

Approved Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Conference Call
T10/02-223r1
June 19, 2002
8:30 AM – 10:00 AM

Paul Entzel, Acting Secretary

Participants:

<u>Name</u>	<u>Organization</u>	<u>email</u>
Rod Wideman	ADIC	rod.wideman@adic.com
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Paul Entzel	Quantum	paul.entzel@quantum.com
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Erich Oetting	Storage Technology	erich_oetting@stortek.com
Kevin Gingerich	Texas Instruments	k-gingerich@ti.com
Susan Gray	Quantum	susan.gray@quantum.com

Review of action items:

- A. Bob Griswold will request the Device Type name currently defined as ADI be changed to ADC in SPC-3. *Complete.*
- B. Rod Wideman will send source for the accepted proposals (02-097r1 and 02-180r0) to Bob Griswold. *Complete.*
- C. Rod Wideman will get a document number for his second proposal and post it to T10. *Complete (T10/02-180r0).*
- D. Michael Banther will produce a proposal for additional MAM attributes. This will incorporate some of the additional data called for by 02-097r1. *Carryover.*
- E. Rod Wideman will generate a list of configurable MODE features. *Complete (T10/02-228r0).*
- F. Paul Suhler will update 02-106r2 and provide it to Bob Griswold. *Carryover.*
- G. Paul Suhler will find the document we produced in January laying out the transport layer frame and submit it to Bob Griswold for inclusion in ADT. Default settings for baud rate and stop bits will be included. *Carryover.*
- H. Everyone should review 02-158 "SAS Overview" so it can be considered as a model for ADT. *Complete.*
- I. Michael Banther will produce a proposal for the physical layer signals for ADP based off of 02-148r0. The proposal will include a recommended connector on the back of the drive. *Carryover.*

- J. Bob Griswold will create new revisions of ADP, ADT, and ADC based on the proposals approved at this meeting. *Carryover.*
- K. Rod Wideman will produce a proposed state diagram covering the VHF polling frame status bits. *Carryover.*
- L. Find a permanent secretary for this committee. *Carryover.*
- M. Paul Suhler will schedule a conference call on Wednesday, June 12th. Paul will post a notice to the reflector announcing this call. Agenda will include general status from Bob and discussion about SAS. *Complete.*

Review of agenda:

The published agenda was reviewed and accepted, with items c, d, and g dropped.

Agenda items:

A. Status of documents

No updates have been made yet.

B. Use of SAS as transport Layer (02-158r1)

Paul went through a quick review of SAS issues that he found. Several people commented that the frames were large and maybe overkill for the ADT transport layer. Michael stressed that we should not do anything at ADC level that precludes using SAS. The group is in agreement that the SSP layer from SAS should be reviewed to verify the completeness of ADT.

There is interest in the AEN feature of SAS as a way to reduce polling by the library. Such a feature would need to be optional to accommodate multi-drop environments.

E. ADI Data Availability (02-180r0)

Paul Suhler discussed the concept of a “parked” picker in a loader. No changes were proposed. He also raised a concern that the Library vendors will need to implement a SCSI initiator model in their devices to speak ADC to the drive. A question was raised if the ADC device server should post Unit Attention conditions. Nobody disagreed, but Lee recommended we review the list of Unit Attention that can be expected. An action item was assigned to Lee to produce a list of Unit Attention Conditions that can be expected from an ADC Device Server.

Michael commented that there should be 2 error bits in the VHF Log Page, one for the drive and one for the medium. He is concerned that first implementations will not dig down through other status blocks to differentiate these. After discussion, the group came to the consensus to remove the Error and Error Changed bits and make sure that we cover all the cases of errors when we review the Tape Alert flags.

Rod does not plan to generate a new revision of this document, so changes agreed to here need to be made directly to ADC.

Adding vendor unique fields to the pages defined in this document was discussed. The group agreed this was not desirable and that vendor unique pages could be used instead to provide this capability.

F. ADI Configurable Mode Pages (02-228r0)

Rod presented his proposal. There is a lot of resistance to changing serial numbers and WWN. The group agreed that it might be acceptable to reject changes to WWN or serial numbers that could conflict with other devices based on Company ID or other vendor unique criteria. This discussion was tabled until the meeting in Colorado Springs.

Paul Entzel raised the issue of the tape drive staying offline until the WWN and port address are assigned by the library. The group agreed this was acceptable, but not mandated.

Paul Suhler offered to post Seagate's implementation of MODE parameters for port control and for load and eject control.

Discussion was cut short due to the time limit of the conference call.

Action Items:

- A. Paul Suhler will post the straw-man frame format as a proposal to T10.
- B. Lee will produce a list of UA conditions that could be presented by an ADC device.
- C. The group needs to review Tape Alert in SSC-2 looking for changes that are required.
- D. Paul will create a proposal for Seagate's implementation of MODE parameters for port control and load and eject control.

Adjournment:

The meeting was adjourned at 10:00 AM.