

Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Teleconference
T10/03-206r0
2 June 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 8:07 AM PDT. He thanked ADIC for hosting the teleconference. A table of the attendees appears at the end of these minutes.

2. Approval of the agenda: 03-205r0 Paul Suhler

Paul Suhler discussed two changes to the agenda: a brief discussion of reporting and setting identifiers in ADC, and the schedule for finishing the draft standards. He requested additional changes. None were forthcoming.

Paul Suhler made a motion for acceptance of the modified agenda. Lee Jesionowski seconded the motion. The group passed the motion by acclamation.

3. Approval of previous meeting minutes: Paul Suhler

5-6 May 2003 meeting 03-171r1

19 May 2003 teleconference 03-196r1

Paul Suhler requested comments for the minutes of the 5-6 May 2003 meeting, 03-171r1 and the 19 May 2003 teleconference, 03-196r1. None were forthcoming.

4. 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*, will cover on next teleconference

c. Bob Griswold to follow up with SNIA Interoperability Conformance Test Program (ICTP) Subcommittee regarding test/emulation tool. *Carryover*

d. Rod Wideman to update ADC to reflect terminology changes. (e.g. device server and primary port references). *Closed*

e. Rod Wideman to incorporate the revised 03-165r1 into ADC. *Closed*

- f. Library vendors to decide what reset capabilities are needed (e.g., hard reset, branch to 0, target reset) and provide feedback at next conference call in two weeks. Susan Gray to write proposal based on input. *Carryover*
- g. Rod Wideman to make editorial changes to Stream Device descriptor based on discussion (ENABLE bit description, rename Stream Device descriptor to RMC Logical Unit descriptor, also rename to SMC and ADC descriptors). *Closed*
- h. Rod Wideman to write proposal for TA flag behavior. *Carryover*
- i. Lee Jesionowski to provide pinout proposal for ADT connector. *Closed*
- j. Rod Wideman to incorporate 03-077r7 into ADC. *Closed*
- k. Rod Wideman to incorporate 03-181r0 into ADC. *Closed*
- l. Susan Gray will send an e-mail to the T10 reflector to solicit information from library vendors regarding reset capabilities in the DTD. *Closed*
- m. Paul Suhler will contact JST and Molex re: plans for providing SMT version of 10-pin connector. *Closed*
- n. Paul Entzel will write an appendix to ADT to describe an example login. *Carryover*
- o. Paul Suhler will write an appendix to ADC to describe an example of DTD primary port control. *Carryover*

5. Discussion items:

- a. ADI Connector pinout proposal 03-208r0 Lee Jesionowski

Lee Jesionowski described the proposal. Michael Banther verified that the pin assignments for pins 1 – 9 match HP's ACI pinout.

Paul Entzel raised concerns about the Rx+/Rx- and Tx+/Tx- terminology. He pointed out that this terminology is inconsistent with ADT terminology. After some discussion we agreed that Rx+/Rx- are Tx_a-Rx_d connections and Tx+/Tx- are Tx_d-Rx_a connections.

Lee Jesionowski made a motion for inclusion of 03-208r0 into ADT. Paul Suhler seconded the motion. The group approved the motion by acclamation.

- b. ADC model of TapeAlert Rod Wideman

Rod Wideman described the basic content of what he will propose. See 03-171r0 just ahead of item g for the details.

We debated the wisdom of changing from event-based to state-based reporting vis-à-vis RMC devices. Paul Entzel pointed out the difficulties of tracking events reported to different initiators in multi-initiator, multi-port environments. We discussed the difficulty of drives implementing state-based flags for ADC and event-based flags for RMC. Michael Banther asked if the change will cause difficulties for libraries that report drive tape alert flags over the library's (possibly out-of-band) management/diagnostic port. Rod Wideman stated that he thinks it simplifies the library's management of drive tape alert flags.

Rod will continue his development of the proposal.

c. Reset capabilities

Susan Gray

Susan Gray reported that she hasn't received much in the way of feedback from the vendors yet. She expects to propose removing Target Reset, leaving Logical Unit reset, and leaving the Reset signal as a Port Logout. Her proposal will include a definition of 'hard reset'. As 'hard reset' only appears in the ADC definitions, we agreed to remove it from ADC; it will appear only in ADT.

