**Project Proposal
For a New
NCITS Standard**

MultiMedia Command Set - 4

(MMC-4)

Command Set

May 9, 2001

1. Source of the Proposed Project

1.1. Title: MultiMedia Command Set version 4 (MMC-4)

1.2. Date Submitted: May 9, 2001

1.3. Proposing Group: T10, 8 members of T10 are also members of NCITS

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 NCITS Development Technical Committee

T10

2.6. Anticipated Frequency and Duration of Meetings

Technical Committee T10 meets on a regularly scheduled basis (see 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)

September, 2002

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 MultiMedia Command set version 4 is based on MultiMedia Command set version 3 that provides for commands to implement CD-R, CD-RW, DVD-ROM, DVD-R, DVD+RW DVD-RAM, DVD-RW, AS-MO, and earlier devices.

This command set may be implemented on multiple interfaces such as SCSI, ATA/ATAPI, SBP-2 (1394), and FC-P. MMC-1, MMC-2, and MMC-3 were developed with the viewpoint that the SPI represented the primary connection. Details needed for connection via other interfaces were included as annexes. It has been noted, however, that greater than 90% of MMC-1, 2, 3 compliant devices are connected via ATA using the ATAPI protocol. In order to address this trend with a more useful standard, MMC-4 shall be developed with the viewpoint that ATA/ATAPI shall be the primary connection. Details needed for connection via SPI shall be included as an annex.

Additionally, the following items should be considered for inclusion in MMC-4:

- extensions to DVD product commands,
- extensions to CD product commands,
- 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 command set to provide for newly developed CD/DVD 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 CD and DVD industry. This ensures that current investments in MultiMedia attachments 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 greater than 1000 to 1.

3.4. Legal Considerations

3.4.1. Patent Assertions

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

4. Related Standards Activities

4.1. Existing Standards

ID Number	Title
X3.270:1996	SCSI-3 Architecture Model (SAM)
X3.301:1997	SCSI-3 Primary Commands (SPC)
X3.304:1997	SCSI-3 Multimedia Commands (MMC)
NCITS.317:1998	AT Attachment with Packet Interface ATA/ATAPI-4
NCITS.325:1998	Serial Bus Protocol Version 2 (SBP-2)
IEEE 1394a - 2000	IEEE High Performance Serial Bus

4.2. Related Standards Activity

Project	Title
T10/1236-D	SCSI-3 Primary Commands Version 2 (SPC-2)
T10/1467-D	Serial Bus Protocol Version 3 (SBP-3)
T10/1157-D	SCSI-3 Architecture Model Version 2 (SAM-2)

4.3. Recommendations for Coordinating Liaison
None.

4.5. Recommendations for Close Liaison
NCITS T13.