Minutes of X3T10 System Issues Study Group meeting, held 7/12/95

1. Opening Remarks
Duncan Penman convened the meeting at 9:00 am. He thanked John Lohmeyer of Symbios for hosting the meeting.

As is customary, the people attending introduced themselves. The following people were in attendance.

Name	Company	Phone	Email
Larry Lamers	Adaptec		ljlamers@aol.com
Ron Apt	AMD	408-749-2578	ronald.apt@amd.com
Dhiru Desai	Cirrus Logic	510-226-2144	ddesai@cirrus.com
Anthony Yang	Hitachi	408-653-0315	yang_a@halsp.hitachi.com
Duncan Penman	IIX	408-730-2565	penman@netcom.com
Pete McLean	Maxtor	303-678-2149	pete_mclean@maxtor.com
Wayne Baldwin	Oak Techn.	408-737-0888	wayneb@oaktech.com
Russell Johnson	Symbios	719-573-3254	russell.johnson @symbios.com
Mike Winchell	Symbios	970-225-4807	mike.winchell @symbios.com

It was stated that the meeting had been authorized by X3T10 and would be conducted under the X3 rules. Ad hoc meetings take no final actions, but prepare recommendations for approval by the X3T10 task group.

The minutes of this meeting will be posted to the X3T10 BBS and the System Issues Reflector and will be included in the next X3T10 committee mailing.

2. Scheduled Business
This was a single topic meeting to discuss the way(s) to support SCSI devices with capacities >8GB on PC compatible systems. As noted below, the scope changed by the end of the meeting to address booting from >8GB devices of any type.

The following points were made during the discussion:
a. ATA devices have solved the 8GB addressibility limit with INT 13h Extensions
b. BIOS support for SCSI is done today through either INT 13h or INT 4Bh. Although INT 13h is the version with the 8GB addressability limit, INT 13h must be supported by anyone who wants to boot from the SCSI drive. Therefore, INT 13h plus Extensions is the only reasonable option for SCSI BIOS support beyond 8GB.

c. The approach to mass storage support by all the newer operating systems is to boot through the INT 13h interface but use a hardware specific device driver to talk directly to the device once the system is up. With this operating model, BIOS support for addressability beyond 8GB is generally irrelevant. The consensus support for this approach seems to be getting stronger.
d. If someone does want to use INT 13h Extensions to go beyond 8GB for a SCSI drive, they can do so with no changes to the current extended interface as documented in the Phoenix EDD 1.1 spec. All special considerations for the SCSI interface can be handled internally by the expansion BIOS.

3.   Action Items
The group agreed that even though a satisfactory technical solution already exists, it would be worthwhile to document our discussion and conclusions. It was further stated that the 8GB issue was the same for ATA or SCSI, so the resulting paper should address both. The following Action Items were approved.
a. Prepare a project proposal for a Technical Report on this subject (Penman)
b. Create the first draft of the document for review at the Systems Issues meeting in September. (Penman)

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