Language: **Swift** ⌄

Framework

AVFoundation

Work with audiovisual assets, control device cameras, process audio, and configure system audio interactions.

iOS 2.2+ | iPadOS 13.1+ | Mac Catalyst 13.1+ | macOS 10.7+ | tvOS 9.0+ | visionOS 1.0+ | watchOS 3.0+

Overview

AVFoundation combines several major technology areas that together encompass a wide range of tasks for inspecting, playing, capturing, and processing audiovisual media on Apple platforms.

Topics

Essentials

📄 AVFoundation updates

Learn about important changes to AVFoundation.

Common

⋮≡ Media assets

Load media assets from files and streams to inspect their attributes, tracks, and embedded metadata.

⋮≡ Media reading and writing

Read images from video, export to alternative formats, and perform sample-level reading and writing of media data.

⋮≡ Media types and utilities

Identify the types of content and file formats that AVFoundation supports.

- Video settings

  Configure video processing settings using standard key and value constants.

- Audio settings

  Configure audio processing settings using standard key and value constants.

Playback

- Media playback

  Manage the playback of media assets and interstitial content, independent of how you present that content in your interface.

- Offline playback and storage

  Download streamed content to disk to allow offline playback, and define policies to automatically remove downloaded assets.

- Streaming and AirPlay

  Stream content wirelessly to other devices using AirPlay, and handle requests involving FairPlay-protected assets.

- Sample buffer playback

  Create custom controllers to play and synchronize the timing of sample buffer streams.

Capture

- Capture setup

  Configure built-in cameras and microphones, and external capture devices, for media capture.

- Photo capture

  Capture high-quality still images, Live Photos, and supporting photo data.

- Audio and video capture

  Capture audio and video directly to media files, or capture streams of media for direct access to media sample buffers.

- Additional data capture

  Capture additional data including depth and metadata, and synchronize capture from multiple outputs.

Editing

☰ Composite assets

Combine tracks and segments of tracks from multiple assets into a composite asset that you can play or process.

☰ QuickTime movies

Access the contents of a QuickTime movie file, and perform sample-level edits of its media tracks.

☰ Video effects

Define standard video transition effects, synchronize layer animations with media timing, and create custom video compositors.

☰ Audio mixing

Define how to mix the audio levels from multiple audio tracks over an asset's duration.

Audio

☰ Audio playback, recording, and processing

Play, record, and process audio; configure your app's system audio behavior.

☰ Speech synthesis

Configure voices to speak strings of text.

Errors

`let AVFoundationErrorDomain: String`

The error domain of AVFoundation errors.

`struct AVError`

A structure that defines the errors that framework operations can generate.

Macros

☰ Macros