memorandum

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To	**From**	**Subject**	**Date**
INCITS T10 Committee	Michael Banther, HP	Offline Additional Sense Code	24 August, 2004

Revision History

Revision 0 – Initial proposal.

Background

Automation libraries typically consist of a media changer device, one or more data transfer devices, and a magazine of storage slots. The Automation/Drive Interface command set (ADC) provides the means for an application client within the automation library to control and monitor the data transfer devices. A data transfer device that implements ADC typically includes a logical unit (the RMC logical unit) that supports a removable medium command set (e.g., SSC-x, MMC-x) and a logical unit that supports ADC.

The ADC Device Configuration mode page includes parameters that allow the automation's application client to configure the behavior of the RMC device server. One of these parameters, the OFFLINE bit, configures how the RMC device server responds to commands that require the RMC logical unit to be ready. At present, if OFFLINE equals one, the RMC device server responds with CHECK CONDITION status, sets the sense key to NOT READY, and sets the additional sense code to LOGICAL UNIT NOT READY, OPERATION IN PROGRESS.

As part of ADC letter ballot comment resolution, the ADI working group has agreed that the currently specified additional sense code does not convey the desired information. A survey of the existing additional sense codes that apply to logical unit readiness did not find a suitable alternative. Consequently HP proposes the addition of a LOGICAL UNIT NOT READY, OFFLINE additional sense code.

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Proposed changes to SPC-3

4.5.6 Sense key and sense code definitions

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The additional sense codes and additional sense code qualifiers are defined in table 27.

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Table 27 — ASC and ASCQ assignments (part 8 of 15)

		D	DIRECT ACCESS BLOCK DEVICE (SBC-2)												Device Column key
		.	T	SEQUENTIAL ACCESS DEVICE (SSC-2)											blank = code not used
		.		L	PRINTER DEVICE (SSC)										not blank = code used
		.			P	PROCESSOR DEVICE (SPC-2)									
		.			.	W	WRITE ONCE BLOCK DEVICE (SBC)								
		.			.		R	CD/DVD DEVICE (MMC-2)							
		.			.			O	OPTICAL MEMORY BLOCK DEVICE (SBC)						
		.			.			.	M	MEDIA CHANGER DEVICE (SMC-2)					
		.			.			.		A	STORAGE ARRAY DEVICE (SCC-2)				
		.			.			.			E	ENCLOSURE SERVICES DEVICE (SES)			
		.			.			.			.	B	SIMPLIFIED DIRECT-ACCESS DEVICE (RBC)		
		.			.			.			.		K	OPTICAL CARD READER/WRITER DEVICE (OCRW)	
		.			.			.			.			V	AUTOMATION/DRIVE INTERFACE (ADC)
		.			.			.			.			.	F	OBJECT-BASED STORAGE (OSD)
		.			.			.			.			.		
ASC	ASCQ	D	T	L	P	W	R	O	M	A	E	B	K	V	F	Description
04h	03h	D	T	L	P	W	R	O	M	A	E	B	K	V	F	LOGICAL UNIT NOT READY, MANUAL INTERVENTION REQUIRED
04h	11h	D	T			W	R	O	M	A	E	B		V	F	LOGICAL UNIT NOT READY, NOTIFY (ENABLE SPINUP) REQUIRED
04h	12h		T													LOGICAL UNIT NOT READY, OFFLINE
04h	07h	D	T	L	P	W	R	O	M	A	E	B	K	V	F	LOGICAL UNIT NOT READY, OPERATION IN PROGRESS
														.		
														.		
														.		

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C.2 Additional Sense Codes

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Table C.1 is a numerical order listing of the additional sense codes and the additional sense code qualifiers.

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Table C.1 — ASC and ASCQ assignments (part 2 of 15)

		D	DIRECT ACCESS BLOCK DEVICE (SBC-2)												Device Column key
		.	T	SEQUENTIAL ACCESS DEVICE (SSC-2)											blank = code not used
		.		L	PRINTER DEVICE (SSC)										not blank = code used
		.			P	PROCESSOR DEVICE (SPC-2)									
		.			.	W	WRITE ONCE BLOCK DEVICE (SBC)								
		.			.		R	CD/DVD DEVICE (MMC-2)							
		.			.			O	OPTICAL MEMORY BLOCK DEVICE (SBC)						
		.			.			.	M	MEDIA CHANGER DEVICE (SMC-2)					
		.			.			.		A	STORAGE ARRAY DEVICE (SCC-2)				
		.			.			.			E	ENCLOSURE SERVICES DEVICE (SES)			
		.			.			.			.	B	SIMPLIFIED DIRECT-ACCESS DEVICE (RBC)		
		.			.			.			.		K	OPTICAL CARD READER/WRITER DEVICE (OCRW)	
		.			.			.			.			V	AUTOMATION/DRIVE INTERFACE (ADC)
		.			.			.			.			.	F	OBJECT-BASED STORAGE (OSD)
		.			.			.			.			.		
ASC	ASCQ	D	T	L	P	W	R	O	M	A	E	B	K	V	F	Description
														.		
														.		
														.		
04h	11h	D	T			W	R	O	M	A	E	B		V	F	LOGICAL UNIT NOT READY, NOTIFY (ENABLE SPINUP) REQUIRED
04h	12h		T													LOGICAL UNIT NOT READY, OFFLINE
05h	00h	D	T	L		W	R	O	M	A	E	B	K	V	F	LOGICAL UNIT DOES NOT RESPOND TO SELECTION
														.		
														.		
														.		