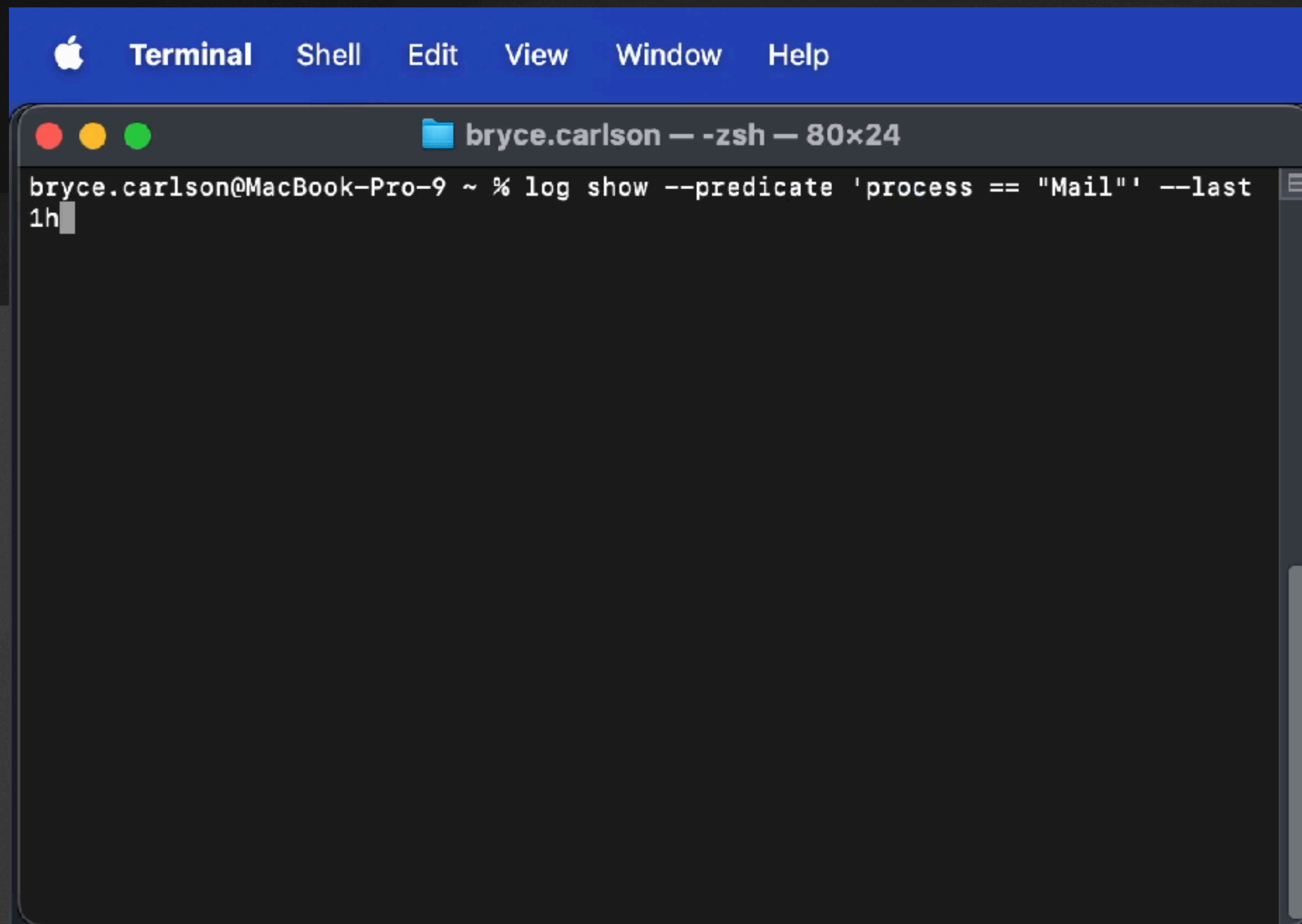
Filtering - Debugging

- `log` command line
- `log show --predicate 'process == "sudo" and eventMessage CONTAINS "TTY"'`

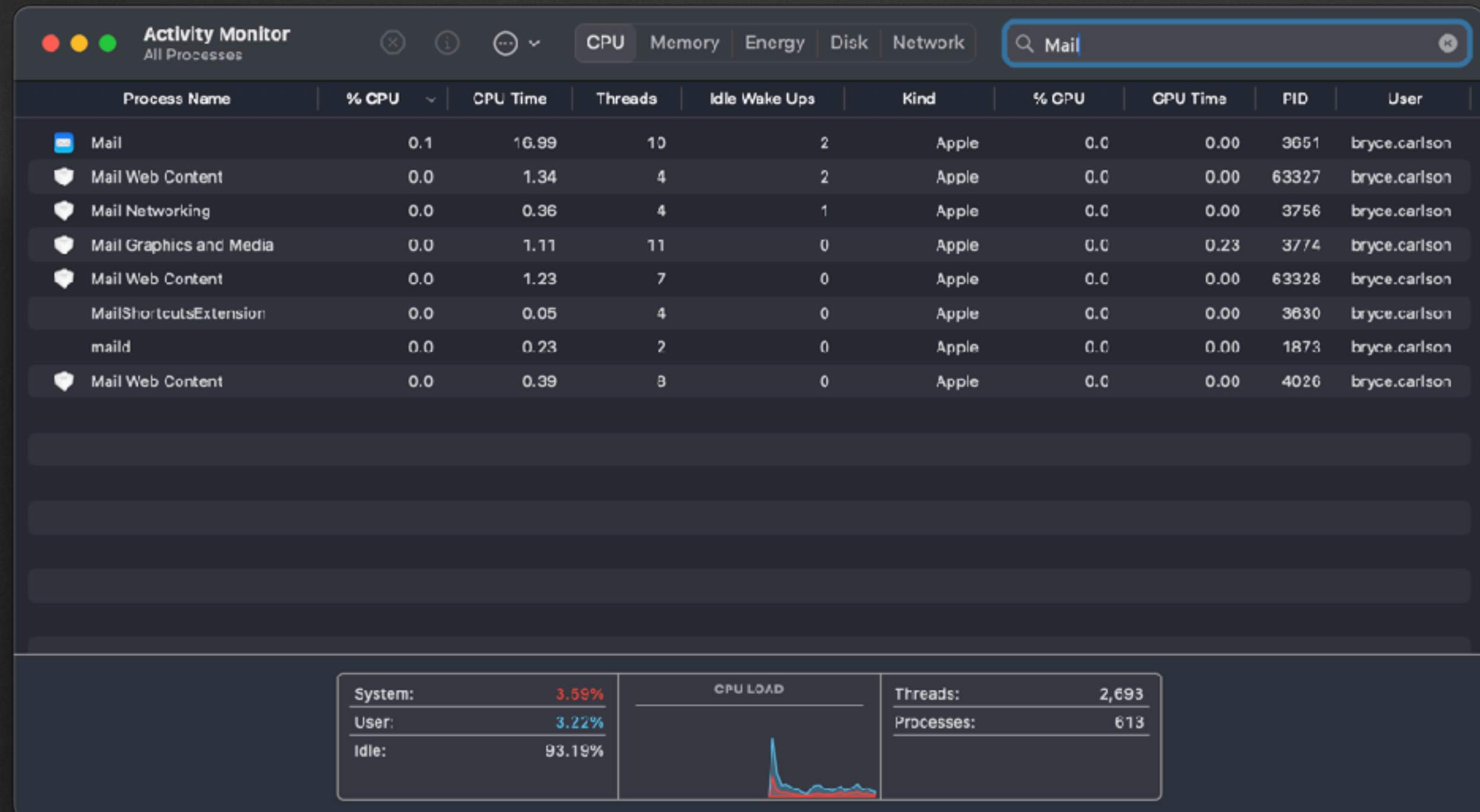
```
bryce.carlson@MacBook-Pro-9 ~ % log show --predicate 'process == "sudo" and eventMessage CONTAINS "TTY"'
Filtering the log data using "process == "sudo" AND composedMessage CONTAINS "TTY"
Skipping info and debug messages, pass --info and/or --debug to include.
Timestamp          Thread          Type          Activity          PID      TTL          sudo: bryce.carlson : TTY=ttys00
2024-07-09 10:44:41.138813-0400 0x94e7a      Default      0x0              53111    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/sysdiagnose -f /Users/bryce.carlson/Desktop
2024-07-09 10:45:14.085025-0400 0x94fa8      Default      0x0              53126    0          sudo: bryce.carlson : 1 incorrec
t password attempt ; TTY=ttys001 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/sysdiagnose -f /Users/bryce.c
arlson/Desktop
2024-07-09 10:45:26.259407-0400 0x95053      Default      0x0              53156    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/sysdiagnose -f /Users/bryce.carlson/Desktop
2024-07-09 11:16:30.012364-0400 0xb75f1      Default      0x0              89116    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --status --subsystem com.addigy.MacManage
2024-07-09 11:16:43.515795-0400 0xb7d6f      Default      0x0              89819    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --status --subsystem com.addigy.MacManage
2024-07-09 11:29:56.459524-0400 0xd1e88      Default      0x0              18584    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --mode level:debug --subsystem com.Addigy.MacManag
e
2024-07-09 11:30:53.984119-0400 0xd2356      Default      0x0              18686    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --mode level:debug --subsystem com.Addigy.MacMana
ge
2024-07-09 11:31:03.212041-0400 0xd25d9      Default      0x0              18688    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --status --subsystem com.addigy.MacManage
2024-07-09 11:33:54.580698-0400 0xd420e      Default      0x0              20541    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --status --subsystem com.addigy.MacManage
2024-07-09 11:34:11.025032-0400 0xd4789      Default      0x0              21048    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --status --subsystem com.addigy.MacManage
2024-07-09 11:34:23.750734-0400 0xd4808      Default      0x0              21051    0          sudo: bryce.carlson : TTY=ttys00
0 ; PWD=/Users/bryce.carlson ; USER=root ; COMMAND=/usr/bin/log config --status --subsystem com.addigy.MacManage
-----
Log          - Default:      11, Info:          0, Debug:          0, Error:          0, Fault:          0
Activity - Create:          0, Transition:      0, Actions:          0
bryce.carlson@MacBook-Pro-9 ~ %
```


