



T10/99-110r2

**Seagate Technology**  
10323 West Reno (West Dock)  
Oklahoma City, OK 73127-9705  
P.O. Box 12313  
Oklahoma City, OK 73157-2313

Tel: 405-324-3070  
Fax: 405-324-3794  
gene\_milligan@notes.seagate.com

Date: 3/17/99

To: John Lohmeyer

Cc:

From: Gene Milligan OKM251

Subject: SCSI Version Proposal Flavor Three for SPC-2

The SCSI Version Proposal Flavor Two proposal 99-110r1 was accepted for inclusion in SPC-2 at the March 1999 T10 Plenary. However two proposals used the same byt and so it was also argreed to move the version information down by two bytes. Revision 2 reflects that agreement.

Gene Milligan  
T10 Principal Member

**7.4 INQUIRY command**

**7.4.1 Standard INQUIRY data**

**Table 19 - Standard INQUIRY data format**

Bit Byte	7	6	5	4	3	2	1	0
0	PERIPHERAL QUALIFIER			PERIPHERAL DEVICE TYPE				
1	RMB	Reserved						
2	ISO/IEC VERSION		ECMA VERSION			ANSI VERSION		
3	AERC	Obsolete	NORMACA	HiSUP	RESPONSE DATA FORMAT			
4	ADDITIONAL LENGTH (n-4)							
5	SCCS	Reserved						
6	BQUE	ENC SERV	VS	MULTIP	MCHNGR	AckReqQ†	ADDR32†	ADDR16†
7	RELADR	WBUS32†	WBUS16†	SYNC†	LINKED	TRANDIS†	CMDQUE	VS
8	(MSB)	VENDOR IDENTIFICATION						
15								(LSB)
16	(MSB)	PRODUCT IDENTIFICATION						
31								(LSB)
32	(MSB)	PRODUCT REVISION LEVEL						
35								(LSB)
36		Vendor-specific						
55								
56		(See another proposal for usage or SPC-2 Rev 9)						
57		Reserved						
58	(MSB)	VERSION DESCRIPTOR 1						
59								(LSB)
72		VERSION DESCRIPTOR 8						
73								
74		Reserved						
95								
	Vendor-specific parameters							
96		Vendor-specific						
n								

Note: The meanings of these bits are specific to SIP (see 7.4.2). For protocols other than SIP, these bits are reserved.

The values in the ISO VERSION and ECMA VERSION fields are defined by the International Organization for Standardization and the European Computer Manufacturers Association, respectively.

The ANSI VERSION field indicates the implemented version of this standard and is defined in table 22

**Table 22 - ANSI-Version**

<b>Code</b>	<b>Description</b>
00h	The device does not claim conformance to any standard.
01h	Obsolete
02h	The device complies to ANSI X3.131-1994 (SCSI-2)
03h	The device complies to ANSI X3.301-1997. (SPC)
04h	The device complies to this standard.
05h -0 7h	Reserved
08h-1Fh	Obsolete
80h	The device complies to ISO/IEC 9316:1995
81h	Obsolete
82h	The device complies to ISO/IEC 9316:1995 and to ANSI X3.131-1994 (SCSI-2)
83h	The device complies to ISO/IEC 9316:1995 and to ANSI X3.301-1997. (SPC)
84h	The device complies to ISO/IEC 9316:1995 and to this standard.
85-87h	Reserved
88-8Fh	Obsolete
90-97h	Reserved
98-9Fh	Obsolete
A0-A7h	Reserved
A8-Afh	Obsolete
B0-B7h	Reserved
B8-BFh	Obsolete
C0-C7h	Reserved
C8-CFh	Obsolete
D0-D7h	Reserved
D8-DFh	Obsolete
E0-E7h	Reserved
E8-EFh	Obsolete
F0-F7h	Reserved
F8-FFh	Obsolete

#### 7.4.4 Command support data

Same change as above.

**New Stuff**

**Bytes 58 through 73: Version Descriptor**

If all bytes are not 00h, the device provides one or more Version Descriptors. If implemented, the Version Descriptor shall conform to Table XX. This allows up to eight standards to be described. It is also recommended that the first group be used for the physical standard, followed by the physical/mapping protocol if any, followed by the appropriate SPC version, followed by the device type command set, followed by a secondary command set if any. Bytes 58 through 73 which are not required to provide Version Descriptors shall be filled with 00h.

**Table XX Version Descriptor**

Bit	7	6	5	4	3	2	1	0	
Byte									
X	(MSB)			Standard					
X+1				(LSB)	(MSB)			Revision	(LSB)

The Standard entry shall be chosen from a non-reserved value in Table YYY.

