

TO: T10 Membership, ADI Working Group
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SUBJECT: ADI ADC-2 Target Device Serial Number subpage (document T10/05-155r5)

Rev5 – Added subclause to state that ADC shall not use the T10 vendor ID descriptor (or make them unique); restated that product serial number shall not use the manufacturer-assigned serial number.

Rev4 – Changed note to normative and converted to a ‘shall’ from a ‘should’ statement.

Rev3 – Per November 2005 SSC-3 meeting changed MANUFACTURER SERIAL NUMBER field to MANUFACTURER-ASSIGNED SERIAL NUMBER; added a note below its description paragraph that this serial number is not to be used in building the T10 vendor ID descriptor if it differs from the value in the PRODUCT SERIAL NUMBER field (also made changes to corresponding ADC text at editor’s recommendation even though T10/05-155r2 had been approved for ADC-2 at the November ADI meeting. This maintains consistency between ADC and SSC).

Rev2 – Clarified wording of which serial number is being modified, constrained to RMC and ADC device servers; modify references to target device serial number to just serial number, change field name.

Rev1 – Added VPD page for manufacturing assigned serial number; clarified that serial number changes apply only to Inquiry Page 80h and T10 Vendor ID type.

Rev0 – Initial draft.

Introduction

This document proposes a change to existing table 33 and a new sub-clause 6.2.2.5 for ADC-2 that provides a means by which an automation device can modify the product serial number of the DT device (e.g., a tape drive). This document also proposes a new device type specific VPD page that is common between ADC and SSC device types.

Discussion

Some automation devices (e.g., a tape library) are modifying the serial number of data transfer device(s) to facilitate their replacement during service procedures. This practice allows the RMC device server within the DT device to maintain a uniform and consistent presentation to their application clients.

This proposal introduces a new ADC device server mode subpage that provides a method for changing the product serial number of the DT device. Proposed changes are in [blue](#). Former references to SPC-2 are also updated to SPC-3 in anticipation of a general ADC-2 update.

Proposed Changes to ADC-2

Changes to 6.2.2.1:

Table 33 is modified as follows.

Table 33 — Mode subpage codes

Subpage Code	Description	Reference
01h	Target Device subpage	6.2.2.2
02h	DT Device Primary Port subpage	6.2.2.3
03h	Logical Unit subpage	6.2.2.4
04h	Target Device Serial Number subpage	6.2.2.5

New sub-clause 6.2.2.5:

6.2.2.5 Target Device Serial Number subpage

The Target Device Serial Number subpage is variable length and contains the product serial number of the RMC device server and ADC device server that shall be reported via the Unit Serial Number VPD page (see SPC-3). This product serial number shall not affect the product serial number of the local SMC device server. The subpage is defined in table X.

Table X — Target Device Serial Number subpage

Bit Byte	7	6	5	4	3	2	1	0
0	PS	SPF (1b)	PAGE CODE (0Eh)					
1	SUBPAGE CODE (04h)							
2	Reserved							
3	PAGE LENGTH (n-3)							
4	Reserved						MPSN	
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.

The modify product serial number (MPSN) and PRODUCT SERIAL NUMBER fields are used to modify and report modifications to the product serial number, as defined in table Y.

Table Y — MPSN field

Value	MODE SENSE command^a	MODE SELECT command^a
00b	The MPSN field shall be set to zero for a MODE SENSE command. The PRODUCT SERIAL NUMBER field shall contain the currently assigned values.	Do not modify the product serial number. The PRODUCT SERIAL NUMBER field shall be ignored.
01b	Invalid value for a MODE SENSE command.	Reserved
10b	Invalid value for a MODE SENSE command.	Set the product serial number to the manufacturer-assigned value (see 6.3.2). The PRODUCT SERIAL NUMBER field shall be ignored.
11b	Invalid value for a MODE SENSE command.	Set the product serial number to the value in the PRODUCT SERIAL NUMBER field.
^a See SPC-3		

See SPC-3 for a description of the PRODUCT SERIAL NUMBER field. An application client may change the product serial number as a means to change the RMC logical unit's T10 vendor ID based identification descriptor (see SPC-3).

Changes to 6.3

6.3 Vital product data parameters

6.3.1 Vital product data parameters overview and page codes

This subclause defines the vital product data parameters (VPD) pages used with ADC device types. See SPC-3 for VPD pages used with all device types. The VPD page codes specific to ADC devices are specified in table Z.

Table Z — ADC device VPD page codes

Page code	VPD Page Name	Reference	Support Requirements
B0h	Reserved for this device type		
B1h	Manufacturer-assigned serial number VPD page	6.3.2	Optional
B2h – BFh	Reserved for this device type		

6.3.2 Device Identification VPD page

The ADC device server shall either:

- Not return the T10 vendor ID descriptor (see SPC-3) with an association value of 00b; or
- Ensure that the T10 vendor ID descriptor with an association value of 00b be unique (e.g., by including “ADC” within the VENDOR SPECIFIC IDENTIFIER field).

6.3.3 Manufacturer-assigned serial number VPD page

Table Z+1 defines the manufacturer-assigned serial number VPD page.

Table Z+1 — Manufacturer-assigned serial number VPD page

Bit Byte	7	6	5	4	3	2	1	0
0	PERIPHERAL QUALIFIER			PERIPHERAL DEVICE TYPE				
1	PAGE CODE (B1h)							
2	Reserved							
3	PAGE LENGTH (n-3)							
4	(MSB)	MANUFACTURER-ASSIGNED 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+1.

The MANUFACTURER-ASSIGNED SERIAL NUMBER field contains right-aligned ASCII data (see SPC-3) that is the manufacturer-assigned serial number. If the manufacturer-assigned serial number is not available, the ADC device server shall return ASCII spaces (20h) in this field. If the manufacturer-assigned serial number differs from the value in the PRODUCT SERIAL NUMBER field (see SPC-3) the manufacturer-assigned serial number shall not be used in building the T10 vendor ID descriptor (see SPC-3).

Proposed Changes to SSC-3

Changes to 8.4.1

Table 71 is modified as follows:

Table 71 — Sequential-access device VPD page codes

Page code	VPD Page Name	Reference	Support Requirements
B0h	Sequential-access device capabilities VPD page	8.4.2	Optional
B1h	Manufacturer-assigned serial number VPD page	8.4.3	Optional
B2h – BFh	Reserved for this device type		

New subclause 8.4.3

8.4.3 Manufacturer-assigned serial number VPD page

Table 73 defines the manufacturer-assigned serial number VPD page.

Table 73 — Manufacturer-assigned serial number VPD page

Bit Byte	7	6	5	4	3	2	1	0
0	PERIPHERAL QUALIFIER			PERIPHERAL DEVICE TYPE				
1	PAGE CODE (B1h)							
2	Reserved							
3	PAGE LENGTH (n-3)							
4	(MSB)	MANUFACTURER-ASSIGNED 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 73.

The MANUFACTURER-ASSIGNED SERIAL NUMBER field contains right-aligned ASCII data (see SPC-3) that is the manufacturer-assigned serial number. If the manufacturer-assigned serial number is not available, the device server shall return ASCII spaces (20h) in this field. If the manufacturer-assigned serial number differs from the value in the PRODUCT SERIAL NUMBER field (see SPC-3) the value in the PRODUCT SERIAL NUMBER field shall be used in building the T10 vendor ID descriptor (see SPC-3).