

**INTERNATIONAL
STANDARD**

**ISO/IEC
14776-321**

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**Information technology –
Small computer system interface-3 (SCSI-3) –
Part 321:
Block commands (SBC)**

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CONTENTS

FOREWORD	8
INTRODUCTION	9
1 Scope	10
2 Normative references	12
2.1 Normative reference overview	12
2.2 Approved references	12
2.3 References under development	12
3 Definitions, symbols and abbreviations	13
3.1 Definitions	13
3.1.1 Definitions specific to direct access devices	13
3.1.2 Definitions specific to optical memory block devices and to write-once block devices	15
3.2 Symbols and abbreviations	15
3.3 Keywords	16
3.4 Conventions	17
4 General	17
5 SCSI block device models	18
5.1 Direct-access device type model	18
5.1.0 General	18
5.1.1 Removable medium	18
5.1.2 Logical blocks	19
5.1.3 Ready state	19
5.1.4 Power conditions	19
5.1.5 Initialization	21
5.1.6 Medium defects	22
5.1.7 Cache memory	22
5.1.8 Reservations	23
5.1.9 Seek(10)	25
5.1.10 Notched devices	25
5.1.11 Rotational position locking	25
5.1.12 Relative addressing	25
5.1.13 Error reporting	25
5.1.14 Examples	26
5.1.15 Model for XOR commands	27
5.2 Model for optical memory block devices	36
5.2.0 General	36
5.2.1 Defect management	37
5.2.2 Error reporting	37
5.3 Model for write-once block devices	38
5.3.0 General	38
5.3.1 Logical blocks	38
5.3.2 Initialization	39
5.3.3 Physical medium defects	39
5.3.4 Error reporting	39
6 Commands for block devices	40

6.1	Commands for direct-access block devices overview.....	40
6.1.1	Commands for direct-access block devices	40
6.1.2	FORMAT UNIT command.....	42
6.1.3	LOCK UNLOCK CACHE command.....	50
6.1.4	PRE-FETCH command.....	51
6.1.5	READ(6) command	52
6.1.6	READ(10) command	53
6.1.7	READ CAPACITY command.....	54
6.1.8	READ DEFECT DATA(10) command.....	55
6.1.9	READ LONG command	57
6.1.10	REASSIGN BLOCKS command.....	58
6.1.11	REBUILD command	60
6.1.12	REGENERATE command.....	62
6.1.13	SEEK(10) command.....	63
6.1.14	SET LIMITS(10) command	64
6.1.15	START STOP UNIT command.....	65
6.1.16	SYNCHRONIZE CACHE command.....	67
6.1.17	VERIFY command.....	68
6.1.18	WRITE(6) command.....	69
6.1.19	WRITE(10) command.....	70
6.1.20	WRITE AND VERIFY command.....	70
6.1.21	WRITE LONG command	71
6.1.22	WRITE SAME command	72
6.1.23	XDREAD command.....	73
6.1.24	XDWRITE command	74
6.1.25	XDWRITE EXTENDED command.....	75
6.1.26	XPWRITE command	76
6.2	Commands for optical memory block devices	77
6.2.0	General.....	77
6.2.1	ERASE(10) command	79
6.2.2	ERASE(12) command	80
6.2.3	MEDIUM SCAN command.....	81
6.2.4	READ(12) command	83
6.2.5	READ DEFECT DATA(12) command.....	84
6.2.6	READ GENERATION command	85
6.2.7	READ UPDATED BLOCK(10) command.....	86
6.2.8	SET LIMITS(12) command	87
6.2.9	UPDATE BLOCK command.....	88
6.2.10	VERIFY(10) command.....	89
6.2.11	VERIFY(12) command.....	90
6.2.12	WRITE(10) command.....	91
6.2.13	WRITE(12) command.....	91
6.2.14	WRITE AND VERIFY(10) command	92
6.2.15	WRITE AND VERIFY(12) command	93
6.3	Commands for write-once block devices.....	94
7	Parameters for block devices	96
7.1	Parameters for direct-access block devices.....	96
7.1.1	Diagnostic parameters	96
7.1.2	Log parameters.....	101

