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Instance Method

newRenderPipelineStateWithDescriptor:compilerTaskOptions:error:

Creates a new render pipeline state synchronously.

iOS 26.0+ | iPadOS 26.0+ | Mac Catalyst 26.0+ | macOS 26.0+ | tvOS 26.0+ | visionOS 26.0+

```
- (id<MTLRenderPipelineState>) newRenderPipelineStateWithDescriptor:(MTL4PipelineDescriptor *) descriptor
                                                               compilerTaskOptions:(MTL4CompilerTaskOptions *) compilerTaskOptions
                                                               error:(NSError * *) e;
```

Parameters

descriptor

A render, tile, or mesh pipeline state descriptor that describes the pipeline to create.

compilerTaskOptions

A description of the compilation process itself, providing parameters that influence execution of the compilation process.

error

An optional parameter into which Metal stores information in case of an error.

Return Value

A new render pipeline state object upon success, `nil` otherwise.

Discussion

Use this method to build any render pipeline type, including render, tile, and mesh render pipeline states. The type of the descriptor you pass indicates the pipeline type this method builds.

Passing in a compute pipeline descriptor to the `descriptor` parameter produces an error.