Draft Minutes Automation/Drive Interface (ADI) Working Group Ad Hoc Teleconference T10/03-161r0 23 April 2003 8:00 AM – 10:00 AM PDT

Conference Call Information:

Hosted by: ADIC

Toll Free: 877-988-2405 International: 712-884-0228

Pass code: 108356

1. Introductions: Group

Paul Suhler called the teleconference to order at 8:04 AM PDT. He thanked ADIC for hosting the call. A table of the attendees appears at the end of these minutes.

2. Approval of the agenda:

03-162r0

Paul Suhler

Paul Suhler suggested re-ordering the list of discussion items to move 03-165r0 to item b. Paul Suhler requested approval of the agenda as modified. The group agreed to the agenda by acclimation.

3. Approval of previous meeting minutes:

Paul Suhler

8 April 2003 teleconference

03-159r0

Paul Suhler requested comments for the minutes of the 8 April 2003 teleconference, 03-159r0. No comments were forthcoming.

4. Call for Patents Paul Suhler

Paul Suhler issued a call for patents. No one in the group responded.

5. Review of action items:

Michael Banther

- a. Rod Wideman to produce a proposal for device server interaction section in ADC document. *Carryover*
- b. Lee Jesionowski to create a proposal for method to convey Interface Status changed. *Carryover*
- c. Paul Entzel to write up a proposal for the ADC model of TapeAlert. *Carryover*, waiting for an SSC version from Dave Peterson. Paul Entzel will host a discussion at the May meeting.
- d. Bob Griswold to follow up with SNIA Interoperability Conformance Test Program (ICTP) Subcommittee regarding test/emulation tool. *Carryover*
- e. Rod Wideman will incorporate 03-042r2 as modified into ADC. Closed

- f. Rod Wideman will incorporate 03-106r0 as modified into ADC. Closed
- g. Rod Wideman will incorporate 03-113r0 into ADC. Closed
- h. All will review nomenclature and propose changes, specifically port references and device server references. *Carryover*, Rod Wideman has changed ADCr02 to 'data transfer device' nomenclature.
- i. Rod Wideman will remove the READ POSITION command from table 2 of ADC r01. *Closed*
- j. Paul Entzel will propose text for ADT to disallow protocol-specific mode pages. Closed
- k. Michael Banther to propose corrections to the physical section of ADT. Carryover
- 1. Paul Suhler will revise 03-140 based on discussion. Closed
- m. Paul Suhler will revise 03-095 based on the discussion. Closed
- n. Paul Suhler will revise 03-087 based on the discussion including a new command to indicate that automation is giving up on a load. *Closed*, new command proposed in 03-165.
- o. Paul Entzel will revise 03-153 per the discussion. Closed
- p. Paul Entzel will incorporate 03-152 and 03-153 as revised into ADT. *Closed*, Paul Entzel expects to issue a new revision of ADT before the May meeting.
- q. Paul Suhler will send an e-mail stating the decision of the group to stay with the proposed connector to T10 and JST and Molex. *Closed*

6. Discussion items:

a. ADI Bridging Proposal

03-077r5

Paul Suhler

Paul Suhler walked the group through the revisions. This review revealed that the last three bullet items in the list of revision 5 changes do not apply to the revision and should be disregarded.

Susan Gray raised a concern in an e-mail about whether the text implied mandatory caching. Paul Suhler asked whether it should be mandatory or not. Both Rod Wideman and Paul Entzel voiced their belief that it should not. Paul Suhler agreed to remove the offending text and check the proposal for consistency with optional caching.

Paul Suhler asked if the Notify Data Transfer Device command is mandatory. Paul Entzel pointed out that rejecting the command provides the tape drive with a way to tell the automation that the tape drive is not caching even though it supports bridging. We discussed how an automation-drive combination could use this command. We agreed that the 'shall' clauses associated with the local device server should change to 'may'.

Paul Suhler asked if the command should be subject to Unit Attention conditions or Not Ready conditions. The group agreed that it should not be subject to these conditions.

Paul Entzel asked if the ADC device server ever goes to a Not Ready condition. Lee Jesionowski pointed out that specific commands could return Not Ready status. With that caveat, the group agreed that the ADC device server does not have a Not Ready state. Rod Wideman wondered where text should go in ADC to explain this fact. Lee and Paul Suhler agreed that it should go into the model section. Paul Entzel suggested that it could go into the device server interaction section. We explored the issue of readiness for a Read Attribute command and then a Test Unit Ready command. The Read Attribute is subject to the presence of media; hence Ready/Not Ready applies. Paul Entzel quoted some text from SPC-x that ties Test Unit Ready response to the readiness of removable medium. This comment overturned the group's earlier consensus. Rod agreed to list the commands that are subject to ready: Read Attribute, Write Attribute, Load-Unload, Test Unit Ready, Report Density Support (with Medium bit set), and other commands due to vendor unique features.

