

SCSI Trade Association
Technical Working Group

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Reply to: ijlamers@ix.netcom.com

To: Membership of STA

From: Lawrence J. Lamers
Harry Mason

Subject: Minutes of Kickoff Meeting for SCSI Harbor
October 15, 1997 - Denver, CO

Agenda

1. Opening Remarks and Introductions
2. Objectives and Goals
 - 2.1 Relationship to Device Bay
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5. Form Factor(s) -- How many?
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Results of Meeting

1. Opening Remarks and Introductions

Harry Mason, Chair of STA, opened the meeting at 10:00am. As is customary, the participants introduced themselves.

He reviewed the need for a common wrapper for storage peripherals. Current OEMs are putting custom wrappers on their products, resulting in inventory problems. System vendors have a desire to include the storage devices in the shipped system. This augurs for a common wrapper that has better shock and airflow.

A Harbor Reflector has been established by STA. It is open to members and non-members of STA. STA will also host an ftp site for a document and specification repository (<ftp://ftp.scsita.org/pub/harbor>). A Harbor web site (<http://www.scsita.org/harbor/>) will also contain links to these documents.

To distribute to the reflector send email to: harbor@scsita.org

To be added to the Harbor Reflector, please send an email to: info@scsita.org.

Please include in your email 1) that you want to be added to the SCSI Harbor list and 2) your name, address, phone, fax, and email address. This is not an automated list manager so it may take a day or two to be added.

The STA Secretariat will automatically add the attendees of this meeting to the Harbor Reflector.

2. Objectives and Goals

Today's objective is to produce an outline for a specification and assign task teams.

There will be an agency retained to develop a name and logo for the specification.

The product is aimed at the standard high-volume server, mid-range server, and high-end disk top markets.

Dal Allan raised the question of what interface the wrapper/holder is aimed at. Harry responded that the initial focus is to provide a solution for parallel SCSI, however, other interfaces may be accommodated as the development matures. There is no absolute reason why a specific interface needs to be tied to a given wrapper/holder solution.

The question was raised as to what the form factor is, 3.5" or 5.25". A cost target needs to be established to prevent a gold plated design.

Is it intended that the wrapper will fit into existing cases? Ken Hallam stated that the current 5.25" form factor doesn't provide space enough to meet shock, vibration, and cooling for 5.25" peripherals. The same is true for 3.5" form factor peripherals in 3.5" slots. You also need enough length for gender-bender connector transitions.

The initial thrust will be for a 3.5" form factor solution, scalable to 5.25". Multiple height options will also be considered. There was a desire expressed that the wrapper and holder be able to fit into a standard tower enclosure. This establishes a maximum width for the holder for the wrapper. See SFF-8500 for dimensions.

Bill Ham illustrated a typical wrapper and holder being used today in the retail aftermarket to mount 3.5" drives in 5.25" form factor enclosures. These use a fixed mounting so they have limited shock, vibration, and shielding.

Bill Ham proposed and the group agreed that the group would work toward using the SCA-2 connectors for the wrapper. Ken Hallam noted that there may need to be some adjustments for shock and tolerance stack-up. The tolerance stack-up will need some work. Dal Allan noted that by eliminating interoperation with the older SCA connector the tolerance issue could be helped.

2.1 Relationship to Device Bay

The current device bay does accommodate the shock, vibration, cooling and power needs of devices used in the market targeted by this group. The SCSI Harbor target market (see next section) is intended to include higher-performance devices.

2.2 Objectives and Goals

Standardize a storage container capable of being used in a broad variety of storage peripherals (priority being disk drives) in order to lower the cost and increase the opportunity for SCSI storage component suppliers.

The markets targeted for these standard volume canisters are:

- ◆ Standard High Volume Server
- ◆ Mid Range Servers

- ◆ Entry level servers (perhaps not all the way to the bottom of this market)
- ◆ Performance Workstation market

The specification should be consist of, but not be limited to, the following issues:

- ◆ Form factor
- ◆ Power, cost
- ◆ Mating schemes
- ◆ Power limits (3V, 5V 12V)
- ◆ Enclosure management schemes - status displays
- ◆ Acoustics
- ◆ Vibration/shock
- ◆ Cooling
- ◆ EMC
- ◆ Security
- ◆ Hot plugging
- ◆ Auto recognition

2.3 Pat's Presentation

Pat McGarrah of Quantum made a presentation (see 97s103r0) on the market opportunity for a wrapper/holder solution. The power requirements and spindle speeds demand a wrapper solution to address these issues. The market focus should be on the PC Server Market, because they are earlier adopters. Then the high-end multi-user mainframe market needs to be targeted. The personal workstation market has less volume and revenue potential, has different needs for wrappers, and is less likely to upgrade the storage device.

2.4 Paul's Presentation

Paul Aloisi of Unitrode made a presentation of issues that SCSI Harbor needs to address (see 97s102r0). If we don't do anything there will be a push to have device makers use device bay as a wrapper.

