struct request documentation

Jens Axboe <jens.axboe@oracle.com> 27/05/02

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Short explanation of request members

Classification flags:

      D   driver member
      B   block layer member
      I   I/O scheduler member

Unless an entry contains a D classification, a device driver must not access
this member. Some members may contain D classifications, but should only be
access through certain macros or functions (eg ->flags).

<linux/blkdev.h>

2.1

Member	Flag	Comment
struct list_head queuelist	BI	Organization on various internal queues
void *elevator_private	I	I/O scheduler private data
unsigned char cmd[16]	D	Driver can use this for setting up a cdb before execution, see blk_queue_prep_rq
unsigned long flags	DBI	Contains info about data direction, request type, etc.
int rq_status	D	Request status bits
kdev_t rq_dev	DBI	Target device
int errors	DB	Error counts
sector_t sector	DBI	Target location
unsigned long hard_nr_sectors	B	Used to keep sector sane

unsigned long nr_sectors	DBI	Total number of sectors in request
unsigned long hard_nr_sectors	B	Used to keep nr_sectors sane
unsigned short nr_phys_segments	DB	Number of physical scatter gather segments in a request
unsigned short nr_hw_segments	DB	Number of hardware scatter gather segments in a request
unsigned int current_nr_sectors	DB	Number of sectors in first segment of request
unsigned int hard_cur_sectors	B	Used to keep current_nr_sectors sane
int tag	DB	TCQ tag, if assigned
void *special	D	Free to be used by driver
char *buffer	D	Map of first segment, also see section on bouncing SECTION
struct completion *waiting	D	Can be used by driver to get signalled on request completion
struct bio *bio	DBI	First bio in request
struct bio *biotail	DBI	Last bio in request
struct request_queue *q	DB	Request queue this request belongs to
struct request_list *rl	B	Request list this request came from