

[Audio Toolbox](#) / Extended Audio File Services

API Collection

Extended Audio File Services

Read and write compressed files and linear PCM audio files using a simplified interface.

Overview

Extended Audio File Services provides simplified audio file access, combining features of Audio File Services and Audio Converter Services. It provides a unified interface for reading and writing compressed as well as linear PCM audio files.

Topics

Managing Extended Audio File Objects

```
func ExtAudioFileCreateWithURL(CFURL, AudioFileTypeID, UnsafePointer<AudioStreamBasicDescription>, UnsafePointer<AudioChannelLayout>?, UInt32, UnsafeMutablePointer<ExtAudioFileRef?>) -> OSStatus
```

Creates a new audio file and associates it with a new extended audio file object.

```
func ExtAudioFileDispose(ExtAudioFileRef) -> OSStatus
```

Disposes of an extended audio file object and closes the associated file.

```
func ExtAudioFileOpenURL(CFURL, UnsafeMutablePointer<ExtAudioFileRef?>) -> OSStatus
```

Opens an existing audio file for reading, and associates it with a new extended audio file object.

```
func ExtAudioFileWrapAudioFileID(AudioFileID, Bool, UnsafeMutablePointer<ExtAudioFileRef?>) -> OSStatus
```

Wraps an audio file object in an extended audio file object.

Configuring Properties for Extended Audio File Objects

```
func ExtAudioFileGetProperty(ExtAudioFileRef, ExtAudioFilePropertyID, UnsafeMutablePointer<UInt32>, UnsafeMutableRawPointer) -> OSStatus
```

Gets a property value from an extended audio file object.

```
func ExtAudioFileGetPropertyInfo(ExtAudioFileRef, ExtAudioFilePropertyID, UnsafeMutablePointer<UInt32>?, UnsafeMutablePointer<DarwinBoolean>?) -> OSStatus
```

Gets information about an extended audio file object property.

```
func ExtAudioFileSetProperty(ExtAudioFileRef, ExtAudioFilePropertyID, UInt32, UnsafeRawPointer) -> OSStatus
```

Sets a property value for an extended audio file object.

Reading and Writing Audio Data

```
func ExtAudioFileRead(ExtAudioFileRef, UnsafeMutablePointer<UInt32>, UnsafeMutablePointer<AudioBufferList>) -> OSStatus
```

Performs a synchronous, sequential read operation on an audio file.

```
func ExtAudioFileSeek(ExtAudioFileRef, Int64) -> OSStatus
```

Seeks to a specified frame in a file.

```
func ExtAudioFileTell(ExtAudioFileRef, UnsafeMutablePointer<Int64>) -> OSStatus
```

Gets an audio file's read/write position.

```
func ExtAudioFileWrite(ExtAudioFileRef, UInt32, UnsafePointer<AudioBufferList>) -> OSStatus
```

Performs a synchronous, sequential write operation on an audio file.

```
func ExtAudioFileWriteAsync(ExtAudioFileRef, UInt32, UnsafePointer<AudioBufferList>?) -> OSStatus
```

Perform an asynchronous, sequential write operation on an audio file.

Data Types

`typealias ExtAudioFilePacketTableInfoOverride`

`typealias ExtAudioFileRef`

An opaque structure representing an extended audio file object.

`typealias ExtAudioFilePropertyID`

An audio file object property identifier.

Constants

- ⌵ Extended Audio File Errors
- ⌵ Codec Unavailable Errors
- ⌵ Property Identifiers for Extended Audio File Objects
- ⌵ Extended Audio File Packet Overrides

Result Codes

This table lists result codes defined for Extended Audio File Services.

`var kExtAudioFileError_CodecUnavailableInputConsumed: OSStatus`

The `ExtAudioFileWrite(: : :)` function was interrupted and the last buffer that you provided was successfully written to disk.

`var kExtAudioFileError_CodecUnavailableInputNotConsumed: OSStatus`

The `ExtAudioFileWrite(: : :)` function was interrupted and the last buffer that you provided was *not* successfully written to disk.

`var kExtAudioFileError_InvalidProperty: OSStatus`

`var kExtAudioFileError_InvalidPropertySize: OSStatus`

`var kExtAudioFileError_NonPCMClientFormat: OSStatus`

`var kExtAudioFileError_InvalidChannelMap: OSStatus`

The number of channels does not match the specified format.

`var kExtAudioFileError_InvalidOperationOrder: OSStatus`

`var kExtAudioFileError_InvalidDataFormat: OSStatus`

`var kExtAudioFileError_MaxPacketSizeUnknown: OSStatus`

`var kExtAudioFileError_InvalidSeek: OSStatus`

An attempt to write, or an offset, is out of bounds.

`var kExtAudioFileError_AsyncWriteTooLarge: OSStatus`

`var kExtAudioFileError_AsyncWriteBufferOverflow: OSStatus`

An asynchronous write operation could not be completed in time.

See Also

Audio Files and Formats

⌵ Audio Format Services

Access information about audio formats and codecs.

⌵ Audio File Services

Read or write a variety of audio data to or from disk or a memory buffer.

⌵ Audio File Stream Services

Parse streamed audio files as the data arrives on the user's computer.

⌵ Audio File Components

Get information about audio file formats, and about files containing audio data.

⌵ Core Audio File Format

Parse the structure of Core Audio files.