Minutes of Diskboys meeting
T10 SBP-2 working group

19 August 1997

Attendees:

Jack Hollins	Adaptec	Pete McLean	Maxtor
Larry Lamers	Adaptec	Steve Stegmier	Maxtor
Aashu	AMI	Bob Southerland	Maxtor
Ron Roberts	Apple	Gregg Goldman	Meltzer,Lippe
Irv Tjomsland	Award	Randy Hines	Philips
Ben Chang	Cirrus	Curtis Stevens	Phoenix
Jeff Wolford	Compaq	Mark Evans	Quantum
Peter Johansson	Congruent	Mike Bryan	Seagate
Kazuo Nakashima	Fugitsu	Peter Groz	SGS-Thomson
Dan Colegrove	IBM	Steve Finch	SSI
Darrell Redford	Iomega	Dave Evans	Symbios
Michael Alexenko	Maxtor	John Lohmeyer	Symbios
Carl Bonke	Maxtor	Mike Winchell	Symbios
Gary Brandvold	Maxtor	Bryce Leach	TI
Brad DeCessna	Maxtor	Jon Hanmann	WD

Pete McLean thanked Maxtor for hosting the meeting.

As usual, those present introduced themselves.

Pete explained that this meeting would operate under the ANSI NCITS T10 rules.

Pete reviewed the charter of the group.

Pete reviewed the agenda.

Peter Johansson requested that the subject of merging the STS annex back into SBP-2 be discussed.

Randy Hines requested that the "get configuration" items from "Mt. Fuji" be discussed.

Pete reviewed the old action items:

Mike Bryan turned a revision of the Mass Storage Profile and distributed a hard copy (now at rev 0.9c).
John Hanmann turned a rev of the Tailgate document including the project number (now at T13/1248Rev 4).
Pete turned a rev of the Mass Storage Profile project proposal.

Peter J distributed a soft copy of SBP-2 document with editorial changes only for review at this meeting. Input from this will be included in the next rev for Nashua.

Pete stated that Tailgate had been submitted for letter ballot to T13.

Steve Finch said that there is currently no reliable algorithm for detecting a missed cycle mark in the standard. Steve had developed one and asked if it needed to be included in the standard. He distributed hard and soft copies of his material discussing the problem and recommending a solution.

Peter J said that this issue is being addressed by the OHCI group. The discussion was tabled pending review of their solution.

Other isochronous issues in SBP-2 are to be discussed in Nashua.

Peter J said that the latest rev of 1394.a states that a write to the RESET_START register shall have no effect on an serial bus registers.

Mike Bryan is concerned that a write of zeros to the SPLIT_TIMEOUT and BUSY_TIMEOUT registers could cause a device to stop working. Peter suggested that values being written to those registers that are less than the device wanted to see (the default value), the device could a) ignore those values or b) the results are unspecified. However, numbers larger than those values shall be accepted by the device. Peter said he would propose this solution to the 1394.a group.

Peter J presented his document (97-226r2) that formalized the proposal made at the last Diskboys meeting regarding the the MGT_ORB_TIMEOUT (previously LOGIN_TIMEOUT) in the Logical_Unit_Characteristics entry format in the Config ROM.

Pete McL made a motion that the group make a recommendation to the T10 plenary to include Peter's document in SBP-2. Mike Bryan seconded the motion. There was no discussion. The motion passed 16:0:0.

Steve Finch had a question about reading the Config ROM when the device was in the "not quite powered-up" state. The recommendation was that there should be two alternatives in clause 7.1 (removing the "shall" in the first paragraph). Peter said that he would make a minor change and construct a new document for slightly altering the wording of this clause.

Curtis Stevens made a motion that Peter J construct a document (numbered 97-232r2) for proposal to the T10 plenary to make this minor modification to SBP-2. Steve Finch seconded the motion. The motion passed 17:0:0.

Pete McL distributed his revised project proposal, "1394 Device Command Standard", for development of a standard to define the specific commands a protocols for devices attached to the IEEE 1394-1995 bus.

Larry had some minor editorial changes, which were accepted and will be included in the proposal.

There was more discussion about the title: The final revised title was "SBP-2 Device Attachment".

Other minor editorial changes were suggested. Pete agreed to revise the document to include the changes and place it on the reflector.

Steve Finch moved that the working group recommend that the revised project proposal document be submitted to the next T10 plenary. Peter Johansson seconded the motion. The motion passed 19:0:0.

