

**TO:** T10 Membership  
**FROM:** Paul A. Suhler, Quantum Corporation  
**DATE:** 11 July 2005  
**SUBJECT:** T10/04-263r6, Features for ADC-2 and ADT-2

**Revision 6**

- Dropped items 4 and 26.
- Assigned item 25 to Michael Banther.

**Revision 5**

- Added status of items.
- Listed individual assigned each item.
- Added WORM to media types to be reported (item 26).

**Revision 4**

- Priority of each feature.
- State machine changes.
- New IUs.

**Revision 3:**

- Add density override to RMC LU descriptor.
- Clarify interactions of RMC and ADC device servers, physical device, and DT device.
- Modify model section to allow automation and DT devices with no ADT ports.
- Specify method to prepare and to retrieve dumps.
- Consolidated redundant entries for automation firmware update.

**Revision 2:**

- Modified description of real-time clock to refer to proposal against SPC-x.

**Revision 1:**

- Investigate whether ADC should address failover in multi-port drives.

**Revision 0:**

- Change “Device Status” to “Device Statistics” log page to TARGET LOG PAGES well-known logical unit.
- Consider interaction of the VHF Data WRTP bit and WORM media

**03-133 Revision 9:**

- Address Device Status log page to TARGET LOG PAGES well-known logical unit.

**Revision 8:**

- Mechanism for automation device to update its firmware from a medium in a DTD via the ADT.
- Resolve how the local SMC device server handles INQUIRY for page 83h with association = 2 (target device).

**Revision 7:**

- Add support to ADC DTD Primary Port Status log parameter and DTD Primary Port mode descriptor for SAS and possibly iSCSI.

**Revision 6:**

- Simplification of retryable error recovery.

**Revision 5:**

- Smaller ADI connector

**Revision 4:**

- Added a section to this document for feature descriptions that are not available in either T10 proposals or minutes.
- Identification Descriptor sub-page for ADC Device Configuration mode page.

**Revision 3:**

- Real-Time Clock
- Volume Identifier

**Revision 2:**

- Automation initiated/mediated DTD diagnostics
- Automation firmware update from tape via a read buffer command

**Revision 1:**

- Control of sense data masking via mode page
- Added links to documents

**Revision 0:**

- Passthrough bridging
- Progress indication

## General

In the development of Automation Drive Interface standards, ADC and ADT, a number of concepts were discussed which were of insufficient urgency to include in the first generation standards. This document lists those concepts and the affected standards, as well as the documents and meeting minutes which present the most fully developed presentation of the concepts.

### Status of Items

Open
Assigned
Completed
Dropped

Number	Feature	Affected Standards		Priority	Proposal documents	Minutes
		ADC-2	ADT-2			
1	Passthrough Bridging	X	X	L	<a href="#">03-077r3</a>	10 – 11 March 2003 ADI WG meeting, <a href="#">03-117r0</a>
2	Progress Indication	X		L	<a href="#">ADC-r01</a> , clause 4.2.5	8 April 2003 ADI WG teleconference, <a href="#">03-159r0</a>
3	Control of Sense Data Masking	X		L	<a href="#">03-087r1</a>	8 July 2003 ADI WG meeting, <a href="#">03-236r0</a>
4	Automation initiated/mediated DTD diagnostics [Assigned to Wideman]	X		M	None	8 September 2003 ADI WG meeting, <a href="#">03-295r0</a>
5	Real-Time Clock Control	X		M	<a href="#">04-271</a>	None
6	Volume Identifier Control	X		M	None	None
7	Identification Descriptor sub-page	X		L	Note 1	None
8	Smaller ADI Connector [Assigned to Banther]		X	H	None	23 February 2004 ADI WG teleconference, <a href="#">04-066r0</a>
9	Simplification of retryable error recovery.		X	L	None	8–9 March 2004 ADI WG meeting, <a href="#">04-080r0</a> , Unscheduled Business item f
10	ADC support for SAS and iSCSI. [iSCSI dropped]	X		H	None	12 July 2004 ADI WG meeting, <a href="#">04-199r0</a> , ADC LB comment Seagate-41.
11	Mechanism for automation device to update its firmware from a medium in a DTD via the ADT port.	X		M	ADC LB comment Seagate-25	8 July 2003 ADI WG meeting, <a href="#">03-236r0</a> ; and 29 July 2004 ADI WG teleconference, <a href="#">04-244r0</a>
12	How does the local SMC device server handle INQUIRY for page 83h with association = 2 (target device)?	X		M	ADC LB comment HP-88	29 July 2004 ADI WG teleconference, <a href="#">04-244r0</a>

Number	Feature	Affected Standards		Priority	Proposal documents	Minutes
		ADC-2	ADT-2			
	[Assigned to Wideman]					
13	Address Device Statistics log page to TARGET LOG PAGES well-known logical unit. Add parameters to Device Statistics log page.	X		L	ADC LB comment HP-172	9 August 2004 ADI WG teleconference, <a href="#">04-256r1</a> , item 5a.
14	Consider interaction of the VHF Data WRTP bit and WORM media.	X		H	ADC LB comment HP-159	
15	Investigate whether ADC-2 should address failover in multi-port drives	X		M	ADC LB comment HP-268	16 August 2004 ADI WG teleconference, <a href="#">04-266r0</a> , item 5a. Also <a href="#">04-197r1</a> .
16	Add density override to RMC LU descriptor [Assigned to Entzel]	X		M	ADC LB comment IBM Penokie-414	
17	Clarify interactions of RMC and ADC device servers, physical device, and DT device. [Assigned to Suhler in SSC-3, 05-049]	X		L	None	13 – 14 September 2004 ADI WG meeting, <a href="#">04-304r0</a> .
18	Modify model section to allow ADs and DTDs with no ADT ports.	X		L	None	
19	Specify method to prepare and to retrieve dumps. [Assigned to Wideman, 05-158]	X		H	ADC LB comment IBM Butt-2	
20	Separate state machines for AD ports and DTD ports. [Assigned to Butt]		X	L	ADT LB comment IBM-27	8 November 2004 ADI WG meeting, <a href="#">04-385r0</a> .
21	Test IU [Assigned to Butt]		X	L	ADT LB comment IBM 122	
22	Device Reset IU		X	M	<a href="#">04-364r0</a>	
23	ADT Port State Machine, IU Statements in State Sub-clause		X	L	<a href="#">04-369r0</a>	
24	ADT TE Sub-state Machine, IU Statements in State Description Sub-clause [Assigned to Banther]		X	L	<a href="#">04-381r0</a>	
25	Negotiation of optional features [Assigned to Banther]		X	L	None	

Number	Feature	Affected Standards		Priority	Proposal documents	Minutes
		ADC-2	ADT-2			
26	Clarify reporting of data, cleaning, firmware, and WORM media. [Assigned to Wideman]	X		M	None	

### Other References

This section documents requests that are not listed in meeting minutes or T10 documents

1. 4 November 2003 e-mail from Michael Banther

Hi Paul,

I'd like to request an area for consideration in ADI-2. I think that we should investigate altering the definition of the ADC Node Descriptor sub-page (6.2.2.1 in ADCr06) to become an Identification Descriptor sub-page. The Identification Descriptor sub-page would provide a general facility to alter any Identification Descriptor reported in VPD page 83h by a DTD. If we cannot alter the existing sub-page and maintain backwards compatibility, I would like to see the introduction of a new Identification Descriptor sub-page with the intention of making the Node Descriptor sub-page obsolete in a future generation of the standard (no sooner than ADI-3).

Could you please add this subject to the list for ADI-2?

Thanks,

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