

Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Meeting
T10/04-304r0
Nashua, New Hampshire
13-14 September 2004
9:00 AM – 7:00 PM (13 September)
8:00 AM – 10:00 AM (14 September)

1. Introductions: Group

Paul Suhler called the meeting to order at 9:09 AM EDT on 13 September 2004. He thanked Hitachi Cable for hosting the meeting. A table of the attendees appears at the end of these minutes.

2. Approval of the agenda: Paul Suhler

Paul Suhler discussed the order of the discussion items. Kevin Butt requested addition of [04-229r0](#) and [04-230r0](#).

Kevin Butt made a motion for acceptance of the modified agenda. Rod Wideman seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

3. Approval on previous meeting minutes: Paul Suhler

12 July 2004 meeting	04-199r0
29 July 2004 teleconference	04-244r0
5 August 2004 teleconference	04-253r0
9 August 2004 teleconference	04-256r1
12 August 2004 teleconference	04-261r0
16 August 2004 teleconference	04-266r0
19 August 2004 teleconference	04-267r0
23 August 2004 teleconference	04-270r0
26 August 2004 teleconference	04-272r0
2 September 2004 teleconference	04-280r0
9 September 2004 teleconference	04-298r0

Paul Suhler requested corrections for the minutes of the 12 July 2004 meeting and the following teleconferences from 2004: 29 July, 5 August, 9 August, 12 August, 16 August, 19 August, 23 August, 26 August, 2 September, and 9 September – 04-199r0, 04-244r0, 04-253r0, 04-256r1, 04-261r0, 04-266r0, 04-267r0, 04-270r0, 04-272r0, 04-280r0, and 04-298r0 respectively. No one provided corrections.

David Hawks made a motion for approval of the minutes listed above. Susan Gray seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

4. Review of action items: Michael Banther
- a. Kevin Butt will investigate writing a proposal against IBM's ADT letter ballot comment 27. *Carryover*
 - b. Michael Banther will write a proposal to place all of the IU statements associated with entry into a state in the state description sub-clause and to remove such statements from the transition sub-clauses (remembering to rationalize incomplete statements). This proposal will also change the description of each state machine to clearly indicate what state it is in upon activation. He will produce this proposal for the September or November 2004 meeting. *Carryover*
 - c. Kevin Butt to bring in proposal for ADC Letter Ballot comments IBM Butt – 1 & IBM Butt - 2 (Drive Dump). *Closed*, [04-229r0](#) and [04-230r0](#).
 - d. Kevin Butt will write a proposal via e-mail to change the paragraph in 6.2.2.3.1 regarding DENOVR and SELECT WRITE DENSITY parameters, reference ADC letter ballot ([03-385r2](#)) comments IBM PENOKIE-414 and HP-230. *Carryover*
 - e. Kevin Butt will write a proposal against SPC-3 to add automation type MAM attributes (reference ADC letter ballot [04-197r1](#), comment IBM Roberts - 2). *Carryover*
 - f. Michael Banther will bring in a proposal to rename and redefine the DACC bit in the VHF data (reference ADC letter ballot [04-197r1](#), comment HP-162). *Carryover*
 - g. Rod Wideman will incorporate 04-285r0 into ADC. *Closed*

5. Discussion items:

- a. ADC letter ballot comment resolution IBM Butt – 2 ([04-230r0](#)) [Butt]

Kevin Butt introduced the proposal. In short, IBM wants to add two Requested Recovery procedures, one that will contain a CDB whose execution by the automation application client will involve Data Out and one that will contain a CDB whose execution will involve Data In.

Before addressing the specifics details, Kevin Butt asked if the group will accept the concept in general. Paul Entzel expressed qualified support. Paul Suhler asked why the retrieving of the log cannot trigger creation of the log content. Kevin replied that sometimes sequencing issues in the design require an external stimulus. He cited the taking of a command sequence that replaces previous content as an example. Michael Banther asked how the log page conveys the CDB contents to the application client. Kevin replied that he's adding two new parameters to the log page, one for each data direction. He intends that the device server should only include the parameters relevant to the returned recovery procedures.

Paul Entzel asked if this proposal includes the recovery procedure sequencing concept that Kevin Butt had discussed during the 9 September 2004 teleconference. Kevin replied that this proposal does not include sequencing and that IBM will not request sequencing capability in recovery procedures.

Paul Entzel pointed out that the text for the two new recovery procedures doesn't include enough information. Specifically it does not indicate the device server to which the application client should address the CDB. Michael Banther suggested putting the LUN in the Data In and Data Out CDB descriptors. Kevin Butt agreed and added it.

Paul Entzel pointed out various odd byte alignment problems in the Data In and Data Out CDB descriptors. Kevin Butt added reserved fields to correct this problem.

The group reviewed the parameters from the Execute Command procedure call in [SAM3r13a](#). Of the list, only the Task Attribute showed up as a possibility. The group debated the benefit of including a Task Attribute field and decided that it adds value. A specification of Head Of Queue can reduce the likelihood of the device server overwriting important log data between the time the device server issues the requested recovery procedure and the time it executes the subsequent recovery command from the application client.

The group spent some time working through various editorial changes.

Michael Banther raised a concern about using this feature if the recovery requested concept goes into other command sets. Paul Entzel noted that the current proposal is sufficient for use over ADT. However it has problems if used over other transports, specifically the lack of Initiator and Target port information. He also noted that it may have problems due to reservations if the Data In or Data Out CDB descriptor indicates a LUN other than the one for the ADC device server.

