



Technical Working Group

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Date: September 17, 1998
Reply to: lohmeier@ix.netcom.com

To: Membership of STA
From: John Lohmeyer
Subject: Minutes of SCSI Harbor Meeting
September 17, 1998 – St. Petersburg, FL

Agenda

1. Opening Remarks and Introductions
2. Approval of Agenda
3. Attendance and Membership
4. Approval of Minutes
5. Document Distribution
6. Review of Old Action Items
7. Document Review [Benjie Sun] (98s004r3)
8. Old Business
 - 8.1 Testing Strategy [Ham]
9. New Business
 - 9.1 Marketing Plans [McGarrah]
10. Review of Action Items
11. Meeting Schedule
12. Adjournment

Results of Meeting

1. Opening Remarks and Introductions

Paul Aloisi opened the meeting at 2:00 pm. He thanked Chuck Brill of AMP for hosting the meeting. As is customary, the people present introduced themselves. An attendance sheet was circulated.

The voting rules for participants in STA Tech meetings are contained in 97s109r0.

2. Approval of Agenda

The agenda was approved as written.

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. Charles Brill	AMP	cebrill@amp.com
Dr. William Ham	Compaq Computer Corp.	bill_ham@ix.netcom.com
Mr. Ed Kavetsky	Distributed Processing Tech	kavetsky@dpt.com
Mr. Tim Moulton	Distributed Processing Tech	moulton@dpt.com
Mr. Roger Cummings	DPT	cummings_roger@dpt.com
Mr. I. Dal Allan	ENDL	dal_allan@mcimail.com
Mr. Paul Remley	Fujitsu (FCPA)	premley@fcpa.fujitsu.com
Mr. Dan Colegrove	IBM Corp.	colegrove@us.ibm.com
Mr. John Lohmeyer	LSI Logic Corp.	lohmeier@ix.netcom.com
Mr. Ralph Weber	LSI Logic Corp.	roweber@acm.org
Mr. Bob Masterson	Methode Electronics Inc.	rwmast@methode.com
Mr. Jay Neer	Molex Inc.	jneer@molex.com
Mr. Edward A. Gardner	Ophidian Designs	eag@ophidian.com
Mr. Patrick McGarrah	Quantum Corp.	pmcgarra@tdh.qntm.com
Mr. Alvin Cox	Seagate Technology	alvin_cox@notes.seagate.com
Mr. Gene Milligan	Seagate Technology	Gene_Milligan@notes.seagate.com
Mr. Benjie Sun	Silicon Graphics	bsun@enr.sgi.com
Mr. Bob Snively	Sun Microsystems	bob.snively@sun.com
Mr. Paul D. Aloisi	Unitrode Corporation	aloisi@unitrode.com
Mr. Doug Piper	Woven Electronics	doug.piper@internetmci.com

21 People Present

4. Approval of Minutes

The minutes of the last meeting (see 98s007r0) were approved as written.

5. Document Distribution

All SCSI Harbor documents are available at the ftp and web sites:

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

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

Documents will be put on these sites in PDF format. Additionally, the meeting minutes will be distributed on the Harbor reflector (harbor@scsita.org). To be added to the Harbor Reflector, please send an email to info@scsita.org. In the email, please mention that you wish to be added to the Harbor reflector and include your full contact information (organization, address, phone, fax, and email).

6. Review of Old Action Items

- 16) Tom Winsemius will provide the content for sections 2.6 (EMI), 2.10 (Shock and Vibration), 2.11 (Thermal Management) and 6.0 (Handling, ref IDEMA). *Carry over.*
- 18) Pat McGarrah will get someone to help Benjie write the Wrapper to Connector specifications. *Carry over.*
- 19) Pat McGarrah will edit sections 1.1 through 1.3. *Carry over.*

7. Document Review [Benjie Sun] (98s004r3)

Benjie Sun lead a page-by-page review of SCSI Harbor specification, revision 3. There are only minor changes from revision 2.

The group decided that dimensions should be in metric. Benjie will convert the document from inches.

There was a discussion about the device height. Drives are 1.654" high and the useable rack opening is 17.5", so 0.96" is left for tolerances and covers when using 10 devices. It appeared that we may have to make a trade off: 10 devices without covers or 9 devices with covers. A goal is to be able to do both.

Bob Snively was concerned about potential ESD damage to exposed electronics and preferred having a protective cover on the electronics.

Devices/enclosures can be in any orientation except spring clips down (because the clips may not be strong enough to overcome gravity and maintain adequate force to damp vibration).

Clips may be made from any material that has adequate harness and smoothness. We need to specify the maximum non-deflected height of the spring clip so that it does not interfere with the bezel on the dock. The group concluded that specifying characteristics of the spring clip should be sufficient; that is, we should not also specify the characteristics of the dock mating surface other than to say we assume it is rigid.

Benjie asked whether the group thought we should use the wrapper lever to create a loading force on the SCA-2 connector. This would help keep the connectors mated.

Bill Ham said that thermal management involves two parameters: 1) the thermal resistance of the wrapper to the dock interface and 2) the pressure drop for a given airflow rate. Concern was expressed over how much conduction would occur between the wrapper and the dock, Very little heat will flow through the clip and the opposite side may not be in complete contact.

Due to the uncertainties about thermal conduction, we shouldn't depend on it. Instead we will need to rely on airflow to remove the heat. Pat McGarrah agreed to provide prototype wrappers to Seagate, IBM, and Fujitsu, Western Digital so they can measure pressure drop.

8. Old Business

8.1 Testing Strategy [Ham]

Bill reiterated that we still need to get volunteers to build prototype docks and to do testing on the prototypes.

9. New Business

9.1 Marketing Plans [McGarrah]

Pat McGarrah discussed marketing plans for SCSI Harbor. He said there is a forum for a standard server design at <http://www.ssiforum.com>. Pat expects Intel to participate in the SCSI Harbor activities.

10. Review of Action Items

- 16) Tom Winsemius will provide the content for sections 2.6 (EMI), 2.10 (Shock and Vibration), 2.11 (Thermal Management) and 6.0 (Handling, ref IDEMA). *Carry over.*
- 18) Pat McGarrah will get someone to help Benjie write the Wrapper to Connector specifications. *Carry over.*
- 19) Pat McGarrah will edit sections 1.1 through 1.3. *Carry over.*

- 20) Pat McGarrah will provide prototype wrappers to other drive vendors for thermal testing.
- 21) The other drive vendors will do thermal testing present results and anticipated future needs.
- 22) Jay Neer will get details on 19" rack mechanical dimensions.

11. Meeting Schedule

The next SCSI Harbor meeting will be on Thursday, November 5, 1998 beginning 1/2 hour after the T10 plenary meeting, but no earlier than 2:00 pm in Palm Springs, CA, FL at the Hyatt Regency Suites Hotel (619-322-9000). See 98s010r0.pdf on the Harbor Web site for details.

12. Adjournment

The meeting was adjourned at 4:50 pm on Thursday, September 17, 1998.