7.1.3	Mode parameters	103
7.1.4	Parameters for optical memory block devices	129
7.1.5	Parameters for write-once block devices	132
Annex A (informative) XOR command examples		133
A.1 XOR annex overview		133
A.2 Storage array controller supervised XOR operations		133
A.2.1	Update write operation	133
A.2.2	Regenerate operation	134
A.2.3	Rebuild operation	135
A.3 Third-party XOR operations		136
A.3.1	Update write operation	136
A.3.2	Regenerate operation	137
A.3.3	Rebuild operation	138
A.4 Hybrid subsystem XOR operations		139
A.4.1	Regenerate operation	139
A.4.2	Rebuild operation	140
Bibliography		142
Figure 1 – SCSI standards – General structure		11
Figure 2 – SCSI power conditions flow control (automatic switching)		20
Figure 3 – SCSI power conditions flow control (controlled switching)		21
Figure 4 – Power conditions flowchart		119
Figure A.1 – Rebuild operation		134
Figure A.2 – Regenerate operation		135
Figure A.3 – Rebuild operation		136
Figure A.4 – Update write operation		137
Figure A.5 – Regenerate operation		138
Figure A.6 – Rebuild operation		139
Figure A.7 – Regenerate operation		140
Figure A.8 – Rebuild operation		141

Table 1 – Sample error conditions	26
Table 2 – Sample error conditions	38
Table 3 – Sample error conditions	39
Table 4 – Commands for direct-access block devices	40
Table 5 – FORMAT UNIT command.....	42
Table 6 – FORMAT UNIT parameter list.....	43
Table 7 – DEFECT LIST HEADER.....	44
Table 8 – FORMAT UNIT defect descriptor format and requirements	45
Table 9 – DEFECT DESCRIPTOR – Block format.....	47
Table 10 – DEFECT DESCRIPTOR – Bytes from index format.....	47
Table 11 – DEFECT DESCRIPTOR – Physical sector format	48
Table 12 – Initialization pattern descriptor.....	48
Table 13 – Initialization pattern modifier.....	49
Table 14 – Initialization pattern type.....	49
Table 15 – LOCK UNLOCK CACHE command	50
Table 16 – PRE-FETCH command.....	51
Table 17 – READ(6) command	52
Table 18 – READ(10) command	53
Table 19 – READ CAPACITY command.....	54
Table 20 – READ CAPACITY data	55
Table 21 – READ DEFECT DATA(10) command.....	55
Table 22 – READ DEFECT DATA(10) defect list	56
Table 23 – READ LONG command	57
Table 24 – REASSIGN BLOCKS command.....	58
Table 25 – REASSIGN BLOCKS defect list	59
Table 26 – REBUILD command	60
Table 27 – PORT CONTROL field.....	61
Table 28 – REBUILD and REGENERATE parameter data	61
Table 29 – SOURCE DESCRIPTOR format	62
Table 30 – REGENERATE command.....	63
Table 31 – SEEK(10) command.....	64
Table 32 – SET LIMITS(10) command	64
Table 33 – START STOP UNIT command.....	65
Table 34 – POWER CONDITIONS	66
Table 35 – SYNCHRONIZE CACHE command.....	67
Table 36 – VERIFY command.....	68
Table 37 – WRITE(6) command.....	69
Table 38 – WRITE(10) command.....	70
Table 39 – WRITE AND VERIFY command.....	71
Table 40 – WRITE LONG command	72
Table 41 – WRITE SAME command	73
Table 42 – XDREAD command.....	74
Table 43 – XDWRITE command	74

