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## Information technology – Small computer system interface (SCSI) – Part 453: Primary commands-3 (SPC-3)

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International Standard ISO/IEC 14776-453 was prepared by subcommittee 25: Interconnection of Information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 14776 series, under the general title *Information technology - Small computer system interface (SCSI),* can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies and the voting results may be obtained from the address given on the second title page.

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

## Introduction

ISO/IEC 14776-453: SCSI Primary Commands - 3 (SPC-3) standard is divided into the following clauses and annexes:

Clause 1 is the scope.
Clause 2 enumerates the normative references that apply to this standard.
Clause 3 describes the definitions, symbols and abbreviations used in this standard.
Clause 4 describes the conceptual relationship between this document and the SCSI-3 architecture model.
Clause 5 describes the command model for all SCSI devices.
Clause 6 defines the commands that may be implemented by any SCSI device.
Clause 7 defines the parameter data formats that may be implemented by any SCSI device.
Clause 8 defines the well known logical units that may be implemented by any SCSI device.
Annex A identifies differences between the terminology used in this standard and previous versions of this standard (informative).
Annex B describes the PERSISTENT RESERVE OUT command features necessary to replace the reserve/release management method and provides guidance on how to perform a third party reservation using persistent reservations (informative).
Annex C elaborates on the procedures for logging operations (informative).
Annex D lists code values in numeric order (informative).
Annex E lists assigned vendor identifiers (informative).

The annexes provide information to assist with implementation of this standard. The information in the annexes applies to all the SCSI command standards. See 3.1.18 for more information about other SCSI command standards.

# Information Technology - Small Computer System Interface (SCSI) -

## Part 453: SCSI Primary Commands-3 (SPC-3)

## 1 Scope

The SCSI family of standards provides for many different types of SCSI devices (e.g., disks, tapes, printers, scanners). This standard defines a device model that is applicable to all SCSI devices. Other SCSI command standards (see 3.1.18) expand on the general SCSI device model in ways appropriate to specific types of SCSI devices.

The set of SCSI standards specifies the interfaces, functions, and operations necessary to ensure interoperability between conforming SCSI implementations. This standard is a functional description. Conforming implementations may employ any design technique that does not violate interoperability.

This standard defines the SCSI commands that are mandatory and optional for all SCSI devices. Support for any feature defined in this standard is optional unless otherwise stated. This standard also defines the SCSI commands that may apply to any device model.

The following commands, parameter data, and features defined in previous versions of this standard are made obsolete by this standard:

a) Contingent Allegiance;
b) Untagged tasks;
c) The RESERVE(6) and RESERVE(10) commands;
d) The RELEASE(6) and RELEASE(10) commands;
e) The ELEMENT_SCOPE for Persistent Reservations;
f) The command support data (CMDDT) feature of the INQUIRY command;
g) The relative addressing (RELADR) bit in the standard INQUIRY data;
h) The Medium Partition mode pages (2), (3), and (4);
i) The Control mode page DISABLE QUEUEING bit;
j) Discussion of the SBC REBUILD, REGENERATE and XDWRITE EXTENDED commands; and
k) The ASCII Implemented Operating Definition VPD page.

Figure 1 shows the relationship of this standard to the other standards and related projects in the SCSI family of standards as of the publication of this standard.

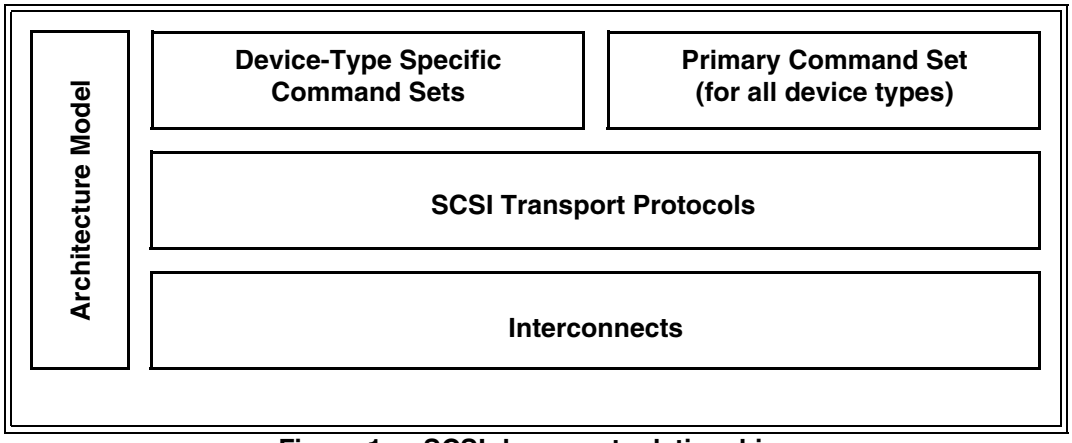


**Figure 1 — SCSI document relationships**

Figure 1 is intended to show the general relationship of the documents to one another. Figure 1 is not intended to 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.

The term SCSI is used to refer to the family of standards described in this clause.

## 2 Normative references

### 2.1 General

The following standards contain provisions that, by reference in the text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below.

