

**Project Proposal  
For a New  
INCITS Standard**

**Multi-Media Command Set - 4**

**(MMC-5)**

**Command Set**

**October 20, 2003**

## **1. Source of the Proposed Project**

**1.1. Title: MultiMedia Command Set version 5 (MMC-5)**

**1.2. Date Submitted: October 20, 2003**

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

## **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 [www.t10.org](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, 2005

### **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 5 is based on MultiMedia Command set version 4 that provides for commands to implement CD readers and recorders, DVD readers and recorders and other similar devices.

This command set may be implemented on multiple interfaces such as SCSI, ATA/ATAPI, SBP-3 (1394), and USB (both 1.1 and 2.0). 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 was developed with the viewpoint that ATA/ATAPI is the primary connection. Details needed for connection via SPI were included as an annex. MMC-5 shall be developed with the same connection model.

Additionally, the following items should be considered for inclusion in MMC-5:

- extensions to DVD product commands,
- extensions to CD product commands,
- extensions to support new optical media classes,
- 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 optical storage 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 optical storage industry. This ensures that current investments in Multi-Media 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 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
NCITS.351:2001	SCSI-3 Primary Commands – 2 (SPC-2)
INCITS.360:2002	SCSI-3 Multimedia Commands – 3 (MMC-3)
INCITS.261:2002	AT Attachment with Packet Interface ATA/ATAPI-6
NCITS.325:1998	Serial Bus Protocol – 2 (SBP-2)
IEEE 1394a - 2000	IEEE High Performance Serial Bus

**4.2. Related Standards Activity**

Project	Title
T10/1416-D	SCSI-3 Primary Commands – 3 (SPC-3)
T10/1417-D	SCSI-3 Block Commands – 2 (SBC-2)
T10/1545-D	SCSI-3 Multi-media Commands – 4 (MMC-4)
T10/1467-D	Serial Bus Protocol – 3 (SBP-3)
T10/1157-D	SCSI-3 Architecture Model – 2 (SAM-2)

**4.3. Recommendations for Coordinating Liaison**

None.

**4.5. Recommendations for Close Liaison**

INCITS T13.