Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Teleconference
T10/04-270r0
23 August 2004
8:00 AM – 10:00 AM PDT

1. Introductions: Group

   Paul Suhler called the meeting to order at 8:03 AM PDT on 23 August 2004. He thanked Certance 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. He suggested adding Kevin Butt's Time-of-Day proposal 04-271r0 as the second discussion item.

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

3. Comments 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

   Paul Suhler requested comments for the minutes of the 12 July 2004 meeting and the following teleconferences: 29 July 2004, 5 August 2004, 9 August 2004, 12 August 2004, 16 August 2004, and 19 August 2004 – 04-199r0, 04-244r0, 04-253r0, 04-256r1, 04-261r0, 04-266r0, and 04-267r0 respectively. Rod Wideman pointed out the long-running mis-identification of an action item ADIC-47 as ADIC-148.

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). *Carryover*

d. Rod Wideman write a proposal for ADC Letter Ballot comment ADIC-47. *Carryover*

e. Rod Wideman write a proposal for ADC Letter Ballot comment ADIC-50. *Carryover*

f. Kevin Butt will generate two proposals, one for CAP and one for ADC (reference ADC letter ballot 04-197r1, comment HP-139). The CAP proposal will add Service Action In/Out commands to support Set/Get Time. The ADC proposal will add new command references for these commands to ADC. *Closed*, 04-271r0.

g. Michael Banther will bring in a proposal to address ADC letter ballot (04-197r1) comment HP-225. *Carryover*

h. Michael Banther will bring in a proposal to CAP to add a LOGICAL UNIT NOT READY, OFFLINE ASC/ASCQ to SPC-3, reference ADC letter ballot (04-197r1) comment HP-226. *Carryover*

i. 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*

j. Michael Banther will send an e-mail to clarify the text for the AUTODROFF bit, reference ADC letter ballot (04-197r1) comment HP-232. *Carryover*

k. 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*

l. David Hawks will revise 04-265r0 per discussion item (b) of 04-267r0. *Closed*, 04-265r1.

m. Paul Entzel will incorporate 04-265r0 as revised into ADT. *Carryover*

n. Paul Suhler will revise 04-239r0 per discussion item (c) of 04-267r0. *Closed*, 04-239r1.

o. Paul Entzel will incorporate 04-239r0 as revised into ADT. *Closed*

5. Discussion items:

a. ADI - ADC Letter Ballot comment discussion items (04-197r2) [Wideman].

Rod Wideman reported the resolution of ADC letter ballot comments ENDL-113, ENDL-116, and ENDL-117.

Rod Wideman stated that he has 98 comments pertaining to the annex. Of those he would like to discuss STK-20 with the group as it affects non-annex text as well. This comment refers to the FC Speed Values in ADCr06b Table 32 and requests the use of exact baud rates rather than rounded values in Gb/sec. After some discussion, Rod decided to reject the comment as FC-FS also uses round numbers for FC speeds.

Rod Wideman led the group through resolution of the last ADC letter ballot comment, HP-162. Michael Banther agreed to bring in a proposal to resolve this comment.

Rod Wideman stated that we have processed 1204 of 1102 ADC letter ballot comments with 98 comments remaining. We've accepted 76 letter ballot comments that still require changes to the text. Several of these comments need e-mails or proposals to accomplish the text changes. We're waiting for two proposals to resolve outstanding (i.e. not accepted) letter ballot comments.

b. SPC-3 Time of Day Settings (04-271r0) [Butt].

Kevin Butt introduced the proposal. As several individuals indicated that they had already read the text, Kevin dispensed with a review and the group moved straight into asking questions and making comments.

Michael Banther asked how many drive vendors have vendor specific commands or mode/log pages. HP uses mode pages. Certance uses a non-SCSI command. IBM uses both mode pages and library interface commands. Without a clear consensus for one method, Michael agreed to go forward with a command-based solution.

Paul Suhler asked about the TIME-OF-DAY METHOD field (mislabelled TODC) in the time-of-day descriptor for the REPORT TIME-OF-DAY command. Kevin Butt replied that he included it to allow for Fibre Channel's extended link service time-of-day feature. Paul Entzel suggested naming the 11b value out-of-band rather than protocol-specific to allow for other out-of-band methods. Kevin agreed to change the text to 'out-of-band' with 'SCSI protocol specific' stated parenthetically.

