

From: Charles Monia
SAM Technical Editor

To: Members of X3T10

Subject: Definition of Mandatory and Optional Features in SAM (X3T10/94-172R1)

Background:

The purpose of this document is to formalize the working assumptions about how the content of SCSI-3 standards and implementations is controlled. I believe that control may be exercised either ad-hoc -- through the review of individual SCSI-3 standards -- or globally by establishing a precedence among standards and specifying a requirement in some normative standard (e.g., SAM). If this proposal is approved, I will prepare a follow-up proposal dealing with specific requirements now in SAM.

In response to the comments received on revision 0 of this proposal, I've limited the definition of 'mandatory' and 'optional' to items within an implementation -- where an implementation is some product claiming to comply with a standard. Assuming that the content of a standard will be driven by market requirements, I've proposed that, by default, a standard need not include definitions for optional items unless required by the committee directly or through some normative standard.

The practical effect of this proposal is that, if adopted, support for certain options within a standard, such as linked commands or command queuing, would no longer be implied (if it ever was). The committee may either address such issues individually for each standard or set forth a general requirement in an appropriate normative standard.

Proposal:

SAM shall be modified to contain the new requirements and definitions given below.

1. Definition of an SCSI-3 Standard.

Add the following definition to SAM:

"An SCSI-3 standard is any standard under the jurisdiction of X3T10 which claims to be compliant with SCSI-3 in some functional area.

The functional areas are those defined in 2, below."

2. Precedence of SCSI-3 standards:

The following precedence statement shall be included in SAM:

"A conflict between SCSI-3 standards shall be resolved in accordance with the following precedence:

1. SAM
2. Host Implementation Architectures (e.g., CAM)
3. SPC
4. Other SCSI-3 command standards
5. SCSI-3 Protocol standards
6. SCSI-3 Interconnect standards

Standards in a lower numbered category shall have precedence."

3. Requirements for a standard to comply with SCSI-3:

Add the following requirement to SAM:

"A standard claiming compliance with SCSI-3 in one of the functional areas defined above shall implicitly have as normative references all standards of overriding precedence."

4. Definition of option or optional (from SAM), included for information:

"option, optional: Implementation of the referenced item not required to claim compliance with an SCSI-3 standard."

5. Definition of "mandatory" (from SAM), included for information:

"mandatory: Implementation of the referenced item is required to claim compliance with the standard."

6. Inclusion of optional items in an SCSI-3 standard.

Add the following to SAM:

"An item is defined by a standard if the standard prescribes the requirements that apply to a product claiming to implement the item in accordance with the standard."

"Unless specified otherwise in a normative standard, the definition of an optional item by an SCSI-3 standard is optional."

7. Inclusion of mandatory items in an SCSI-3 standard.

Add the following to SAM

"The definition of a mandatory item by an SCSI-3 standard is mandatory."