

Accredited Standards Committee\*

**InterNational Committee for Information Technology Standards (INCITS)**

Doc. No.: T10/05-162r0
------------------------

Date: May 3, 2005

Reply to: John Lohmeyer

To: T10 Membership  
From: Ralph Weber and John Lohmeyer  
Subject: SAS Protocol WG -- May 2-3, 2005  
Oklahoma City, OK

## Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Old Business
  - 4.1 SAS-1.1, protocol for changing driver amplitude (03-285) [Evans]
  - 4.2 SAS-2 More counters (04-172) [Elliott]
5. New Business
  - 5.1 SAS-1.1 revision 9 letter ballot comment resolution as of sas1r09b (05-169) [Elliott]
  - 5.2 SAS-2 Zoning (05-144) [Liao, Gorshe and Grieff]
  - 5.3 SAS-1.1: BreakWait issue resolution (05-145) [Hoglund]
  - 5.4 SAS 1.1 - Transport layer retry and argument passing fixes (05-143) [Penokie]
  - 5.5 SAS-2: New NOTIFY to indicate imminent power failure (05-167r0) [Penokie]
6. Review of Recommendations
7. Meeting Schedule
8. Adjournment

## Results of Meeting

### 1. Opening Remarks

John Lohmeyer called the meeting to order at 9:05 a.m. Monday, May 2, 2005. He thanked Mike Fitzpatrick of Fujitsu for hosting the meeting. As usual, the people present introduced themselves.

### 2. Approval of Agenda

The draft agenda was approved with the no additions and changes.

### 3. Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for T10 membership. Working group meetings are open to any person or organization directly and materially affected by T10's scope of work. The following people attended the meeting:

\*Operating under the procedures of The American National Standards Institute.  
**INCITS Secretariat, Information Technology Industry Council (ITI)**  
1250 Eye Street NW, Suite 200, Washington, DC 20005-3922  
Email: incits@itic.org Telephone: 202-737-8888 FAX: 202-638-4922

Name	S	Organization
Ms. Pat Thaler	P	Agilent Technologies
Mr. Ron Roberts	A	Broadcom Corp..
Mr. Kevin Marks	P	Dell, Inc.
Mr. Kenneth Hirata	A	Emulex
Mr. Robert H. Nixon	P	Emulex
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Mike Fitzpatrick	P	Fujitsu
Mr. Tim Mackley	A	General Dynamics
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Thomas Grieff	V	Hewlett Packard Co.
Mr. Dan Colegrove	P	Hitachi Global Storage Tech.
Mr. George O. Penokie	P	IBM / Tivoli Systems
Mr. Schelto van Doorn	V	Intel Corp
Mr. Robert Sheffield	P	Intel Corp.
Mr. Dennis Moore	AV	KnowledgeTek, Inc.
Mr. Brian Day	V	LSI Logic Corp.
Mr. Tim Hoglund	V	LSI Logic Corp.
Mr. Steve Johnson	V	LSI Logic Corp.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Martin Czekalski	A	Maxtor Corp.
Mr. Mark Evans	P	Maxtor Corp.
Mr. Robert Kembel	V	Northwest Learning Associates
Mr. Mark Overby	P	Nvidia Corp.
Ms. Rachelle Trent	P	PMC-Sierra
Dr. Steve Gorshe	V	PMC-Sierra, Inc.
Dr. Heng Liao	V	PMC-Sierra, Inc.
Mr. Don Carothers	V	QLogic Corp.
Mr. Greg Elkins	V	QLogic Corp.
Mr. Gilbert Romo	V	QLogic Corp.
Mr. Gerald Houlder	P	Seagate Technology
Mr. William Martin	P	Sierra Logic, Inc.
Mr. Vit Novak	P	Sun Microsystems, Inc.
Mr. Ed D'Avignon	V	Vitesse Semiconductor
Mr. Gregory Tabor	P	Vitesse Semiconductor
Mr. Jeff Williams	P	Xiotech Corp.

35 People Present

Status Key: P - Principal  
 A,A# - Alternate  
 AV - Advisory Member  
 L - Liaison  
 V - Visitor

## 4. Old Business

### 4.1 SAS-1.1, protocol for changing driver amplitude (03-285) [Evans]

Mark Evans requested that discussion of this topic be deferred to the next meeting, and that the content be deferred to SAS-2.

## **4.2 SAS-2 More counters (04-172) [Elliott]**

Rob Elliott requested that discussion of this topic be deferred to the next meeting.

## **5. New Business**

### **5.1 SAS-1.1 revision 9 letter ballot comment resolution as of sas1r09b (05-169) [Elliott]**

Rob Elliott led the group in a review of numerous SAS-1.1 Letter Ballot comments (05-169r1). Rob recorded the resolutions agreed by the group for inclusion in 05-169r2.

Ralph Weber moved that the two comments defining application client specific coded values in the SMP Discover response be rejected. Bill Martin seconded the motion. The motion passed 8:1:9.

### **5.2 SAS-2 Zoning (05-144) [Liao, Gorshe and Grieff]**

Heng Liao presented an overview of a proposed SAS-2 Zoning feature (detailed proposal 05-144r0). The group discussed the model and raised several issues.

Heng agreed to prepare a new revision of the proposal for consideration at the next meeting and he agreed to post the overview that he presented.

### **5.3 SAS-1.1: BreakWait issue resolution (05-145) [Hoglund]**

Tim Hoglund reviewed newly surfaced problems in the 05-093r1 changes approved in March (minutes in 05-094) that are worse than the problems the proposal was trying to fix (05-145r0). Concerns were raised that some devices already shipping implement 05-093r1.

Tim's presentation also proposed fixing the problem by adding a Break Wait Response to close a formal frame handshake as an airtight solution. The group agreed to defer the handshake solution to SAS-2, and Tim agreed to prepare a new revision of 05-145 containing the SAS-2 changes.

The group agreed to address problems caused by incorporating 05-093r1 as responses to LSI SAS-1.1 Letter Ballot comments.

### **5.4 SAS 1.1 - Transport layer retry and argument passing fixes (05-143) [Penokie]**

George Penokie presented a proposal to correct numerous argument passing details in the SAS-1.1 state machines (05-143r2). The group reviewed the proposed changes page-by-page. The group requested changes and George agreed to prepare a new revision.

### **5.5 SAS-2: New NOTIFY to indicate imminent power failure (05-167r0) [Penokie]**

George Penokie presented a proposal to add a NOTIFY primitive to indicate imminent power failure (05-167r0). George noted that none of the NOTIFY primitives are considered in the SAS state machines. Concerns were raised about sending the proposed NOTIFY primitive just once.

George agreed to revise the proposal for consideration at the next meeting.

## **6. Review of Recommendations**

No documents were recommended for inclusion in SAS-1.1 or SAS-2 during this meeting.

## **7. Meeting Schedule**

A SAS Protocol Working Group meeting is scheduled for:

Monday, July 11, 2005 commencing at 9:00 a.m. in Colorado Springs, CO at the Antlers Hilton Hotel (719-955-5600), hosted by LSI Logic.

Teleconference calls may be announced on the T10 reflector as needed.

## **8. Adjournment**

The meeting was adjourned at 4:25 p.m. on Tuesday May 3, 2005.