

Accredited Standards Committee*
X3, Information Technology

Doc. No.: X3T1.10/96a122r0
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Project:
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Reply to: Lawrence J. Lamers
ljlamers@aol.com

To: Membership of X3T10.1
From: Lawrence Lamers, Chair X3T10.1 (acting)
Subject: Minutes of X3T10.1 Plenary Meeting #14
Stateline, NV -- February 28, 1996

Agenda

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Results of Meeting

1. Opening Remarks

Larry Lamers, the X3T10.1 Chair (acting), called the meeting to order at 3:00 p.m., Wednesday, February 28, 1996. He thanked of Samsung for arranging and hosting the meeting.

Larry stated that X3 Subgroup Membership forms and the X3T10 Mailing Subscription form were available from the secretary. He said that people should use the X3 forms to insure the X3 Secretariat has the latest membership information. These forms should be mailed directly to the X3 Secretariat.

The reflector has been moved to Symbios. The reflector address is X3T10-SSA@symbios.com. All subscribers with valid email addresses were moved to the new reflector.

The electronic mailing is available for those wishing to subscribe. Each member should have recieved an offer for the new subscription from the X3 Secretariat.

The BBS is moving and will have a new telephone number. A call to the old number will inform you of the new number when the BBS move has been completed.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated. Copies of the draft agenda and general information on X3T10.1 were made available to those attending.

2. Approval of Agenda

The draft agenda was approved as shown.

3. Attendance and Membership

The membership requirements were reviewed. X3 rules permit one vote per organization. An individual from a new organization must attend two out of three consecutive plenary meetings. He/she may apply for voting membership the second meeting via a letter to the Chair of X3T10.1. The individual may vote at the second plenary meeting. Working group meetings do not count toward attendance requirements.

Organizations must also pay the X3 Service Fee (\$300) to maintain membership.

The Chair said he had sent letters to 9 people from 6 organizations informing them that their membership was in jeopardy due to non-attendance and that their membership would be terminated if they did not attend this meeting. All organizations were represented at this meeting except:

- Berg Electronics;
- ENDL Associates;
- Fujitsu Computer Products of America;
- Storage Technology Corp.

These organizations were 'terminated' (that is, the principals were changed to observers, first alternates, if any, were dropped, and any additional alternates were changed to observers). No organizations joined X3T10.1 at the meeting.

The merger of Conner Peripherals with Seagate Technology resulted in their termination.

Silicon Systems met the attendance requirements and was reinstated as a voting member.

Trimm Technologies joined and will become a voting member if they attend the next or subsequent plenary.

The X3T10.1 membership is now at 23 organizations. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current X3T10 membership list.

4. Approval of Minutes

Document X3T10.1/95a230r2, minutes of plenary meeting #13 was approved.

5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Katrina Gray (kgray@itic.nw.dc.us) at (202) 626-5741.

The 1996 mailing subscription fees for mailing address within the USA are: \$470 for paper, \$300 for CD-ROM. The subscription fee for mailing addresses outside the USA are higher, please contact the X3 secretariat for additional information.

The deadline for the next mailing is noon, Wednesday, March 20, 1996. Documents received after this date will go into a subsequent mailing. Documents must be submitted in electronic form, using Word 6 format. Documents may be submitted by any of the following methods:

- 1) an attachment to an email sent to ljlammers@corp.adaptec.com;
- 2) posting to the ftp site, ftp.symbios.com, in the directory /pub/standards/io/X3T10/incoming/temp;
- 3) posting to the BBS, 714-574-0424, in area 26;
- 4) sending a floppy disk to

Lawrence J. Lamers
4611 Park Norton Place
San Jose, CA 95136-2523

Options 2 and 3 also require that you send an email to ljlammers@corp.adaptec.com with the file name of the document. Option 4 requires that you send the package allowing sufficient time for it to be delivered by noon of the deadline date.

