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## Structure


# MTLDispatchThreadgroupsIndirectArguments

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

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

```
struct MTLDispatchThreadgroupsIndirectArguments
```

## 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, indirectBuffer  
Offset: 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.