

X3T10/96-225r0

Project Proposal
For a New
X3 Standard

SCSI Primary Commands - 2
(SPC-2)

12 September, 1996

1. IDENTIFICATION OF PROPOSED PROJECT

1.1 TITLE: SCSI Primary Commands - 2 (SPC-2)

1.2 PROPOSER: X3T10.

1.3 DATE SUBMITTED: 12 September, 1996

1.4 PROJECT TYPE: D - Development of a standard within an X3 TC.

2. JUSTIFICATION OF PROPOSED STANDARD

2.1 NEEDS:

Technological advances require continuing improvements in the set of SCSI commands employed by all SCSI device types. After the publication of SPC, SPC-2 will provide the vehicle for standardizing the needed improvements.

2.2 RECOMMENDED SCOPE OF STANDARD:

The SCSI Primary Commands-2 standard is intended to include additional commands as well as existing SCSI-3 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-3 Primary Commands to another standard or to make some information in SCSI-3 Primary Commands obsolete in SCSI Primary Commands-2.

In addition to the information currently in SCSI-3 Primary Commands, information that will be considered for incorporation include:

- a) New additional sense code values,
- b) New mode page definitions or new fields in existing mode pages,
- c) New fields in the parameter data returned by the INQUIRY and REQUEST SENSE commands,
- d) New vital product data pages,
- e) New commands appropriate for all SCSI device types,
- f) Changes to the processor device type model, and
- g) Other capabilities that fit within the general scope of implementing the SPC-2 on a broad range of applications, and other capabilities that may be proposed during the development phase by the participants in the project.

2.3 EXISTING PRACTICE IN AREA OF PROPOSED STANDARD:

Current design work is generally based upon SPC with a need to expand the designs in the future to include the SPC-2 candidate definitions.

2.4 EXPECTED STABILITY OF PROPOSED STANDARD WITH RESPECT TO CURRENT AND POTENTIAL TECHNOLOGICAL ADVANCEMENTS:

The proposed project will enhance the existing SCSI-3 Primary Command set. The proposed project is part of an on-going and rapid advancement of technology in the area of peripheral device interfaces.

3. DESCRIPTION OF PROPOSED PROJECT:

3.1 TYPE OF DOCUMENT: Standard.

3.2 DEFINITION OF CONCEPTS AND SPECIAL TERMS: None.

3.3 EXPECTED RELATIONSHIP WITH APPROVED X3 REFERENCE MODELS:

The SPC-2 standard is intended for use in closed systems.

3.4 RECOMMENDED PROGRAM OF WORK:

The following program of work is planned for the SPC-2 standard:

- (1) Solicit participation from present and future SCSI participants through X3T10 procedures and through press releases. Invite comments and participation by developers and end-user organizations and invite proposals from organizations that have contributed to the SCSI-3 Primary Commands standard.
- (2) Establish functional requirements for SCSI Primary Commands-2 functional additions.
- (3) Prepare a draft standard based on proposals submitted and other information gathered during the initial investigation.
- (4) Invite comments by end-user organizations and invite proposals from organizations that may have a contribution to a viable SCSI-3 Primary Commands standard.
- (5) Submit the draft proposed standard to X3 for further processing.

3.5 RESOURCES - INDIVIDUALS AND ORGANIZATIONS COMPETENT IN THE SUBJECT MATTER:

The current membership of X3T10 includes representatives from all parts of the computer industry from semiconductor chip manufacturers to large system manufacturers as well as Government agencies. The members of X3T10 have expressed their desire to participate and cooperate in the development of this proposed standard.

There are sufficient resources to complete the development of this standard without delaying work on other standards.

3.6 RECOMMENDED X3 DEVELOPMENT TECHNICAL COMMITTEE:

It is recommended that the development work be done in Technical Committee X3T10.

