



STA Technical Meeting Minutes

Doc.#: STA 00s002r0

February 9, 2000 in Huntington Beach, CA

The STA Technical meeting/SCSI Harbor meeting will start 9:00AM.
Minutes by Paul Aloisi – Texas Instruments – paul_aloisi@ti.com

1. Opening Remarks and Introductions

The meeting was opened at 9:05 AM by Paul Aloisi. As customary Thanked Qlogic for hosting the meeting, introductions

2. Approval of Agenda

Agenda approved (Minor Changes)

STA Technical Agenda -- SCSI Harbor

February 9, 2000 in Huntington Beach, CA

The STA Technical meeting/SCSI Harbor meeting will start 9:00AM.

Agenda

1. Opening Remarks and Introductions
2. Approval of Agenda
3. Attendance and Membership
4. STA Patent Policy [HTTP://www.scsita.org/STA](http://www.scsita.org/STA) /Patent Policy Sept16.pdf
5. Approval of Minutes **-November 4, 1999 - Seaside, CA, (99s029r0)**
6. Document Distribution
<ftp://ftp.scsita.org/pub/harbor>
<http://www.scsita.org/harbor>
7. Review of Old Action Items

7.1) SGI or Fujitsu will do thermal testing and present results plus anticipated future needs.

7.2) Each drive vendor to provide SGI and Intel a total of 40 1.0-inch and 30 1.6-inch drives for testing 68-pin drives for thermal test will be provided to Mark Olsen and 80-pin drives for vibration test will be provided to Benjie Sun. Partially complete - needs NDA information.

7.3) Charles DeJesus (Quantum) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun.

7.4) John Kan (IBM) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. (Jon is the contact, misunderstanding from the last meeting)

7.5) Parviz Rahmany (Intel) will provide design personnel 3Q99.

8.0 SCSI Harbor Status [Benjie Sun]

9.0 SCSI Harbor Design Review [Benjie Sun]

10.0 SCSI Plug and Play (PnP) - Documents will be on the SCSITA.ORG web site.

10.1 Desktop [Larry Lamers]
Preliminary Document Review?
(Scheduled for the March Meeting)

10.2 Server [Looking for an editor]
Preliminary Document Architecture Review [Paul Aloisi]
(Scheduled for the March Meeting)

11.0 Old Business

12.0 New Business

13.0 Review of Action Items

14.0 Meeting Schedule

March 9, 2000 in Dallas, TX

May 18, 2000 Nashua, NH

14. Adjournment

3. Attendance and Membership

The following people attended the meeting:

Name	Organization	Electronic Mail Address
Mr. Lawrence J. Lamers	Adaptec, Inc.	ljlammers@ix.netcom.com
Mr. Joseph Basista	C&M Corporation	joebasista@aol.com
Mr. Michael Grant	Ciprico Inc.	mgrant@ciprico.com
Mr. Rob Elliott	Compaq	relliott@compaq.com
Mr. Charles Tashbook	Dallas Semiconductor	charles.tashbook@dalsemi.com
Mr. Greg Handy	EAR Specialty Composites	greg_handy@aearo.com
Mr. Jim Miller	EAR Specialty Composites	jmiller@earsc.com
Mr. Paul Remley	Fujitsu (FCPA)	premlay@fcpa.fujitsu.com
Mr. Thom Kreusel	Hewlett Packard	thom_kreusel@hp.com
Mr. Koichi Ono	Hitachi America Ltd.	kouichi.ono@hal.hitachi.com
Mr. Kazuo Sakai	Hitachi, Ltd.	k-sakai@str.hitachi.co.jp
Mr. John Kan	IBM Corp.	jckan@us.ibm.com
Mr. J. A. Jones	Intel Corporation	james.a.jones@intel.com
Mr. Alan Littlewood	LSI Logic	alanl@lsil.com
Mr. John Lohmeyer	LSI Logic Corp.	lohmeier@t10.org
Mr. Jay Neer	Molex Inc.	jneer@molex.com
Mr. Gregg Neely	NSTOR	greggn@nstor.com
Mr. William Gintz	Seus, Inc.	wcgintz@ix.netcom.com
Mr. Ron Roberts	Sierra-Pac Technology	rkroberts@aol.com
Mr. Benjie Sun	Silicon Graphics	bsun@engr.sgi.com
Mr. Paul D. Aloisi	Texas Instruments	paul_aloisi@ti.com
Mr. Donald Getty	Texas Instruments	donald_getty@ti.com

22 People Present

4. STA Patent Policy [HTTP://www.scsita.org/STA /Patent Policy Sept16.pdf](http://www.scsita.org/STA/Patent%20Policy%20Sept16.pdf)

5. Approval of Minutes - **November 4, 1999 - Seaside, CA, (99s029r0)**

Error in the minutes, Jon Kan is the contact.

