

TO: T10 Membership, ADI Working Group
FROM: Rod Wideman, Quantum; rod.wideman@quantum.com
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SUBJECT: ADC-3 Automation Device Serial Number subpage (document T10/08-021r0)

Rev0 – Initial draft.

Related Documents

T10/05-351r2
ADC-2r08
T10/08-022r0

Introduction

This document proposes a change to address item 2.7 in [T10/05-351](#), which states:

2.7 Add a parameter to a stream device server that contains the serial number of the media changer containing the removable medium device, and add a method for an application client within the media changer to set this parameter (ADC-2, SSC-3; CA); << Priority A, Difficulty B >>

A corresponding proposal for SSC-3 (T10/08-022r0) will also be prepared to make use of the capability described in this proposal.

Discussion

The approach taken is to provide a means by which the automation device can provide its serial number to the DT device, which then can be made available as a VPD page via the RMC device server (e.g., an SSC-3 device server). The serial number is defined to be the product serial number of an automation device's SMC logical unit that includes the DT device as part of its data transfer elements. The proposal is modeled after the Target Device Serial Number subpage used to configure the serial number of the DT device.

If ADI bridging is enabled, then of course the serial number could be available via the local SMC device server, since an Inquiry to the remote SMC device server can be performed. This proposal is creating a means to obtain the serial number of the automation device that is hosting the DT device without depending on bridging being enabled. In this proposal I've chosen not to create rules between the two, so as to not preclude various combinations that are possible and valid. This aspect may warrant some discussion though. I felt the current definitions prevented simply making the serial number the remote SMC logical unit serial number. This resulted in some more complex wording of what the serial number is.

The corresponding proposal for SSC-3 will define a new device type specific VPD page. I decided to also make the page available for the ADC device server, so attempted to use the same VPD page code between ADC and SSC for convenience, although this necessitates skipping a value in ADC. This can be dropped if we conclude that ADC doesn't need the page (note that the information is retrievable via MODE SENSE anyway, so the VPD page is somewhat redundant, but perhaps convenient).

The ‘modify’ field (MPSN) didn’t seem necessary for this, since the DT device doesn’t have native information and no override is taking place, so the typical MODE SENSE and MODE SELECT behavior table doesn’t appear.

Proposed Changes to ADC-3 (based on last revision of ADC-2)

Proposed new text is shown in blue. Proposed deletions are shown in ~~red-strikeout~~.

Changes to 6.2.1:

Add the following row to Table 33.

0Eh	05h	Automation Device Serial Number subpage	6.2.2.5
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Note: This new page does not have descriptors, so there is no superscript ^b after it. I note that the Target Device Serial number subpage has this superscript, and I think is an error. If this is not an editorial change, consider this as a proposal to remove that superscript:

0Eh	04h	Target Device Serial Number subpage ^b	6.2.2.4
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New sub-clause 6.2.2.5:

6.2.2.5 Automation Device Serial Number subpage

The Automation Device Serial Number subpage is variable length and contains the product serial number that is reported via the Unit Serial Number VPD page (see SPC-3) by the automation device’s SMC device server that associates this DT device to a data transfer element (see SMC-2). The subpage is defined in table X.

Table X — Automation Device Serial Number subpage

Bit Byte	7	6	5	4	3	2	1	0
0	PS	SPF (1b)	PAGE CODE (0Eh)					
1	SUBPAGE CODE (05h)							
2	Reserved							
3	PAGE LENGTH (n-3)							
4	Reserved							
5	Reserved							
6	Reserved							
7	Reserved							
8	(MSB)	PRODUCT SERIAL NUMBER						(LSB)
n								

See SPC-3 for a description of the PS bit, SPF bit, PAGE CODE field, SUBPAGE CODE field, and PAGE LENGTH field. These bits and fields shall be set to the values shown table X.

See SPC-3 for a description of the PRODUCT SERIAL NUMBER field.

Changes to 6.3.1

Modify Table 56 as follows:

Table 56 — ADC device VPD page codes

B2h	Reserved		
B3h	Automation device serial number VPD page	6.3.4	Optional
B24h – BFh	Reserved		

New sub-clause 6.3.4

6.3.4 Automation device serial number VPD page

Table Z defines the automation device serial number VPD page.

Table Z — Automation device serial number VPD page

Bit Byte	7	6	5	4	3	2	1	0
0	PERIPHERAL QUALIFIER			PERIPHERAL DEVICE TYPE				
1	PAGE CODE (B3h)							
2	Reserved							
3	PAGE LENGTH (n-3)							
4	(MSB)	AUTOMATION DEVICE SERIAL NUMBER						(LSB)
n								

See SPC-3 for a description of the PERIPHERAL QUALIFIER field, PERIPHERAL DEVICE TYPE field, and PAGE LENGTH field. The PAGE LENGTH field shall be set to the value shown in table Z.

The AUTOMATION DEVICE SERIAL NUMBER field contains the product serial number configured via the Automation Device Serial Number subpage (see 6.2.2.5). If no product serial number has been configured via the Automation Device Serial Number subpage, then the ADC device server shall return ASCII spaces (20h) in this field.