Table 44 – XDWRITE EXTENDED command.....	75
Table 45 – XPWRITE command	77
Table 46 – Commands for optical memory block devices	78
Table 47 – ERASE(10) command	80
Table 48 – ERASE(12) command	81
Table 49 – MEDIUM SCAN command.....	81
Table 50 – MEDIUM SCAN parameter list.....	82
Table 51 – READ(12) command	84
Table 52 – READ DEFECT DATA(12) command	84
Table 53 – READ DEFECT DATA(12) list header	85
Table 54 – READ GENERATION command	85
Table 55 – Maximum generation data block	86
Table 56 – READ UPDATED BLOCK(10) command.....	86
Table 57 – SET LIMITS(12) command	87
Table 58 – UPDATE BLOCK command.....	88
Table 59 – VERIFY command.....	89
Table 60 – VERIFY(12) command.....	90
Table 61 – WRITE(10) command.....	91
Table 62 – WRITE(12) command.....	92
Table 63 – WRITE AND VERIFY(10) command	92
Table 64 – WRITE AND VERIFY(12) command	94
Table 65 – Commands for write-once block devices.....	95
Table 66 – Diagnostic page codes	97
Table 67 – Translate address page – SEND DIAGNOSTIC	97
Table 68 – Translate address page – RECEIVE DIAGNOSTIC	98
Table 69 – Device status page – SEND DIAGNOSTIC	99
Table 70 – Device status page – RECEIVE DIAGNOSTIC	100
Table 71 – SYNCHRONIZATION field	100
Table 72 – Log page codes.....	101
Table 73 – Format status log page.....	102
Table 74 – Direct-access medium-type codes	103
Table 75 – Device specific parameter	103
Table 76 – Mode page codes	104
Table 77 – Caching page.....	105
Table 78 – Demand read retention priority and write retention priority.....	106
Table 79 – Flexible disk page	109
Table 80 – Examples of transfer rates	110
Table 81 – PIN 34 field	111
Table 82 – PIN 4 field	112
Table 83 – PIN 1 field	112
Table 84 – Format device page.....	113
Table 85 – Reporting of default sector formatting support	115
Table 86 – Reporting of changeable sector formatting support	115

Table 87 – Medium types supported page	115
Table 88 – Notch page	116
Table 89 – Power condition page	118
Table 90 – Read-write error recovery page	119
Table 91 – Error recovery bit definitions	121
Table 92 – Combined error recovery parameter descriptions	122
Table 93 – Rigid disk device geometry page	125
Table 94 – Rotational position locking	126
Table 95 – Verify error recovery page	127
Table 96 – XOR control mode page	128
Table 97 – Diagnostic page codes	129
Table 98 – Log page codes	129
Table 99 – Optical memory medium-type codes	130
Table 100 – Optical memory block device specific parameter	130
Table 101 – Optical memory density codes	131
Table 102 – Mode page codes	131
Table 103 – Optical memory page	132

INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE-3 (SCSI-3) –

Part 321: Block commands (SBC)

FOREWORD

- 1) ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.
- 2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.
- 3) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 14776-321 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

ISO/IEC 14776-321 is to be read in conjunction with ISO/IEC 14776-411, ISO/IEC 14776-311 and ISO/IEC 14776-351.1)

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

1) For details, see clause 2.

INTRODUCTION

The SCSI command set described in this document is designed to provide efficient peer-to-peer operation of input/output logical units by an operating system using block transfers. The SCSI command set assumes an underlying command-response protocol.

This SCSI command set provides multiple operating systems concurrent control over one or more input/output logical units. However, the multiple operating systems are assumed to coordinate their actions properly to prevent data corruption. This SCSI standard provides commands that assist with coordination between multiple operating systems. However, details of the coordination are beyond the scope of the SCSI command set.

At the time this standard was developed SCSI included the following:

- physical interconnects;
- transport protocols;
- shared command set;
- architecture model;
- common access method.

Please refer to the bibliography for examples of international standards referring to the above items.

INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE-3 (SCSI-3) –

Part 321: Block commands (SBC)

1 Scope

This part of ISO/IEC 14776 defines the command set extensions to facilitate operation of SCSI block devices.

It specifies the functional requirements for the SCSI-Block Command set (SBC). SBC permits that SCSI block logical units, such as flexible disks, rigid disks, optical disks, etc. be attached to computers, and it provides the definition for their use.

This standard defines a logical unit model for SCSI block logical units. Also defined are SCSI commands that apply to SCSI block logical units.

The clause(s) of this standard pertaining to the SCSI block device class, implemented in conjunction with the applicable clauses of ISO/IEC 14776-311, fully specify the standard command set for SCSI block devices.

The objectives of this standard are the following:

- a) permit an application client to communicate with a logical unit that declares itself to be a direct-access device, write-once device and optical memory device in the device type field of the INQUIRY command response data over an SCSI service delivery subsystem;
- b) define commands unique to the type of SCSI block devices;
- c) define commands to manage the operation of SCSI block devices;
- d) define the differences between types of SCSI block devices.

