

[Audio Toolbox](#) / Audio File Components

API Collection

Audio File Components

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

Topics

Opening and Closing Audio Files

```
func AudioFileComponentCreateURL(AudioFileComponent, CFURL, Unsafe  
Pointer<AudioStreamBasicDescription>, UInt32) -> OSStatus  
  
func AudioFileComponentOpenURL(AudioFileComponent, CFURL, Int8, Int32)  
-> OSStatus  
  
func AudioFileComponentOpenWithCallbacks(AudioFileComponent, Unsafe  
MutableRawPointer, AudioFile_ReadProc, AudioFile_WriteProc, AudioFile  
_GetSizeProc, AudioFile_SetSizeProc) -> OSStatus  
  
func AudioFileComponentCloseFile(AudioFileComponent) -> OSStatus  
  
func AudioFileComponentOptimize(AudioFileComponent) -> OSStatus  
  
typealias AudioFileComponent  
  
typealias AudioFileComponentPropertyID  
  
typealias AudioFileComponentCreateURLProc  
  
typealias AudioFileComponentOpenWithCallbacksProc  
  
typealias AudioFileComponentOpenURLProc  
  
typealias AudioFileComponentCloseProc  
  
typealias AudioFileComponentOptimizeProc
```

Configuring the Callbacks

```
func AudioFileComponentInitializeWithCallbacks(AudioFileComponent,  
UnsafeMutableRawPointer, AudioFile_ReadProc, AudioFile_WriteProc, Audio  
File_GetSizeProc, AudioFile_SetSizeProc, UInt32, UnsafePointer<Audio  
StreamBasicDescription>, UInt32) -> OSStatus
```

≡ Audio File Component Selectors

```
typealias AudioFileComponentInitializeWithCallbacksProc
```

Getting the Global Information

```
func AudioFileComponentGetGlobalInfo(AudioFileComponent, AudioFile  
ComponentPropertyID, UInt32, UnsafeRawPointer?, UnsafeMutablePointer<  
UInt32>, UnsafeMutableRawPointer) -> OSStatus
```

```
func AudioFileComponentGetGlobalInfoSize(AudioFileComponent, AudioFile  
ComponentPropertyID, UInt32, UnsafeRawPointer?, UnsafeMutablePointer<  
UInt32>) -> OSStatus
```

```
typealias AudioFileComponentGetGlobalInfoProc
```

```
typealias AudioFileComponentGetGlobalInfoSizeProc
```

Accessing the User Data

```
func AudioFileComponentGetUserData(AudioFileComponent, UInt32, UInt32,  
UnsafeMutablePointer<UInt32>, UnsafeMutableRawPointer) -> OSStatus
```

```
func AudioFileComponentSetUserData(AudioFileComponent, UInt32, UInt32,  
UInt32, UnsafeRawPointer) -> OSStatus
```

```
func AudioFileComponentCountUserData(AudioFileComponent, UInt32, Unsafe  
MutablePointer<UInt32>) -> OSStatus
```

```
func AudioFileComponentGetUserDataSize(AudioFileComponent, UInt32,  
UInt32, UnsafeMutablePointer<UInt32>) -> OSStatus
```

```
func AudioFileComponentRemoveUserData(AudioFileComponent, UInt32,  
UInt32) -> OSStatus
```

```
typealias AudioFileComponentCountUserDataProc
```

```
typealias AudioFileComponentGetUserDataProc
```

```
typealias AudioFileComponentGetUserDataSizeProc  
  
typealias AudioFileComponentRemoveUserDataProc  
  
typealias AudioFileComponentSetUserDataProc  
  
typealias CountUserDataFDF  
  
typealias GetUserDataFDF  
  
typealias GetUserDataSizeFDF
```

Accessing Properties

```
func AudioFileComponentGetProperty(AudioFileComponent, AudioFile  
ComponentPropertyID, UnsafeMutablePointer<UInt32>, UnsafeMutableRaw  
Pointer) -> OSStatus

func AudioFileComponentGetPropertyInfo(AudioFileComponent, AudioFile  
ComponentPropertyID, UnsafeMutablePointer<UInt32>?, UnsafeMutable  
Pointer<UInt32>?) -> OSStatus

func AudioFileComponentSetProperty(AudioFileComponent, AudioFile  
ComponentPropertyID, UInt32, UnsafeRawPointer) -> OSStatus

typealias AudioFileComponentGetPropertyInfoProc

typealias AudioFileComponentGetPropertyProc

typealias AudioFileComponent SetPropertyProc
```

Reading and Writing Data

```
func AudioFileComponentReadBytes(AudioFileComponent, Bool, Int64,
UnsafeMutablePointer<UInt32>, UnsafeMutableRawPointer) -> OSStatus

func AudioFileComponentReadPacketData(AudioFileComponent, Bool, Unsafe
MutablePointer<UInt32>, UnsafeMutablePointer<AudioStreamPacket
Description>?, Int64, UnsafeMutablePointer<UInt32>, UnsafeMutableRaw
Pointer) -> OSStatus

func AudioFileComponentReadPackets(AudioFileComponent, Bool, Unsafe
MutablePointer<UInt32>, UnsafeMutablePointer<AudioStreamPacket
Description>?, Int64, UnsafeMutablePointer<UInt32>, UnsafeMutableRaw
Pointer) -> OSStatus
```

```
func AudioFileComponentWriteBytes(AudioFileComponent, Bool, Int64,  
UnsafeMutablePointer<UInt32>, UnsafeRawPointer) -> OSStatus  
  
func AudioFileComponentWritePackets(AudioFileComponent, Bool, UInt32,  
UnsafePointer<AudioStreamPacketDescription>?, Int64, UnsafeMutable  
Pointer<UInt32>, UnsafeRawPointer) -> OSStatus  
  
typealias AudioFileComponentReadBytesProc  
  
typealias AudioFileComponentReadPacketDataProc  
  
typealias AudioFileComponentReadPacketsProc  
  
typealias AudioFileComponentWriteBytesProc  
  
typealias AudioFileComponentWritePacketsProc
```

Checking the File Format

```
func AudioFileComponentFileDataIsThisFormat(AudioFileComponent, UInt32,  
UnsafeRawPointer, UnsafeMutablePointer<UInt32>) -> OSStatus  
  
func AudioFileComponentExtensionIsThisFormat(AudioFileComponent,  
CFString, UnsafeMutablePointer<UInt32>) -> OSStatus  
  
typealias AudioFileComponentExtensionIsThisFormatProc  
  
typealias AudioFileComponentFileDataIsThisFormatProc  
  
typealias GetPropertyFDF  
  
typealias GetPropertyInfoFDF
```

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.
- ☰ [Extended Audio File Services](#)

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

☰ **Audio File Stream Services**

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

☰ **Core Audio File Format**

Parse the structure of Core Audio files.