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

- Require implementation of the INQUIRY commands command support data for at least those commands which were mandatory in SCSI-2 and are NOT implemented.
  - Devices need not implement the command support data option if all the SCSI-2 mandatory commands are implemented

- This solution allows a device driver to determine if the SCSI-2 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.