Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Meeting
T10/05-329r0
12 September 2005
9:00 AM – 1:00 PM PDT
Vancouver, BC

## 1   Introductions:

Paul Suhler called the meeting to order at 9:03 PDT.  He thanked PMC-Sierra for hosting the meeting.  A table of the attendees appears at the end of these minutes.

## 2   Approval of the agenda:

Paul Suhler reviewed the order of the discussion items.

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

## 3   Approval of previous meeting minutes:

11 July 2005 meeting                                                                05-255r0

Paul Suhler requested corrections for the minutes of the 11 July 2005 meeting, 05-255r0.  No one provided comments or corrections.

Halvard Eriksen made a motion for acceptance of the minutes as written.  Michael Banther seconded the motion.  In the absence of objections or abstentions, the group passed the motion unanimously.

## 4   Review of action items:

a.  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*

b.  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*

c.  Paul Suhler will write a proposal based on discussion item (c) of 04-385r0.  *Carryover*

d.  Susan Gray will investigate Automation mediated R/W diagnostics (reference item 4 in 04-263r5).  *Carryover*

e.  Paul Entzel will investigate Density Override in the RMC LU descriptor (reference item 16 in 04-263r5).  *Carryover*

f.  Michael Banther will bring in a proposal to standardize the HP vendor-specific connector for ADT-2. *Carryover*

g.  Paul Entzel will incorporate 05-124r0 into ADT-2. *Carryover*

h.  Rod Wideman will revise 05-155r1 per discussion item 5.1 of 05-255r0. *Closed*, 05-155r2.

i.  Rod Wideman will revise 05-158r1 per discussion item 5.2 of 05-255r0. *Closed*, 05-158r2.

j.  Paul Entzel will incorporate 05-158r1 as revised into ADC-2. *Closed*

k.  Paul Entzel will incorporate 05-234r0 into ADC-2. *Closed*

l.  Halvard Eriksen will bring in a proposal to resolve the problem described in unscheduled business item 6.2 of 05-255r0. *Closed*, 05-292r0.

m.  Michael Banther will revise 05-129r1 per discussion item 5.4 of 05-255r0. *Closed*, 05-129r2.

n.  Paul Entzel will incorporate 05-129r1 as revised into ADC-2. *Closed*

o.  Michael Banther will bring in a proposal to allow negotiation of additional link parameters. *Carryover*

p.  Paul Suhler will revise 04-263r5 per unscheduled business item 6.3 of 05-255r0. *Closed*

## 5   Discussion items:

### 5.1   *ADI ADC-2 Target Device Serial Number subpage (05-155r2) [Wideman]*

In Rod Wideman's absence, Paul Suhler walked the group through the proposal. The group verified that revision 2 resolves all of the comments made in review of revision 1. No one provided additional comments at the present time. The group agreed to wait for Rod's presence to take this proposal further.

### 5.2   *ADC-2 Control effect of task management requests over primary interface (05-261r0) [Entzel]*

Paul Entzel introduced the proposal. It extends text for the logical unit descriptors to include task management functions where it currently only references tasks.

Michael Banther made a motion for incorporation of 05-261r0 into ADC-2. Paul Suhler seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

### 5.3   *ADT-2 Clarify the definition of Offset in the Data and Transfer Ready IU (05-292r0) [Eriksen]*

Halvard Eriksen walked the group through the proposal. Paul Suhler asked if the new terminology is consistent with usage in other SCSI standards. Paul Entzel confirmed that it is consistent.

Paul Entzel agreed, as an editorial change, to search through the draft standard replacing 'buffer offset' with 'data offset' where necessary.

Michael Banther suggested a grammatical change. Halvard Eriksen agreed to this change.

Susan Gray and Paul Entzel noted that, in 7.1.5, the proposal changed the existing text from, 'the data shall not be requested out of order' to 'the data shall not be transferred out of order.' Since this clause concerns the Transfer Ready IU, Halvard agreed to retain the original text.

Michael Banther made a motion for incorporation of 05-292r0 as revised into ADC-2.  Susan Gray seconded the motion.  In the absence of objections or abstentions, the group passed the motion unanimously.

### 5.4    ADC-2 Support for 10 Gb/s Fibre Channel Operation (05-302r0) [Banther]

Michael Banther introduced the proposal.  It adds support for 10 Gb/s fibre channel to ADc-2.  The group debated the need for it concluding that the proposal does no harm.

Michael Banther made a motion for incorporation of 05-302r0 into ADC-2.  Halvard Eriksen seconded the motion.  In the absence of objections or abstentions, the group passed the motion unanimously.

### 5.5    ADC-2 Informational Exceptions Control Mode Page (05-303r0) [Banther]

Michael Banther introduced the proposal.  It changes the defining reference for the Informational Exceptions Control mode page from SPC-3 to SSC-3.  By doing so, the mode page supports testing of flags in the TapeAlert Response log page.

Michael Banther made a motion for incorporation of 05-303r0 into ADC-2.  Paul Entzel seconded the motion.  In the absence of objections or abstentions, the group passed the motion unanimously.

### 5.6    ADC-2 Vendor-specific VHF Data Bits (05-304r0) [Banther]

Michael Banther walked the group through the proposal.  It seeks to add vendor-specific bits to the existing VHF Data.