Lee Jesionowski brought up a concern about the need for a whole-device reset command. Some drives need a whole-device reset after configuration changes or firmware upgrade to operate with the new configuration/firmware. We narrowed the possibilities to:

- o A new command, or
- o To leaving Target Reset in ADT plus specifying that Target Reset includes a hard reset for the entire device and that hard reset allows a vendor to implement a power-on type reset.

After some discussion, we agreed to go down the Target Reset route.

We also debated whether the standard should require that a hard reset is a power-on type reset. Lee Jesionowski believes that some of the older Fibre Channel ASIC's require a power-on type reset to change their configuration. We agreed that some log page is needed to report the actual configuration of the device for those parameters that require additional stimulus to take effect. Lee Jesionowski will add various fields that may need additional stimulus to the Interface Status proposal. He will also add a 'pending' bit.

Lee Jesionowski suggested that we add an ASC/ASCQ to indicate that a device server could not action an attempt to change a mode parameter because, in our case, the library must disable a port to make the parameter changeable. Paul Entzel will write a proposal for an ASC/ASCQ for presentation at CAP.

d. SMT version of 10-pin connector

Paul Suhler

Paul Suhler reported the communication from Molex. Basically they don't provide an SMT part due to lack of demand. They can provide one, but vendors will have to ask for it. They also have worries about insertion force problems with an SMT part.

e. Clean Protect

03-204r0

Michael Banther

Michael Banther asked if anyone hadn't read the proposal. Given that everyone already had and that the proposal contains a lot of text, he bypassed describing the proposal to the group and asked for comments.

Rod Wideman asked if any way exists to avoid replicating Load Unload in ADC. He thinks not short of adding it into SSC-2. He wants the sentences that discuss the device server returning CHECK CONDITION to explicitly tie to the preceding sentence. He also wants to qualify 'device server' in these sentences as the ADC device server.

Lee Jesionowski, Paul Suhler, and Paul Entzel asked for a broader discussion. Paul Entzel noted that some technologies cannot detect cleaning media until load completes. Paul Entzel outlined three things that he would like to see:

1. Disable the automatic cleaning of drive heads,

2. Force a clean operation if the automatic cleaning has been disabled, and
3. Identify that a cleaning media has been loaded.

Michael Banther stated that the proposal covers the first two but the third only as a side effect.

Lee Jesionowski asked whether the Clean bit belongs in the Load Unload command at all. He argued that it belongs better in the Notify Data Transfer Device. Rod Wideman asked if Clean has any dependencies on the other bits in the Load Unload command. Michael Banther responded no and that he would consider moving it to the Notify DTD. Paul Entzel however objected to moving it to Notify DTD. He wants it added to SSC-3 which does not include the concept of a Notify DTD command. He also stated that Load Unload is already a heavily overloaded command and that the bits effectively define service actions. Rod Wideman is worried about differences between the Load Unload in SSC and in ADC causing confusion.

Due to a lack of time in the teleconference, we agreed to continue the discussion by e-mail.

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| f. Reporting and Setting Identifiers in ADC | Paul Suhler |
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No discussion due to a lack of time.

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| g. Schedule for completion of ADC and ADT draft standards | Paul Suhler |
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No discussion due to a lack of time.

6. Unscheduled business:

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| 7. Next meeting requirements: | Paul Suhler |
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The group will hold an ad-hoc teleconference on:

- 16 June 2003 – hosted by IBM.

The teleconference will start at 8:00 AM PST and finish at 10:00 AM PST.

The group will hold a meeting 7-8 July 2003 during T10 plenary week in Colorado Springs, CO. The meeting will begin on the 7th immediately after the T10 SMC-2 Working Group meeting finishes. The meeting time on the 8th will occupy the entire day, concluding at 6:00 PM MDT.

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| 8. Review new action items: | Michael Banther |
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a. Paul Entzel will incorporate 03-208r0 into ADT.

b. Paul Entzel will write a proposal for an ASC/ASCQ from CAP.

c. Susan Gray will produce a proposal for resets.

d. Susan Gray will send an e-mail with a list of legacy features to consider with regards to ADC.

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| 9. Adjournment: | Group |
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Paul Suhler made a motion for adjournment. Rod Wideman seconded the motion. The group passed the motion by acclamation. Paul Suhler adjourned the group at 10:08 AM PDT.

Attendees:

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