The minutes will be distributed to the X3T10-SSA reflector. To be added to the SSA Reflector, send an Email to majordomo@dt.wdc.com with the line 'subscribe x3t10-ssa' in the message body.

The X3 Secretariat maintains a World Wide Web page at <http://www.x3.org>. The SSA Industry Association maintains a World Wide Web page at <http://www.ssaia.org>.

The current document register is enclosure (3).

6. Call for Patents

This is a regular agenda item to identify any potential patent issues with developing standards.

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. Annex I contains the ANSI patent policy.

7. Review of Old Action Items

- 28) Bill Ham to generate rev 8 of PH1. Completed.
- 29) John Scheible to generate rev 9 of TL1. Completed.
- 30) Charles Monia to generate rev 6 of S2P. Completed.
- 31) Larry Lamers coordinate with X3T10 the letter ballot on SSA-PH1, TL1, and S2P. Completed.

8. Project Status Reports

8.1 SSA Physical Layer 1 (SSA-PH1) [Ham]

Bill Ham reported. Rev 8a was distributed as a proposal for comment resolution. A number of additional changes were made (see 96a120r0). A revision 9 was prepared at the meeting.

8.2 SSA Transport Layer 1 (SSA-TL1) [Scheible]

John Scheible reported. Rev 9a was distributed as a proposal for comment resolution.

Charles Monia stated that he would like the standard to prohibit zero length data transfers. He is willing to live with a implementation note as proposed in A).

Edge Hawes stated that although architectural restrictions should not be included due to early implementations, folks will benefit from a warning on potential issues. He stated that implementors notes in his opinion do not legitimize deviant behavior.

Greg Kapraun argued in favor of a note if the form of option A).

Ken Erickson moved and Gary Watson seconded that an implementors note be included in SSA-TL1 regarding restrictions on the length of a data field. The motion carried 13:2:2

Choose between the following two implementors notes:

A) Some early implementations of SSA may not handle Data frames with a zero length DATA field.
1 in favor of A.

B) Some early implementations of SSA may not handle Data frames with a zero length DATA field or an odd-byte length DATA field.
11 in favor of B.

The technical editor will incorporate implementors note B) into TL1 rev 10.

8.3 SSA SCSI-2 Protocol (SSA-S2P) [Monia]

Charles Monia reported. The revision 7 working draft represents the incorporation and resolution of the letter ballot comments. The working group recommended approval of this draft.

8.4 SSA Physical Layer 2 (SSA-PH2) [Ham]

Bill Ham reported. The content of PH2 is under discussion. A determination of the need for a future project has not been determined yet.

Initial data has been available; however several issues need further discussion and testing.

A document for 40 MB/sec, using a minimalist approach, as a delta off of the PH1 TL1 draft standards, is under investigation to meet immediate marketing and engineering needs.

8.5 SSA Transport Layer 2 (SSA-TL2) [Scheible]

John Scheible reported. A speed negotiation proposal (96a113r3) as agreed to in the working group. John plans to prepare an initial working draft for the next plenary.

8.6 SSA SCSI-3 Protocol (SSA-S3P) [Monia]

Charles Monia reported. There are a number of proposals that were deferred to S3P. There is also work that needs to be done conform to the SCSI Architectural Model. The service interface needs to be developed and integrated into the document.

9. Old Business

None.

10. New Business

10.1 Resolution of X3T10 Letter Ballot Comments

The working group prepared three documents to resolve the comments received from the X3T10 letter ballot.

John Scheible moved and Dave Deming seconded that document X3T10.1/96a116r1 be accepted as the resolution of comments on SSA-PH1; and approve SSA-PH1 revision 9 as the draft incorporating those comments.

John Scheible moved and Dave Deming seconded that document X3T10.1/96a117r2 be accepted as the resolution of comments on SSA-TL1; and approve SSA-TL1 revision 10 as the draft incorporating those comments.

John Scheible moved and Dave Deming seconded that document X3T10.1/96a118r1 be accepted as the resolution of comments on SSA-S2P; and approve SSA-S2P revision 7 as the draft incorporating those comments.