Paul Suhler asked if HP was willing to standardize the vendor-specific bits.  Paul Entzel suggested that only one bit be used to flag that some vendor-specific data is available and then pick the vendor-specific data up from a vendor-specific log page or a vendor-specific log parameter in a standard log page.  Michael noted that this approach prohibits reporting the vendor-specific data through ADT-x Fast Access VHF data.  Paul Entzel replied that a vendor-specific protocol exists in ADT-x that HP can use to report the vendor-specific data.

Michael Banther will revise the proposal based on comments received.

### 5.7    ADC-2 Add Identification Descriptors to SMC Logical Unit Descriptor Format (05-310r0) [Banther]

Michael Banther introduced the proposal to the group.  It seeks to add identification descriptors to the SMC logical unit descriptor.

Paul Entzel asked what benefit the use of a list of identification descriptors has over the use of a LUN field.  Paul pointed out that the use model for mode pages assumes a MODE SENSE followed by a MODE SELECT of the same page length and with modified fields.  Until the automation controller provides identification descriptors, the ADC device server has no idea how to populate these fields.  In particular, since the automation client cannot alter the length of the mode page and the identification descriptors do not all have the same length, the default value that the ADC device server uses constrains the type of identification descriptor that the automation controller can report.  We discussed using a LUN field instead.  Michael asked if dynamically altered LUN due to access controls could cause a problem.  This concern remains an open issue.

Paul Entzel and Michael Banther agreed that the proposal will include a note pointing out that the automation controller should either configure all tape drives with an identical DT device node identification descriptor (association equals 2) and may then configure the local SMC logical unit in each DT device with an identical identification descriptor (association equals 0) or it should configure each tape drive with a different DT device node identification descriptor and then it must configure the local SMC logical unit in each DT device with a world-wide unique identification descriptor.

Michael Banther will revise this proposal per comments received.

### 5.8    ADI: Features for ADC-2 and ADT-2 (04-263r7) [Suhler]

Paul Suhler reviewed the work items list with the group.  We closed one item and added several more.

Paul Suhler will revise 04-263r7 based on the discussion.

## 6    Unscheduled business:

### 6.1    ADC-2 Working List for ISV feedback (SMC/SSC/ADC/SPC) (05-315r0) [Butt]

Paul Entzel explained the one request from CA flagged as a change in ADC-2.  Paul believes that CA are looking for a way to discover the identity of a media changer that contains a tape drive through a query to the tape drive.  Paul and Susan Gray noted that the DT device can already obtain this information by issuing an INQUIRY command to the remote SMC device server.

The group debated the problems and benefits of including any mechanism in ADC-2 to enable reporting the media changer's device serial number through the DT device RMC device server.  We concluded that no change really brings a benefit. Devices that support ADC can already use INQUIRY; devices that don't support ADC have to modify their legacy vendor-specific interface to move the necessary data from library to drive.

Paul Entzel noted our decision and will send his note to Kevin Butt.

### 6.2    ADI-2 questions  (no document) [Eriksen]

Halvard Eriksen asked some specific protocol questions which the group members answered.

### 6.3    ADC-2 The meaning of MOUNTED (no document) [Suhler]

Paul Suhler asked the group to review his work-in-progress toward a proposal to clarify the meaning of the MOUNTED bit in the VHF data.  After some vigorous debate, we agreed to delay further work until Kevin Butt brings in a SSC-3 proposal to define cleaning.

## 7    Next meeting requirements:

Subject to approval by the T10 Plenary, the group will hold a meeting 7 November 2005 during T10 plenary week in Austin, Texas beginning at 9:00 AM and concluding at 12:00 PM.

## 8    Review new action items:

a.  Paul Entzel will incorporate 05-261r0 into ADC-2.

b.  Halvard Eriksen to revise 05-292r0 per discussion item 5.3.

    c.  Paul Entzel will incorporate 05-292r0 as revised into ADC-2 and will search out and replace instances of 'buffer offset' with 'data offset' where appropriate.

    d.  Paul Entzel will incorporate 05-302r0 into ADC-2.

    e.  Paul Entzel will incorporate 05-303r0 into ADC-2.

    f.  Michael Banther will revise 05-304r0 per discussion item 5.6.

    g.  Michael Banther will revise 05-310r0 per discussion item 5.7.

    h.  Paul Suhler will revise 04-263r7 per discussion item 5.8.

## 9  Adjournment:

Susan Gray made a motion for adjournment.   Paul Suhler seconded the motion.  The group passed the motion unanimously.  Paul Suhler adjourned the group at 12:20 PM PDT.

Attendees:

| Name | Status | Organization |
|------|--------|--------------|
| Mr. Noud Snelder | V | BDT |
| Mr. Ralph O. Weber | P | ENDL Texas |
| Mr. Curtis Ballard | V | Hewlett Packard Co. |
| Mr. Michael Banther | V | Hewlett Packard Co. |
| Dr. Paul Suhler | A | Quantum Corp. |
| Mr. Paul Entzel | P | Quantum Corp. |
| Mrs. Susan Gray | V | Quantum Corp. |
| Mr. Halvard Eriksen | AV | Tandberg Data ASA |

Status Key:    P    -    Principal
                  A,A#  -    Alternate
                  AV    -    Advisory Member
                  L     -    Liaison
                  V    -    Visitor