Transition connectors will not be considered unless absolutely necessary. This reduces the electrical issues (e.g., stub length) and cost.

The concept of adding a USB port for slot control was rejected. The SES functions already accomplish most of this. Do we assume that SES or SAF-TE will be implemented on the devices? The high-end enclosures already have this today.

Do try to specify the things the vendor views as value added to their product, (e.g., LEDs, power sequence, etc.).

Terminology: Wrapper, envelope, and enclosure.
 Wrapper: The piece that attaches to the device.
 Envelope: The piece into which the wrapper is inserted.
 Enclosure: The cabinet that contains one or more envelopes.

Need space on the wrapper for personalization, a logo plate.

3. Membership

The following people attended the meeting:

Mr. Thomas W. Martin	Adaptec Inc.
Mr. Lawrence J. Lamers	Adaptec Inc.
Mr. Bill Gray	AMP Incorporated

Mr. Douglas Wagner	Berg Electronics
Mr. Dennis Lang	Circuit Assembly Corp.
Dr. William Ham	Digital Equipment Corp.
Mr. I. Dal Allan	ENDL
Mr. Neal Foxworthy	Exabyte Corp.
Mr. Tom Winsemius	IBM
Mr. Dale Anderson	IBM
Mr. George Penokie	IBM Corp.
Mr. Dick Stack	Intel Enterprise Server Grp
Mr. Frank Justice	Intel Entry Midrange Servers
Mr. Jay Neer	Molex Inc.
Mr. Edward A. Gardner	Ophidian Designs
Mr. Skip Jones	QLogic Corp.
Mr. Patrick McGarrah	Quantum Corp.
Mr. Gene Milligan	Seagate Technology
Mr. Jon P. Baker	Seagate Technology
Mr. Steven Dean	Silicon Graphics
Mr. Benjie Sun	Silicon Graphics
Mr. Frank Ng	Sun Microsystems
Mr. Dennis Hahn	Symbios Logic Inc.
Mr. Harry Mason	Symbios Logic Inc.
Mr. John Lohmeyer	Symbios Logic Inc.
Mr. Kenneth J. Hallam	UNISYS Corporation
Mr. Paul D. Aloisi	Unitrode Corporation
Mr. Roger Nixon	Xyratex Storage Solutions

4. Target Schedule

There was sentiment to have a specification in six months, demos at Fall Comdex '98. STA will develop a timeline.

Who is going to be the editor?

What process happens after the specification is created? Will it be a standard, a technical report, or a white paper? How will we address intellectual property issues?

5. Form Factor(s) -- How many?

One form factor initially, with an opportunity to create a second one to accommodate 5.25" devices. The initial wrapper is bigger than 3.5" but smaller than 5.25" form factor.

6. Review of Proposed Document Structure

Harry Mason presented a document outline (see STA/97s104r0).
 Add an item for interface definition, security (what exactly), tolerances, logo plate,
 Delete the enclosure connector.
 Restructure into envelope and wrapper clauses.

Where does power management fit in? Is it part of the wrapper, envelope, or enclosure.

7. Creation of Issues List

Samples designs (show-and-tell) were volunteered by:

Bill Ham of DEC
Dale Anderson of IBM
Benjie Sun of SGI

Ken Hallam of Unisys said he would put a request into management. Harry Mason will do the same with the Symbios division in Wichita.

All companies are invited to show wrapper/envelope designs.

A marketing requirements document is needed to define what is in the specification. A position paper was suggested as being appropriate.

The voting rules for resolving issues to the development of the specification will be resolved at the next STA meeting.

8. Meeting Schedule

The next meeting is planned for:

Thursday, November 6, 1997 at the Hyatt in Palm Springs, CA starting at 9:00 am.

Follow-on meetings are planned for:

Tuesday, December 2, 1997 hosted by Qlogic starting at 10:00 am in Irvine, CA.

Thursday, January 8, 1998 hosted by Symbios starting at 10:00 am at the Renaissance Stouffers hotel in Denver.

Next agenda:

Review minutes
Review action items
Show & tell of existing solutions for wrappers and envelopes.
Start a draft document based on existing solutions.
Select an editor for the draft document.

9. Action Summary

1. STA to develop Timeline for Next meeting
2. STA to use minutes to develop Marketing Requirements Document
3. STA to establish rules of order for subsequent meetings
4. All members should consider the possibility of supplying an editor for this effort.
5. The following companies are to explore the possibility of presenting their designs at the November meeting. Presentations will consist of 3-5 slides and a physical sample to show the group. The time is not to exceed 15 minutes.

- Bill Ham, DEC
- Benjie Sun, Silicon Graphics
- Dale Anderson, IBM
- Ken Hallam, Unisys
- Harry Mason, Symbios

10. Adjournment

The meeting adjourned at 3:00 p.m.