T10/04-252r0

Project Proposal
for a new
INCITS Standard

SCSI Primary Commands - 4
(SPC-4)

September 16, 2004

1. Source of Proposed Project

1.1 Title: SCSI Primary Commands - 4.

1.2 Date Submitted: September 16, 2004.

1.3 Proposing Group: T10.

2. Process Description for the Proposed Project

2.1 Project Type: D - Development.

2.2 Type of Document: Standard.

2.3 Definitions of Concepts and Special Terms: none.

2.4 Expected Relationship with Approved Reference Models, Frameworks, Architectures, etc.

None, it is expected that this standard will be used in closed systems.

2.5 Recommended INCITS Development Technical Committee: T10.

2.6 Anticipated Frequency and Duration of Meetings

Technical Committee T10 meets on a regularly scheduled basis (see http://www.t10.org for the current meeting schedule). Specific task ad hoc groups are called as required between the regular meetings but their results are not binding.

2.7 Target Date for Initial Public Review (Milestone 4): November, 2009.

2.8 Estimated Useful Life of Standard or Technical Report: 5 Years.

3. Business Case for Developing the Proposed Standard or Technical Report

3.1 Description

The SCSI Primary Commands - 4 standard will be based on the SCSI Primary Commands - 3 standard that defines a SCSI commands that apply to all SCSI device types.

Technological advances require continuing improvements in the set of SCSI commands employed by all SCSI device types. After the publication of SPC-3, SPC-3 will provide the vehicle for standardizing the needed improvements. SPC-4 will maintain a high degree of compatibility with the present SPC-3 standard, which is nearing completion of its development cycle.

The SCSI Primary Commands - 4 standard is intended to include additional commands as well as existing SCSI primary commands, and be applicable to both existing and new SCSI device types being developed. The participants in the project may decide to move some information in SCSI Primary Commands to another standard or to make some information obsolete in SPC-4.

The following items should be considered for inclusion into SPC-4:

1) New additional sense code values;

2) New mode page definitions or new fields in existing mode pages;
3) New fields in the parameter data returned by the INQUIRY and REQUEST SENSE commands;
4) New vital product data pages;
5) New commands appropriate for all SCSI device types; and
6) Other capabilities that may fit within the general application scope of this project.

3.2 Existing Practice and the Need for a Standard

The proposed project involves a compatible evolution of the present SCSI architecture model and commands that apply to all device types to use a standard modeling construct. In addition, the evolution of SCSI as an interface creates an ongoing need to enhance and revise the SCSI commands that apply to all device types.

3.3 Implementation Impacts of the Proposed Standard

3.3.1 Development Costs

Members of T10 will provide the necessary resources. The T10 members will host the required meetings for development, provide for the necessary lab experiments, and provide the Technical Editor for the project.

3.3.2 Impact on Existing or Potential Markets

The nature of the proposed project is to provide for growth in the SCSI products industry. This ensures that current investments in SCSI devices will have a stable managed migration path in the face of technological developments.

3.3.3 Costs and Methods for Conformity Assessment

The committee will consider the results of testing that may be available to the committee through the voluntary efforts of the various participants in T10. With this method, all costs are borne by the organizations of the various participants and have for the most part been mainly an adjunct of their normal development costs.

3.3.4 Return on Investment

ROI information is considered proprietary data by the member organizations, but members have stated that the ROI is expected to be large.

3.4 Legal Considerations

3.4.1 Patent Assertions

Calls will be made to identify assertions of patent rights in accordance with the relevant INCITS, ANSI, and ISO/IEC policies and procedures.

3.4.2 Dissemination of the Standard or Technical Report

Drafts of this document will be disseminated electronically. Dissemination of the final standard will be restricted, as the document becomes property of INCITS, ANSI, and/or ISO/IEC.

4. Related Standards Activities

4.1 Existing Standards:

ID Number	Title
INCITS.366:2003	SCSI Architecture Model - 2 (SAM-2)
NCITS.351-2001	SCSI Primary Commands - 2 (SPC-2)
NCITS.306-1998	SCSI Block Commands (SBC)
INCITS.380-2003	SCSI Stream Commands - 2 (SSC-2)

4.2 Related Standards Activity

ID Number	Title
T10/1561-D	SCSI Architecture Model - 3 (SAM-3)
T10/1683-D	SCSI Architecture Model - 4 (SAM-4)
T10/1416-D	SCSI Primary Commands - 3 (SPC-3)
T10/1417-D	SCSI Block Commands - 2 (SBC-2)
T10/1611-D	SCSI Stream Commands - 3 (SSC-3)

4.3 Corresponding ISO projects

ID Number	Title
ISO/IEC 14776	Multipart SCSI standard

4.4 Recommendations for Close Liaison

None

5. Units of Measurement used in the Standard

Not Measurement Sensitive.