The results of the roll call vote were:

Name	Organization	Status	Jeopardy	PH1	TL1	S2P
Lawrence Lamers	Adaptec	A		Yes	Yes	Yes
Charles Brill	Amp, Inc	P		Yes	Yes	Yes
Michael Wingard	Amphenol Interconnect Products	P		DNS	DNS	DNS
Ian Morrell	Circuit Assembly Corp	P		DNS	DNS	DNS
Ben Chang	Cirrus Logic	A		Yes	Yes	Yes
Bill Ham	Digital Equipment Corp.	P		Yes	No	Yes
Paul Boulay	Hitachi Computer Products	P		DNS	DNS	DNS
John Scheible	IBM Corporation	P		Yes	Yes	Yes
Wolfgang Drichelt	ITT Cannon	A		Yes	Yes	Yes
Richard Egan	LSI Logic Inc.	A		DNS	DNS	DNS
Chuck Grant	Madison Cable	A		Yes	Yes	Yes
Phil Bryan	Micropolis	A		Yes	Yes	Yes
Gary Manchester	Molex	P		Yes	Yes	Yes
Chris Martens	Pathlight Technology	Des/Alt		Yes	Yes	Yes
Ken Erickson	Samsung	P		Yes	Yes	Yes
Stephen Finch	Silicon Systems, Inc	P		Yes	Yes	Yes
David Deming	Solution Technology	P		Yes	Yes	Yes
Greg Kapraun	Symbios Logic Inc.	P		Yes	Yes	Yes
Jackson Wang	Tandem Computers	P		Yes	Yes	Yes
Gary Watson	Trimm Technologies	P		Yes	Yes	Yes
Ken Hallam	Unisys	P		DNS	DNS	DNS
Brad Kitson	VLSI Technology, Inc.	P		Yes	Yes	Yes
Neil Edmunds	Xyratex	P		Yes	Yes	Yes
			Totals	18 Yes	17 Yes	18 Yes
				0 No	1 No	0 No

				5 DNS	5 DNS	5 DNS
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10.2 ISO New Work Items

Charles Monia moved and Chuck Brill seconded that X3T10 be requested to submit new work item requests to initiate the ISO standards process for SSA-PH1, SSA-TL1, and SSA-S2P. The motion failed 10:6

NOTE: The chair erred in interpreting the voting results at the meeting. A subsequent review of the voting requirements for new work items indicated that a 2/3 vote is required so the motion failed. The chair will issue a letter ballot to resolve the issue.

The chair noted that members will be assessed an International Program Fee of \$300 if X3T10.1 has any ISO projects.

Greg Kapraun provided the following statements in support of his no vote:

ISO standard is not needed and will divert important energy and work away from completing the projects that X3T10.1 are chartered to complete.

The ISO standard will take so long to be completed that it is likely that they will not be finished within the useful life of PH1, TL1, and S2P. It may make more sense to ask them to go forward with the second generation documents.

A 10-6 vote is not overwhelming support within the X3T10.1 committee to go forward with this work at this time. Again the second generation documents will be more important to take to ISO.

10.3 Electronic Mailings

Larry Lamers reported on the electronic mailings and led a discussion on document formats and storage requirements. The consensus was that both the 'pdf' and 'doc' files should be on the CD-ROM mailing, and that the 'doz' files should be on the ftp site and the BBS. If space is limited only the documents from the current and prior mailing are needed.

11. Liaison Reports

11.1 SSA Industry Association

Neil Edmunds reported. The plugfest was successful. A number of operating systems were tested with a variety of peripherals.

SSA-IA plans to submit a marketing wish list for 2nd generation standards.

11.2 SFF Industry Group

Bill Ham reported. Two activities may be of interest, enclosure services and standardizing the complete connector not just the connector interface.

Gary Manchester volunteered to be a liaison with SFF on the connector activities. The chair will ask Gary Watson if he is willing to be the liaison with SFF on the enclosure services activity.

