NAME

scsi_errmsg – display a SCSI request sense message

SYNOPSIS

#include <sys/scsi/scsi.h>

void scsi_errmsg(struct scsi_device **devp*, **struct scsi_pkt** **pktp*, **char** **drv_name*, **int** *severity*, **int** *blkno*, **int** *err_blkno*, **struct scsi_key_strings** **cmdlist*, **struct scsi_extended_sense** **sensep*);

INTERFACE LEVEL

Solaris DDI specific (Solaris DDI).

ARGUMENTS

devp	Pointer to the **scsi_device**(9S) structure.
pktp	Pointer to a **scsi_pkt**(9S) structure.
drv_name	String used by **scsi_log**(9F).
severity	Error severity level, maps to severity strings below.
blkno	Requested block number.
err_blkno	Error block number.
cmdlist	An array of SCSI command description strings.
sensep	A pointer to a **scsi_extended_sense**(9S) structure.

DESCRIPTION

scsi_errmsg( ) interprets the request sense information in the *sensep* pointer and generates a standard message that is displayed using **scsi_log**(9F). The first line of the message is always a **CE_WARN**, with the continuation lines being **CE_CONT**. *sensep* may be **NULL** in which case no sense key or vendor information is displayed.

The driver should make the determination as to when to call this function based on the severity of the failure and the severity level that the driver wants to report.

The **scsi_device**(9S) structure denoted by *devp* supplies the identification of the device that requested the display. *severity* selects which string is used in the "Error Level:" reporting, according to the table below:

Severity Value:	String:
SCSI_ERR_ALL	All
SCSI_ERR_UNKNOWN	Unknown
SCSI_ERR_INFO	Information
SCSI_ERR_RECOVERED	Recovered
SCSI_ERR_RETRYABLE	Retryable
SCSI_ERR_FATAL	Fatal

blkno is the block number of the original request that generated the error. *err_blkno* is the block number where the error occurred. *cmdlist* is a mapping table for translating the SCSI command code in *pktp* to the actual command string.

The *cmdlist* is described in the structure below:

```
struct scsi_key_strings {
        int key;
        char *message;
};
```

For a basic SCSI disk the following list is appropriate:

```
static struct scsi_key_strings sd_cmds[] = {
        0x00, "test unit ready",
        0x01, "rezero",
        0x03, "request sense",
        0x04, "format",
        0x07, "reassign",
        0x08, "read",
        0x0a, "write",
        0x0b, "seek",
        0x12, "inquiry",
        0x15, "mode select",
        0x16, "reserve",
        0x17, "release",
        0x18, "copy",
        0x1a, "mode sense",
        0x1b, "start/stop",
        0x1e, "door lock",
        0x28, "read(10)",
        0x2a, "write(10)",
        0x2f, "verify",
        0x37, "read defect data",
        −1, NULL
};
```

CONTEXT

scsi_errmsg( ) may be called from user or interrupt context.

EXAMPLE

```
    scsi_errmsg(devp, pkt, "sd", SCSI_ERR_INFO, bp->b_blkno,
        err_blkno, sd_cmds, rqsense);
```

Generates:

```
WARNING: /sbus@1,f8000000/esp@0,800000/sd@1,0 (sd1):
        Error for command 'read'        Error Level: Informational
        Requested Block 23936, Error Block: 23936
        Sense Key: Unit Attention
        Vendor 'QUANTUM': ASC = 0x29 (reset), ASCQ = 0x0, FRU = 0x0
```

SEE ALSO **cmn_err**(9F), **scsi_log**(9F), **scsi_device**(9S), **scsi_extended_sense**(9S), **scsi_pkt**(9S)
Writing Device Drivers