### 2.2 Approved references

Copies of the following documents may be obtained from ANSI: approved ANSI standards, approved and draft international and regional standards (ISO, IEC, CEN/CENELEC, ITUT), and approved and draft foreign standards (including BSI, JIS, and DIN). For further information, contact ANSI Customer Service Department at 212-642-4900 (phone), 212-302-1286 (fax) or via the World Wide Web at http://www.ansi.org.

ISO/IEC 646:1991, *Information technology – ISO 7-bit coded character set for information interchange*

ISO/IEC 8859-1:1998, *Information technology – 8-bit single-byte coded graphic character sets – Part 1: Latin alphabet No. 1*

ISO/IEC 8859-2:1999, *Information technology – 8-bit single-byte coded graphic character sets – Part 2: Latin alphabet No. 2*

ISO/IEC 8859-3:1999, *Information technology – 8-bit single-byte coded graphic character sets – Part 3: Latin alphabet No. 3*

ISO/IEC 8859-4:1998, *Information technology – 8-bit single-byte coded graphic character sets – Part 4: Latin alphabet No. 4*

ISO/IEC 8859-5:1999, *Information technology – 8-bit single-byte coded graphic character sets – Part 5: Latin/ Cyrillic alphabet*

ISO/IEC 8859-6:1999, *Information technology – 8-bit single-byte coded graphic character sets – Part 6: Latin/ Arabic alphabet*

ISO/IEC 8859-7:1987, *Information processing – 8-bit single-byte coded graphic character sets – Part 7: Latin/ Greek alphabet*

ISO/IEC 8859-8:1999, *Information technology – 8-bit single-byte coded graphic character sets – Part 8: Latin/ Hebrew alphabet*

ISO/IEC 8859-9:1999, *Information technology – 8-bit single-byte coded graphic character sets – Part 9: Latin alphabet No. 5*

ISO/IEC 8859-10:1998, *Information technology – 8-bit single-byte coded graphic character sets – Part 10: Latin alphabet No. 6*

ISO/IEC 10646:2003, *Information technology – Universal Multiple-Octet Coded Character Set (UCS)*

ISO/IEC 13213:1994, *Information technology – Microprocessor systems – Control and Status Registers Architecture for microcomputer buses [ANSI/IEEE 1212, 1994 Edition]*

ISO/IEC 14165-251, *Information technology – Fibre Channel – Part 251: Framing and Signaling Interface (FC-FS) [ANSI INCITS 373-2003]*

ISO/IEC 14776-115, *Information technology – Small Computer System Interface (SCSI) – Part 115: SCSI Parallel Interface - 5 (SPI-5) [ANSI INCITS 367-2003]*

ISO/IEC 14776-150, *Information technology – Small Computer System Interface (SCSI) – Part 150: Serial Attached SCSI (SAS) [ANSI INCITS 376-2003]*

ISO/IEC 14776-222, *Information technology – Small Computer System Interface (SCSI) – Part 222: Fibre Channel Protocol for SCSI, second version (FCP-2) [ANSI INCITS 350:2003]*

ISO/IEC 14776-322, *Information technology – Small Computer System Interface (SCSI) – Part 322: SCSI Block Commands - 2 (SBC-2) [ANSI INCITS 405-2005]*

ISO/IEC 14776-381: 2000, *Information technology – Small computer system interface (SCSI) – Part 381: Optical Memory Card Device Commands (OMC)*

ISO/IEC 14776-412, *Information technology – Small Computer System Interface (SCSI) – Part 412: SCSI Architecture Model - 2 (SAM-2) [ANSI INCITS 366-2003]*

ISO/IEC 14776-413, *Information technology – Small Computer System Interface (SCSI) – Part 413: SCSI Architecture Model - 3 (SAM-3) [ANSI INCITS 402-2005]*

ISO/IEC 14776-452, *Information technology – Small Computer System Interface (SCSI) – Part 452: SCSI Primary Commands - 2 (SPC-2) [ANSI INCITS 351-2001]*

ISO/IEC 24739 (all parts), *Information technology – AT Attachment with Packet Interface - 7 (ATA/ATAPI-7) V1*

IEC 60027-2:2000, *Letter symbols to be used in electrical technology – Part 2: Telecommunications and electronics*

ANSI/IEEE 1394-1995, *High Performance Serial Bus*

ANSI/IEEE 1394a-2000, *High Performance Serial Bus (supplement to ANSI/IEEE 1394-1995)*

ANSI INCITS 4-1986 (R2002), *Information Systems – Coded Character Sets – 7-Bit American National Standard Code for Information Interchange (7-Bit ASCII)*

ANSI INCITS 309-1998, *Serial Storage Architecture SCSI-3 Protocol (SSA-S3P)*

ANSI INCITS 365-2002, *Information technology – Small Computer System Interface (SCSI) – Part 241: SCSI RDMA Protocol (SRP) [ISO/IEC 14776-241, under consideration]*

ANSI INCITS 375-2004, *Serial Bus Protocol - 3 (SBP-3)*

ANSI INCITS 382-2004, *Information technology – Small Computer System Interface (SCSI) – SCSI Media Changer Commands - 2 (SMC-2) [ISO/IEC 14776-352],*

ANSI INCITS 405-2005, *Automation/Drive Interface – Transport Protocol (ADT)*

ANSI INCITS 467, *Information technology – Small Computer System Interface (SCSI) – Stream commands-3 (SSC-3)* (to be published)