

## INCITS T10 Annual Report

Annual Report for: T10 Technical Committee  
Covering the Period: October 2001 to October 2002  
Title of INCITS Subgroup: Lower Level Interfaces  
Informal Description of Work: T10 develops standards and technical reports on I/O interfaces, particularly the Small Computer System Interface (SCSI).

### Links:

- T10 web site <http://www.t10.org/>
- [Executive summary](#)
- T10 area on the Secretariat's Projects Database [http://www.incits.org/tc\\_home/t10sd4.htm](http://www.incits.org/tc_home/t10sd4.htm)
- T10 Projects Status <http://www.t10.org/projects.htm>
- [Significant accomplishments](#)
- [Significant challenges](#)
- [Expected challenges](#)
- [Previous year's meetings](#)
- [Next year's meetings](#)
- [Liaison activities](#)
- [Officers and Membership](#)
- [Future Trends](#)
- [Other administrative information](#)

### 1. Executive Summary

T10 continues to run smoothly with 55 approved projects, of which 32 are in maintenance mode. Most of the active projects are related to the SCSI-3 family of standards. T10 membership is stable at 46 organizations.

Over the last few years, there has been increasing interest in attaching more storage devices over longer distances using interfaces such as Fibre Channel, the Internet (e.g., iSCSI), and Serial Attached SCSI (SAS). These larger topologies have required some enhancements in the SCSI architecture and the command sets (e.g., access controls, globally unique identifiers, persistent reservations, etc.). This has also led to organizations joining T10 that have not previously participated (e.g., Microsoft, Intel, and Cisco Systems).

### 2. Significant accomplishments

- SCSI Primary Commands - 2 (SPC-2) [INCITS.351:2001] was approved and published
- Multi Media Commands - 3 (MMC-3) [INCITS.360:2002] was approved and published
- SCSI Domain Validation (SDV) [INCITS/TR-28:2002] was approved and published
- SCSI Signal Modeling (SSM) [INCITS/TR-29:2002] was approved and published
- Automation/Drive Interface - Physical Layer (ADP) project 1556-D was approved
- Automation/Drive Interface - Transport Protocol (ADT) project 1557-D was approved
- Automation/Drive Interface - Commands (ADC) project 1558-D was approved
- SCSI Enclosure Services - 2 (SES-2) project 1559-D was approved
- Fibre Channel Protocol - 3 (FCP-3) project 1560-D was approved
- SCSI Architecture Model - 3 (SAM-3) project 1561-D was approved
- Serial Attached SCSI (SAS) project 1562-D was approved

### 3. Significant challenges

The computer industry is suffering from a weak economy. This has adversely affected participation on standards committees and may inhibit or delay adoption of newer technologies.

#### 4. Expected challenges

None expected.

#### 5. Previous year's meetings

Number	Date	Location
#46	November 8, 2001	Monterey, CA
#47	January 17, 2002	Houston, TX
#48	March 14, 2002	Dallas, TX
#49	May 2, 2002	Nashua, NH
#50	July 18, 2002	Colorado Springs, CO
#51	September 12, 2002	Minneapolis, MN
#52	November 7, 2002	Huntington Beach, CA

#### 6. Next year's meetings

<http://www.t10.org/meeting.htm>

#### 7. Liaison activities

INCITS T11 <http://www.t11.org/>

INCITS T13 <http://www.t13.org/>

SFF Committee <http://www.sff.org/>

IEEE P1394

SCSI Trade Association (STA) <http://www.scsita.org/>

IETF SCSI over IP

Storage Networking Industry Association (SNIA)

ISO/IEC JTC1/SC25/WG4

#### 8. Officers and membership

##### a. Officers

Position	Name	Organization	Training date
Chair	John Lohmeyer	LSI Logic	October 2000
Vice Chair	George Penokie	IBM/Tivoli	May 1996
Secretary	Ralph Weber	ENDL Texas	March 1999
International Representative	Gary Robinson	EMC	May 2002
Vocabulary Representative	open		

##### b. Membership

<http://www.t10.org/ftp/t10/members.txt>

## 9. Future trends

SPI-5 (a.k.a., Ultra640 SCSI) will likely be the last generation of the parallel SCSI physical interface. Products that previously used the parallel SCSI physical interface will migrate to serial interfaces such as SAS, iSCSI, and Fibre Channel. Because SAS uses the same physical layer as Serial ATA, SAS is expected to be the logical upgrade to the Serial ATA disk drives.

The SCSI command sets are evolving to encompass the latest developments in storage (e.g., much larger address spaces, DVDs, CD-Recordable devices, and array controllers) as well as refinements to deal with current interconnect issues (e.g., network storage, security, and power management).

## 10. Other administrative information

### Obsolete Standards

T10 has requested that withdrawn standards be listed on the INCITS web site along with information on how to obtain copies of withdrawn standards. This will make it more palatable to recommend withdrawal of obsolete standards.

### Video Projectors

Availability of video projectors at T10 meeting weeks is becoming critical to having effective meetings. We depend on members bringing their personal projectors to meetings as meeting hosts cannot afford to rent video projectors from hotels. This has occasionally resulted in less-productive meetings due to the lack of a video projector.

I am requesting that INCITS consider ways to address this problem. One possible solution would be for INCITS to purchase a few video projectors that could be loaned to subgroups for specific meetings.

### Financial Statement

The INCITS Secretariat maintains an escrow account on T10's behalf to pay for technical editing services. See the T10 Procedure for Funding Technical Editors <http://www.t10.org/ftp/t10/document.95/95-148r0.pdf> for details of how this account is administered. The current account balance as of October 8, 2002 is \$31,830.75.

### T10 Internal Procedures

The T10 internal procedures are as follows:

Procedure	URL
T10 Standards Development Policies and Procedures	<a href="http://www.t10.org/ftp/t10/document.00/00-283r1.pdf">http://www.t10.org/ftp/t10/document.00/00-283r1.pdf</a>
T10 Electronic Procedures	<a href="http://www.t10.org/ftp/t10/document.95/95-146r2.pdf">http://www.t10.org/ftp/t10/document.95/95-146r2.pdf</a>
T10 Procedure for Funding Technical Editors	<a href="http://www.t10.org/ftp/t10/document.95/95-148r0.pdf">http://www.t10.org/ftp/t10/document.95/95-148r0.pdf</a>
T10 Document Retention Policy	<a href="http://www.t10.org/ftp/t10/document.98/98-107r1.pdf">http://www.t10.org/ftp/t10/document.98/98-107r1.pdf</a>
T10 Plenary Meetings & Accompanying Meeting Weeks	<a href="http://www.t10.org/ftp/t10/document.00/00-221r2.pdf">http://www.t10.org/ftp/t10/document.00/00-221r2.pdf</a>