Project Proposal
for a new
INCITS Standard

SCSI Architecture Model - 3
(SAM-3)

May 2, 2002

1.   Source of Proposed Project

1.1 Title: SCSI Architecture Model - 3.

1.2 Date Submitted: May 2, 2002.

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): December 2004.

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

There is a continuing need to evolve and enhance the SCSI architecture model. The proposed SAM-3 standard would revise SAM-2 to extend the model, focusing on the needs of the serial transports.

The SAM-3 standard will define an abstract layered model specifying those common characteristics of an SCSI I/O subsystem that must be exhibited by all SCSI protocols and implementations to insure compatibility with device drivers and applications regardless of underlying interconnect technology. SAM-3 will maintain a high degree of compatibility with the present SAM-2 standard, which is nearing completion of its development cycle.

The following items should be considered for inclusion in SAM-3:
1)   Revision of the model to reflect the trend towards packetized and serialized SCSI protocols;
2)   Replace the hierarchy diagram with a UML modeling structure;
3)   Reorganization of information with SPC-3 so that the model might need fewer changes in the future;
4)   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 architecture model to provide for newly developed SCSI products.

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 as 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
X3.270:1996	SCSI-3 Architecture Model (SAM)
NCITS.351:2001	SCSI Primary Commands - 2 (SPC-2)

4.2 Related Standards Activity

ID Number	Title
T10/1157-D	SCSI Architecture Model - 2 (SAM-2)
T10/1416-D	SCSI Primary Commands - 3 (SPC-3)

4.3 Corresponding ISO projects

ID Number	Title
ISO/IEC 14776	Multipart SCSI standard
ISO/IEC 14776-411	SCSI-3 Architecture Model (SAM)
ISO/IEC 14776-312	SCSI Primary Commands - 2 (SPC-2)

4.4 Recommendations for Close Liaison

Technical Committees T11 and T13.