

[Metal / MTLD dispatchThreadgroupsIndirectArguments](#)

Structure

# MTLD dispatchThreadgroupsIndirect Arguments

The data layout required for arguments needed to specify the size of threadgroups.

[iOS](#) | [iPadOS](#) | [Mac Catalyst](#) | [macOS](#) | [tvOS](#) | [visionOS](#)

`struct MTLD dispatchThreadgroupsIndirectArguments`

## Mentioned in

 [Specifying drawing and dispatch arguments indirectly](#)

## Topics

### Specifying the size of the threadgroup

`init()`

Returns a new data layout for dispatching threadgroups over indirect buffer calls.

`init(threadgroupsPerGrid: (UInt32, UInt32, UInt32))`

Returns a new data layout for dispatching threadgroups over indirect buffer calls, with specified threadgroups per grid.

`var threadgroupsPerGrid: (UInt32, UInt32, UInt32)`

The number of threadgroups for the grid, in each dimension.

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# Relationships

## Conforms To

BitwiseCopyable, Sendable

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## See Also

### Related Documentation

`func dispatchThreadgroups(indirectBuffer: any MTLBuffer, indirectBufferOffset: Int, threadsPerThreadgroup: MTLSIZE)`

Encodes a dispatch call for a compute pass, using an indirect buffer that defines the size of a grid that aligns to threadgroup boundaries.

Required

## Configuring a compute pass

`class MTLComputePassDescriptor`

A description of how to dispatch execution of pass commands and GPU performance sampling.

`enum MTLDISPATCHTYPE`

The type of dispatch method to use when calling encoded functions.

`class MTLComputePassSAMPLEBUFFERATTACHMENTDESCRIPTOR`

A configuration that instructs the GPU where to store counter data from the beginning and end of a compute pass.

`class MTLComputePassSAMPLEBUFFERATTACHMENTDESCRIPTORARRAY`

A container that stores an array of sample buffer attachments for a compute pass.