Filtering - Debugging

- `log` command line
 - `log show --predicate 'process == "Mail"' --last 24h`

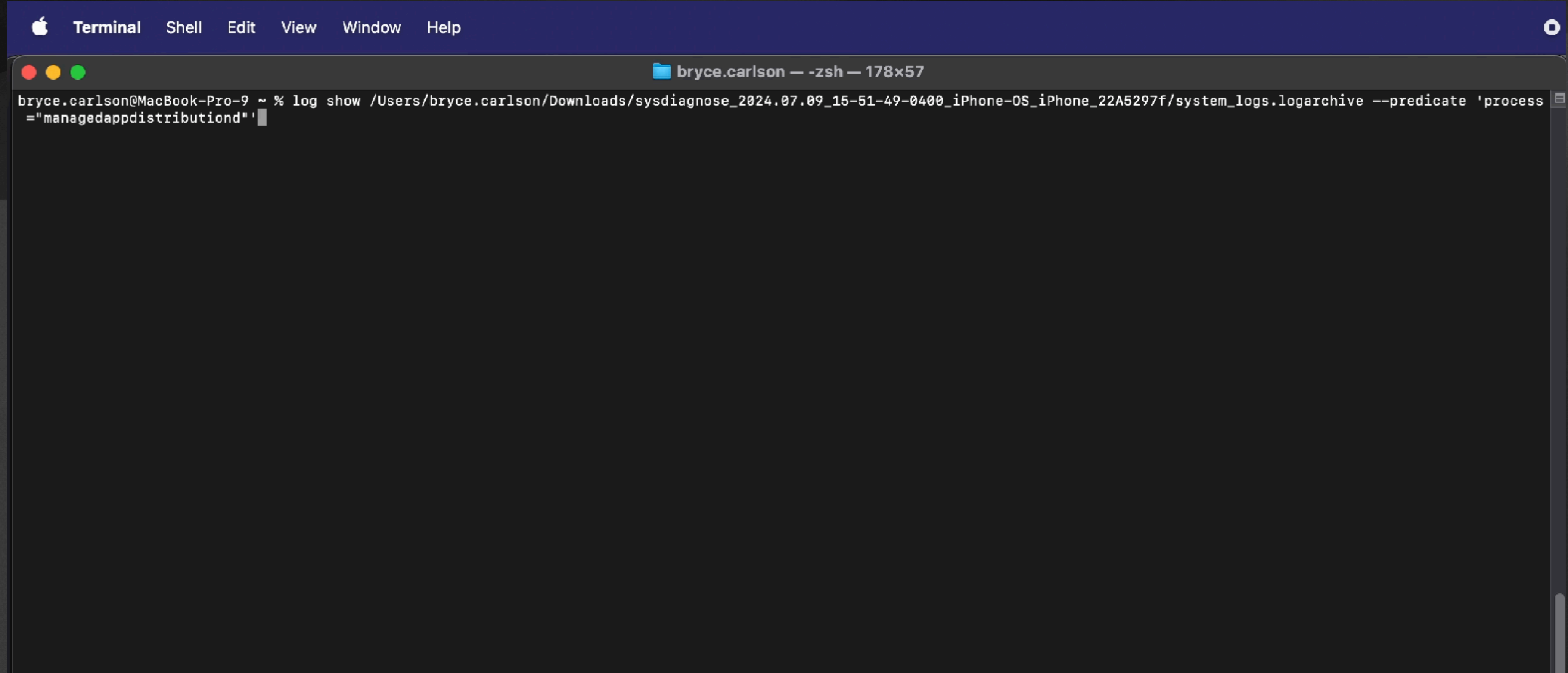


A screenshot of a macOS Terminal window. The title bar is blue with the Apple logo and menu items: Terminal, Shell, Edit, View, Window, Help. The window title is "bryce.carlson — -zsh — 80x24". The terminal text shows the command `bryce.carlson@MacBook-Pro-9 ~ % log show --predicate 'process == "Mail"' --last 1h` being entered. The cursor is at the end of the command.



Filtering - Debugging

- `log` command line
- `log show /Users/bryce.carlson/Downloads/sysdiagnose_2024.07.09_15-51-49-0400_iPhone-OS_iPhone_22A5297f/system_logs.logarchive --predicate 'process = "managedappdistributiond"'`



A screenshot of a macOS Terminal window. The title bar is dark blue with the Apple logo, 'Terminal', and menu items 'Shell', 'Edit', 'View', 'Window', and 'Help'. Below the title bar, the window title is 'bryce.carlson — -zsh — 178x57'. The terminal content shows the command: `bryce.carlson@MacBook-Pro-9 ~ % log show /Users/bryce.carlson/Downloads/sysdiagnose_2024.07.09_15-51-49-0400_iPhone-OS_iPhone_22A5297f/system_logs.logarchive --predicate 'process = "managedappdistributiond"'`. The cursor is at the end of the command line.



Terminal

Shell

Edit

View

Window

Help



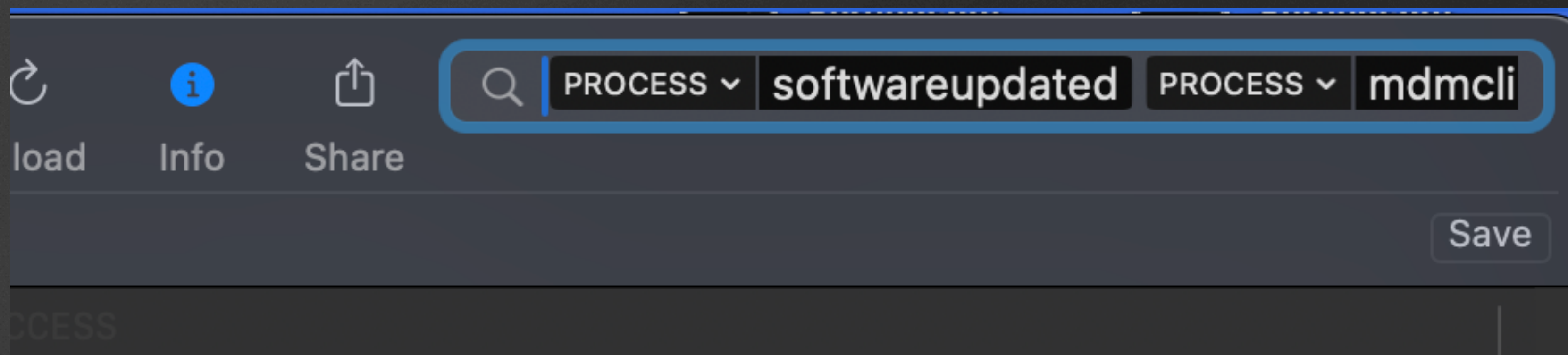
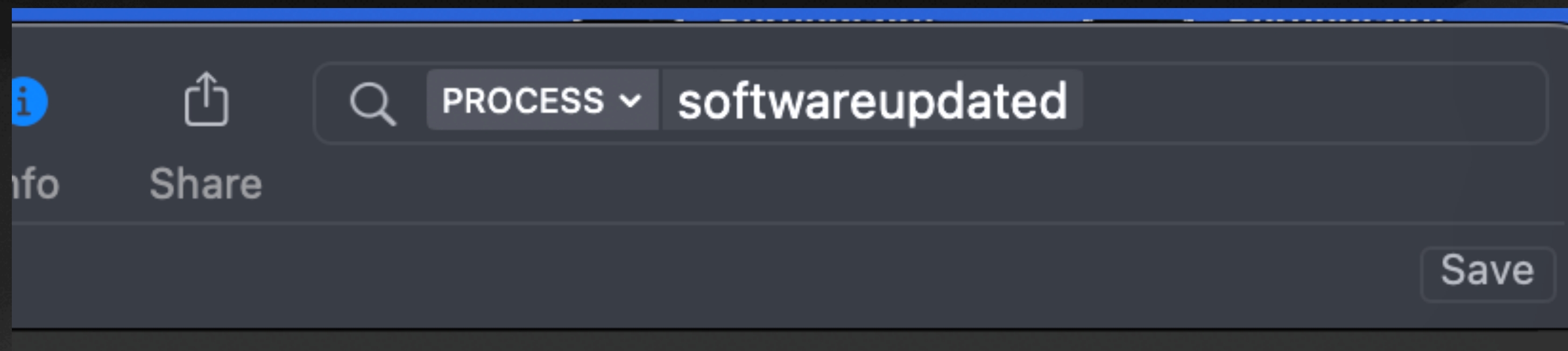
bryce.carlson — zsh — 178x57

```
bryce.carlson@MacBook-Pro-9 ~ % log show /Users/bryce.carlson/Downloads/sysdiagnose_2024.07.09_15-51-49-0400_iPhone-OS_iPhone_22A5297f/system_logs.logarchive --predicate 'process  
="managedappdistributiond"'
```


Filtering - Streaming

- Console.app
- Process(s)
- `log` command line
- Predicate in question

Filtering - Streaming



Filtering - Streaming

system_logs.logarchive

272 messages

Reveal

Activities

Clear

Reload

Info

Share

ANY

softwareupdated

All Messages

Errors and Faults

Save

Type	Date & Time	Process	Message
	2024-07-09 11:20:11.495367-I	mobileassetd	-[ControlManager purgeAllAssetsInDirectory:clientName:exceptForAssetIds:]: {purgeAllAssetsInDirectory} softwareupdateservicesd requested purge of 0 assets assetTypeDirectory:file:///private
	2024-07-09 11:20:11.495731-I	mobileassetd	-[ControlManager purgeAllAssetsInDirectory:clientName:exceptForAssetIds:]: {purgeAllAssetsInDirectory} softwareupdateservicesd requested purge of 0 assets assetTypeDirectory:file:///private
	2024-07-09 11:20:11.495933-I	mobileassetd	-[ControlManager purgeAll:and:assetTypesList:clientName:]_block_invoke_2: {purgeAll} softwareupdateservicesd requested purge-all has finished successfully asset-types:2 ("com.apple.Mc
	2024-07-09 11:20:11.654023-I	softwareupdateservicesd	[DDM] -[SUDDMManager resumeOrResetStateIfNecessary]_block_invoke: _ddmConfiguration persistence path: /private/var/containers/Data/System/6136AD60-FB3F-4B38-B040-0356FCD83C3A/Library/Softwa
	2024-07-09 11:20:11.654114-I	softwareupdateservicesd	[PERSISTED_STATE] loading persisted state with summary: persistencePath:/private/var/containers/Data/System/6136AD60-FB3F-4B38-B040-0356FCD83C3A/Library/SoftwareUpdate/SoftwareUpdateDDMState
	2024-07-09 11:20:11.654849-I	softwareupdateservicesd	[PERSISTED_STATE] persisting the state [>>> persistencePath: /private/var/containers/Data/System/6136AD60-FB3F-4B38-B040-0356FCD83C3A/Library/SoftwareUpdate/SoftwareUpdateDDMStatePersi
	2024-07-09 11:26:20.045752-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]
	2024-07-09 11:26:20.048681-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] is not RunningBoard jetsam managed.
	2024-07-09 11:26:20.048697-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] This process will not be managed.
	2024-07-09 14:30:26.508459-I	Setup	Client "com.apple.purplebuddy" called -[SUManagerClient getMandatorySoftwareUpdateDictionary:]
	2024-07-09 14:30:26.518820-I	softwareupdateservicesd	client com.apple.purplebuddy called -[SUManagerServer getMandatorySoftwareUpdateDictionary:]_block_invoke
	2024-07-09 14:31:11.915860-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]
	2024-07-09 14:31:11.918170-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] is not RunningBoard jetsam managed.
	2024-07-09 14:31:11.918188-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] This process will not be managed.
	2024-07-09 14:36:29.928296-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]
	2024-07-09 14:36:29.931008-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] is not RunningBoard jetsam managed.
	2024-07-09 14:36:29.931025-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] This process will not be managed.
	2024-07-09 14:41:17.525285-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]
	2024-07-09 14:41:17.526798-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] is not RunningBoard jetsam managed.
	2024-07-09 14:41:17.526806-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] This process will not be managed.
	2024-07-09 14:46:40.537813-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]
	2024-07-09 14:46:40.539694-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] is not RunningBoard jetsam managed.
	2024-07-09 14:46:40.539709-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] This process will not be managed.
	2024-07-09 14:51:12.464951-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]
	2024-07-09 14:51:12.467294-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] is not RunningBoard jetsam managed.
	2024-07-09 14:51:12.467320-I	runningboardd	[oservice<com.apple.mobile.softwareupdated>:58] This process will not be managed.
	2024-07-09 14:56:41.822033-I	runningboardd	Resolved pid 58 to [oservice<com.apple.mobile.softwareupdated>:58]

