ISO/IEC JTC 1/SC 32

Data Management and Interchange

Secretariat: United States of America (ANSI)
Administered by Pacific Northwest National Laboratory on behalf of ANSI

DOCUMENT TYPE	National Body Contribution
TITLE	US contribution in reference JTC1 Sophia-Antipolis Resolution #25 on "Standards Metadata"
SOURCE	U.S. National Body
PROJECT NUMBER	
STATUS	JTC 1 has asked SC 32 to consider a response to the JTC 1 Resolution 25. This is an offering from the US to start the discussion in SC 32. This will be discussed at the Santa Fe meeting.
REFERENCES	
ACTION ID.	COM
REQUESTED ACTION	
DUE DATE	
Number of Pages	23
LANGUAGE USED	English
DISTRIBUTION	P & L Members
	SC Chair
	WG Conveners and Secretaries

Date: 2002-12-10
Subject: US contribution in reference JTC1 Sophia-Antipolis Resolution #25 on "Standards Metadata"

The attached documents represent the US contribution in reference to the JTC1 Plenary Resolution

Resolution 51 - JTC 1 Representation to the Standards Registry Committee
JTC 1:
- Notes the Standards Metadata Specification (Document JTC 1 N 6877-2) developed by the Standards Registry Committee that is currently under review by Consortia and Fora (See document JTC 1 N 6877-3)
- Expresses its interest in the formalization of the Standards Metadata Specification as an ISO/IEC standard
- Assigns this potential work Item to SC 32 and encourages it to pursue whatever is the most appropriate approach for standardization. However, SC 32 will not be expected to populate and maintain the registry.
- Assigns Francois Coallier as its initial representative on this Committee until SC 32 appoints its own representative.
- Expresses its interest in providing a hosting site for an implementation of the Standards Metadata Specification for ICT standards through its Citation Analysis Rapporteur work and instructs the Citation Rapporteur to work with JTC 1's representative on this committee to explore, and implement if feasible.
Unanimous

In reference to bullet item #3 ("Assigns this potential work item to SC32 ..."), the attached PWI wording is proposed for discussion at the 2003-01 SC32 Plenary. The following are the supporting documents:
- Draft of PWI wording for "standards metadata".
- Presentation to ISO/ITSIG on "standards metadata".
- Call for comment notice of "standards metadata".
- Strawman draft of "standards metadata".

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal: 2002-12-05	Proposer: ISO/IEC JTC1/SC32
Secretariat: PNL/EPA National Body: US	**ISO/IEC JTC1 SC32 N**XXXX

Presentation of the proposal - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title : **Information Technology - Metadata for technical standards and specifications documents**
Scope (and field of application) The standard defines descriptive information that is particular to standards-like and specification-like documents. The standard reuses existing bibliographic standards and specifications. This standard addresses descriptive information that is particular to standards and specifications (e.g., consensus level, consensus recognition, etc.).
Purpose and justification: The purpose of the proposed standard to harmonize the several specifications regarding the metadata associated with standards.
Programme of work If the proposed new work item is approved , which of the following document(s) is (are) expected to be developed? ____ a single International Standard more than one International Standard (expected number: ....) __X__ a multi-part International Standard consisting of ....at least 4...... parts (Part 1: data model, Part 2: XML binding, Part 3: DNVP binding, Part 4: guidelines for implementation) ____ an amendment or amendments to the following International Standard(s) .... ____ a technical report , type ....
Relevant documents to be considered: ANSI report on Standards Registry
Liaison organizations ISO/TC46, OASIS, CEN/ISSS, ISO/CS, ISO/ITSIG
Preparatory work offered with target date(s) 2003Q1
Signature:
Will the service of a maintenance agency or registration authority be required? ....NO............. - If yes, have you identified a potential candidate? .... - If yes, indicate name .... Are there any known requirements for coding? .....NO................ -If yes, please specify on a separate page Does the proposed standard concern known patented items? ....NO........... - If yes, please provide full information in an annex

Comments and recommendations of the JTC 1 Secretariat - attach a separate page as an annex, if necessary

Comments with respect to the proposal in general, and recommendations thereon: It is proposed to assign this new item to JTC1/SC32

Voting on the proposal - Each P-member of the ISO/IEC joint technical committee has an obligation to vote within the time limits laid down (normally three months after the date of circulation).