Kevin Butt moved for incorporation of [04-230r0](#) as revised into ADC. Paul Suhler seconded the motion.

Michael Banther requested the addition of a length field for the LUN and Task Attributes fields, making the descriptor entirely self-describing. He explained that he wants to keep the descriptors well-suited to future expansion. Kevin Butt suggested breaking the LUN and Task Attributes fields out to a separate task descriptor. Kevin and Rod Wideman agreed on specific wording for a task descriptor, and the group spent substantial time crafting the final wording.

Paul Entzel raised concern about adding a concept this large into ADC at this late stage of development. He stated concern about the group's ability to provide a general solution given the short amount of time available to consider alternatives. Rod Wideman also is nervous about adding a proposal this large into ADC without further review.

Paul Suhler raised a concern about the use of a Data In CDB. How does the application know what to do with the data received from the DT device? Paul Entzel agreed that this remains a serious unresolved problem.

The group debated various issues with extending this feature, and the Requested Recovery concept in general, to other command standards. After much debate, Kevin Butt decided to withdraw his motion for incorporation. He stated a desire to discuss the proposal further with Michael Banther and Paul Entzel. Several members of the group suggested reconsidering this proposal in ADC-2.

b. ADC letter ballot comment resolution IBM Butt – 1 ([04-229r0](#)) [Butt]

Kevin Butt showed the proposed change to the group. It consists of adding two new requested recovery procedures, one to request a vendor specific action by the application device to trigger a dump in a DT device and one to request a vendor specific action by the

application device to retrieve the dump. The proposal does not include text describing the recovery procedures.

Paul Entzel asked why some procedures have associated text and others to not. Rod Wideman suggested adding text for the two new procedures stating that they are vendor specific. Eventually the group rejected this idea.

The group spent some time rewording the proposed procedure labels.

Rod Wideman made a motion for incorporation of [04-229r0](#) as revised into ADC. Kevin Butt seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

- c. ADI – ADC Letter Ballot comment resolution ([03-385r4](#)) [Wideman].

Rod Wideman led the group through resolution of ADC letter ballot comments. He reviewed some changes made due to recently resolved comments with the group. We then considered the few remaining comments that need further work. By the time the group finished this discussion item, it had resolved all ADC letter ballot comments.

- d. ADT Letter Ballot comment resolution ([04-162r0](#)) [Entzel].

Paul Entzel led the group through resolution of ADT letter ballot comments.

6. New business:

- a. Review of incorporation of [04-285r0](#) into ADC [Wideman]

Rod Wideman described a presumed cut-and-paste error that he found in [04-285r0](#). A sentence appears missing. Michael Banther agreed that the missing sentence should appear in ADC.

- b. ADC Redefinition of VHF Data DACC bit ([04-303r0](#)) [Banther]

Michael Banther introduced the proposal.

Kevin Butt requested changing the SSC-3 reference to SSC-2. Michael Banther agreed to make this change.

Rod Wideman raised a concern about the use of the word 'volume'. He pointed out that we have used 'medium' everywhere else. The group spent some time re-working the definition of 'mounted' to remove the use of 'volume'.

Michael Banther moved for incorporation of [04-303r0](#) as revised into ADC. Rod Wideman seconded the motion.

Kevin Butt raised a concern about the definition of 'mounted'. The definition relates 'mounted' to the state of a medium and a DT device. After some discussion, the group reached acceptable text that defines 'mounted' based on the state of a medium in a DT device.

In the absence of objections or abstentions, the group passed the motion unanimously.

- c. Discussion of project proposals for ADC-2 and ADT-2 ([04-306r0](#) and [04-307r0](#) respectively) [Suhler]

Paul Suhler led the group through a review of the ADC-2 project proposal. The group suggested various additions to the business case for developing the standard. Paul then led the group through a review of the ADT-2 project proposal. Paul plans to make a few editorial changes and then submit the project proposals to T10.

7. Next meeting requirements: Paul Suhler

The group will hold a teleconference on 7 October 2004 beginning at 7:30 AM and concluding at 9:30 AM PDT. Certance will host this teleconference.

Subject to approval by the plenary, the group will hold a meeting 8 November 2004 during T10 plenary week in Austin, Texas beginning at 9:00 AM and concluding at 7:00 PM.

8. Review new action items: Michael Banther

- a. Kevin Butt will post [04-230r0](#) as revised to the T10 document archive.
- b. Paul Suhler will add consideration of [04-230r0](#) as revised to the list of items for ADC-2, [04-263r2](#).
- c. Kevin Butt will revise [04-229r0](#) per discussion item (b).
- d. Rod Wideman will incorporate [04-229r0](#) as revised into ADC.
- e. Michael Banther will revise [04-303r0](#) per new business item (b).
- f. Rod Wideman will incorporate [04-303r0](#) as revised into ADC.
- g. Paul Suhler will add to the list of items for ADC-2, [04-263r2](#), changes to allow use of ADC without an ADT port.
- h. Paul Suhler will add a clarification of interactions of the ADC device server, RMC device server, DT device, and physical device to the list of items for ADC-2, [04-263r2](#).

9. Adjournment: Group

Kevin Butt made a motion for adjournment. Rod Wideman seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 9:59 AM EDT, 14 September 2004.

Attendees:

Name	Organization	E-mail
Rod Wideman	ADIC	rod dot wideman at adic dot com
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Kevin Butt	IBM	kdbutt at us dot ibm dot com
David Hawks	Iomega	hawks at iomega dot com
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