

TO: T10 Membership, ADI Working Group  
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 DATE: April 25th, 2005  
 SUBJECT: ADI ADC-2 DT Device Log Information log page (document T10/05-158r0)

Rev0 – Initial draft.

**Introduction**

This document proposes the addition of a log page to facilitate retrieval of logs from the DT device by automation devices. Each log parameter of the log page describes an individual log that may be retrieved from the DT device. Retrieval of the actual log is then accomplished using the READ BUFFER command and the buffer ID provided by the log parameter.

**Discussion**

This proposal is intended to address a letter ballot comment that was deferred from ADC. The intent is to have the availability DT device logs be completely self-describing, and allow a standard means to be used in their retrieval (i.e., READ BUFFER).

The number of available logs should be evident from the number of returned log parameters.

I opted not to include the size of the log as part of the log parameter for two reasons:

- a. At any given time, the size of a log may vary, and it seemed more likely to want to know the size closer to actual retrieval; and
- b. Descriptor mode of READ BUFFER already provides a method for obtaining the size, and I thought providing it as part of the log parameter would only be redundant.

Therefore, each log parameter provides the buffer ID to use for READ BUFFER, an ASCII text string to be used as a displayable description of the log, a “retrieval availability” description, and an indication of the log format (i.e., ASCII or binary).

Questions:

- 1. Does this need a model section? (I don’t believe so, as I’m not proposing one).
- 2. Is “log” an acceptable term? Does it need a definition?

Proposed changes are shown in [blue](#).

**Proposed Changes to ADC-2**

*Changes to 6.1.1:*

Table 12 is modified as follows (note, only the changes are shown, not the entire table).

15h	<a href="#">DT Device Log Information log page</a>	<a href="#">Optional</a>	<a href="#">6.1.6</a>
<a href="#">16h – 2Eh</a>	<a href="#">Reserved</a>		

New sub-clause 6.1.6:

**6.1.6 DT Device Log Information log page**

The DT Device Log Information log page (see table X) describes the logs that are available from the DT device. The application client is able to retrieve a log from the DT device via a READ BUFFER command using the assigned buffer ID (see SPC-3) and according to the described allowable log retrieval condition. An ADC device server that implements the DT Device Log Information log page shall implement one or more log parameters. Parameters shall not be changed via a LOG SELECT command.

**Table X — DT Device Log Information log page**

Bit Byte	7	6	5	4	3	2	1	0
0	Reserved		PAGE CODE (15h)					
1	Reserved							
2	(MSB)		PAGE LENGTH (n-3)				(LSB)	
3								
4	DT Device Log Information log parameters							
n								

See SPC-3 for a description of the PAGE CODE field and the PAGE LENGTH field.

The DT device log information log parameter format is shown in table X+1.

**Table X+1 — DT device log information log parameter format**

Bit Byte	7	6	5	4	3	2	1	0
0	(MSB)		PARAMETER CODE				(LSB)	
1								
2	DU (1)	DS (1)	TSD (1)	ETC (0)	TMC (0)		LBIN (0)	LP (1)
3	PARAMETER LENGTH (54h)							
4	BUFFER ID							
5	Rsvd	Rsvd	Rsvd	TU	NMP	NMM	OFFLINE	PD
6	Reserved							ASCII
7	Reserved							
8	(MSB)		LOG TITLE				(LSB)	
87								

The PARAMETER CODE field is defined in table X+2.

**Table X+2 — DT device log information parameter codes**

Code	Description
0000h – 00FFh	DT device log identifier
0100h – 7FFFh	Reserved
8000h – FFFFh	Vendor-specific

See SPC-3 for descriptions of the DU bit, DS bit, TSD bit, ETC bit, TMC field, LBIN bit, and LP bit. These bits and fields shall be set to the values shown in table X+1.

The PARAMETER LENGTH field shall be set to 54h to allow transfer of the complete parameter.

See SPC-3 for a description of the BUFFER ID field.

The TU bit, NMP bit, NMM bit, OFFLINE bit, and PD bit are collectively referred to as the DT device log retrieval control byte, and are described in this subclause.

A temporarily unavailable (TU) bit set to one indicates that the DT device log identified by the buffer ID is temporarily unavailable for retrieval from the DT device for reasons outside the scope of this standard. A TU bit set to zero indicates that the DT device log identified by the buffer ID is able to be retrieved from the DT device.

A no medium present (NMP) bit set to one indicates that the DT device log identified by the buffer ID is not able to be retrieved when a medium is present in the DT device (see 4.2.4). A NMP bit set to zero indicates that the DT device log identified by the buffer ID is able to be retrieved when a medium is present in the DT device.

A no medium mounted (NMM) bit set to one indicates that the DT device log identified by the buffer ID is not able to be retrieved when a medium is mounted in the DT device (see 4.2.4). A NMM bit set to zero indicates that the DT device log identified by the buffer ID is able to be retrieved when a medium is mounted in the DT device.

An OFFLINE bit set to one indicates that the DT device log identified by the buffer ID is not able to be retrieved when the RMC device server is online (see 6.2.2.4.2). An OFFLINE bit set to zero indicates that the DT device log identified by the buffer ID is able to be retrieved when the RMC device server is online.

A port disabled (PD) bit set to one indicates that the DT device log identified by the buffer ID is not able to be retrieved when the DT device primary port(s) associated with the RMU logical unit are enabled (see 6.2.2.4.2). A PD bit set to zero indicates that the DT device log identified by the buffer ID is able to be retrieved when the DT device primary port(s) associated with the RMU logical unit are enabled.

An ASCII bit set to one indicates that the DT device log identified by the buffer ID is ASCII data. An ASCII bit set to zero indicates that the DT device log identified by the buffer ID is binary data.

The LOG TITLE field contains ASCII information concerning the DT device log identified by the buffer ID. The data in this field shall be formatted as a single character string line and shall contain only graphic codes (i.e., code values 20h through 7Eh) and shall be terminated with a NULL (00h) character.