Date of circulation: YYYY-MM-DD	**Closing date for voting:** YYYY-MM-DD	**Signature of JTC1/SC32 Secretary:** Doug Mann

NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA		
Criterion	**Validity**	**Explanation**
A Business Requirement		
A.1 Market Requirement	Essential _X__ Desirable ___ Supportive ___	
A.2 Regulatory Context	Essential ___ Desirable ___ Supportive ___ Not Relevant _X_	
B. Related Work		
B.1 Completion/Maintenance of current standards	Yes ___ No _X_	However, existing metadata standards and specifications will be used, referenced, and applied.
B.2 Commitment to other organization	Yes _X_ No ___	Strong coordination required with ISO/TC46, CEN/ISSS, OASIS, ISO/CS, ISO/ITSIG.
B.3 Other Source of standards	Yes _X__ No ___	These specifications are being consolidated into an official ISO/IEC standard.
C. Technical Status		
C.1 Mature Technology	Yes _X_ No___	Relatively mature technology (3-5 years) of industry practice.
C.2 Prospective Technology	Yes ___ No_X_	
C.3 Models/Tools	Yes ___ No_X__	
D. Conformity Assessment and Interoperability		
D.1 Conformity Assessment	Yes ___ No _X_	Conformance is important to any standard. However, this standard is unlikely to supply any conformity assessment methods or techniques.

D.2 Interoperability	Yes _X_ No___	Interoperability is critical to the project. Machine interpretation of the data is a critical feature. We are addressing this problem by creating separate data model and binding standards.
E. Other Justification		

Notes to Proforma

A. Business Relevance. That which identifies market place relevance in terms of what problem is being solved and or need being addressed.

A.1. Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.

A.2 Technical Regulation. If a Regulatory requirement is deemed to exist - e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard - the proposer shall identify this here.

B. Related Work. Aspects of the relationship of this NP to other areas of standardization work shall be identified in this section.

B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.

B.2 External Commitment. Groups, bodies, or fora external to JTC 1 to which a commitment has been made by JTC for cooperation and or collaboration on this NP shall be identified here.

B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.

C. Technical Status. The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.

C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardization.

C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.

C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.

D. Any other aspects of background information justifying this NP shall be indicated here.

D. Conformity Assessment and Interoperability

D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.

D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan.
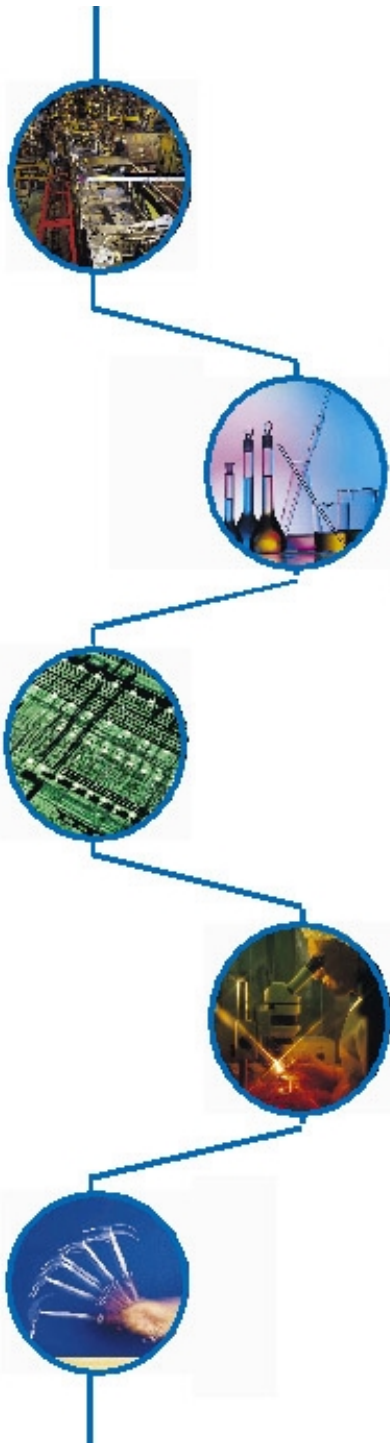
Standards Metadata Specification

➢ Bob Hager

Director of Publishing

Standards Metadata Specification

- Who: Reps from many types of SDOs and users

- What: harmonized set of standards metadata elements

- Why:

  - For SDOs: enhance collaboration between all SDOs, reducing duplicative work

  - For users: more easily learn about standards being developed, increasing involvement and quality

- Status: Public review of v3.0 definition of elements.

Details in ITSIG Documents

- 2003 ITSIG Business Plan: P.4.1.1

- ITSIG XML Projects/XML/03.Documents:
  - ITSIG XML 01/2002: Overview – Call for Comment Notice
  - ITSIG XML 02/2002: v3.0 of Elements Definition

APPROACH

- Simplicity: as few elements as possible to encourage ease of adoption

- Flexibility: account for the metadata needs of majority of SDOs

- Leverage existing metadata standards, including:

  Dublin Core v1.1   ANSI NSSN
  ISO ISONET   Diffuse.org
  OASIS DocBook   NIST Standards Roadmap

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Metadata Specification v3.0 Overview

- **16 elements**
  - Significantly harmonized with Dublin Core Metadata Element Set v1.1
- **10 attributes per element**
  - Same attributes as Dublin Core v1.1, partially based on ISO 11179-3
  - 7 vary by element, 3 common to all

Specification Summary (details in v3.0 document)