Showing:

All Messages

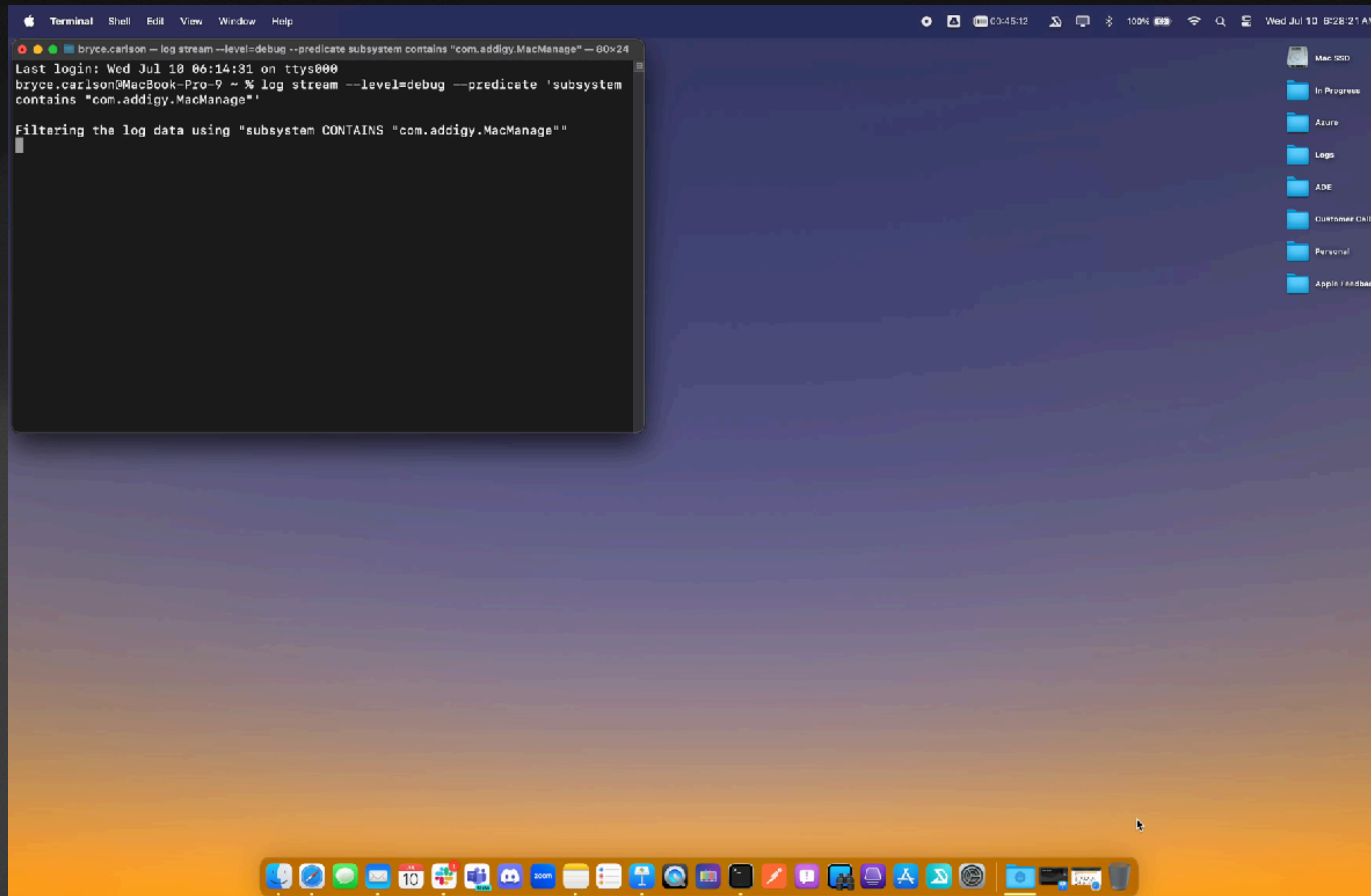
--

Subsystem: -- Category: -- Details

Filtering - Streaming

- `log` command line
 - `log stream --level=debug --predicate 'subsystem contains \"com.addigy.MacManage\"'`

Filtering - Streaming



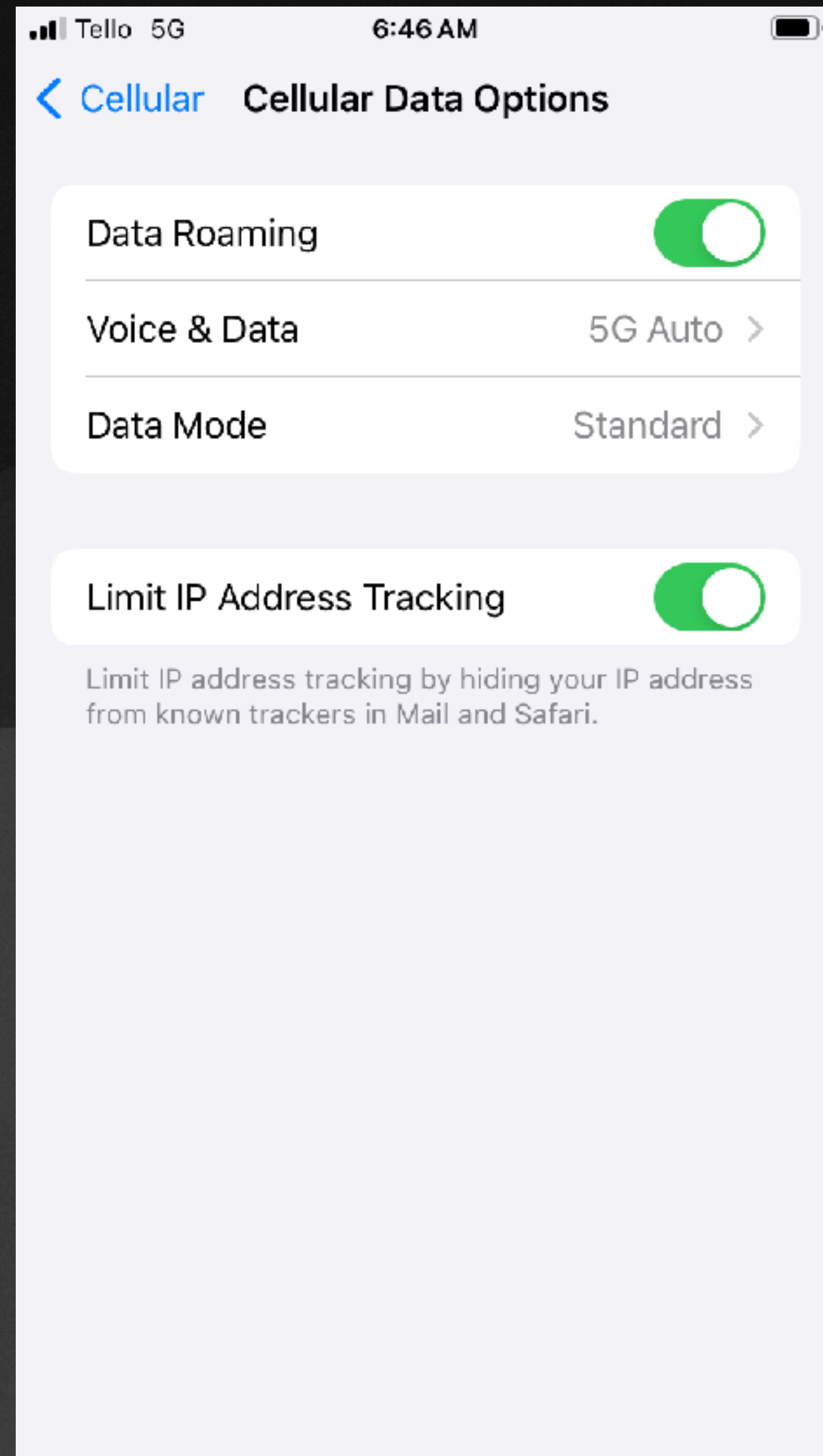
Filtering

What	macOS	iOS/iPadOS/tvOS
Apple Push Notification Service (APNs)	process: apsd	process: apsd
Content caching	subsystem: com.apple.AssetCache	N/A
OS Installer and Software Update	process: softwareupdated	process: softwareupdated
MDM/ADE	process: mdmclient com.apple.ManagedClient	process: mdmd process: profiled
Network	subsystem: com.apple.network	process: wifid process: AssetCacheLocatorService subsystem: com.apple.network
User login	process: loginwindow com.apple.login	N/A
VPP Apps	process: mdmclient com.apple.ManagedClient process: appstored	process: managedappdistributiond process: appstored

Real world examples

- iOS Cellular Investigation
- Single Sign-On (SSO) Extension
- 3rd party Apps - TempAdmin

