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## Structure

# MTLViewport

A 3D rectangular region for the viewport clipping.

iOS | iPadOS | Mac Catalyst | macOS | tvOS | visionOS

```
struct MTLViewport
```

## Topics

### Creating a viewport

```
init()
```

Returns a new viewport.

```
init(originX: Double, originY: Double, width: Double, height: Double,  
znear: Double, zfar: Double)
```

Returns a new viewport of a specified size at a specified origin.

### Specifying viewport boundaries

```
var originX: Double
```

The x coordinate of the upper-left corner of the viewport.

```
var originY: Double
```

The y coordinate of the upper-left corner of the viewport.

```
var width: Double
```

The width of the viewport, in pixels.

`var height: Double`

The height of the viewport, in pixels.

`var znear: Double`

The z coordinate of the near clipping plane of the viewport.

`var zfar: Double`

The z coordinate of the far clipping plane of the viewport.

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## Relationships

### Conforms To

BitwiseCopyable, Sendable

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## See Also

### Dynamic render pipeline states

`struct MTLScissorRect`

A rectangle for the scissor fragment test.

`struct MTLVertexAmplificationViewMapping`

An offset applied to a render target index and viewport index.

`struct MTLQuadTessellationFactorsHalf`

The per-patch tessellation factors for a quad patch.

`struct MTLTriangleTessellationFactorsHalf`

The per-patch tessellation factors for a triangle patch.