

To: X3T9.2 Committee (SCSI)

From: George Penokie (IBM)

Subject: Change Inquiry Command

Problem:

It is not unusual for the same SCSI device to be placed into more than one product. In this case the part number of the device remains the same for all applications. Our field tracking people have requested that we provide them with a means of distinguishing where the SCSI device is located.

The SCSI Bus itself does nothing to aid in physically determining where SCSI devices are located. The only information which is available is which SCSI controller the SCSI device connected. The SCSI device could be inside the system enclosure or attached externally.

Request:

Develop a standard way of personalizing a SCSI devices Inquiry data which can easily be used in the factory and in the field when SCSI devices are either replaced or added to a system.

Proposal:

Create a new command called Change Inquiry which would change Inquiry data to the requested values. A first cut at this new command follows:

CHANGE INQUIRY Command

The CHANGE INQUIRY command requests that information regarding parameters of the target and its attached peripheral device(s) be changed to the requested values.

CHANGE INQUIRY Command

Bit Byte	7	6	5	4	3	2	1	0
0	Operation Code (xxh)							
1	Reserved							EVPD
2	Page Code							
3	Inquiry Data Offset							
4	Parameter List Length							
5	Control							

An enable vital product data (EVPD) bit of one specifies that the target shall change the optional vital product data specified by the page code field. If the target does not support vital product data and this bit is set to one, the target shall return CHECK CONDITION status with the sense key set to ILLEGAL REQUEST and an additional sense code of INVALID FIELD IN CDB.

An EVPD bit of zero specifies that the target shall change the standard INQUIRY data. If the page code field is not zero, the target shall return CHECK CONDITION status with the sense key set to ILLEGAL REQUEST and an additional sense code of INVALID FIELD IN CDB.

The page code field specifies which page of vital product data information the target shall change (see 7.3.4).

The inquiry data offset field specifies the byte offset of the first byte which shall be changed. If the inquiry data offset points to a location which is not supported, not changeable, or reserved the target shall return CHECK CONDITION status with the sense key set to ILLEGAL REQUEST and an additional sense code of INVALID FIELD IN CDB.

Implementors Note:

A byte offset of zero indicates byte 0 of the inquiry data or byte 0 of the EVPD page would be the first byte to be changed.

When a CHANGE INQUIRY command is received by a target the target shall generate a unit attention condition for all initiators except the one that issued the CHANGE INQUIRY command. The target shall set the additional sense code to INQUIRY PARAMETERS CHANGED (This is a new ASCQ which should be 2A 03).

CHANGE INQUIRY Parameter List

CHANGE INQUIRY Parameter List

Bit Byte	7	6	5	4	3	2	1	0
0	Change Inquiry Data							
n								

The change inquiry data field contains the information which shall replace the current Inquiry data. The Inquiry data to be replaced is determined by the parameters in the command control block.