The ftp site should be <ftp://ftp.scsita.org/pub/harbor>

Rev 1 will incorporate the changes and will be posted on the web site.

6. Document Distribution

<ftp://ftp.scsita.org/pub/harbor>

<http://www.scsita.org/harbor>

8. Review of Old Action Items

7.1) SGI or Fujitsu will do thermal testing and present results plus anticipated future needs. (Report today – drop)

7.2) Each drive vendor to provide SGI and Intel a total of 40 1.0-inch and 30 1.6-inch drives for testing 68-pin drives for thermal test will be provided to Mark Olsen and 80-pin drives for vibration test will be provided to Benjie Sun. Partially complete – needs NDA information. **(status today)**

7.3) Charles DeJesus (Quantum) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. **(Open)**

7.4) John Kan (IBM) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. **(Error, Jon Kan is the contact for IBM)**

7.5) Parviz Rahmany (Intel) will provide design personnel 3Q99. **(Irvine and South Carolina complete - drop)**

8.0 SCSI Harbor Status [Benjie Sun]

Harbor Status presentation (Presentation will be on the web site)

10 drive results presented today, 15 drive will be presented in March 9th Dallas, Texas.

Finalized design June 2000

Thermal test will be presented today

Rotational shock and Vibration will be presented today.

2nd iteration wrapper - new castings in with clip built into the wrapper to clamp to the sheet metal.

IBM received 6 of 6

Hitachi Received 2 of 2 sets

Seagate received 6 of 6 sets

Quantum still owes sets

Western Digital closed down SCSI division

March 9th – presentation of the complete thermal test, 1.6 inch RV results.

9.0 SCSI Harbor Design Review [Benjie Sun]

Jay Jones - Intel presented thermal data, Method 99s003r1.pdf (Presentation will be on the web site)

Testing IBM drives, Seagate and Hitachi drives

1 inch restricts the airflow – backplane restricts the airflow over the drive components. The backplane reduced the maximum temperature

Rotational Vibration presentation Dan Blick - Wigglemetrics – email

dan_blick@coastside.net - (Presentation will be on the web site)

Focus was on the Head Actuation – some resonates in the test circuit.

Rotational vibration will be presented at the next meeting.

1. Action item Modal drives – drives that we can drive the heads with a sine wave

Hammer hit shows resonates of the structure. 120 accelerometers monitored the points on the dock.

Review of the performance loss calculations, write is considered 10% on track, read can be as high as 20% with ECC.

Measurement of throughput – Benjie (Presentation will be on the web site)

Testing the throughput with the drive mounted on a plate versus mounted in the Dock with IOMeter testing. The software was set to zero Queue dept of zero, this would not be the worst case. 3% variation see when just resetting drives in the same slots.

Presentation by Jim Miller – EAR - email jmiller@earsc.com (work with Seagate and EMC squared) (EAR) ISOLOSS damping material.

Acoustics of the disk drive design, use of Isolators generally reduce Disk noise from the PC.

Seeks generate 500-800 Hz, can be transmitted through the chassis.

10.0 SCSI Plug and Play (PnP) – Documents will be on the SCSITA.ORG web site.

10.3 Desktop [Larry Lamers]

Preliminary Document Review

(Scheduled for the March Meeting)

10.4 Server [Larry Lamers]

Preliminary Document Review

(Scheduled for the March Meeting)

11.0 Old Business

12.0 New Business

13.0 Review of Action Items

1. Modal drives – drives that we can drive the heads with a sine wave - IBM and Hitachi

2. Fujitsu Presentation of Thermal and Rotational Vibration at the March meeting.

14.0 Meeting Schedule

March 9, 2000 in Dallas, TX 1:30PM or 30 minutes after the T10 meetings.

May 18, 2000 in Nashua, NH 1:30PM or 30 minutes after the T10 meetings.

14. Adjournment

The meeting was adjourned at 12:30PM