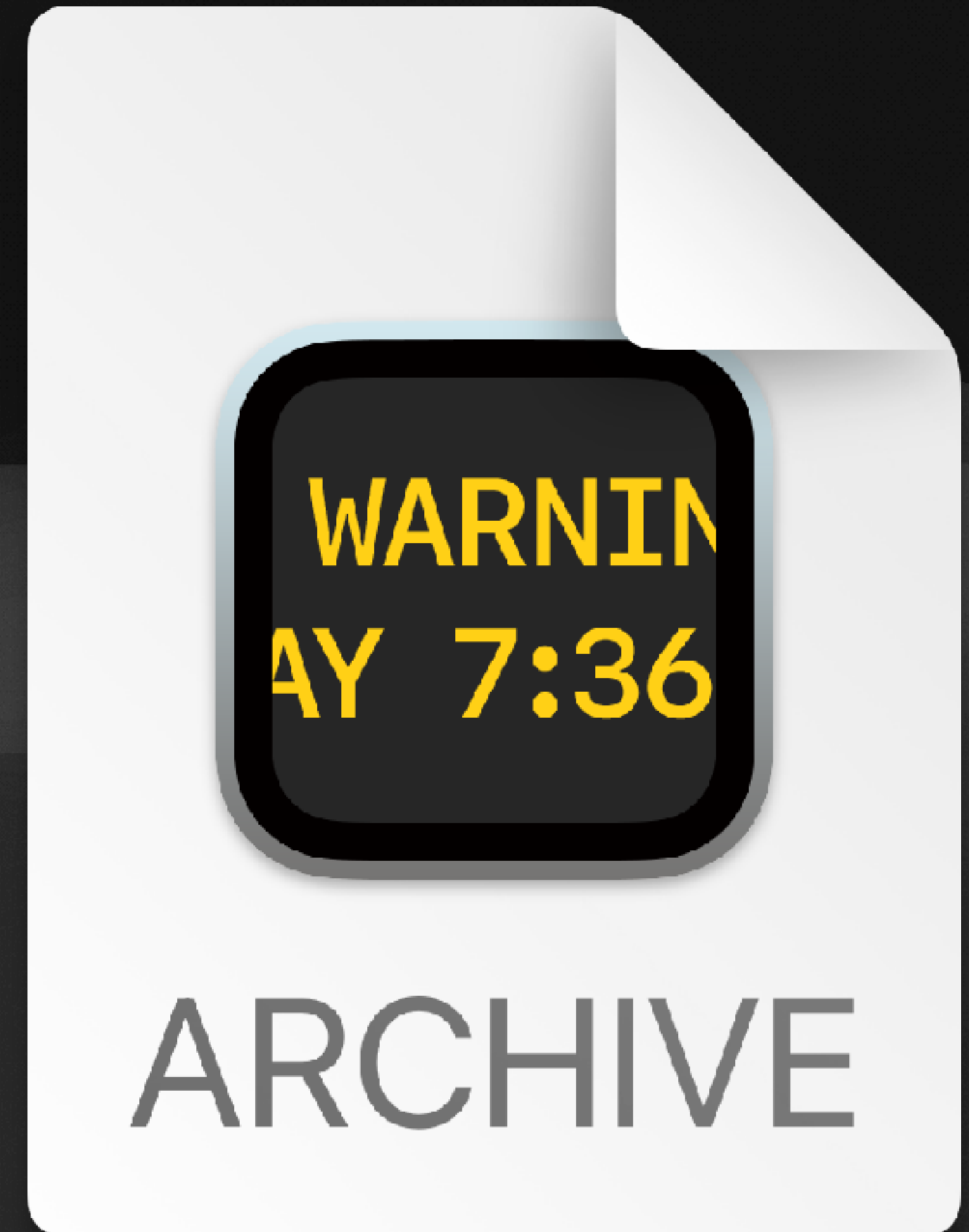
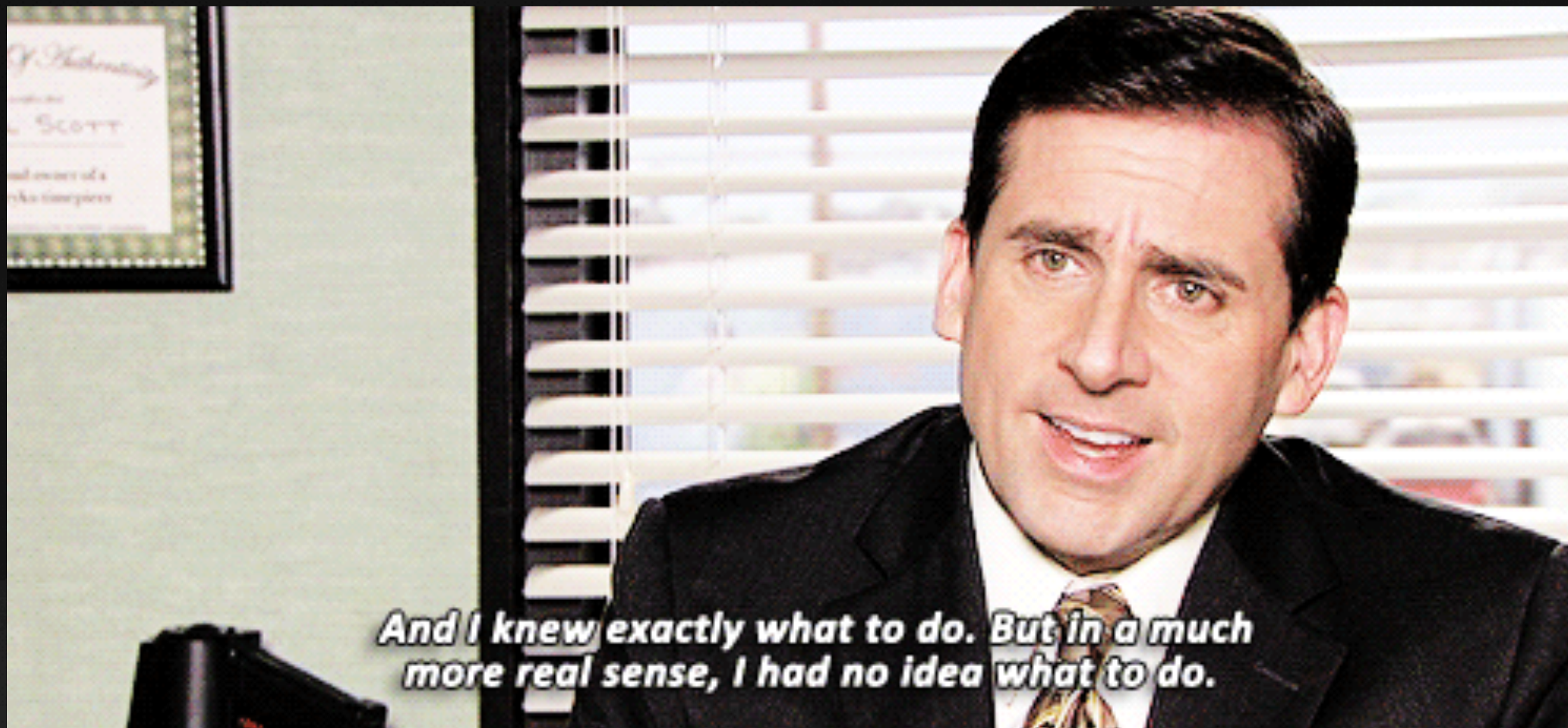
iOS Cellular - *example*



iOS Cellular - *example*



iOS Cellular - *example*



ios Cellular - *example*

system_logs.logarchive

1,390 messages

Reveal

Activities

Clear

Reload

Info

Share

PROCESS

softwareupdated

All Messages

Errors and Faults

Save

Type	Date & Time	Process	Message
	2024-03-20 06:21:43.998889-I	softwareupdated	16d3ef000 : free space required is 5303303372 (5057 MB)
	2024-03-20 06:21:43.998960-I	softwareupdated	16d3ef000 : get_nonsnapshot_apply_and_reserve_sizes(): 300 MB UPDATE_PARTITION_SIZE * 2 25 MB UPDATE_APFS_RESERVE 640 MB systemPartitionPadding = get_system_partition_padding(
	2024-03-20 06:21:43.998974-I	softwareupdated	16d3ef000 : Also returning snapshot apply size
	2024-03-20 06:21:43.998989-I	softwareupdated	16d3ef000 : Sealing requires 213 MiB overhead
	2024-03-20 06:21:43.999003-I	softwareupdated	16d3ef000 : Use of APFSIOC_GET_PREALLOCATE_MIN_SPACE is not expressly disallowed by asset attributes
	2024-03-20 06:21:43.999016-I	softwareupdated	16d3ef000 : 213 MB reserve file will be needed (snapshot)
	2024-03-20 06:21:43.999061-I	softwareupdated	16d3ef000 : open("/private/var/MobileSoftwareUpdate/.reserved") failed: (Permission denied)
	2024-03-20 06:21:43.999074-I	softwareupdated	16d3ef000 : snapshot application size : 564133888 (538 MB)
	2024-03-20 06:21:43.999105-I	softwareupdated	16d3ef000 : get_snapshot_apply_and_reserve_sizes(): 325 MB 2*UPDATE_PARTITION_SIZE + UPDATE_APFS_RESERVE + 213 MB update_attributes["SystemVolumeSealingOverhead"] ----- 538 MB
	2024-03-20 06:21:50.584436-I	softwareupdated	16d363000 : Using OS prepare calculation because MSUBrain is not loaded
	2024-03-20 06:21:50.584738-I	softwareupdated	16d363000 : Returning non-snapshot preparation size
	2024-03-20 06:21:50.585045-I	softwareupdated	16d363000 : nonsnapshot preparation size : 197685248 (188 MB)
	2024-03-20 06:21:50.585093-I	softwareupdated	16d363000 : get_nonsnapshot_preparation_size(): + 188 MB update_attributes["InstallationSize"] (string) ----- 188 MB
	2024-03-20 06:21:50.585108-I	softwareupdated	16d363000 : Also returning snapshot prepare size
	2024-03-20 06:21:50.585244-I	softwareupdated	16d363000 : cryptex size requirement: 4245474508 (4048 MB)
	2024-03-20 06:21:50.585278-I	softwareupdated	16d363000 : cryptex_size_requirement_for_update_type(msu_update_type_snapshot): 4036 MB update_attributes["CryptexSizeInfo"][0(cryptex-system-arm64e)]["CryptexSize"] * 1.2 + 12 MB updat
	2024-03-20 06:21:50.585294-I	softwareupdated	16d363000 : snapshot preparation size (mastered) : 6851147523 (6533 MB)
	2024-03-20 06:21:50.585321-I	softwareupdated	16d363000 : get_snapshot_preparation_size(): 2484 MB update_attributes["InstallationSize-Snapshot"] (string) + 4048 MB cryptex_size_requirement_for_update_type(msu_update_type_snapshot) -
	2024-03-20 06:21:50.585772-I	softwareupdated	16d363000 : Using OS apply calculation because MSLBrain is not loaded
	2024-03-20 06:21:50.585822-I	softwareupdated	16d363000 : Returning non-snapshot apply size
	2024-03-20 06:21:50.586569-I	softwareupdated	16d363000 : cryptex size requirement: 4349283532 (4147 MB)
	2024-03-20 06:21:50.586620-I	softwareupdated	16d363000 : cryptex_size_requirement_for_update_type(msu_update_type_legacy): 4036 MB update_attributes["CryptexSizeInfo"][0(cryptex-system-arm64e)]["CryptexSize"] * 1.2 66 MB update_
	2024-03-20 06:21:50.586663-I	softwareupdated	16d363000 : Sealing requires 213 MiB overhead
	2024-03-20 06:21:50.586682-I	softwareupdated	16d363000 : Minimum system partition is 6009389056 (5731 MB)
	2024-03-20 06:21:50.586693-I	softwareupdated	16d363000 : System partition padding is 671088640 (640 MB)
	2024-03-20 06:21:50.586704-I	softwareupdated	16d363000 : System partition firmware is 126877696 (121 MB)
	2024-03-20 06:21:50.589353-I	softwareupdated	16d363000 : APFS system volume is using 5980213248 (5703 MB)

Showing:

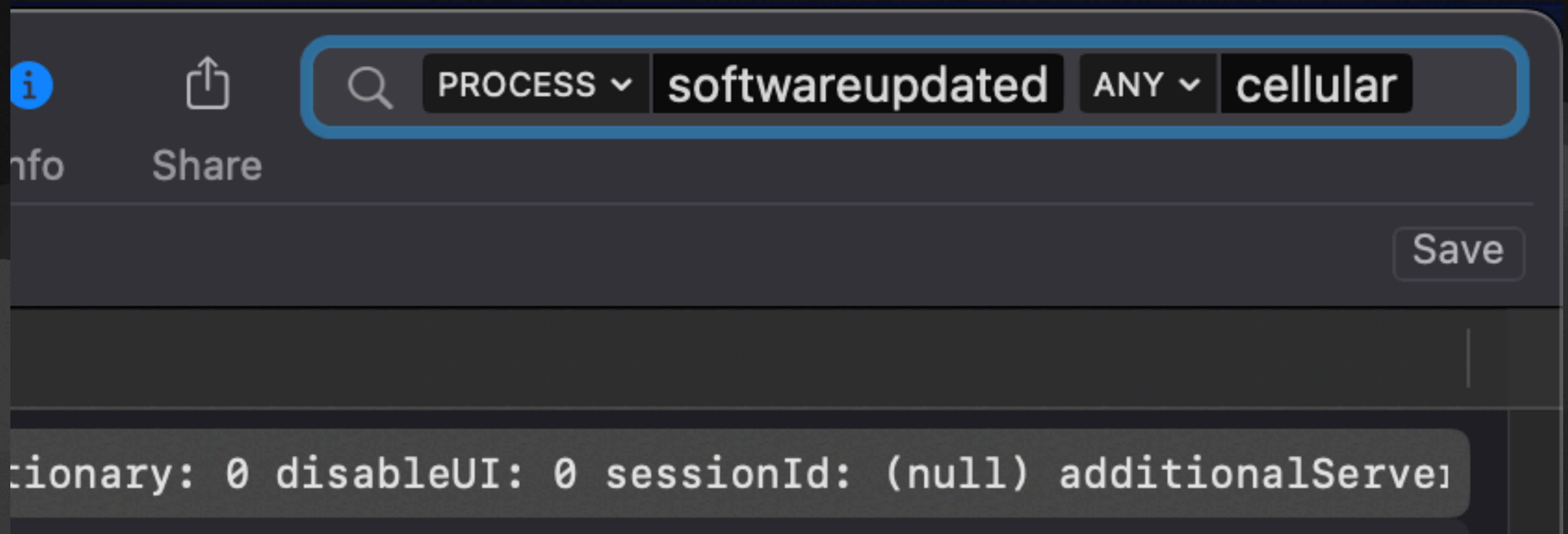
All Messages

--

Subsystem: -- Category: -- [Details](#)

