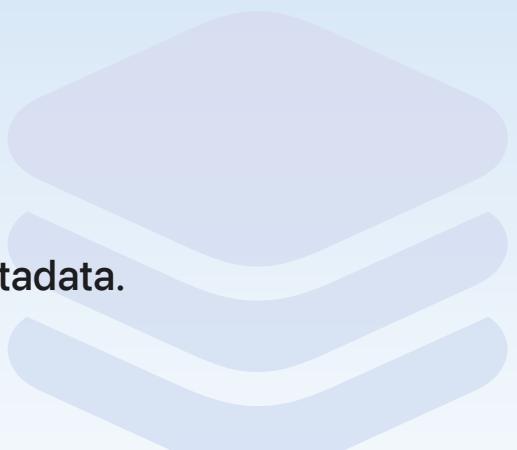


Framework

Immersive Media Support

Read and write essential Apple Immersive Video metadata.

macOS 26.0+ | visionOS 26.0+



Overview

Immersive Media Support enables you to create custom workflows for processing Apple Immersive Video (AIV). Use it to read and write AIV-specific metadata and enable previewing content in editorial workflows.

Topics

Essentials

{ } Authoring Apple Immersive Video

Prepare and package immersive video content for delivery.

Camera metadata

`actor VenueDescriptor`

The Apple Immersive Media Venue Descriptor is a collection of static metadata necessary for every Apple Immersive Video.

`struct ImmersiveCamera`

A structure that holds the required information for an immersive media camera to process and render video frames.

`struct ImmersiveCameraCalibration`

A structure that represents immersive media camera calibration data.

enum ImmersiveCameraMask

A structure that holds the camera mask type information and its relevant mask name.

struct ImmersiveDynamicMask

A type that holds the information required to dynamically generate an immersive media mask at load time.

Presentation commands

enum PresentationCommand

A set of properties that define the interface for a presentation command.

struct FadeCommand

A command type for color fading during immersive media playback.

struct FadeEnvironmentCommand

A command type for opacity fading environment backdrops during immersive media playback.

struct SetCameraCommand

A command type for immersive camera switching during playback.

struct ShotFlipCommand

A command type to flip the video frames horizontally (mirrored horizontally) during playback for the duration of the command.

struct PresentationDescriptor

A structure that represents dynamic metadata used during playback or when outputting the metadata track for an immersive video file.

class PresentationDescriptorReader

An object that provides the functionality required to understand and process immersive presentation commands.

Parametric immersive support

class ParametricImmersiveAssetInfo

An object that helps convert the original wide field of view video asset to parametric immersive asset.

Immersive video rendering support

```
struct ImmersiveCameraViewModel
```

A view model that holds all the resources needed to render an immersive camera view.

```
struct ImmersiveVideoMask
```

A video mask to use during video rendering to smooth the edges of the mesh.

Preview

```
class ImmersiveMediaPreviewMessagingProtocol
```

An object that represents the messaging protocol a remote preview sender and receiver use to communicate.

Validation

```
struct AIVUValidator
```

A type to validate existing AIVU files to ensure that they meet the minimum requirements for AIV.

Classes

```
class ImmersiveCameraMeshCalibration
```

Calibration mesh geometry based on USDZ data.

```
class ImmersiveImageMask
```

An object that holds all the information needed to load immersive media masks from image data or from a file.

```
class ImmersiveMediaRemotePreviewReceiver
```

An observable object that helps apps handle receiving commands and data sent from an immersive media remote preview sender object.

```
class ImmersiveMediaRemotePreviewSender
```

An observable object that helps an app send the required data to all connected receiver apps to help facilitate the complete preview of the immersive media playback.

Structures

```
struct ImmersiveCameraLensDefinition
```

This type holds the ILPD lens configuration parameters to generate camera calibration type instance.

```
struct ImmersiveVideoFrame
```

A type that represents an immersive video frame. An immersive video frame contains:

- layout (SideBySide, OverUnder, Separate, Mono)
- presentationTime: frame presentation time
- pixelBuffers: an array with one or more images representing the frame.