X3T9.2/87-113

To: ANSC Working Group

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Subject: Sequential Access Recoverable Error Counters

1.0 Introduction

This document is intended as a proposal in conjunction with ANSI document X3T9.2/87-43, entitled "Common Read Log Command" by Greg Floryance. This document proposes the addition of a Recoverable Error (Retry) Count Page to the Read Log Command for Sequential Access Devices.

2.0 Proposal

This proposal intends to use Page Code 6 as the "Recoverable Error Count" page, which will consist of the data described in section 2.1

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2.1 Recoverable Error Count Page Data

Bit / Byte	7	6	5	4	3	2	1	0
0	Page Code = 6							
1	Reserved							
2-3	Parameter List Length (n)							

0	Reserved	ParmCode = 1
1	Write Recoverable Error Count Length	
2	Write Recoverable Error Count (MSB)	
.		
n	(LSB)	

0	Reserved	ParmCode = 2
1	Read Recoverable Error Count Length	
2	Read Recoverable Error Count (MSB)	
.		
n	(LSB)	

0	Reserved	ParmCode = 3
1	ECC Correction Count Length	
2	ECC Correction Count (MSB)	
.		
n	(LSB)	

Description of Returned Data

For ParmCode 1, 2 and 3, the counter will be cleared whenever a power-on or reset occurs, or when new medium is inserted, or when the READ LOG command is issued with the NLR bit set to zero.

The Write Recoverable Error Count Length and Read Recoverable Error Count Length and ECC Correction Count Length fields indicates the length of each counter in bytes. It is recommended that the total parameter length (including the counter) be a multiple of 2. A length value of zero indicates that the counter is not supported.

The Write Recoverable Error Counter field is incremented each time the target uses a write retry method to secure a block of data on the medium.

The Read Recoverable Error Counter field is incremented each time the target uses a read-retry algorithm to obtain a block of data from the medium. An ECC correction without a read-retry shall also be concidered a Read Recoverable Error.

The ECC Correction Counter field is incremented each time the target uses an ECC correction method to obtain a block of data from the medium.