**Table YY Standard Structure**

Decimal Value	Category of the Standard
0	Version Descriptor Not Supported
1 through 8	Architecture Model
9 through 64	Command Set
65 through 84	Physical Mapping Protocol
85 through 104	Parallel SCSI Physical
105 through 154	Fibre Channel
155 through 164	SSA
165 through 184	IEEE 1394
185 through 224	Networking
225 through 244	ATM
245 through 2047	Reserved for Expansion

**Table YYY Standard Assignments**

<b>Decimal Value</b>	<b>ACRONYM of the Standard</b>
<b>0</b>	<b>Version Descriptor Not Supported</b>
<b>1</b>	<b>SAM</b>
<b>2</b>	<b>SAM-2</b>
<b>3 through 8</b>	<b>Reserved for Architecture Model</b>
<b>9</b>	<b>SPC</b>
<b>10</b>	<b>MMC</b>
<b>11</b>	<b>SCC</b>
<b>12</b>	<b>SBC</b>
<b>13</b>	<b>SMC</b>
<b>14</b>	<b>SES</b>
<b>15</b>	<b>SCC-2</b>
<b>16</b>	<b>SSC</b>
<b>17</b>	<b>RBC</b>
<b>18</b>	<b>MMC-2</b>
<b>19</b>	<b>SPC-2</b>
<b>20</b>	<b>OMC</b>
<b>21 through 64</b>	<b>Reserved for Command Set</b>
<b>65</b>	<b>SSA-TL2</b>
<b>66</b>	<b>SSA-TL1</b>
<b>67</b>	<b>SSA-S3P</b>
<b>68</b>	<b>SSA-S2P</b>
<b>69</b>	<b>SIP</b>
<b>70</b>	<b>FCP</b>
<b>71</b>	<b>SBP-2</b>
<b>72</b>	<b>FCP-2</b>
<b>73 through 84</b>	<b>Physical Mapping Protocol</b>
<b>85</b>	<b>SPI</b>
<b>86</b>	<b>Fast-20</b>
<b>87</b>	<b>SPI Amendment</b>
<b>88</b>	<b>SPI-2</b>
<b>89</b>	<b>SPI-3</b>
<b>90 through 104</b>	<b>Parallel SCSI Physical</b>
<b>105 through 154</b>	<b>Fibre Channel (T11 to assign?)</b>
<b>155</b>	<b>SSA-PH2</b>
<b>156</b>	<b>SSA-PH3</b>
<b>157 through 164</b>	<b>Reserved for SSA</b>
<b>165</b>	<b>IEEE 1394:1995</b>
<b>166</b>	<b>IEEE 1394a</b>
<b>167</b>	<b>IEEE 1394b</b>
<b>168 through 184</b>	<b>Reserved for IEEE 1394</b>
<b>185 through 224</b>	<b>Reserved for Networking</b>
<b>225 through 244</b>	<b>Reserved for ATM</b>
<b>245 through 2047</b>	<b>Reserved for Expansion</b>

The Revision code value shall be picked from the defined values corresponding to the Standard value being described (See Table ZZ). NCITS T10 has a procedure to assign one or more revision values for each standard that may be appropriate for reporting. Assignments that are made subsequent to the finalization of this standard may be accessed via the NCITS web site at [www.ncits.org](http://www.ncits.org) through the Technical Committee T10 page.

Table ZZ Revision code values

Standard Value	Revision Code	Assigned Value	Standard Acronym
0	Not applicable	0	Version Descriptor Not Supported
1	TBA	TBA	SAM
2	TBA	TBA	SAM-2
9	TBA	TBA	SPC
10	TBA	TBA	MMC
11	TBA	TBA	SCC
12	TBA	TBA	SBC
13	TBA	TBA	SMC
14	TBA	TBA	SES
15	TBA	TBA	SCC-2
16	TBA	TBA	SSC
17	TBA	TBA	RBC
18	TBA	TBA	MMC-2
19	TBA	TBA	SPC-2
20	TBA	TBA	OMC
65	TBA	TBA	SSA-TL2
66	TBA	TBA	SSA-TL1
67	TBA	TBA	SSA-S3P
68	TBA	TBA	SSA-S2P
69	TBA	TBA	SIP
70	TBA	TBA	FCP
71	TBA	TBA	SBP-2
72	TBA	TBA	FCP-2
85	TBA	TBA	SPI
86	TBA	TBA	Fast-20
87	TBA	TBA	SPI Amendment
88	TBA	TBA	SPI-2
89	TBA	TBA	SPI-3
105 through 154	TBA	TBA	Fibre Channel (T11 to assign?)
155	TBA	TBA	SSA-PH2
156	TBA	TBA	SSA-PH3
165	TBA	TBA	IEEE 1394:1995
166	TBA	TBA	IEEE 1394a
167	TBA	TBA	IEEE 1394b