

## Article

# Spotlight Query Performance

Review how your app uses Spotlight queries.



## Overview

The data in this report contains information about on-device Spotlight query performance.

- Territories: Worldwide
- Platforms: iOS, iPadOS. For more information about iOS and iPadOS, see the Platforms section in [Data Completeness and Corrections](#).
- Availability:
  - Daily: Every day.
- History: On request, data is available beginning with iOS 17.4 and iPadOS 17.4.
- Completeness: Data from devices that contribute to this report can arrive as late as 8 days after the date it generates on device. You can download recent data daily, but it might be incomplete, and data updates incrementally daily, until all late-arriving events are available.
- Privacy:
  - Includes data from users who have opted to share their data with Apple and developers.
  - Individual rows will only appear if they have a value of 5 or more.
- Data Context: You can analyze your data with additional context by comparing it with the data in the [App Sessions Context](#) report, which provides a count of unique devices that use your app on a specific day. For example, if your app performed an action detailed in this report on 10 unique devices on a specific day, and the App Sessions Context report shows there were 100 unique devices running your app that day, then you can approximate that 10% of the devices running your app performed that action.

# Report Fields

Report Field	Description	Data Type
Count	Number of times the event occurred	integer
Territory	Country or region in which the event occurred	string
Date	Date when the event occurred	string
Platform	OS version on the device on which the event occurred	string
Device	Type of device on which the event occurred	string
Build	Build of device on which event occurred	string
Unique Devices	The count of unique devices	integer
Release Type	Type of software release	string
Query Kind	The kind of query	string
Quality of Service Level	The query quality of service level	string
Cancel Status	Whether someone canceled the query	boolean
Protection Class	Protection class of the query	string
Total Execution Time	The total time of the query from submitting to the scheduler to finish	float

# Glossary

Dimension	Value	Definition
Query Kind	DefaultQuery	A normal CoreSpotlight query
Query Kind	GroupedTopNQuery	A top-N query with grouped results (SPI)

Dimension	Value	Definition
Query Kind	FlatTopNQuery	A top-N query
Query Kind	CompletionQuery	Query to request query completions
Query Kind	CoalescingCollectingQuery	Query to collect a coalesced result set (unique values of attribute) (SPI)
Query Kind	CountingQuery	Query to count the number of results (SPI)
Query Kind	GroupedCountingQuery	Query to count the number of results per group (SPI)
Quality of Service Level	QOS_CLASS_UNSPECIFIED	OS quality of service level
Quality of Service Level	QOS_CLASS_BACKGROUND	OS quality of service level
Quality of Service Level	QOS_CLASS_UTILITY	OS quality of service level
Quality of Service Level	QOS_CLASS_DEFAULT	OS quality of service level
Quality of Service Level	QOS_CLASS_USER_INITIATED	OS quality of service level
Quality of Service Level	QOS_CLASS_USER_INTERACTIVE	OS quality of service level

Dimension	Value	Definition
Protection Class	NSFileProtectionComplete	Standard file protection mode
Protection Class	NSFileProtectionCompleteUnlessOpen	Standard file protection mode
Protection Class	NSFileProtectionCompleteUntilFirstUserAuthentication	Standard file protection mode
Protection Class	Priority	SPI (no third party data in this class)
Total Execution Time	0	Represents range from -Infinity to 0.05
Total Execution Time	1	Represents range from 0.05 to 0.1
Total Execution Time	2	Represents range from 0.1 to 0.15
Total Execution Time	3	Represents range from 0.15 to 0.2
Total Execution Time	4	Represents range from 0.2 to 0.25
Total Execution Time	5	Represents range from 0.25 to 0.3
Total Execution Time	6	Represents range from 0.3 to 0.4
Total Execution	7	Represents range from 0.4 to 0.5


Dimension	Value	Definition
Time		
Total Execution Time	8	Represents range from 0.5 to 0.6
Total Execution Time	9	Represents range from 0.6 to 0.7
Total Execution Time	10	Represents range from 0.7 to 0.8
Total Execution Time	11	Represents range from 0.8 to 0.9
Total Execution Time	12	Represents range from 0.9 to 1
Total Execution Time	13	Represents range from 1 to 1.5
Total Execution Time	14	Represents range from 1.5 to 2
Total Execution Time	15	Represents range from 2 to 2.5
Total Execution Time	16	Represents range from 2.5 to 3
Total Execution Time	17	Represents range from 3 to 3.5

Dimension	Value	Definition
Total Execution Time	18	Represents range from 3.5 to 4
Total Execution Time	19	Represents range from 4 to 5
Total Execution Time	20	Represents range from 5 to 6
Total Execution Time	21	Represents range from 6 to 7
Total Execution Time	22	Represents range from 7 to 8
Total Execution Time	23	Represents range from 8 to 9
Total Execution Time	24	Represents range from 9 to 10
Total Execution Time	25	Represents range from 10 to 15
Total Execution Time	26	Represents range from 15 to 20
Total Execution Time	27	Represents range from 20 to 25
Total Execution	28	Represents range from 25 to 30















Dimension	Value	Definition
Time		
Total Execution Time	29	Represents range from 30 to 60
Total Execution Time	30	Represents range from 60 to 90
Total Execution Time	31	Represents range from 90 to 120
Total Execution Time	32	Represents range from 120 to 150
Total Execution Time	33	Represents range from 150 to 180
Total Execution Time	34	Represents range from 180 to 240
Total Execution Time	35	Represents range from 240 to 300
Total Execution Time	36	Represents range from 300 to +Infinity

# See Also

## Performance

 AirPlay Errors

Analyze AirPlay errors in your apps.

-  **AirPlay Performance**  
Review AirPlay performance in your apps.
-  **App Crashes Expanded**  
Analyze the rate at which your app crashes.
-  **App Installs Performance**  
Analyze details about installation success and failure rates for your apps.
-  **App Storage Reads and Writes**  
Analyze how often your app uses disk reads and writes.
-  **Audio Overloads**  
Analyze how many audio glitches people experience in your app.
-  **Bluetooth LE Session Duration**  
Analyze how long your app uses Bluetooth Low Energy (LE) connections.
-  **Bluetooth System Wakes**  
Analyze details about bluetooth system wakes that your app causes.
-  **CAMetalLayer Performance**  
Review CAMetalLayer metadata and performance in your app.
-  **Custom Language Model Builds Failed**  
Analyze how often your app-triggered rebuild of a custom language model failed.
-  **Display Power Information**  
Review your app's impact on display pixel attributes.
-  **HTTP Live Streaming Playback Errors**  
Analyze playback errors that your app receives.
-  **Launch Image Over Memory Limit**  
Analyze how often your app fails to load because it's over the memory limit.
-  **Networking Connection Activity**  
Review how your app uses network connections.
-  **Streaming Downloads Performance**  
Review download performance when using the AVAssetDownloadTask APIs in your apps.