12. Review of Action Items

- 32) John Scheible to generate SSA-PH1 rev 9.
- 33) John Scheible to generate SSA-TL1 rev 10.
- 34) John Scheible to generate SSA-S2p rev 7.

35) Larry Lamers to transmit the comment resolution to X3T10.

13. Meeting Schedule

The next plenary meeting of X3T10.1 will be May 1, 1996, in South Burlington, VT, at the Ramada Inn and Conference Center(802) 658-0250, hosted by IBM. The meeting will begin at 3:00 p.m. on Wednesday

13.1 Meeting Map

The meeting map for the next SSA week is:

April '96 Meeting Map

Sunday	9	10	11	12	1	2	3	4	5	6	7	8	
						+-----+							
						S3P Study Group						(10)	
						+-----+							
Monday	9	10	11	12	1	2	3	4	5	6	7	8	
						+-----+							
						X3T10.1 Working Group						(30)	
						+-----+							
Tuesday	9	10	11	12	1	2	3	4	5	6	7	8	
						+-----+							
						X3T10.1 Working Group						(30)	
						+-----+							
Wednesday	9	10	11	12	1	2	3	4	5	6	7	8	
						+-----+							
						X3T10.1 Working Group			X3T10.1 Plenary			(40)	
						+-----+							
Thursday	9	10	11	12	1	2	3	4	5	6	7	8	
						+-----+							
						ESI Study Group			SSA IA Tech			(30)	
						+-----+							
Friday	8	9	10	11	12	1	2	3	4	5	6	7	8

Meetings marked with == are X3T10-authorized meetings. The SSA-IA meetings other than the Tech meeting are not shown on this map. The SSA IA meeting map should be available on their reflector.

13.2 Long term meeting schedule

The long-term SSA week of meetings are scheduled as follows:

Week of June 24, 1996 in St. Petersburg Beach, FL hosted by AMP.

Week of August 26, 1996 in Ft. Collins, CO hosted by Symbios Logic, Inc.

Week of October 28, 1996 in San Jose, CA hosted by Adaptec.*

Week of December 9, 1996 in Hawaii hosted by IBM.*

Week of February 24, 1997 in Austin, TX hosted by ____.*

Week of April 28, 1997 in San Jose, CA hosted by ____.*

* = Tentative locations.

13.3 Authorization of Working Group Meetings

The chair noted that the working group meetings are required to operate under the same voting procedures as does X3T10.1 (that is, one vote per organization) and the results of a working group are not binding on the parent committee. This later requirement is why traditionally only non-binding straw polls are used in working group meetings. Any issue where the voting rules would make a difference should be deferred to the plenary group. Nonetheless, participants in a task group or ad hoc meeting should strive to achieve consensus prior to bringing issues to X3T10.1.

In the absence of any objection, X3T10.1 authorized the following meetings:

X3T10.1 Working Group, April 29-May 1, 1996

PH2 Working Group - if needed-watch reflector.

S3P Study Group, April 28, 1996 in South Burlington, VT starting at 1:30pm

Enclosure Study Group, May 2, 1996 in South Burlington, VT starting at 9:00am

14. Adjournment

The meeting was adjourned at 5:30 p.m. on Wednesday, February 28, 1996.

Meeting Attendees -- Enclosure (1)