--

iOS Cellular - *example*



iOS Cellular - *example*

```
info      2024-03-20 06:23:50.959250 -0500
softwareupdated 16d363000 : Caller has passed in
downloadOptions: MADownloadOptions allowsCellular: 1
resourceTimeout: -1 canUseCacheServer: 0 discretionary: 0
disableUI: 0 sessionId: (null) additionalServerParams: { }
allowsExpensiveAccess: 1 requiresPowerPluggedIn: 0
prefersInfraWiFi: 1 liveServerOnly: 0
DownloadAuthorizationHeader: not present analyticsData: not
present allowDaemonConnectionRetries: 1 +
MAMsuDownloadOptions reqProdVersion: 17.3.1 delayPeriod: 0
managedDevice: 1 allowSameVersion: 0 prereqBuild: (null)
prereqVersion: (null) prereqReleaseType: (default)
liveAssetAudienceUUID: (null) purpose: (null)
```


iOS Cellular - example

system_logs.logarchive
2,118,865 messages

RevealActivitiesClearReloadInfoShare

Search

All MessagesErrors and Faults

Type	Date & Time	Process	Message
	2024-03-20 06:23:47.777877-04	trustd	[0xd2481a1a0] activating connection: mach=true listener=false peer=true name=com.apple.trustd.peer.0xd2481a1a0
	2024-03-20 06:23:49.999115-04	mobileassetd	cleaning up unpooled xpc conn to trustd 0x904a99860
	2024-03-20 06:23:49.999120-04	mobileassetd	[0x904a99860] invalidated on xpc_connection_cancel()
	2024-03-20 06:23:49.999205-04	mobileassetd	got event: Connection invalid
	2024-03-20 06:23:49.999219-04	trustd	[0xd2481a1a0] invalidated after getting a no-senders notification - client is gone
	2024-03-20 06:23:50.999619-04	mobileassetd	MessageSecurity and Security frameworks have different signed attributes results, returning Security result. sec: { kSecCMSEExpirationDate = "2009-10-08 18:30:00 +0000"; kSecCMSAllCe
	2024-03-20 06:23:50.999641-04	mobileassetd	+[[PallasResponseVerifier verifyReceipt:withSignature:]: MobileAsset verifyReceipt error: 101
	2024-03-20 06:23:50.999665-04	mobileassetd	-[DownloadManager applyTransformsAndCheckReceipts:transformations:assetType:assets:receiptResults:]: Asset passed receipt validation
	2024-03-20 06:23:50.999706-04	mobileassetd	-[DownloadManager applyTransformsAndCheckReceipts:transformations:assetType:assets:receiptResults:]: MobileAsset receipt results: Total: 2 With Receipt: 2 Valid: 2 Valid But Expired: 2
	2024-03-20 06:23:50.000003-04	mobileassetd	-[DownloadManager massageXmlAndPersist:catalogInfo:descriptor:assets:transformations:to:postedDate:receiptResults:assetSetId:pallasUrl:considerCaching:]: assetType: com.apple.MobileAsset.So
	2024-03-20 06:23:50.000701-04	mobileassetd	-[DownloadManager massageXmlAndPersist:catalogInfo:descriptor:assets:transformations:to:postedDate:receiptResults:assetSetId:pallasUrl:considerCaching:]: assetType: com.apple.MobileAsset.So
	2024-03-20 06:23:50.000925-04	mobileassetd	_MobileAssetCreateDirectoryWorldWriteable: Directory at /private/var/MobileAsset/AssetsV2/downloadDir already exists, updating attributes
	2024-03-20 06:23:50.001322-04	mobileassetd	_MobileAssetCreateDirectoryWorldWriteable: Directory at /private/var/MobileSoftwareUpdate/MobileAsset/AssetsV2/downloadDir already exists, updating attributes
	2024-03-20 06:23:50.001950-04	mobileassetd	-[DownloadManager registerCatalogDownloadJob:withPurpose:usingDownloadOptions:usingXPCConnection:withXPCMessage:performingAutoAssetJob:asClientName:]_block_invoke_2: Pallas call succeeded or
	2024-03-20 06:23:50.001955-04	mobileassetd	-[DownloadManager pallasRequestV2:normlizedIvpe:withPurpose:options:using:with:autoAssetJob:clientName:then:]_block_invoke: Check solunk for com.apple.MobileAsset.SoftwareUpdate status code

Showing: All Messages

mobileassetd (libmobileassetd.dylib)

Subsystem: com.apple.mobileassetd Category: Notice Details2024-03-20 06:23:50.000003-0500

```
-[DownloadManager massageXmlAndPersist:catalogInfo:descriptor:assets:transformations:to:postedDate:receiptResults:assetSetId:pallasUrl:considerCaching:]: assetType: com.apple.MobileAsset.SoftwareUpdate asset: {
  ActualMinimumSystemPartition = 6021;
  AssetType = "com.apple.MobileAsset.SoftwareUpdate";
  Build = 21D61;
  CryptexSizeInfo = (
    {
      CryptexSize = 3244;
      CryptexTag = "cryptex-system-arm64e";
    },
    {
      CryptexSize = 10;
      CryptexTag = "cryptex-app";
    }
  );
  EAPFSEnabled = 1;
  GranularRampingLogic = (
    {
      BgPct = 100;
      FgPct = 0;
      Hour = 0;
    },
    {
      BgPct = 80;
      FgPct = 0;
    }
  );
}
```


iOS Cellular - *example*

Tello 5G 6:41 AM

< Cellular System Services

Software Updates	181 MB
Corporate Accounts	302 KB
Apple Advertising	64.2 KB
Push Notifications	41.8 KB
Voicemail	38.1 KB
Cellular Services	33.5 KB
Apple ID Services	19.0 KB
Screen Time	14.3 KB
DNS Services	4.98 KB
Networking	1.11 KB

Tello 5G 6:41 AM

< General Software Update

Automatic Updates Off >

Your organization has decided to update your device to iOS 17.3.1 (21D61). You can choose to update now or it will update automatically on 2/13/24, 12:00 AM.



iOS 17.3.1
Apple Inc.
About 27 seconds remaining

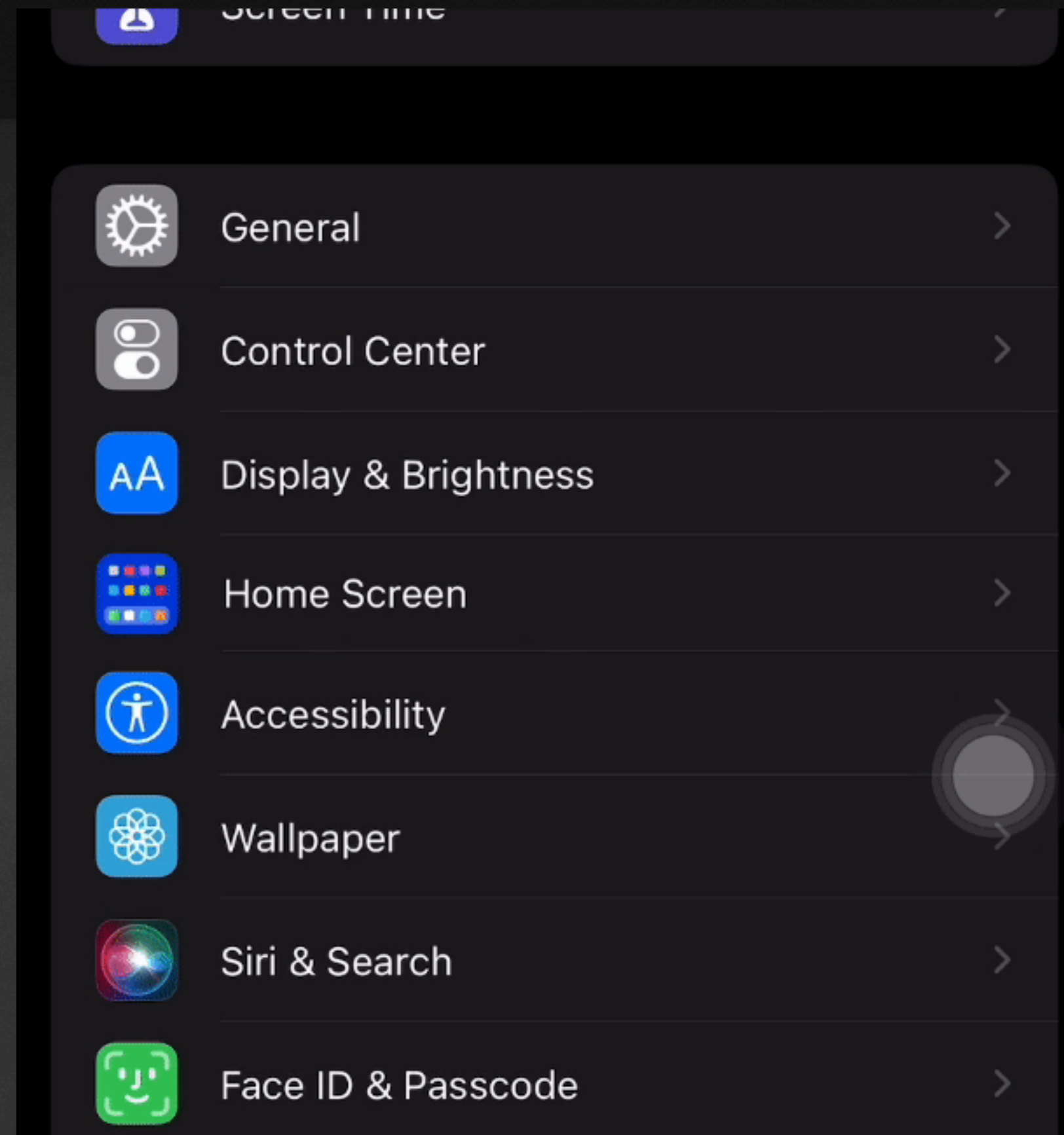
This update provides bug fixes for your iPhone including:

