

[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, UnsafeMutable  
Pointer<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, ExtAudioFileProperty  
ID, 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<Audio  
BufferList>) -> 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.
```

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## 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.