
[Immersive Media Support](#) / PresentationDescriptorReader

Class

PresentationDescriptorReader

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

macOS 26.0+ | visionOS 26.0+

```
class PresentationDescriptorReader
```

Overview

Immersive commands are packed as an array of [PresentationCommand](#) objects contained in a [PresentationDescriptor](#). This object is used during an Immersive Video playback as a source of rendering values its published variables, or the application can pull presentation commands by time to write an output metadata track.

Topics

Initializers

```
init(presentationDescriptor: PresentationDescriptor, isSideloaded: Bool)
```

Initializes an instance that contains the specified presentation descriptor.

Instance Properties

```
var cameraID: String?
```

The current camera ID string of the immersive camera to use when rendering playback for the PTS specified in the last call to the update method.

```
var colorFade: simd_float3
```

The current fade color for color fading of the video frames during playback for the PTS specified in the last call to the update method.

```
var colorFadeOpacity: Float
```

The current color fade opacity of the video frames during playback for the PTS specified in the last call to the update method.

```
var environmentFadeOpacity: Float
```

The current opacity of the environment backdrops during playback for the PTS specified in the last call to the update method.

```
var isShotFlopped: Bool
```

A Boolean value that indicates whether to horizontally flip the video frame for the PTS specified in the last call to the update method.

```
var isSideloaded: Bool
```

A Boolean value that indicates whether the reader input is sideloaded or is it set during playback.

```
var presentationCommands: [PresentationCommand]
```

The active presentation commands for the PTS specified in the last call to the update method.

```
var presentationDescriptor: PresentationDescriptor
```

The presentation descriptor that contains the presentation commands to process.

Instance Methods

```
func outputPresentationCommands(for: CMTime) -> [PresentationCommand]?
```

This function returns all presentation commands to be muxed into an MOV during an AVAssetWriter session. Don't use this function for playback rendering.

```
func processPresentationCommands(for: CMTime)
```

Processes the commands and updates the publishers exported by this reader when called by the application (e.g. render/playback loop)

Relationships

Conforms To

Copyable
Observable
Sendable
SendableMetatype

See Also

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 ShotFlopCommand`

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.