- Text may unexpectedly duplicate or overlap while typing

Download in Progress ↓

iPhone has started downloading an update automatically. Once completed, iPhone will attempt to install the update later when iPhone is locked and the

iOS Cellular - *example*



Type	Data & Time	Process	Message
	2024-03-20 14:49:05.458940+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:06.436369+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:06.437093+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:07.458204+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:07.458805+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:08.410325+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:08.411011+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:09.458165+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:09.458878+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:10.440562+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:10.441299+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:11.460669+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:11.461278+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:11.490324+I	mobileassetd	-[DownloadManager registerAssetDownloadJob:withPurpose:usingDownloadOptions:forAssetId:withBase:relativeTo:startingAt:withLength:extractWith:allocateExtractorIfNecessary:usingXPCCConnection:v
	2024-03-20 14:49:11.490554+I	mobileassetd	-[DownloadInfo determineDownloadUrl:callback:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_CoreSuggestions.955b7ebcb6693fea61a8e0404c834be4ccb0ff3 . task: (null) taskState: nil stati
	2024-03-20 14:49:11.491353+I	mobileassetd	-[MADownloadOptions logOptions]: The download options are MADownloadOptions allowsCellular: 0 resourceTimeout: 5382 canUseCacheServer: 0 discretionary: 1 disableUI: 0 sessionId: (null) addit
	2024-03-20 14:49:11.494544+I	mobileassetd	-[DownloadManager startDownloadAndUpdateState:for:startingAt:withLength:extractWith:modified:options:downloadSize:using:with:clientName:autoAssetJob:ofJobType:notify:]_block_invoke_3: The b
	2024-03-20 14:49:12.476020+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:12.476720+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:13.465596+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:13.465975+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:14.475706+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:14.476385+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:15.465117+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:15.465785+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:16.382693+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35
	2024-03-20 14:49:16.383264+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_SoftwareUpdate.f8b33212287d2c1292d2dd746b953b31a1452c8a . task: BackgroundDownloadTask <D49C3A09-D5D4
	2024-03-20 14:49:17.441021+I	mobileassetd	-[DownloadInfo addNewRateDataPoint:]: DownloadInfo taskDescriptor: com_apple_MobileAsset_LinguisticData.0bad8d9a2a6f3ced8d8eea5f7b1df3b796f0076f . task: BackgroundDownloadTask <A8E83773-2F35

Showing: Last 5 Minutes **mobileassetd (MobileAsset)**Subsystem: com.apple.mobileassetd Category: Notice [Details](#)

2024-03-20 14:49:11.491353+0100

```
-[MADownloadOptions logOptions]: The download options are MADownloadOptions allowsCellular: 0 resourceTimeout: 5382 canUseCacheServer: 0 discretionary: 1 disableUI: 0 sessionId: (null) additionalServerParams:(null) allowsExpensiveAccess:1 requiresPowerPluggedIn: 0 prefersIntraWiFi: 1 liveServerOnly: -1 DownloadAuthorizationHeader: not present analyticsData: not present allowDaemonConnectionRetries: 0 +MAMauDownloadOptions reqProdVersion: (null) delayPeriod: 0 managedDevice: 0 allowSameVersion: 0 prereqBuild: (null) prereqVersion: (null) prereqReleaseType: (default) liveAssetAudienceUUID: (null) purpose: (null)
```


iOS Cellular - *example*

```
default      2024-03-20 14:49:11.491353 +0100
mobileassetd  -[MADownloadOptions logOptions]: The
download options are MADownloadOptions allowsCellular: 0
resourceTimeout: 5382 canUseCacheServer: 0 discretionary: 1
disableUI: 0 sessionId: (null) additionalServerParams: (null)
allowsExpensiveAccess: 1 requiresPowerPluggedIn: 0
prefersInfraWiFi: 1 liveServerOnly: -1
DownloadAuthorizationHeader: not present analyticsData: not
present allowDaemonConnectionRetries: 0 +
MAMsuDownloadOptions reqProdVersion: (null) delayPeriod: 0
managedDevice: 0 allowSameVersion: 0 prereqBuild: (null)
prereqVersion: (null) prereqReleaseType: (default)
liveAssetAudienceUUID: (null) purpose: (null)
```


iOS Cellular - *example*



system_logs.logarchive
28 messages

Reveal

Activities

Clear

Reload

Info

Share

Q

ANY

carrier

All Messages

Errors and Faults

Save

Type	Date & Time	Process/Service	Message
	2024-03-20 14:44:53.396658+H	InCallService	Retrieving initial CT carrier entitlements
	2024-03-20 14:44:53.402616+H	CommCenter	#I ==== client 805 (<private>) registered for event kCTEventCarrierEntitlementsQueryComplete(124) (now total 1)
	2024-03-20 14:44:53.402772+H	CommCenter	#I 1.5 subscribeForPushNotificationIfNeeded CarrierSpace
	2024-03-20 14:44:53.402777+H	CommCenter	#E 1.5 No topic to subscribe for push notification 'CarrierSpace'
	2024-03-20 14:44:53.402792+H	CommCenter	#I 1.5 subscribeForPushNotificationIfNeeded CarrierSpace
	2024-03-20 14:44:53.402795+H	CommCenter	#E 1.5 No topic to subscribe for push notification 'CarrierSpace'
	2024-03-20 14:44:53.402812+H	InCallService	=> Successfully retrieved initial CT carrier entitlements
	2024-03-20 14:45:02.555867+H	Preferences	-[PSUICarrierSpaceManager refreshAndReload] received notification: com.apple.PreferencesApp.willBecomeActive and will post notification PSUICarrierSpaceChanged
	2024-03-20 14:45:02.566203+H	softwareupdateservicesd	Carrier SU download policy: SUDownloadPolicy <0xe7c8c9430>: isDownloadFree: NO isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: YES
	2024-03-20 14:45:17.991884+H	dmd	could not get voice roaming switch from carrier bundle, assuming NO: (null)
	2024-03-20 14:45:18.063306+H	mdmd	Failed to retrieve device information key DMFDeviceSIMCarrierNetworkKey with error: NSError: Desc : Property "(null)" was never retrieved. Domain : DeviceManagement.error Code : 111 Extension : 0
	2024-03-20 14:45:18.176546+H	CommCenter	#I ==== client 805 (<private>) registered for event kCTEventCarrierEntitlementsQueryComplete(124) (now total 1)
	2024-03-20 14:45:24.102869+H	Preferences	-[PSUICarrierSpaceManager refreshAndReload] received notification: com.apple.PreferencesApp.willBecomeActive and will post notification PSUICarrierSpaceChanged
	2024-03-20 14:45:24.112308+H	softwareupdateservicesd	Carrier SU download policy: SUDownloadPolicy <0xe7c8c9430>: isDownloadFree: NO isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: YES
	2024-03-20 14:45:32.444895+H	CommCenter	#I ==== client 591 (<private>) registered for event kCTEventCarrierEntitlementsQueryComplete(124) (now total 1)
	2024-03-20 14:45:32.449932+H	Preferences	Clearing carrier bundle cache
	2024-03-20 14:45:32.513144+H	softwareupdateservicesd	Carrier SU download policy: SUDownloadPolicy <0xe7c89fc40>: isDownloadFree: NO isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: YES
	2024-03-20 14:45:32.752202+H	Preferences	-[PSUICarrierSpaceManager refreshAndReload] received notification: com.apple.PreferencesApp.willBecomeActive and will post notification PSUICarrierSpaceChanged
	2024-03-20 14:45:32.762679+H	softwareupdateservicesd	Carrier SU download policy: SUDownloadPolicy <0xe7c8cc4b0>: isDownloadFree: NO isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: YES
	2024-03-20 14:47:21.985886+H	Preferences	-[PSUICarrierSpaceManager refreshAndReload] received notification: com.apple.PreferencesApp.willBecomeActive and will post notification PSUICarrierSpaceChanged
	2024-03-20 14:47:23.211318+H	softwareupdateservicesd	Carrier SU download policy: SUDownloadPolicy <0xe7ca97490>: isDownloadFree: NO isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: YES
	2024-03-20 14:49:40.206815+H	symptomed	CFSM System properties: ProductName = iPhone OS, ProductClass = iPhone, ProductType = iPhone15,2, ProductVersion = 17.2.1, BuildVersion = 21C66, BuildPlatform = iOS, BuildVariant = Customer, BuildType = Retail
	2024-03-20 14:49:40.206924+H	symptomed	CFSM is NOT high capacity cell plan (carrier supplied)
	2024-03-20 14:49:40.206934+H	symptomed	Client is fetching data plan metrics
	2024-03-20 14:49:40.207005+H	CommCenter	#I Client [<private>] invoking <private>, args <private>
	2024-03-20 14:49:40.207040+H	CommCenter	#I response for fetchDataPlanMetrics, metrics (null), error <private>
	2024-03-20 14:49:40.207149+H	symptomed	CFSM data plan, metrics: (null), error: Error Domain=CTCarrierSpaceError Code=7 "Not supported" UserInfo={NSLocalizedDescription=Not supported, NSLocalizedFailureReason=No error}

Showing:

Last 5 Minutes

softwareupdateservicesd (SoftwareUpdateServices)

Subsystem: com.apple.softwareupdateservices Category: Common Details

2024-03-20 14:45:02.566203+0100

Carrier SU download policy: SUDownloadPolicy <0xe7c8c9430>:
isDownloadFree: NO
isDownloadAllowable: YES
isDownloadAllowableOver2G: NO
isAutoDownloadAllowable: NO
maximumDownloadSizeInBytes: 18446744073709551615
numberOfDaysToWaitForCellularDownload: 0
peakStartHour: -1
peakEndHour: -1
AllowEnhancedDownloadOnNRHDM: YES

system_logs.logarchive

97 messages

All Messages

Errors and Faults

Type	Date & Time	Process
●	2024-03-19 16:06:48.278382H	softwareupdateservicesd
●	2024-03-19 16:06:48.290060H	softwareupdateservicesd
●	2024-03-19 16:06:48.294550H	softwareupdateservicesd
●	2024-03-19 16:06:48.299524H	softwareupdateservicesd
●	2024-03-19 16:06:48.303857H	softwareupdateservicesd
●	2024-03-19 16:06:48.308104H	softwareupdateservicesd
●	2024-03-19 16:06:48.318918H	softwareupdateservicesd
●	2024-03-19 16:06:48.322995H	softwareupdateservicesd
●	2024-03-19 16:06:48.580074H	softwareupdateservicesd
●	2024-03-19 16:06:48.584651H	softwareupdateservicesd
●	2024-03-19 16:06:48.586240H	softwareupdateservicesd
●	2024-03-19 16:06:48.587838H	softwareupdateservicesd
●	2024-03-19 16:06:48.594049H	softwareupdateservicesd
●	2024-03-20 14:22:06.937429H	softwareupdateservicesd
●	2024-03-20 14:22:12.075153H	softwareupdateservicesd
●	2024-03-20 14:32:46.554729H	softwareupdateservicesd
●	2024-03-20 14:32:48.008207H	softwareupdateservicesd
●	2024-03-20 14:33:45.584871H	softwareupdateservicesd
●	2024-03-20 14:37:37.555553H	softwareupdateservicesd
●	2024-03-20 14:43:39.694468H	softwareupdateservicesd
●	2024-03-20 14:43:40.402237H	softwareupdateservicesd
●	2024-03-20 14:43:41.907740H	softwareupdateservicesd
●	2024-03-20 14:45:02.566203H	softwareupdateservicesd
●	2024-03-20 14:45:24.112308H	softwareupdateservicesd
●	2024-03-20 14:45:32.513144H	softwareupdateservicesd
●	2024-03-20 14:45:32.762679H	softwareupdateservicesd
●	2024-03-20 14:47:23.211318H	softwareupdateservicesd

