Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Teleconference
T10/04-066r0
23 February 2004
8:00 AM − 10:00 AM PDT

Conference Call Information:
    Hosted by: Quantum
    Toll Free: (800) 668-7083
    International: (719) 536-6600
    Pass code: 5764

1. Introductions: Group

    Paul Suhler called the meeting to order at 8:03 AM PDT. He thanked Quantum for hosting
    the meeting. A table of the attendees appears at the end of these minutes.

2. Approval of the agenda: 04-065r0   Paul Suhler

    Paul Suhler discussed the order of the discussion items.

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

3. Comments on previous meeting minutes: Paul Suhler

    12-13 January 2004 meeting   04-034r0

    26 January 2004 teleconference   04-051r0

    9 February 2004 teleconference   04-057r0

    Paul Suhler requested comments for the minutes of the 12-13 January 2004 meeting, the 26
    January 2004 teleconference, and the 9 February 2004 teleconference − 04-034r0, 04-051r0,
    and 04-057r0 respectively. No one provided comments.

4. Review of action items: Michael Banther

    a. Rod Wideman will post 03-385r1. *Closed*

    b. Rod Wideman will send an e-mail to the T10 reflector that tags possibly controversial
        technical comments in 03-385r1. *Carryover*

    c. Kevin Butt will generate a proposal to address the problem described in unscheduled
        business item (b) of 04-034r0. *Carryover*

    d. Michael Banther will generate a proposal to deal with how a port responds if it receives a
        SCSI Data IU when it expects a SCSI Transfer Ready IU and vice versa (see discussion
        item [g] of 04-034r0). *Closed*

  e. Paul Entzel will generate a proposal to deal with recoverable transport layer errors with PR equal zero, e.g., out of resources (see discussion item [g] of 04-034r0). *Carryover*

  f. Michael Banther will investigate and if necessary generate a proposal to state the behaviour of a port upon detection of a non-recoverable (retryable) error. *Carryover*

  g. Susan Gray will revise 03-369r2 per discussion item (a) of 04-057r0. *Closed*

  h. Paul Entzel will incorporate 03-369r2 as revised into ADT. *Closed*

  i. Susan Gray will revise 04-056r0 per discussion item (b) of 04-057r0. *Closed*

5. Discussion items:

  a. ADT Error Recovery   04-056r1   Susan Gray

  Susan Gray reviewed the changes to the explanatory table briefly and then moved on to the normative proposal. Paul Suhler suggested changing the text so that only the transmitter of the Port Login IU restarts the negotiation. Doing so eliminates a lot of corner cases.

  Paul Suhler raised a concern about state actions. At the January meeting, we agreed that entry to a state will always cause the same action. He's not sure the text still matches this convention.

  Paul Suhler also raised a concern about the Negotiation state machine. If a receiver of a Port Login IU responds with a NAK, what state does the receiver go to? We debated the possibility of returning to N0: Idle or remaining in the current state. Susan Gray raised the same issue for the Port state machine. The group debated the implications of always going to P1: Login, N0: Idle or staying in the current state. Paul Entzel suggested adding N5 as a terminal state which sends the Process Login Complete message. This change removes the problem of the action for N0: Idle depending on what state it comes from. The group agreed with adding this new state.

  Paul Entzel suggested that the Initiate Login message goes directly to N1: Negotiating.

  Eventually we reached consensus that receipt of a malformed Port Login IU will cause the receiver to send a NAK IU and transition to P1: Login, N0: Idle.

  Susan Gray will revise 04-056r1 based on comments received.

  b. N0:N2 Transition   e-mail 13 Feb 04 Paul Suhler

  Paul Suhler explained his concern. A discussion he has had with Susan Gray revealed that the current Negotiation state machine can transition from N0: Idle to N1: Negotiating and then to N2: Accept Sent all based on the receipt of a single Port Login IU. The only other solution given the current text is for the receiver of the first Port Login IU to respond with a Port Login IU with Accept equal to zero. Everyone agreed that a separate transition from N0: Idle to N2: Accept Sent is a good idea.

