NAME

scsi_dmaget, scsi_dmafree – SCSI dma utility routines

SYNOPSIS

```
#include <sys/scsi/scsi.h>
struct scsi_pkt *scsi_dmaget(struct scsi_pkt *pkt, opaque_t dmatoken,
        int (*callback)(void));
void scsi_dmafree(struct scsi_pkt *pkt);
```

INTERFACE LEVEL

Solaris DDI specific (Solaris DDI).

ARGUMENTS

pkt	A pointer to a **scsi_pkt**(9S) structure.
dmatoken	Pointer to an implementation dependent object
callback	Pointer to a callback function, or **NULL_FUNC** or **SLEEP_FUNC.**

DESCRIPTION

scsi_dmaget( ) allocates DMA resources for an already allocated SCSI packet. *pkt* is a pointer to the previously allocated SCSI packet (see **scsi_pktalloc**(9F)).

dmatoken is a pointer to an implementation dependent object which defines the length, direction, and address of the data transfer associated with this SCSI packet (command). The *dmatoken* must be a pointer to a **buf**(9S) structure. If *dmatoken* is **NULL**, no resources are allocated.

callback indicates what **scsi_dmaget( )** should do when resources are not available:

NULL_FUNC	Do not wait for resources. Return a **NULL** pointer.
SLEEP_FUNC	Wait indefinitely for resources.
Other Values	*callback* points to a function which is called when resources may have become available. *callback* **must** return either **0** (indicating that it attempted to allocate resouces but failed to do so again), in which case it is put back on a list to be called again later, or **1** indicating either success in allocating resources or indicating that it no longer cares for a retry.

scsi_dmafree( ) frees the DMA resources associated with the SCSI packet. The packet itself remains allocated.

RETURN VALUES

scsi_dmaget( ) returns a pointer to a **scsi_pkt** on success. It returns **NULL** if resources are not available.

CONTEXT

If *callback* is **SLEEP_FUNC**, then this routine may only be called from user-level code. Otherwise, it may be called from either user or interrupt level. The *callback* function may not block or call routines that block.

scsi_dmafree( ) can be called from user or interrupt context.

SEE ALSO

scsi_pktalloc(9F), **scsi_pktfree**(9F), **scsi_resalloc**(9F), **scsi_resfree**(9F), **buf**(9S), **scsi_pkt**(9S)

Writing Device Drivers