

To: X3T10 Committee (SCSI)

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Subject: Commands required by SCSI-2 and optional in SCSI-3

THE PROBLEM:

- Up to now, simplified device drivers only used CCS commands because all those commands were mandatory in SCSI-2
- If the ANSI-approved version in the Inquiry data was SCSI-2, CCS support was guaranteed.
 - No recovery code for unsupported commands was required.
- If the ANSI-approved version is SCSI-3, CCS support is NOT guaranteed:
 - Until now, CCS support WAS guaranteed by SCSI-3, and drivers exist which assume CCS support if a SCSI-3 ANSI version is reported.
 - Now, uncertainty exists for the mandatory SCSI-2 commands which are now optional in SCSI-3 (e.g., six-byte RESERVE, & RELEASE are examples).
- Device drivers must rely on trial and error to determine if SCSI-2 mandatory commands that are now optional in SCSI-3 are supported(i.e., CCS support).
 - Trial and error recovery code adds complexity.

SOLUTION

- Make the INQUIRY commands command support data mandatory if and only if any command that was mandatory in a previous standard and is NOT implemented.
 - Devices need not implement the command support data option if all previous mandatory commands are implemented
- This solution allows a device driver to determine if the previous mandatory commands are supported without trial and error:
 - If ANSI version is SCSI-2, then driver uses CCS
 - If version is SCSI-3, then driver issues INQUIRY commands requesting command support data about the newly made SCSI-3 optional commands (e.g. RESERVE, RELEASE)
 - CCS can be used either if the INQUARY commands command support data is unavailable (ILLEGAL REQUEST) or if it is available and the command is supported.