Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Teleconference
T10/04-359r0
1 November 2004
8:00 AM – 10:00 AM PST

1. Introductions: Group

    Paul Suhler called the meeting to order at 8:03 AM PST. He thanked IBM 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. No one requested a change.

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

3. Comments on previous meeting minutes: Paul Suhler

    | 13 – 14 September 2004 meeting | 04-304r0 |
    | 7 October 2004 teleconference | 04-334r0 |
    | 14 October 2004 teleconference | 04-336r0 |
    | 18 October 2004 teleconference | 04-338r0 |
    | 21 October 2004 teleconference | 04-347r0 |
    | 28 October 2004 teleconference | 04-353r0 |

    Paul Suhler requested comments for the minutes of the 13 – 14 September 2004 meeting and
    the teleconferences of 7 October, 14 October, 18 October, 21 October, and 28 October 2004 –
    04-304r0, 04-334r0, 04-336r0, 04-338r0, 04-347r0, 04-353r0 respectively. No comments
    were heard.

4. Review of action items: Michael Banther

    a. Kevin Butt will investigate writing a proposal against ADT letter ballot 04-162r1,
        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 will write a proposal against SPC-3 to add automation type MAM attributes
        (reference ADC letter ballot 04-197r1, comment IBM Roberts - 2). *Carryover*

    d. Kevin Butt will bring in a proposal to add a Test IU to ADT (reference ADT letter ballot 04-162r1, comment IBM 122). *Carryover*

    e. Matthew Bondurant will bring in a proposal for a Reset link service IU which causes a warm boot. *Carryover*

    f. Michael Banther will investigate the need for ADT letter ballot 04-162r1, comment HPQ 101. *Carryover*

5. Discussion items:

    a. ADT Guidance on state machines (04-350r0) [Banther].

Resuming where he left off at the last teleconference, Michael Banther described problem #2. Matthew Bondurant asked for an example of a transition statement that includes sending a non-acknowledgement IU. Michael directed him to problem #1. Rod Wideman asked if a transition involves action. Michael replied that he believes the intent is that it does not. Paul Suhler asked if anyone wants to move the acknowledgement IU statements out of the transition clauses. Susan Gray voiced support for leaving them alone. Rod asked if we could move the acknowledgement IU to the current state description. Susan suggested some text to do so. Michael also worked on some potential text which Kevin Butt requested. Rod pointed out the original reason for including the ACK IU in the transition. After some debate, the group agreed to leave the statements as they are.

Michael Banther verified with Paul Entzel that he will correct the labelling problems identified as problem #3 in the next revision of ADT.

Michael Banther described the missing transition problem (#4) in the port state machine. Susan Gray noted that the text in this area has changed since revision 11 resulting in missing text. Matthew Bondurant asked if option (c) results in changes, beyond additions, for missing transitions. Michael replied that he only expects to close missing holes. The group debated this possibility concluding that Michael should go ahead and propose additions to fill in missing transitions. He will provide cross references to other portions of ADT to allow easy checking that no new behaviour has been specified.

Michael Banther received agreement from the group to use "a port" in new text (problem #5).

Michael Banther described the problem (#6) of non-IU action statements in transition clauses. This problem generated a split opinion initially. Rod Wideman saw the problem as the same one debated for ACI IU's in transition statements. Kevin Butt pointed out that the current phrase includes an "and" which does not imply ordering. Rod suggested including a "than" in the compound transition sentence to create an ordered list. Kevin replied that it should be an ordered list instead of "than". Eventually the group agreed to leave these statements as they currently read.

Michael Banther described the problem sentences in the P1: Login state description (problem #7). He also walked the group through the proposed solution. The group agreed to study this proposed solution. Michael agreed to provide a proposal by Friday morning, 5 November 2004.

Michael Banther described the final problem (#8, whew!), what happens to non-acknowledgement IU's received by a port after sending a Port Logout IU and before receiving the corresponding ACK IU? Paul Entzel agreed to accept a separate proposal

on this problem provided it arrives before the end of ADT letter ballot comment. Rod Wideman verified that no language currently exists.

b. Add more error handling to ADT encapsulated SCSI protocol (04-348r1) [Entzel].

Paul Entzel explained that revision one contains two issues that he wants the group to focus on. The first one is the use of the DATA PHASE ERROR ASC/ASCQ upon receipt of a SCSI Transfer Ready IU requesting zero bytes. The group agreed to use this ASC/ASCQ.

Paul Entzel then moved on to the question of what we use for the "tag" of a SCSI Task Management IU. This discussion rapidly expanded to consideration of including the Protocol field in the Exchange ID. Michael Banther, Paul Suhler, and Kevin Butt all registered objection to this move due to existing implementations that identify an exchange by the Exchange ID and X_Origin.

Paul Entzel discussed changing the TMF "tag" to Exchange ID and changing the target port response to a NAK with a Status Code of Invalid Exchange ID. He wants to extend the mapping of the SCSI tag to include the Exchange ID, X_Origin, and Protocol fields. This action will make the overlapping of a SCSI task and a non-SCSI exchange impossible. However it will not remove the possibility of a SCSI exchange overlapping a non-SCSI exchange (or in fact another SCSI exchange). Paul also wants to exclude the mapping of an Exchange ID, X_Origin, and Protocol field to a SCSI tag by a port receiving a SCSI Task Management IU. Finally, Paul and Kevin Butt pointed out that no text currently exists that requires a receiving port to check for overlapping exchanges. Paul wants to leave the text silent on this point.

Paul Entzel will make further revisions and bring the proposal back.

c. ADT Letter Ballot comment resolution (04-162r1) [Entzel].

Due to lack of time, the group did not resolve any ADT letter ballot comments.

6. Unscheduled business:

No one raised unscheduled business.

7. Next meeting requirements: Paul Suhler

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. Paul Entzel will revise 04-348r1 per discussion item (b).

9. Adjournment: Group

Kevin Butt made a motion for adjournment. Susan Gray seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 10:11 AM PST.

Attendees:

Name	Organization	E-mail
Rod Wideman	ADIC	rod dot wideman at adic dot com
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Paul Entzel	Quantum	paul dot entzel at quantum dot com
Matthew Bondurant	Quantum	matthew dot bondurant at quantum dot com
Susan Gray	Quantum	susan dot gray at quantum dot com