  Susan Gray agreed to incorporate this change into 04-056r1 as revised.

  c. Correct behaviour after receiving NAK with PR = 0   Michael Banther

  Michael Banther explained his concern and asked if the group will oppose it. He received general approval to change the definition of when an exchange closes such that it will close upon receipt of an ACK or a NAK with PR equal to zero. He will not address

generation of a Unit Attention condition upon termination of an exchange associated with an encapsulated SCSI task.

Michael Banther will generate the proposal stated in Action Item (f).

d. Revision of ADT Error Recovery Ladder Diagrams 04-053r0   Paul Suhler

Paul Suhler reviewed the proposal. No one in the group raised any concerns.

Paul Suhler made a motion for incorporation of 04-053r0 into ADT. Paul Entzel seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

e. ADT Port Operating Parameters Clarification   04-062r0   Paul Suhler

Paul Suhler described the reason for this proposal; the current text is inconsistent in its usage of 'default parameters'. He walked the group through the proposed changes.

Susan Gray and Paul Entzel raised concern about the change in sub-clause 4.3.3.3.1 of 03-369r3. The proposed text becomes silent on the content of the payload and places a new requirement to send the Port Login IU at the default link values. Michael Banther pointed out ambiguity in the use of 'default'. We agreed that Paul should remove the new requirement and reinstate the content of the payload.

Paul Suhler will revise the proposal based on comments received.

f. ADT Unexpected Encapsulated SCSI IU's   04-067r0   Michael Banther

Michael Banther introduced the purpose of the proposal and walked the group through the proposed changes.

Paul Entzel asked for the meaning of the term 'unexpected'. He can interpret unexpected as received outside of an existing exchange. Paul Suhler agrees. He would like 'unexpected' in the 2nd paragraph changed to 'unexpected within a valid exchange'. Michael Banther agreed to this change.

Michael Banther made a motion for incorporation of 04-067r0 as revised into ADT. Paul Suhler seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

g. Comments on ADI Connector Draft   SFF-8054   All

Paul Suhler asked for any comments on SFF-8054. Michael Banther stated that it looked okay to HP. Paul Entzel noted that several of the Quantum engineers would like a smaller connector. Michael Banther agreed that an additional smaller connector would be a good idea.

6. Unscheduled business:

a. How to ensure correct baud rate on a Port Login after a Port Logout   Paul Suhler

Paul Suhler pointed out that a DTD receiving a Port Logout IU followed by a Port Login IU immediately might not have reset its baud rate by the time it receives the Port Login. He suggested defining the point at which the DTD resets its baud rate and adding a wait period to the automation. Paul Entzel pointed out that this problem will not arise.

Paul Suhler raised the question of what a receiver does upon receipt of a mal-formed Port Logout IU. We agreed that the Port state remains unchanged.

7. Next meeting requirements: Paul Suhler

The group will hold a meeting 8-9 March 2004 during T10 plenary week in Dana Point, CA. The meeting will begin on the 8th at 9:00 AM and conclude at 7:00 PM PST. The meeting will reconvene on the 9th at 9:00 AM and adjourn at 11:00 AM PST.

8. Review new action items: Michael Banther

   a. Susan Gray will revise 04-056r1 based on discussion item (a).

   b. Susan Gray will incorporate the N0 to N2 transition from discussion item (b) into 04-056r2.

   c. Paul Suhler will forward the Visio drawings for 04-053r0 to Paul Entzel.

   d. Paul Entzel will incorporate 04-053r0 into ADT.

   e. Paul Suhler will revise 04-062r0 based on discussion item (e).

   f. Michael Banther will revise 04-067r0 based on discussion item (f).

   g. Paul Entzel will incorporate 04-067r0 as revised into ADT.

   h. Paul Suhler will update 03-133 to include a smaller connector in ADT-2.

9. Adjournment: Group

Susan Gray made a motion for adjournment. Paul Suhler seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 9: 55 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
Paul Entzel	Quantum	paul.entzel@quantum.com
Susan Gray	Quantum	susan.gray@quantum.com