3.7 ANTICIPATED FREQUENCY AND DURATION OF MEETINGS:

Technical Committee X3T10 meets bimonthly. Specific task ad hoc groups are called as may be required between the regular meetings but their results are not binding.

3.8 TARGET DATE FOR dpANS TO X3: July 1998.

3.9 ESTIMATED USEFUL LIFE OF STANDARD:

It is anticipated that this standard will have a life of 5 years.

4. IMPLEMENTATION IMPACTS

4.1 IMPACT ON EXISTING USER PRACTICES AND INVESTMENTS:

The proposed SCSI Primary Commands-2 standard will provide an upward growth path which complements existing practices and investments. It is likely that any isolated negative impacts would occur in any case through non-standard evolution or revolution.

4.2 IMPACT ON SUPPLIER PRODUCTS AND SUPPORT:

The proposed SCSI Primary Commands-2 standard will provide an upward growth path which complements existing practices and investments. It is likely that any isolated negative impacts would occur in any case through non-standard evolution or revolution.

4.3 TECHNIQUES AND COSTS FOR COMPLIANCE VERIFICATION:

The committee will consider the results of SCSI Primary Commands-2 testing as may be available to the committee through the voluntary efforts of the various participants in X3T10. 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.

4.4 LEGAL CONSIDERATIONS:

There are no known legal considerations. A Call for Patents will be made regularly.

5. CLOSELY RELATED STANDARDS ACTIVITIES

5.1 EXISTING STANDARDS:

BSR Number	Title	Project
X3.270-1996	SCSI-3 Architecture Model	X3T10/0994-D
X3.276-1996	SCSI-3 Controller Commands (SCC)	X3T10/1047-D
X3.232-1996	SCSI-2 Common Access Method (CAM)	X3T10/0792-D

5.2 X3 STANDARDS DEVELOPMENT PROJECTS:

BSR Number	Title	Project
X3.xxx-199x	SCSI Architecture Model - 2	X3T10/1157-D
X3.xxx-199x	SCSI-3 Primary Commands	X3T10/0995-D
X3.xxx-199x	SCSI-3 Medium Changer Commands	X3T10/0999-D
X3.xxx-199x	SCSI-3 Block Commands	X3T10/0996-D
X3.xxx-199x	SCSI-3 Stream Commands	X3T10/0997-D
X3.xxx-199x	SCSI-3 Multi-Media Commands	X3T10/1048-D
X3.xxx-199x	SCSI-3 Enclosure Services	X3T10/1212-D
X3.xxx-199x	SCSI Controller Commands-2	X3T10/xxxx-D
X3.xxx-199x	SCSI Multi-Media Commands-2	X3T10/xxxx-D
X3.xxx-199x	SCSI-3 Common Access Method-3 (CAM-3)	X3T10/0990-D

5.3 X3 STUDY GROUPS: None.

5.4 OTHER RELATED DOMESTIC STANDARDS EFFORTS: None.

5.5 ISO/IEC JTC 1 STANDARDS DEVELOPMENT PROJECTS:

It is anticipated that this standard will be proposed to JTC1/SC25/WG4.

Related ISO projects:

Project No.	Name
25.13.11.07	SCSI-3 SBP CD 14776-231
25.13.11.08	SCSI-3 SAM CD 14776-411
25.13.11.09	SCSI-3 CAM-3 CD 14776-423
25.13.11.10	SCSI-3 SBC CD 14776-321

- 25.13.11.11 SCSI-3 SSC CD 14776-331
- 25.13.11.12 SCSI-3 SGC CD 14776-391
- 25.13.11.13 SCSI-3 SMC CD 14776-351
- 25.13.11.15 SCSI-3 SCC CD 14776-341

5.6 OTHER RELATED INTERNATIONAL STANDARDS DEVELOPMENT PROJECTS: None.

5.7 RECOMMENDATIONS FOR COORDINATING LIAISON: None.

5.8 RECOMMENDATIONS FOR CLOSE LIAISON: X3T11 and X3T13.