Showing: All Messages

system_logs.logarchive

110 messages

All Messages

Errors and Faults

Type	Date & Time	Process	Message
●	2024-03-20 06:42:20.912781H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:21.911406H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:22.913453H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:23.913181H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:26.916214H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:27.966845H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:28.978667H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:29.979083H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:31.983171H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:42:33.861509H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:44:35.382531H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:45:43.746232H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:45:48.393404H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:45:52.206228H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:45:54.228569H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:45:56.224246H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:45:58.226023H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:10.416167H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:11.272667H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:13.381639H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:15.372586H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:17.398477H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:18.922897H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:18.923899H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:18.932382H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:18.944540H	softwareupdateservicesd	Carrier SU
●	2024-03-20 06:46:27.847714H	softwareupdateservicesd	Carrier SU

Showing: All Messages

softwareupdateservicesd (SoftwareUpdateServices)
Subsystem: com.apple.softwareupdateservices Category: Common [Details](#)

Carrier SU download policy: SUDownloadPolicy <0xe7ca97490>:
isDownloadFree: NO
isDownloadAllowable: YES
isDownloadAllowableOver2G: NO
isAutoDownloadAllowable: NO
maximumDownloadSizeInBytes: 18446744073709551615
numberOfDaysToWaitForCellularDownload: 0
peakStartHour: -1
peakEndHour: -1
AllowEnhancedDownloadOnNRHDM: YES

softwareupdateservicesd (SoftwareUpdateServices)
Subsystem: com.apple.softwareupdateservices Category: Common [Details](#)

Carrier SU download policy: SUDownloadPolicy <0xdaae1c890>:
isDownloadFree: YES
isDownloadAllowable: YES
isDownloadAllowableOver2G: NO
isAutoDownloadAllowable: NO
maximumDownloadSizeInBytes: 18446744073709551615
numberOfDaysToWaitForCellularDownload: 0
peakStartHour: -1
peakEndHour: -1
AllowEnhancedDownloadOnNRHDM: YES

iOS Cellular - *example*

3 Mobile (Denmark)	Tello (T-Mobile USA)
info2024-03-20 14:47:23.211318 +0100 softwareupdateservicesdCarrier SU download policy: SUDownloadPolicy <0xe7ca97490>: isDownloadFree: NO isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: NO maximumDownloadSizeInBytes: 18446744073709551615 numberOfDaysToWaitForCellularDownload: 0 peakStartHour: -1 peakEndHour: -1 AllowEnhancedDownloadOnNRHDM: YES	info2024-03-20 06:46:27.847714 -0500 softwareupdateservicesdCarrier SU download policy: SUDownloadPolicy <0xdaae1c890>: isDownloadFree: YES isDownloadAllowable: YES isDownloadAllowableOver2G: NO isAutoDownloadAllowable: NO maximumDownloadSizeInBytes: 18446744073709551615 numberOfDaysToWaitForCellularDownload: 0 peakStartHour: -1 peakEndHour: -1 AllowEnhancedDownloadOnNRHDM: YES

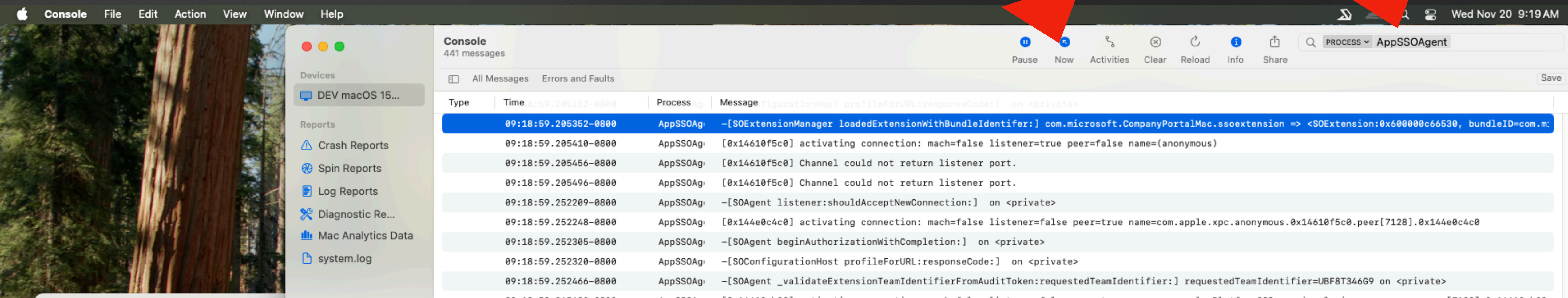
Cellular Summary

- Objective
 - Deploy iOS updates over Cellular
- Not working
 - iOS updates over Cellular
- Investigated
 - Network in use
 - Declarations Sent History
 - sysdiagnose output
- Tried
 - Known good Wi-Fi network test
 - Known good Cellular network test
 - Known bad Cellular network test

Single Sign-On (SSO) Extension

- Log level setting

- `sudo log config --mode "level:debug" --subsystem com.Apple.AppSSOAgent`



Single Sign-On (SSO) Extension

QuickTime Player

File Edit View Window Help

Devices

DEV macOS 15...

Reports

Crash Reports

Spin Reports

Log Reports

Diagnostic Re...

Mac Analytics Data

system.log

Console

510 messages

All Messages Errors and Faults

Type	Time	Process	Message
	09:18:59.510500-0800	AppSSOAg	Error Domain=com.apple.PlatformSSO Code=-1004 "no device configuration" UserInfo={NSLocalizedString=no device configuration}, test
	09:18:59.514389-0800	AppSSOAg	[0x14610ab00] invalidated because the client process (pid 7128) either cancelled the connection or exited
	09:18:59.514425-0800	AppSSOAg	-[POExtensionAgentProcess connectionInvalidated] on <private>
	09:19:15.502351-0800	AppSSOAg	[0x144f09260] invalidated because the client process (pid 7128) either cancelled the connection or exited
	09:19:15.504966-0800	AppSSOAg	[0x14610f260] invalidated because the client process (pid 7128) either cancelled the connection or exited
	09:19:15.504910-0800	AppSSOAg	[0x144e0c4c0] invalidated because the client process (pid 7128) either cancelled the connection or exited
	09:19:35.379354-0800	AppSSOAg	-[SOAgent initWithXPCConnection:] <SOAgent: 0x60000017a500> on <private>
	09:19:35.379463-0800	AppSSOAg	[0x14610f260] activating connection: mach=false listener=false peer=true name=com.apple.AppSSO.service-xpc.peer[7155].0x14610f260
	09:19:35.379647-0800	AppSSOAg	-[SOAgent configurationWithCompletion:] on <private>

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Single Sign-On (SSO) Extension

```
default      09:18:59.203733-0800  AppSSOAgentShould process URL called
default      09:18:59.203743-0800  AppSSOAgentFetching native takeover URLs
default      09:18:59.203922-0800  AppSSOAgentNative takeover URLs fetched
default      09:18:59.205121-0800  AppSSOAgent-[SOExtensionManager
loadedExtensionWithBundleIdentifier:] com.microsoft.CompanyPortalMac.ssoextension =>
<SOExtension:0x600000c66530, bundleID=com.microsoft.CompanyPortalMac.ssoextension, path=/Library/Addigy/
Company Portal.app/Contents/PlugIns/Mac SSO Extension.appex, associatedDomains=("login-
us.microsoftonline.com",
"login.chinacloudapi.cn","login.partner.microsoftonline.cn","login.microsoft.com",
"sts.windows.net","login.microsoftonline.com","login.microsoftonline.us")> in (

    "<SOExtension:0x600000c66530, bundleID=com.microsoft.CompanyPortalMac.ssoextension, path=/Library/
Addigy/Company Portal.app/Contents/PlugIns/Mac SSO Extension.appex, associatedDomains=(\n    \"login-
us.microsoftonline.com\", \n    \"login.chinacloudapi.cn\", \n    \"login.partner.microsoftonline.cn\", \n
\"login.microsoft.com\", \n    \"sts.windows.net\", \n    \"login.microsoftonline.com\", \n
\"login.microsoftonline.us\" \n)>\", \"<SOExtension:0x600000c6c4b0, bundleID=com.a on <decode: missing
data>default      09:18:59.205352-0800  AppSSOAgent-[SOExtensionManager
loadedExtensionWithBundleIdentifier:] com.microsoft.CompanyPortalMac.ssoextension =>
<SOExtension:0x600000c66530, bundleID=com.microsoft.CompanyPortalMac.ssoextension, path=/Library/Addigy/
Company Portal.app/Contents/PlugIns/Mac SSO Extension.appex, associatedDomains=("login-
us.microsoftonline.com","login.chinacloudapi.cn",
"login.partner.microsoftonline.cn","login.microsoft.com","sts.windows.net",
"login.microsoftonline.com","login.microsoftonline.us")> in ("<SOExtension:0x600000c66530,
bundleID=com.microsoft.CompanyPortalMac.ssoextension, path=/Library/Addigy/Company Portal.app/Contents/
PlugIns/Mac SSO Extension.appex, associatedDomains=(\n    \"login-us.microsoftonline.com\", \n
\"login.chinacloudapi.cn\", \n    \"login.partner.microsoftonline.cn\", \n    \"login.microsoft.com\", \n
\"sts.windows.net\", \n    \"login.microsoftonline.com\", \n    \"login.microsoftonline.us\" \n)>\",
"<SOExtension:0x600000c6c4b0, bundleID=com.a on <decode: missing data>
```


TempAdmin

TempAdmin Details

TempAdmin session logs will be stored in `/private/var/log/temp-admin`

Start Time

☐ Immediately

☒ Scheduled

 10/8/2024

8:00 AM

☒ Device local time

Duration

50 minutes 

Reason

IT Help Desk troubleshooting session

[Feedback](#)

Close

Cancel TempAdmin

Save

TempAdmin Logging

TempAdmin pulls out information from the unified system logs and stores it locally on the device for every user session. These logs can vary in size depending on how many things the user is doing, and how long the session is.

