NAME scsi_inquiry – SCSI inquiry structure

SYNOPSIS **#include <sys/scsi/scsi.h>**

INTERFACE LEVEL Solaris DDI specific (Solaris DDI).

DESCRIPTION The **scsi_inquiry** structure contains 36 required bytes, followed by a variable number of vendor-specific parameters. Bytes 59 through 95, if returned, are reserved for future standardization. This structure is part of **scsi_device**(9S) structure and typically filled in by **scsi_probe**(9F).

STRUCTURE MEMBERS

```
u_char   inq_dtype;              /* peripheral qualifier, device type */
u_char   inq_rmb         : 1,    /* removable media */
         inq_qual        : 7;    /* device type qualifier */
u_char   inq_iso         : 2,    /* ISO version */
         inq_ecma        : 3,    /* ECMA version */
         inq_ansi        : 3;    /* ANSI version */
u_char   inq_aenc        : 1,    /* async event notification cap. */
         inq_trmiop      : 1,    /* supports TERMINATE I/O PROC msg */
         inq_rdf         : 4;    /* response data format */
u_char   inq_len;                /* additional length */
u_char   inq_reladdr     : 1,    /* supports relative addressing */
         inq_wbus32      : 1,    /* supports 32 bit wide data xfers */
         inq_wbus16      : 1,    /* supports 16 bit wide data xfers */
         inq_sync        : 1,    /* supports synchronous data xfers */
         inq_linked      : 1,    /* supports linked commands */
         inq_cmdque      : 1,    /* supports command queueing */
         inq_sftre       : 1;    /* supports Soft Reset option */
char     inq_vid[8];             /* vendor ID */
char     inq_pid[16];            /* product ID */
char     inq_revision[4];        /* revision level */
```

inq_dtype identifies the type of device. Bits 0 - 4 represent the Peripheral Device Type and bits 5 - 7 represent the Peripheral Qualifier. The following values are appropriate for Peripheral Device Type field:

DTYPE_DIRECT	Direct-access device (e.g., magnetic disk).
DTYPE_SEQUENTIAL	Sequential-access device (e.g., magnetic tape).
DTYPE_PRINTER	Printer device.
DTYPE_PROCESSOR	Processor device.
DTYPE_WORM	Write-once device (e.g., some optical disks).
DTYPE_RODIRECT	CD-ROM device.
DTYPE_SCANNER	Scanner device.
DTYPE_OPTICAL	Optical memory device (e.g., some optical disks).

DTYPE_CHANGER	Medium Changer device (e.g., jukeboxes).
DTYPE_COMM	Communications device.
DTYPE_UNKNOWN	Unknown or no device type.
DTYPE_MASK	Mask to isolate Peripheral Device Type field

The following values are appropriate for the Peripheral Qualifier field:

DPQ_POSSIBLE	The specified peripheral device type is currently connected to this logical unit. If the target cannot determine whether or not a physical device is currently connected it shall also use this peripheral qualifier when returning the INQUIRY data. This peripheral qualifier does not imply that the device is ready for access by the initiator.
DPQ_SUPPORTED	The target is capable of supporting the specified peripheral device type on this logical unit. However, the physical device is not currently connected to this logical unit.
DPQ_NEVER	The target is not capable of supporting a physical device on this logical unit. For this peripheral qualifier, the peripheral device type shall be set to **DTYPE_UNKNOWN** to provide compatibility with previous versions of SCSI. For all other peripheral device type values, this peripheral qualifier is reserved.
DPQ_VUNIQ	This is a vendor-unique qualifier.

DTYPE_NOTPRESENT is the peripheral qualifier **DPQ_NEVER** and the peripheral device type **DTYPE_UNKNOWN** combined.

inq_rmb, if set, indicates that the medium is removable.

inq_qual is a device type qualifier.

inq_iso indicates ISO version.

inq_ecma indicates ECMA version.

inq_ansi indicates ANSI version.

inq_aenc, if set, indicates that the device supports asynchronous event notification capability as defined in SCSI-2 specification.

inq_trmiop, if set, indicates that the device supports the TERMINATE I/O PROCESS message.

inq_rdf, if reset, indicates the INQUIRY data format is as specified in SCSI-1.

inq_inq_len is the additional length field which specifies the length in bytes of the parameters.

inq_reladdr, if set, indicates that the device supports the relative addressing mode of this logical unit.

inq_wbus32, if set, indicates that the device supports 32-bit wide data transfers.

inq_wbus16, if set, indicates that the device supports 16-bit wide data transfers.

inq_sync, if set, indicates that the device supports synchronous data transfers.

inq_linked, if set, indicates that the device supports linked commands for this logical unit.

inq_cmdque, if set, indicates that the device supports tagged command queueing.

inq_sftre, if reset, indicates that the device responds to the RESET condition with the hard RESET alternative. If this bit is set, this indicates that the device responds with the soft RESET alternative.

inq_vid contains eight bytes of ASCII data identifying the vendor of the product.

inq_pid contains sixteen bytes of ASCII data as defined by the vendor.

inq_revision contains four bytes of ASCII data as defined by the vendor.

SEE ALSO

scsi_probe(9F), **scsi_device**(9S)

ANSI Small Computer System Interface-2 (SCSI-2)

Writing Device Drivers