

allocateBufferOfLength:actualStart:actualLength:
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Reserving target/lun pairs numReserved

Getting and setting parameters getIntValues:forParameter:count:
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Collecting statistics maxQueueLength
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sumQueueLengths
resetStats

(IOReturn)getIntValues:(unsigned int *)parameterArray
forParameter:(IOParameterName)parameterName
count:(unsigned int *)count

Handles the two parameters specific to SCSI controllers `DIO_SCSI_CONTROLLER_STATS` and `IO_IS_A_SCSI_CONTROLLER` and forwards the handling of all other parameters to super. The returned for `IO_SCSI_CONTROLLER_STATS` is set to the numbers returned by `maxQueueLength` and `sumQueueLengths`. No array is returned for `IO_IS_A_SCSI_CONTROLLER` only `IO_R_SUCCESS` indicate that this `IODevice` is indeed a SCSI controller.

setIntValues:forParameter:count:

initFromDeviceDescription:deviceDescription

Initializes a new `IOSCSIController` instance. After invoking `IODirectDevice's` version of `initFromDeviceDescription` this method starts an I/O thread (with `startIOThread`) and sets its unit, name, and device kind. Each instance has its own unit number. The first instance's unit is 0, the second is 1, and so on. The name is the concatenation of the unit (for example, `"sc0"`), and the device kind is `"sc"`.

This method also determines the alignment restrictions for the hardware, using the `getDMAAlignment` method. The alignment restrictions are used by the method `allocateBufferOfLength:actualStart:actualLength:`.

This method returns `nil` and frees the instance if initialization failed otherwise, it returns `self`.

You should implement this method to invoke `IOSCSIController's` version and to then perform any other initialization, including initializing the hardware and (at the very end) invoking `registerDevice`.

Returns zero. Subclasses that support standard statistics should implement this method so that it returns the number of times the instance has collected information about its queue of I/O requests. This number should be zero when the instance is initialized and when `resetStats` is called. See the class description for more information on supporting standard statistics.

`(unsigned int)numReserved`

Returns the number of target/lun pairs that are reserved. Each pair corresponds to an active device that this instance controls.

`reserveTarget:lun:forOwner:` and `releaseTarget:lun:forOwner:` (IO SCSI Controller Exported protocol)

`(void)resetStats`

Does nothing. Subclasses that support standard statistics should implement this method so that it resets the numbers that are returned by `maxQueueLength`, `numQueueSamples`, and `sumQueueLengths`. See the class description for more information on supporting standard statistics.

`(IOReturn)setIntValues:(unsigned int *)parameterArray
forParameter:(IOParameterName)parameterName
count:(unsigned int)count`

Handles the `IO SCSI CONTROLLER STATS` parameter, forwarding the handling of all other parameters. When the `IO SCSI CONTROLLER STATS` parameter resets (using `resetStats`) the standard statistical data.

`getIntValues:forParameter:count:`

`(unsigned int)sumQueueLengths`

Returns zero. Subclasses that support standard statistics should implement this method so that it returns the number of requests detected in its queue of I/O requests. This number should be reset to 0 when this instance is initialized and when `resetStats` is called. See the class description for more information on supporting standard statistics.