These logs are stored at: `/private/var/log/temp-admin`

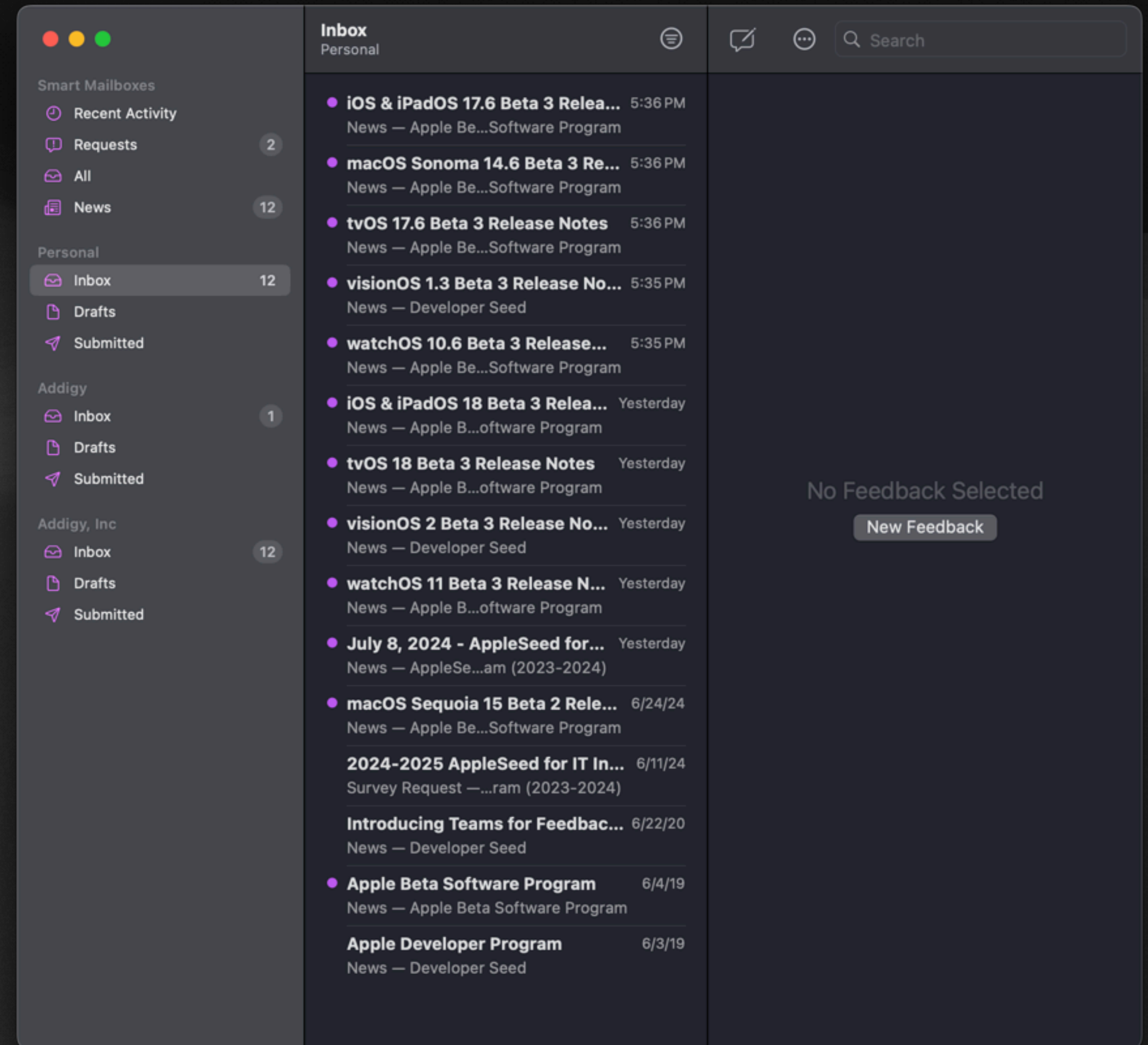
The file is stored as a gzip file, and when unzipped will be a .log file. They are named automatically by the username of the user that had the TempAdmin session and the time and date of the session, including timezone.

Name	Date Modified	Size	Kind
 standard_2024-08-20_09.10.29_PDT.log.tar.gz	Aug 20, 2024 at 9:10 AM	239 KB	gzip co...archive
 standard_2024-08-20_10.26.07_PDT.log.tar.gz	Aug 20, 2024 at 10:26 AM	184 KB	gzip co...archive
 standard_2024-08-20_10.42.22_PDT.log.tar.gz	Aug 20, 2024 at 10:42 AM	824 KB	gzip co...archive
 standard_2024-08-21_13.53.26_PDT.log.tar.gz	Aug 21, 2024 at 1:53 PM	466 KB	gzip co...archive
 standard_2024-08-21_13.56.11_PDT.log.tar.gz	Aug 21, 2024 at 1:56 PM	209 KB	gzip co...archive

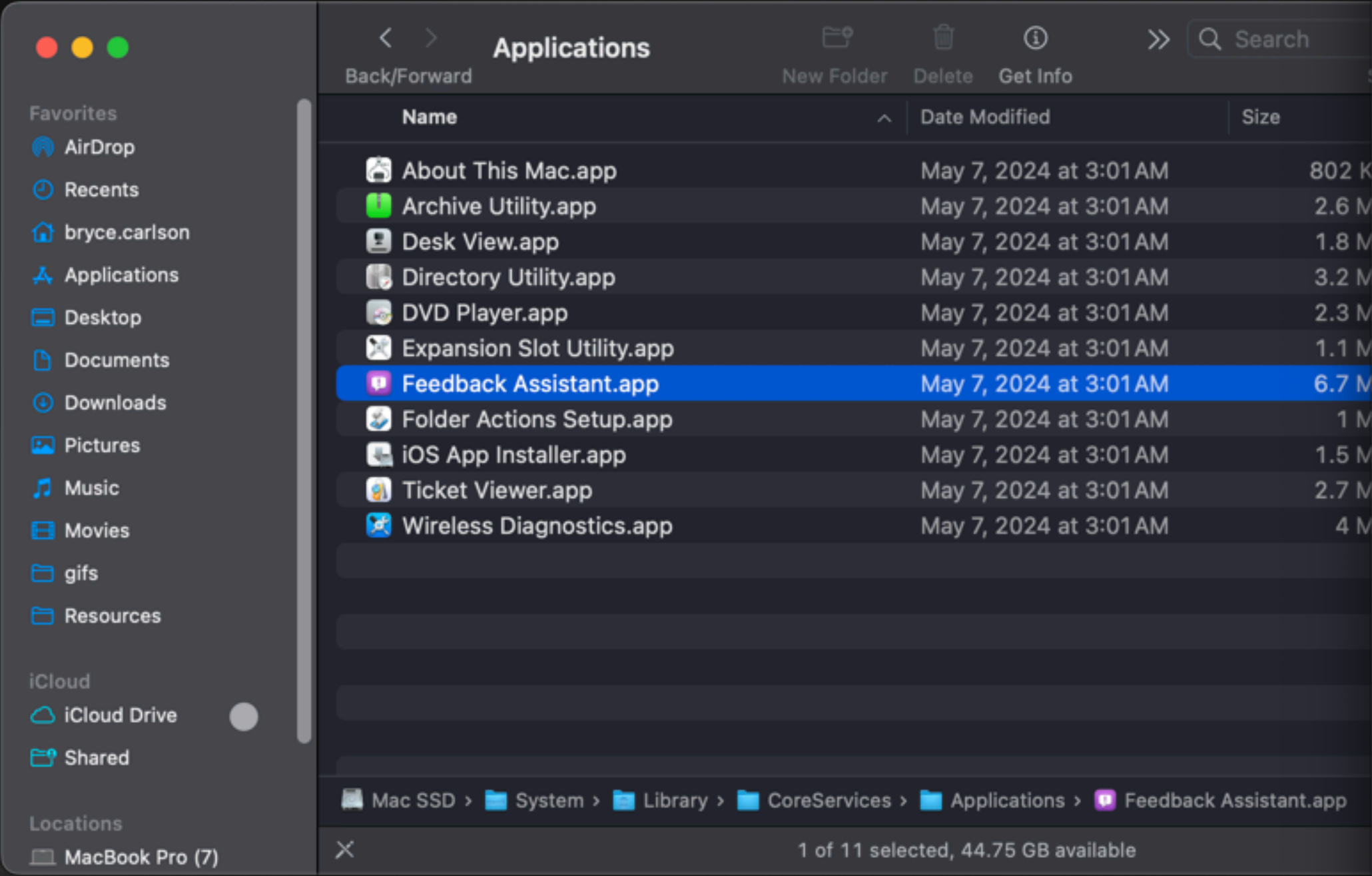
These logs are pulled once the TempAdmin session has ended, because of this please allow a few minutes for them to be gathered and appear in this directory. For more information on the processes we are gathering, or feedback for what other processes and event messages from unified logging, please reach out to Addigy Support or use the Feedback button in the TempAdmin modals.

Feedback to Apple

- Feedback Assistant.app
 - Public Beta
 - AppleSeed
 - Developer Program
- Collects user story/
workflow details
- sysdiagnose logging
uploaded



Feedback to Apple



Feedback for macOS
Personal

Change...

Basic Information

Please provide a descriptive title for your feedback:

Example: Calendar events are missing after creating an event

Which area are you seeing an issue with?

Please select the problem area

What type of issue are you reporting?

Choose...

Description

Please describe the issue and what steps we can take to reproduce it:

Please include:

- A clear description of the problem
- A step-by-step set of instructions to reproduce the problem (if possible)
- What results you expected
- What results you actually saw

Attachments

Add Attachment

MacBook Pro (7)
MacBook Pro

?

Submit

Feedback to Apple

- What results you actually saw

Attachments

Add Attachment 

MacBook Pro (7)

MacBook Pro

macOS Sysdiagnose

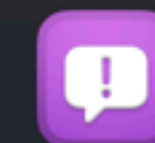
macOS System Information Report



Gathering...



Description



Removing Device

Removing MacBook Pro (7) will remove all of the diagnostics associated with it. Removing diagnostics limits Apple's ability to understand the issue and address it.

Remove Device

Cancel

Attachments

Feedback to Apple

DDM Update Enfroment causes Software Update prompt for local user password – FB13481266 — macOS

Bryce Carlson

December 20, 2023 at 1:54 PM

ASSIGNED

DDM Update Enfroment causes Software Update prompt for local user password

FB13481266 – Assigned to Bryce Carlson

Recent Similar Reports: Less than 10

Resolution: Potential fix identified – For a future OS update

Basic Information

Please provide a descriptive title for your feedback:

DDM Update Enfroment causes Software Update prompt for local user password

Which area are you seeing an issue with?

Software Update

What type of issue are you reporting?

Incorrect/Unexpected Behavior

Details

What does the Software Update issue you are experiencing involve?

Preparing/Verifying

Description

Please describe the issue and what steps we can take to reproduce it:

TL;DR: Just looking to better understand the local user prompt as it seems to not relate to the actual install of the OS.

Trying to figure out why on all of our devices with DDM OS updates enabled we get an end user password prompt on macOS 14.1.1 declaration with enforcement going to macOS 14.2.0. It seems that the password prompt has no impact on the update actually installing and updating the device as the attached devices logs and screen shots are from my device where the prompt was ignored. Trying to fin the best practice so we can communicate that to mutual MDM and Apple customers correctly (as most end users will ignore the prompt it seems from customer feedback).

Steps followed on the attached example device:

1.) Fresh reboot almost daily leading up to the declaration install and enforcement time being set

2.) When prompted by the end user on screen password prompt after the Notification Center notification about macOS 14.2 being available for install and that it would be enforced a few days out from that the password prompt was canceled every time.

3.) As the enforcement time got closer and it was set to install overnight the MacBook Pro M1 was fully charged to 100% battery, unplugged from power (to test the install on non-A/C power) and left plugged into it's Apple TB3 to TB2 adapter to an Apple TB2 to Ethernet adapter that it uses for internet connectivity.

4.) The device was updated to macOS 14.2.0 overnight.

Attached are screenshots leading up to and just after the device was woken up post update the following morning. There is also a syadiagnose from pre-install and post-install.

Just looking to better understand the local user prompt as it seems to not relate to the actual install of the OS.

Files

1declaration-installed-Screenshot 2023-12-11 at 11.03.13 PM.png

2declaration-installed-ready-Screenshot 2023-12-13 at 6.50.18 AM.png

3declaration-sw-binaray-prompt-Screenshot 2023-12-13 at 6.50.24 AM.png

battery-after-sleep-install-Screenshot 2023-12-14 at 7.36.26 AM.png

dock-before-sleep-Screenshot 2023-12-13 at 9.52.49 PM.png

post-macOS-142-viaDDM-bryce-sysdiagnose_2023.12.14_07-41-38-0600_macOS_MacBookPro18-3_23C84.tar.gz

sys-pw-prompt-sysdiagnose_2023.12.14-09-57-0600_macOS_MacBookPro18-3_23B92.tar.gz

sys-prefs-before-sleep-Screenshot 2023-12-13 at 9.52.59 PM.png

uptime-afterboot-from-Install-Screenshot 2023-12-14 at 7.36.58 AM.png

Apple Feedback



Thank you!