TO:	T10 Membership, ADI Working Group
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SUBJECT:	ADI ADC State Sequence Capabilities VPD Page (document T10/03-043r0)

This document proposes a Vital Product Data parameter page for ADC devices that allows them to describe the Very High Frequency states they use during Load and Unload sequences. The concept of State Sequence descriptors is utilized to facilitate a variable length parameter page and accommodate differences between devices.

## 6.3.1 State Sequence Capabilities VPD page

## 6.3.1.1 State Sequence Capabilities VPD page overview

The State Sequence Capabilities VPD page (see Table 1) provides a way for an ADC device to describe which states it is capable of reporting during load and unload sequences through use of the Very High Frequency log page. State Sequence descriptors shall be assigned for each state that the ADC device is capable of reporting.

В	it 7		6	5	4	3	2	1	0
Byte									
0		Per	ripheral Quali	fier		Periphe	eral Device Ty	rpe (12h)	
1					Page Co	de (xxh)			
2					Rese	rved			
3					Page Len	gth (n-3)			
					State sequence	descriptor list	st		
4		State sequence descriptor (first)							
5		state sequence descriptor (mst)							
		:							
n-1				St	tate sequence	descriptor (la	et)		
n		State sequence descriptor (last)							

Table 1 –	State	Sequence	Capabilities	<b>VPD</b> Pag	e
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The Peripheral Qualifier and Peripheral Device Type are as defined in SPC-3. [What is the proper way to reference this?]

Each State Sequence descriptor (see Table 2) contains information that describes what sequence type it is for (load or unload), where in the sequence it occurs, and what the state is.

	Bit	7	6	5	4	3	2	1	0	
Byte										
0			Sequence Index					Sequence Type		
1		Can	Rsvd	Robotic	Media	Hold	Media	Media	Data	
		Transition		Access	Present	Point	Seated	Threaded	Accessible	
				Allowed						

 Table 2 – State Sequence Descriptor

[Is descriptor length field needed somewhere? In the descriptor itself or the page?]

The Sequence Type field specifies which sequence the descriptor is for, as defined in

Value	Description
0h	Reserved
1h	Load
2h	Unload
3h-7h	Reserved

## Table 3 – Sequence Type

The Sequence Index field identifies where in the sequence the state occurs, starting with 1h and ranging to 1Fh. All states shall be indexed sequentially and contiguously, and the state descriptors shall be reported in ascending order.

The Can Transition field, when set to 1, indicates that the state represented by the remaining fields in the byte may be reported as in transition (leaving that state) as well as a stable state. When the Can Transition field is set to 0, the state represented by the remaining fields will only be reported as a stable state, and will not be reported as in transition (the transition may occur to quickly to report).

All the remaining fields in byte 1 represent the state being described by the descriptor. Descriptions of these fields can be found in the Very High Frequency log page.