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API Collection

# Audio Unit Properties

Obtain information about the built-in mixers, equalizers, filters, effects, and other Audio Unit app extensions.

## Topics

### General

☰ Other Plug-In Formats

☰ RenderQuality

Render quality settings for audio units.

☰ General Audio Unit Properties

Properties that apply to any audio unit.

`struct HostCallbackInfo`

The time- and transport-related callback functions for an audio unit.

### Mixers

☰ Audio Unit Mixer Subtypes

`enum AUSpatialMixerAttenuationCurve`

`struct AUSpatialMixerRenderingFlags`

☰ AUSpatialMixer Parameters

☰ Panner Audio Unit Parameters

- ⋮ AUMatrixMixer Parameters
- ⋮ AUMultiChannelMixer Parameters

Parameters for the Multichannel Mixer unit.
- ⋮ Spatial Mixer Property IDs
- ⋮ Stereo Mixer Unit Parameters
- ⋮ Mixer Audio Unit Properties

Properties for Apple mixer audio units.
- ⋮ Mixer Audio Unit Subtypes

Audio mixing audio unit subtypes for audio units provided by Apple.

enum AUSpatialMixerOutputType

enum AUSpatialMixerPointSourceInHeadMode

enum AUSpatialMixerSourceMode

- ⋮ 3D Mixer Unit Parameters

Parameters for the 3D Mixer unit.

enum AU3DMixerAttenuationCurve

struct AU3DMixerRenderingFlags

struct MixerDistanceParams

## Equalizers

- ⋮ Parametric EQ Unit Parameters

Parameters for the Parametric EQ unit.
- ⋮ Audio Unit Graphic EQ Parameter ID
- ⋮ Peak Limiter Unit Parameters

Parameters for the Peak Limiter unit.
- ⋮ Dynamics Processor Unit Parameters

Parameters for the Dynamics Processor unit.
- ⋮ Frequency Response Constants

The maximum number of frequency response bin structures for the `AudioUnitProperty_FrequencyResponse` property.

```
enum AUSpatializationAlgorithm
```

## Filters

- ☰ Audio Unit Filter Subtypes
- ☰ Bandpass Unit Parameters

Parameters for the Bandpass unit.
- ☰ AUHipass Parameters

Parameters for the Highpass unit.
- ☰ AULowpass Parameters

Parameters for the Lowpass unit.
- ☰ AULowShelf Parameters

Parameters for the Low Shelf Filter unit.
- ☰ AUHighShelfFilter Parameters

Parameters for the High Shelf Filter unit.
- ☰ AUNBandEQ Filter Types

Values for the filter type parameter of the Multitype EQ (NBandEQ) unit.
- ☰ AUNBandEQ Property IDs
- ☰ AUNBandEQ Parameters

## Effects

- ☰ Effect Audio Unit Subtypes

Effect (digital signal processing) audio unit subtypes for audio units provided by Apple.
- ☰ AUMatrixReverb Parameters
- ☰ AUDistortion Parameters
- ☰ Reverb Parameters

Additional reverb parameters.
- ☰ Reverb Unit Parameters

Parameters for the Reverb unit.

```
enum AUReverbRoomType
```

- ☰ Varispeed Unit Parameters
  - Parameters for the Varispeed unit.
- ☰ AUDelay Parameters
- ☰ AUMultibandCompressor Parameters
- ☰ AUDeferredRenderer Properties
- ☰ AUSampleDelay Parameters
- ☰ AUNewTimePitch Parameters
- ☰ AUTimePitch, AUTimePitch (offline), and AUPitch Unit Parameters

## Input/Output

- ☰ I/O Audio Unit Properties
  - Properties for Apple I/O audio units (sometimes called output units).
- ☰ Inter-App Output Unit Property IDs
- ☰ Inter-App Audio Unit Property IDs
- ☰ Output Unit Parameters
- ☰ AUNetReceive Properties
- ☰ AUNetSend Properties
- ☰ AUNetSend Parameters
- ☰ AUNetReceive Parameters
- ☰ AUNetSendPresetFormat Properties
- ☰ Net Status Audio Unit Parameters
- ☰ I/O Audio Unit Function Selectors
  - Audio unit component selectors, specific to I/O audio units, that correspond to functions in the audio unit API.

```
struct AudioOutputUnitMIDICallbacks
```

```
struct AudioOutputUnitStartAtTimeParams
```

A timestamp for scheduled starting of an I/O audio unit.

## Generators

- ☰ AURandom Parameters
- ☰ AUSampler Parameters
- ☰ AUSampler Property IDs
- ☰ AUSampler Properties
- ☰ AURogerBeep Parameters
- ☰ AUMIDISynth Properties
- ☰ AURoundTripAACParam Parameters

## See Also

### Audio Units

- { Generating spatial audio from a multichannel audio stream  
Convert 8-channel audio to 2-channel spatial audio by using a spatial mixer audio unit.
- ☰ Audio Unit v3 Plug-Ins  
Deliver custom audio effects, instruments, and other audio behaviors using an Audio Unit v3 app extension.
- ☰ Audio Components  
Find, load, and configure audio components, such as Audio Units and audio codecs.
- ☰ Audio Unit v2 (C) API  
Configure an Audio Unit and prepare it to render audio.
- ☰ Audio Unit Voice I/O  
Configure system voice processing and respond to speech events.