Framework

# Sound Analysis

**Classify various sounds by analyzing audio files or streams.**

iOS 13.0+ | iPadOS 13.0+ | Mac Catalyst 13.1+ | macOS 10.15+ | tvOS 13.0+ | visionOS 1.0+ | watchOS 9.0+

## Overview

Identify specific sounds in your app, such as laughter or applause, by creating an `SNClassifySoundRequest` to analyze an audio file or stream. Sound requests can identify over 300 sounds. Alternatively, you identify a custom set of sounds by providing the sound request with a custom Core ML model. You train a custom sound classification model by creating an `MLSoundClassifier` with audio data in Create ML.

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## Topics

### Audio analyzers

Classifying Sounds in an Audio File

Identify individual sounds in a file, such as a recording, with an audio file analyzer.

`class` `SNAudioFileAnalyzer`

An analyzer that runs sound classification requests on an audio file.

Classifying Sounds in an Audio Stream

Identify individual sounds in an audio data stream, such as from a microphone, with an audio stream analyzer.

`class` `SNAudioStreamAnalyzer`

An object you create to analyze a stream of audio data and provide the results to your app.

## Sound classification requests

{} Classifying Live Audio Input with a Built-in Sound Classifier

Detect and identify hundreds of sounds by using a trained classifier.

`class` SNClassifySoundRequest

A request that classifies sound using a Core ML model.

`class` SNClassificationResult

A result that contains the highest-ranking classifications in a time range.

## Errors

`struct` SNError

An error from the Sound Analysis framework.

`enum` Code

The enumerated error codes that the Sound Analysis framework produces.

`let` SNErrorDomain: `String`

A string that identifies the Sound Analysis error domain.