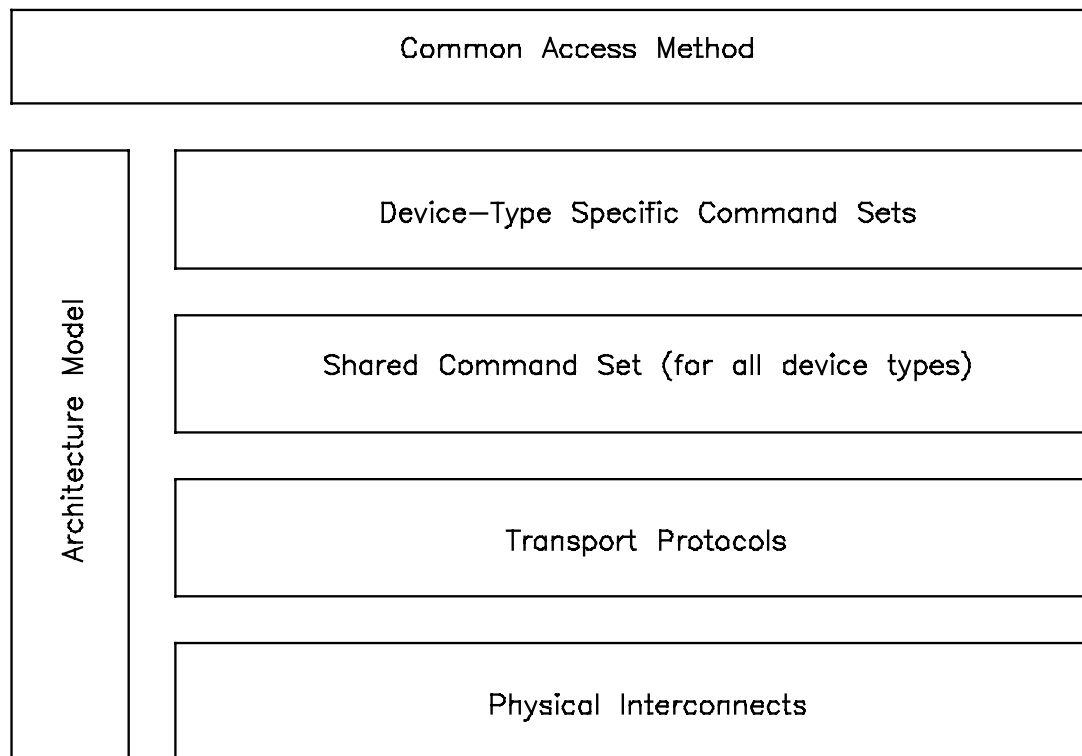


Figure 1 – SCSI standards – General structure

Figure 1 shows the general structure of SCSI standards. The figure does not imply a relationship such as a hierarchy, protocol stack, or system architecture. It indicates the applicability of a standard to the implementation of a given transport.

2 Normative references

2.1 Normative reference overview

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE The term SCSI is used wherever it is not necessary to distinguish between the different types of SCSI.

2.2 Approved references

ISO/IEC 9316:1995, *Information technology – Small Computer System Interface-2*

NOTE ISO/IEC 9316 is referred to herein as SCSI-2. The term SCSI-3 in this standard refers to different versions of SCSI defined since SCSI-2.

ISO/IEC 13614:1995, *Information technology – Interchange on 300 mm optical disk cartridges of the write once read multiple (WORM) type using the SSF method*

ISO/IEC 14776-341:2000, *Information technology – Small Computer System Interface-3 (SCSI-3) – Part 341: Controller Commands (SCC)*

ISO/IEC 14776-411:1999, *Information technology – Small Computer System Interface (SCSI-3) – Part 411: SCSI-3 Architecture Model (SCSI-3 SAM)*

ISO/IEC 10090:1992, *Information technology – 90 mm optical disk cartridges, rewritable and read only, for data interchange*

2.3 References under development

At the time of publication, the following referenced standards were still under development.

ISO/IEC 14776-311, – *Information technology – Small Computer System Interface-3 (SCSI-3) – Part 311: Primary Commands*

ISO/IEC 14776-351, – *Information technology – Small Computer System Interface-3 (SCSI-3) – Part 351: Medium Changer Commands*

ISO/IEC 14776-362, – *Information technology – Small Computer System Interface (SCSI 3) – Part 362: Multimedia commands-2 (MMC-2)*