Mike Bryan reviewed the changes that he made to the Mass Storage profile (see Revision History for rev 0.9c in the profile document).

Discussion began on the power-up sequence:

The first issue was how should the power managers be handled? How should devices determine who should be allowed to spin them up devices in a given system? Do devices need to have an EEROM to retain a password?

The next issue was how much 3.3v power should be supplied on the cable? One or 1.5W might be acceptable today, but what about for the higher speed phys?

Once again, these issues were not resolved after much discussion. Jeff Wolford will resend his email suggesting options, and the group will discuss this at a later meeting.

The mapper profile was discussed: Dave and Mike are to bring in a list of differences between the mapper and the mass storage device profiles at the next meeting.

The removable annex was discussed. It was agreed to put this annex in the Mass Storage profile to begin identifying and reconciling any differences. Darrell Redford wants to contintue to edit that section of the document. Mike Bryan was given the action to include this section into the mass storage profile.

Randy Hines distributed a soft copy of his proposal for a GET CONFIGURATION command. He said that this is like an extension to the IDENTIFY command that would contain information about which additional commands and other features in which additional annexes in the Mass Storage profile were supported by the device, and is required to identify which media type and format is in the device.. He thought that it

was possible that this information could be contained in the config ROM and synthesized with a port driver reading the ROM.

There were questions about whether the ROM was the appropriate place for this information since the information was dynamic, particularly for removable media/devices.

There were no objections to include the GET CONFIGURATION command in the CD/DVD annex.

There were several objections to including this command in the HDD annex because these values never change for HDDs. Instead, it was recommended that, since the DEVICE_TYPE field in the Unit Directory is to be used to identify the annex used by a particular device, HDDs did not need to implement this.

Review began on Peter J's Annex Q proposal for SPB-2. This annex had been the STS document. The review included comparing this document to the other portions of SBP-2 and the Mass Storage Profile. The goal was to identify and redundancy and determine where the redundant information should be contained.

Curtis suggested that the document be explicit on how ORBs shall be padded with zeroes when using CDBs of fewer than twelve bytes. The higher number of unused bytes shall be filled with zeroes.

It was decided that clauses 5.1, 5.2 and 5.3 of the Mass Storage Profile be deleted because they have information that is redundant with Annex Q. Mike B took an action to delete these clauses from the MS Profile.

In addition, there are several redundancies in clause 5.4 of the MS Profile. Mike B took an action to review and remove redundancies in these clauses as well.

Mike said that clause A.5 in the MS Profile should not be there and that he will delete it.

Access control (see Clause Q.3) shall not be in Annex Q. This will be defined in the MS Profile or one of its annexes.

Peter agreed to change "SCSI target" to something like "Targets using SCSI command sets", or define it as such early in the annex.

Pete McL took the action to bring up the issue of developing a scheme for identifying device types.

Peter J said that he will add information to Q.4.4 including expanding table Q.4.

Pete McL suggested that clause Q.5 be separated into an new informative annex. Peter J agreed to do that including changing all "shalls" and other normative type references to be in the informative annex style.

Peter moved that 97-231r0 as modified based on input from this meeting be incorporated into the next revision of SBP-2. Ben Cirrus seconded the motion. The motion carried 17:0:0.

The change bars in the editorial version of SBP-2 that Peter distributed.

While reviewing, Peter deleted Clause 7.2 that defined the CRC range for the ROM.

Pete McL reviewed the action items.
1. Peter Johansson - take modifications to stabalized portion of SBP-2 to T10 plenary.
2. Pete McLean - revise SBP-2 Device Attachment project proposal and forward to T10.
3. Mike Bryan - put CD/DVD and removable media annexes into SBP-2 Device Attachment document.
4. Pete McLean - insure that new device type be discussed at joint SBP-2, MMC-2 SCSI-3 meeting.
5. Peter Johansson - new rev of SBP-2.

Pete McL made the traditional call for patents. There were no responses.

Pete McL reviewed the meeting schedule.
Sept. 8-9 - Nashua, NH (Unitrode)
Sept. 10 - Nashua, NH (joint meeting with MMC-2 and SCSI-3)
Oct. 7 - Irvine, CA (SSI)
Nov. 3-4 - Palm Springs, CA (Adaptec)

Pete McL adjourned the meeting.