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API Collection

Metal debugging types

Create capture managers and capture scopes, and review a GPU device's log after it runs a command buffer.

Topics

Frame capture

`class MTLCaptureDescriptor`

A configuration for a Metal capture session.

`class MTLCaptureManager`

An instance you use to capture Metal command data in your app.

`enum MTLCaptureDestination`

The kinds of destinations for captured command data.

`protocol MTLCaptureScope`

A type that can programmatically customize a GPU frame capture.

Capture errors

`enum MTLCaptureError`

Errors returned by capture sessions.

`let MTLCaptureErrorDomain: String`

The error domain for capture errors.

Shader logs

`protocol MTLFunctionLog`

A log entry a Metal device generates when the it runs a command buffer.

`struct MTLLogContainer`

A collection of logged messages, created when a Metal device runs a command buffer.

See Also

Developer tools



Supporting Simulator in a Metal app

Configure alternative render paths in your Metal app to enable running your app in Simulator.



Capturing Metal commands programmatically

Invoke a Metal frame capture from your app, then save the resulting GPU trace to a file or view it in Xcode.



Logging shader debug messages

Print debugging messages that a shader generates using shader logging.



Developing Metal apps that run in Simulator

Prototype and test your Metal apps in Simulator.



Improving your game's graphics performance and settings

Fix performance glitches and develop default settings for smooth experiences on Apple platforms using the powerful suite of Metal development tools.



Metal debugger

Debug and profile your Metal workload with a GPU trace.



Metal developer workflows

Locate and fix issues related to your app's use of the Metal API and GPU functions.



GPU counters and counter sample buffers

Retrieve runtime data from a GPU device by sampling one or more of its counters.