

[Immersive Media Support](#) / VenueDescriptor

## Class

# VenueDescriptor

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

macOS 26.0+ | visionOS 26.0+

`final actor` VenueDescriptor

## Overview

This type contains information that includes camera definitions such as the lens calibration information, as well as data necessary for the rendering of the video frames.

## Topics

### Creating a venue descriptor

```
init(device: (any MTLDevice)?)
```

Creates an empty venue descriptor instance.

```
convenience init(aimeURL: URL, device: (any MTLDevice)?) async throws
```

Creates a venue descriptor instance from an AIME file.

### Configuring cameras

```
var cameras: [ImmersiveCamera]
```

An array of all the immersive cameras contained in the venue descriptor.

```
func addCamera(ImmersiveCamera) throws
```

Adds a new immersive camera definition to the venue descriptor.

```
func removeCamera(id: String) throws
```

Removes an immersive camera definition from the venue descriptor.

```
func cameraViewModel(for: String) -> ImmersiveCameraViewModel?
```

Returns the camera view model for the given immersive camera identifier.

## Saving a venue descriptor data

```
func save(to: URL) throws
```

Generates an AIME file at the specified location.

```
var aimeData: Data?
```

Property holding the complete static metadata needed for the immersive media playback.

## Initializers

```
init(aimeData: Data, device: (any MTLDevice)?) async throws
```

Creates a venue descriptor instance from memory.

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# Relationships

## Conforms To

Actor, Sendable, SendableMetatype

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## See Also

## Camera metadata

```
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.