name	company	telephone	email
Lawrence Lamers	Adaptec	408-957-7817	ljlammers@aol.com
Victor Pecone	Adaptec	303-516-4793	victorp@btc.adaptec.com
Shoichiro Saito	ALPS (OADG)	011-81-246-58-6464	saitosho@alps.co.jp
Charles Brill	Amp, Inc	717-592-6198	cebrill@amp.com
Ben Chang	Cirrus Logic	510-226-2394	ben@cirrus.com
Bill Ham	Digital Equipment Corp.	508-841-2629	ham@subsys.enet.dec.com
Charles Monia	Digital Equipment Corp.	508-841-6757	monia@shr.dec.com
Adge Hawes	IBM Corporation	011-44-1705-486363	adge@vnet.ibm.com
Phil Murfet	IBM Corporation	01705 486363	
Chris Parker	IBM Corporation	912-892-2719	
Richard Rolls	IBM Corporation	408-256-3531	rolls@vnet.ibm.com
John Scheible	IBM Corporation	512-823-8208	scheible@vnet.ibm.com
Wolfgang Drichelt	ITT Cannon	49-7151 699 233	101573.2601@compuserve.com
Dennis Moore	KnowledgeTek, Inc.	303-465-1800	dmoore@netcom.com
Chuck Grant	Madison Cable	508-752-2884 x725	charles_grant@madisonusa.ccmail.com
			puserve.com
Phil Bryan	Micropolis	+44 161 973 8359	Phil_Bryan@microp.com
Kevin Alberts	Molex, Inc.	708-527-4320	kalberts@usa.molex.com
Gary Manchester	Molex, Inc.	708-527-4043	gmanchester@usa.molex.com
Stephen Finch	Silicon Systems, Inc	714-573-6808	5723283@mcimail.com
David Deming	Solution Technology	408-338-4285	ddeming@scruznet.com
Greg Kapraun	Symbios Logic Inc.	970-225-4843	greg.kapraun@symbios.com
Jackson Wang	Tandem Computers	408-285-9914	wang_jackson@tandem.com
Gary M. Watson	Trimm Technologies	702-263-2310	trimm@netcom.com
Brad Kitson	VLSI Technology, Inc.	408-434-7553	brad.kitson@ustc.vlsi.com
Sam Sanyal	VLSI Technology, Inc.	408-922-5371	sanyal_s@sanjose.vlsi.com
Neil Edmunds	Xyratex	011-44-1705-486363	neiledmunds@uk.xyratex.com

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X3T10.1 Attendance Database - Enclosure (2)