Paul Suhler asked about the meaning of value 00h for the TIME-OF-DAY METHOD field. Kevin Butt replied that 00h corresponds to the internal clock which starts at zero at power-on.

Paul Entzel noted that the range of the TIME-OF-DAY parameter in the SET TIME-OF-DAY parameter list is limited to approximately 127 years, not 136 as stated in the proposal. Kevin explained that not allowing the parameter greater than 0x0FFFFFFFFFFFFFFF is due to an existing IBM implementation.

Paul Entzel asked if the proposal requires the device server to return every TIME-OF-DAY METHOD that the device supports in response to a REPORT TIME-OF-DAY command. Paul wants to limit the requirement to only those methods that have been set. Kevin replied that he has considered both possibilities and, in the end, chose to remain silent.

Paul Entzel also requested that the time-of-day set through the SET TIME-OF-DAY command not be kept per-initiator.

Kevin Butt asked if he needed a model section and Paul Entzel replied that he needs something to describe the time-of-day clock.

Rod Wideman returned to the question of descriptors returned by the REPORT TIME-OF-DAY command. What descriptors will the application client receive? Kevin Butt replied that he expects to follow Paul Entzel's suggestion and only report the methods that have been set. Paul Entzel then pointed out that Kevin should remove the default values for all methods other than the internal one. Paul Entzel also noted that George Penokie or Rob Elliott will want to place this feature into a W-LUN.

Kevin Butt and Paul Entzel worked on changes to default values and discovered that no text exists stating that the device's internal clock has a default value of zero after a hard reset.

After this exercise, Paul Entzel suggested that the proposal include a model section.

Rod Wideman raised his confusion about the use of the TOD acronym. Does this acronym refer to the TIME-OF-DAY field, the TODC field, or something else? Susan Gray pointed out that the text refers to a TODC (TIME-OF-DAY CLOCK also named TIME-OF-DAY METHOD elsewhere) field and also to a separate time of day clock. Kevin Butt replied that he intended TOD to refer to the underlying device clock.

Michael Banther asked whether the standard should state how the device should behave if its internal clock does not have enough precision to set the lower 32 bits in a time of day descriptor. Paul Suhler supported this idea. Kevin Butt agreed to add text.

Michael Banther requested that both parameter lists include a format parameter. Kevin agreed to add one. Matthew Bondurant requested definition of the existing format.

Rod Wideman noted that the Control Mode page references a GET TIME-OF-DAY command while the rest of the proposal names it REPORT TIME-OF-DAY.

Kevin Butt will revise the proposal based on comments received.

c. ADT Non-Link Service Frames With Zero Frame Number (04-258r0) [Banther].

The group did not discuss this proposal due to lack of time.

d. ADT Mode Pages Not Supported (04-259r0) [Banther].

The group did not discuss this proposal due to lack of time.

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

The group did not attempt to resolve ADT letter ballot comments due to lack of time.

6. Unscheduled business:

No one raised unscheduled business.

7. Next meeting requirements: Paul Suhler

The group will hold a teleconference on Thursday, 26 August 2004 from 7:30 AM to 9:30 AM. IBM will host.

Paul Suhler will consider scheduling further conference calls before the next T10 week. The actual number will depend on need and availability.

The group will hold a meeting 13 and 14 September 2004 during T10 plenary week in Nashua, New Hampshire beginning at 9:00 AM on 13 September and concluding at 10:00 AM on 14 September.

8. Review new action items: Michael Banther

a. Michael Banther will bring in a proposal to rename and redefine the DACC bit in the VHF data, reference ADC letter ballot comment HP-162.

9. Adjournment: Group

Susan Gray made a motion for adjournment. Kevin Butt seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 10:04 AM PDT.

Attendees:

Name	Organization	E-mail
Rod Wideman	ADIC	rod dot wideman at adic dot com
Paul Suhler	Certance	paul dot a dot suhler at certance dot com
Michael Banther	HP	michael dot banther dot at hp dot com
Kevin Butt	IBM	kdbutt at us dot ibm dot com
David Hawks	Iomega	hawks at iomega dot com
Matthew Bondurant	Quantum	matthew dot Bondurant at quantum dot com
Paul Entzel	Quantum	paul dot entzel at quantum dot com
Susan Gray	Quantum	susan dot gray at quantum dot com