Paul Entzel asked how Read Attribute became mandatory. Lee Jesionowski and Paul Entzel disagreed on whether it should remain so. Lee wants to keep the command as mandatory but not have any mandatory attributes. A device that does not support MAM will still support the command but not support any attributes. Paul Entzel would like to make the command optional. Paul Suhler requested that we postpone further discussion of this point.

After discussing 03-165r0, the group returned to consideration of this proposal. Small change requests were forthcoming from several members.

Paul Suhler will revise 03-165r0 adding the model section. The group agreed to discuss the revision by e-mail. If the group agrees with the content, we may vote by e-mail.

b. ADC Notify Data Transfer Device

03-165r0

Paul Suhler

Paul Entzel pointed out that the 2nd sentence in the 1st paragraph really applies to an application client. We can't restrict the application client to being an automation controller, and we can't place a requirement on an application client. Paul Suhler agreed with Paul Entzel's criticism. Paul Entzel and Paul Suhler agreed that any description of how an automation device would use this command should appear in the model section.

The group agreed that any automation controller that sets the Enable bit in the mode page must use the Notify Data Transfer Device command to signal an out-of-date cache. Paul Entzel suggested making the Enable bit non-changeable through the primary port. Michael Banther asked if the Enable bit shouldn't appear in a Protocol-Specific Port mode page. Lee Jesionowski responded that doing so would limit ADC bridging to the ADT; at present nothing in ADC prohibits using a legacy transport.

Rod Wideman asked what the Service Action field did. Paul Suhler explained that opcode 9Fh is the Service Action Out op-code and that the Service Action specifies the Notify Data Transfer Device command.

Lee Jesionowski raised objection to the implicit Unit Attention for IDC and MDC. The application client can set BUA with either IDC or MDC and cause the broadcast of Unit Attention through that mechanism.

Paul Suhler will revise per this discussion. The group agreed to discuss the revision by email. If the group agrees with the content, we may vote by e-mail.

c. ADC Drawings

03-140r1

Paul Suhler

Paul Suhler briefly reviewed the changes to the drawings since the last revision.

Rod Wideman pointed out that he has already incorporated the first two drawings to ADCr02.

Paul Suhler made a motion to incorporate 03-140r1 as appropriate into ADC and ADT. Lee Jesionowski seconded the motion. The group passed the motion by acclimation.

d. ADC Data Transfer Device Status Masking

03-087r2

Paul Suhler

Paul Suhler briefly reviewed the changes since the last revision.

Paul Suhler made a motion to incorporate 03-087r2 into ADC. Rod Wideman seconded the motion. The group passed the motion by acclimation.

e. ADC Recovery Requested Log Page

03-095r2

Paul Suhler

Paul Suhler asked for comments. Lee Jesionowski asked whether recovery action 0Bh really only occurred without other recovery actions as stated in the text. After some discussion, we agreed that the text needs another recovery action to remove the media. Paul Suhler agreed to add the additional recovery action.

Rod Wideman made a motion to incorporate 03-095r2 as revised into ADC. Paul Suhler seconded the motion. The group passed the motion by acclimation.

f. Add content to model section of ADT

03-163r0

Paul Entzel

Paul Entzel asked for comments by e-mail. He pointed out that this proposal mostly moves text around but that a few new sections appear: 4.2 – Port State, 4.4 – ACK Offset, and 4.5 – Frame Number.

7. Unscheduled business:

The group did not discuss any unscheduled business.

8. Next meeting requirements:

Paul Suhler

The group will hold a meeting 5-6 May 2003 during T10 plenary week in Nashua, NH. The meeting will begin on the 5th immediately after the T10 SMC-2/SSC-2 Working Group meetings finish. The meeting time on the 6th will occupy the entire day, concluding at 6:00 PM EDT.

9. Review new action items:

Michael Banther

- a. Paul Suhler will revise 03-165 per discussion item b.
- b. Paul Suhler will revise 03-077 per discussion item a.
- c. Paul Suhler will send the source for 03-140r1 to Paul Entzel.
- d. Paul Entzel will incorporate 03-140r1 into ADT.
- e. Rod Wideman will incorporate the third figure from 03-140r1 into ADC.

- f. Paul Suhler will send 03-087r2 to Rod Wideman.
- g. Rod Wideman will incorporate 03-087r2 into ADC.
- h. Paul Suhler will revise 03-095r2 per discussion item e and send to Rod Wideman.
- i. Rod Wideman will incorporate 03-095r2 as revised into ADC.

10. Adjournment:

Group

Rod Wideman made a motion for adjournment. Michael Banther seconded the motion. The group passed the motion by acclimation. Paul Suhler adjourned the group at 9:57 AM PDT.

Attendees:

Name	Organization	E-mail
Rod Wideman	ADIC	rod.wideman@adic.com
Paul Suhler	Certance	paul.a.suhler@seagate.com
Michael Banther	HP	michael_banther@hp.com
Lee Jesionowski	IBM	ljesion@us.ibm.com
Paul Entzel	Quantum	paul.entzel@quantum.com