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name	company	address1	address2	telephone	email
James M. Avery	Adaptec	6150 Lookout RD.	Boulder, CO. 80301	303-516-4743	jima@btc.adaptec.com
Lawrence Lamers	Adaptec	691 South Milpitas Blvd	Milpitas, CA 95035	408-957-7817	ljlammers@aol.com
Victor Pecone	Adaptec	6150 Lookout Rd.	Boulder CO. 80301	303-516-4793	victorp@btc.adaptec.com
Edward Fong	Amdahl Corp	1250 E. Arques Ave MS 354	Sunnyvale, CA 94088-3470	408-944-3780	esf10@amail.amdahl.com
Bob Atkinson	Amp, Inc	449 Eisenhower Blvd	Harrisburg, PA 17105-3608	717-780-4274	rdatkins@amp.com
Charles Brill	Amp, Inc	MS 210-020	Sunnyvale, CA 94088-3470	717-592-6198	cebrill@amp.com
Bill Mable	Amphenol Interconnect	20 Valley Street	Endicott, NY 13760	607-786-4236	
Michael Wingard	Amphenol Interconnect	20 Valley St.	Endicott, NY. 13760	607-786-4241	
Douglas Wagner	Berg Electronics	472 Delwood Court	Newbury Park, CA 91320	805-498-0325	0006030827@mcimail.com
Richard Wagner	Cable Design Technologies	28 Sword St.	Auburn, MA 01501	508-791-3161	rwagner@mcddt3.iii.net
Ian Morrell	Circuit Assembly Corp	18 Thomas Street	Irvine, CA 92718	714-855-7887	crctassmbl@aol.com
Ben Chang	Cirrus Logic	3100 West Warren Ave	Fremont, CA 94538	510-226-2394	ben@cirrus.com
Ram Gopalan	Cirrus Logic	3100 W. Warren Ave	Fremont, CA 94538	510-624-7081	gopalan@corp.cirrus.com
Ed Carmona	Conner Peripherals, Inc	2911 Zanker Road	San Jose, CA 95134	408-456-4082	ed.carmona@conner.com
Paul Petersen	Conner Peripherals, Inc	2911 Zanker Road	San Jose, CA 95134	408-456-4311	paul.petersen@conner.com
Edward L. Grivna	Cypress Semiconductor	2401 East 86th Street	Bloomington, MN 55425	612-851-5046	elg@cypress.com
Paul H. Scott	Cypress Semiconductor	2401 East 86th Street	Bloomington, MN 55425	408-943-6883	phs@cypress.com
Bill Ham	Digital Equipment Corp.	334 South Street	Shrewsbury, MA 01545	508-841-2629	ham@subsys.enet.dec.com
Charles Monia	Digital Equipment Corp.	334 South Street	Shrewsbury, MA 01545	508-841-6757	monia@shr.dec.com
Mark Hamel	EMC Corp.	171 South Street	Hopkinton, MA 01748-9103	508-435-1000	hamel@emc.com
Samek Mokryn	EMC Corp.	171 South Street	Hopkinton, MA 01748-9103	508-435-1000	mokryn@emc.com
Dal Allan	ENDL Associates	14426 Black Walnut Court	Saratoga, CA 95070	408-867-6630	dal_allan@mcimail.com
Kevin Pokorney	Fujitsu Computer Products Am	2402 Clover basin Drive	Longmont, CO 80503	303-682-6449	pokorney@intellistor.com
Paul Boulay	Hitachi Computer Products	3101 Tasman Drive	Santa Clara, CA 95054	408-986-9770 x205	p_boulay@hitachi.com
Nancy Cheng	Hitachi Computer Products	3101 Tasman Drive	Santa Clara, CA 95054	408-986-9770	n_cheng@hitachi.com
Sam Karunanithi	Hitachi Micro Systems Inc.	179 east Tasman Drive	San Jose, CA 95134	408-456-2186	skarunan@hmsi.hitachi.com
Tom Kulesza	Honda Connectors	960 Corporate Woods Pkwy	Vernon Hills, IL. 60061	708-913-9566	
Adge Hawes	IBM Corporation	P.O. Box 6	Havant Hants P09 1SA England	011-44-1705-486363	adge@vnet.ibm.com
John Scheible	IBM Corporation	11400 Burnet Road	Austin, TX 75758	512-823-8208	scheible@vnet.ibm.com
Wolfgang Drichelt	ITT Cannon	Cannonstr 1	271384 Weinstadt	49-7151 699 233	101573.2601@compuserve.com
Rich Moore	ITT Cannon	3000 Alpine Rd.	Menlo Park, CA. 94028	415-854-6977	ITTCANNON@AOL.COM
Monica Roy	ITT Cannon	1851 E. Deere Avenue	Santa Ana, CA 92626	714-757-8472	monicar@mailgw.cannon.itt.com
Richard Egan	LSI Logic Inc.	1551 McCarthy Blvd.	Milpitas, CA 95035	408-433-6841	egan@lsil.com
Karl Nakamura	LSI Logic Inc.	1551 McCarthy Blvd	Milpitas, CA 95035	408-433-4516	karln@lsil.com
Robert Bellino	Madison Cable	125 Goddard Memorial Drive	Worcester, MA 01603	508-752-7320	
Chuck Grant	Madison Cable	125 Goddard Memorial Drive	Worcester, MA 01603	508-752-2884 x725	charles_grant@madisonusa.ccmil.compuserve.com
Phil Bryan	Micropolis	15 Kenilworth Rd.	SALE Cheshire, M33-5DU UK	+44 161 973 8359	Phil_Bryan@microp.com
Greg Farrin	Micropolis	21211 Nordhoff Street	Chatsworth, CA 91311	818-709-3463	
Jay Neer	Molex	902 Clint Moore Road	Boca Raton, FL 33487	407-241-9371 x3889	jneer@usa.molex.com
Kevin Alberts	Molex, Inc.	2222 Wellington Court	Lisle, IL 60565	708-527-4320	kalberts@usa.molex.com
Gary Manchester	Molex, Inc.	2222 Wellington Court	Lisle, IL 60532	708-527-4043	gmanchester@usa.molex.com
Mark DeWilde	Pathlight Technology	767 Warriar Road	Ithaca, NY 14850	607-266-4000	mark@ironics.com
Said Rahmani	Pathlight Technology	767 Warren Rd.	Ithaca, NY 14850	607-226-4000	saidr@pathlight.com
Edward A. Gardner		1262 Hofstead Terrace	Colorado Springs, CO 80907	719-536-5512	gardner@acm.org
Jim McGrath	Quantum	500 McCarthy Blvd	Milpitas, CA 95035	408-894-4504	jmcgrath@qntm.com

