

[Foundation / iCloud](#)

API Collection

# iCloud

Manage files and key-value data that automatically synchronize among a user's iCloud devices.

## Topics

### iCloud Storage

`class FileManager`

A convenient interface to the contents of the file system, and the primary means of interacting with it.

`protocol FileManagerDelegate`

The interface a file manager's delegate uses to intervene during operations or if an error occurs.

### App Preferences

`class NSUbiquitousKeyValueStore`

An iCloud-based container of key-value pairs you use to share data among instances of your app running on a user's connected devices.

### File Search

`class NSMetadataQuery`

A query that you perform against Spotlight metadata.

`protocol NSMetadataQueryDelegate`

An interface that enables the delegate of a metadata query to provide substitute results or attributes.

`class NSMetadataItem`

The metadata associated with a file.

## Entitlements

`com.apple.developer.icloud-container-development-container-identifiers`

The container identifiers for the iCloud development environment.

`com.apple.developer.icloud-container-environment`

The development or production environment to use for the iCloud containers.

`iCloud Container Identifiers Entitlement`

The container identifiers for the iCloud production environment.

`iCloud Services Entitlement`

The iCloud services used by the app.

`iCloud Key-Value Store Entitlement`

The container identifier to use for iCloud key-value storage.

## Errors

☰ `iCloud Error Codes`

Error codes to expect when an iCloud-related error occurs.

## See Also

### Files and Data Persistence

☰ `File System`

Create, read, write, and examine files and folders in the file system.

☰ `Archives and Serialization`

Convert objects and values to and from property list, JSON, and other flat binary representations.

## ☰ Preferences

Persistently store domain-scoped pieces of information for configuring your app.

## ☰ Spotlight

Search for files and other items on the local device, and index your app's content for searching.

## 📄 Optimizing Your App's Data for iCloud Backup

Minimize the space and time that backups take to create by excluding purgeable and nonpurgeable data from backups.