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Ken Erickson	Samsung	3655 N. First St.	San Jose, CA. 95134-1713	408-232-3641	kerickso@samsung.com
Chuck Gibson	Samsung	3655 N. First Street	San Jose, CA 95134-1713	408-232-3613	cgibson@samsung.com
Stephen Finch	Silicon Systems, Inc	14351 Myford Road	Tustin, CA 92680-7022	714-573-6808	5723283@mcimail.com
David Deming	Solution Technology	P.O. Box 104	Boulder Creek, CA 95006	408-338-4285	ddeming@scruznet.com
Thai Nguyen	Storage Technology Corp.	2270 South 88th Street	Louisville, CO 80028-2140	303-673-2237	thai_nguyen@stortek.com
Eric Oetting	Storage Technology Corp.	2270 South 88th Street	Louisville, CO 80028-2140	303-673-2237	eric_oetting@stortek.com
Greg Kapraun	Symbios Logic Inc.	2001 Danfield Court	Fort Collins, CO 80525	970-225-4843	greg.kapraun@symbios.com
John Lohmeyer	Symbios Logic Inc.	1635 Aeroplaza Drive	Colorado Springs, CO 80916	719-573-3362	john.lohmeyer@symbios.com
Michael Knowles	Tandem Computers	10555 Ridgeview Court	Cupertino, CA 95015-0789	408-285-9957	knowles_michael@tandem.com
Pete Tobias	Tandem Computers	10555 Ridgeview Ct.	Cupertino, CA. 95014	408-285-9913	tobias_pete@tandem.com
Jackson Wang	Tandem Computers	10555 Ridgeview Ct.	Cupertino, CA 95015-0789	408-285-9914	wang_jackson@tandem.com
Gary M. Watson	Trimm Technologies	350 Pilot Rd.	Las Vegas, NV 89119	702-263-2310	trimm@netcom.com
Ken Hallam	Unisys	25725 Jeronimo Road	Mission Viejo CA 92691	714-380-5115	Ken.Hallam@mv.unisys.com
Brad Kitson	VLSI Technology, Inc.	1109 McKay Dr.	SAN Jose, CA 95131	408-434-7553	brad.kitson@ustc.vlsi.com
Sam Sanyal	VLSI Technology, Inc.	1109 McKay Drive, MS 33	San Jose, CA 95131	408-922-5371	sanyal_s@sanjose.vlsi.com
Matt Kesler	W.L. Gore & Associates	4747 E. Beautiful Lane	Phoenix, AZ 85044	602-438-6926	
Tak Asami	Western Digital	8105 Irvine Center Drive	Irvine, CA 92718	714-932-7621	asami@dt.wdc.com
Eric Griffith	Western Digital	8105 Irvine Center Drive	Irvine, CA 92718	714-932-	@dt.wdc.com
Jeff Stai	Western Digital	8105 Irvine Center Drive	Irvine, CA 92718	714-932-7644	stai@dt.wdc.com
Neil Edmunds	Xyratex	Langstone Road	Havant Hants UK	011-44-1705-486363	neiledmunds@uk.xyratex.com

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