Element Names

+ Designation	+ Current Status
+ Title	+ Date of Most Recent Action
+ Description	+ Referenced Standards
+ Identifier	+ Replaces
+ Name of SDO	+ Related resources
+ SDO Committee	+ Format
+ SDO Information	+ Language
+ Subject	+ Rights Management

Attributes for each element (variable)

+ Name	+ Comment	+ Max Occurrence
+ Identifier	+ Datatype	
+ Definition	+ Obligation	

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Examples of Usage Guidelines / Open Issues (from "Comment" Attribute)

- Current Status: committee suggests mapping of multiple SDOs stages to 5 simplified stages
- Subject (taxonomy): user to define scheme used and ID
- Treatment of one document with 2 different designations (e.g. ISO 177799:2000 / BSI 7799-1:1999)
- Treatment of multi-lingual standards vs. separate language versions.
- Treatment of archival records: "Withdrawn" status? "Is Replaced By" element?

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PUBLIC REVIEW PROCESS

- Organizations:
    - ANSI SDOs (Organizational Member Forum)
    - ISO and IEC
    - NIST Special Publication 806: "Standards Activities of Organizations in the United States"
    - CEN/ISSS Survey of Standards-Related Fora and Consortia
    - Diffuse.org Standards Fora
- Sufficient to describe your work? Elements missing or too many? Definitions clear? Usage challenges?

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JTC 1 COORDINATION

- Resolution 49 (October 21-25, 2002 Plenary)

- Interest in formalizing specification as ISO/IEC standard under SC 32. François Coallier as initial representative.

- Interest in implementing metadata spec for ICT standards in coordination with Citation Analysis Rapporteur work.

Next Steps

- Comment resolution: Continue to refine metadata semantics and data representation; achieve next level of detail in best practices/usage guidance.

- XML implementation

- Encourage SDOs to pilot the representation of their data using spec and exchanging data with others.

- Identification of methods to allow users to query a set of registries with metadata conforming to specification.

CALL FOR COMMENT
on Standards Metadata Specification
Comments Due by December 31, 2002

Dear ANSI Organizational Member Forum Participants:

The Standards Registry Committee is soliciting your comments on a specification for standards metadata. Metadata is "data about data". The most common example of metadata is the information you would find on a library index or catalog card: Title, Author, Publisher, etc. In this case, it is a set of fields (elements) that can be used to describe the standards developed by a wide range of standards developing organizations. Our draft standards metadata specification is now being submitted for public review, and we would like to solicit your organization's assistance in this review process. In order to ensure widespread use of this specification, it is important that we receive input from as many different standards developing organizations as possible.

About the Standards Registry Committee

This standards metadata specification was developed by an informal Standards Registry Committee, an ad hoc group made up of a wide range of representatives from the standards community, including extensive participation by ANSI Members, particularly ANSI Accredited Standards Developers. The Standards Registry Committee does not operate under the formal process of any organization. More information about the committee may be found at http://www.ansi.org/Public/Stdsreg/stdsreg.html, including meeting minutes, mail list archive, draft documents, and presentations.

Our goals

The primary goal of the Standards Registry Committee is to develop a metadata specification that will promote the exchange of information among organizations developing standards within the formal standards process and consortia.

Our further goal is to make available to the public more coherent and systematic information about these organizations' activities. Furthermore, this effort is intended to:

+ increase collaboration among a variety of standards developing organizations;
+ encourage the development of interoperable specifications;
+ increase participation in standards efforts; and
+ encourage adoption of completed specifications by users.

Deliverable and implementation

Our primary deliverable is a standards metadata specification that can be used to briefly describe the specifications that your organization develops. Our goal is to have each organization developing standards describe their technical work using this metadata standard and provide these brief descriptions through registries.

Once standards using this metadata specification have been described consistently across organizations, it will be far more efficient and far less costly to exchange information among these organizations. In turn, widespread adoption of a harmonized description of standards can facilitate improved searching for standards across distributed standards registries.

Benefits for Standards Bodies and Users

The benefit in using this metadata specification for your organization and other standards bodies is that you can more easily discover what other organizations are working on, which will lead to an increase in cooperative efforts and a reduction of duplicate work.

The benefit to users and implementers of your specifications is that they can more easily find out what specifications are being developed by a range of organizations and therefore increase their involvement in standards development efforts of interest to them. This will subsequently increase the quality and adoption of specifications.

More about the specification

To date, the standards metadata specification consists of a list of 16 fields or elements that is entitled "Standards Metadata Element Set, v3.0". These elements are closely harmonized with the Dublin Core Metadata Element Set, Version 1.1 (http://dublincore.org/documents/dces/). More general information about the Dublin Core initiative can be found at http://dublincore.org/. Each element is further described by a set of attributes (also based on Dublin Core Metadata Element Set, Version 1.1).

The "Definition" and "Comment" attributes provide most of the detail regarding the intended use of each element and may also suggest usage issues that require further exploration.

This Standards Metadata Element Set, v3.0 can be downloaded at:

http://www.ansi.org/rooms/room_5/public/pdf/StandardsRegMetadataDef.pdf

It is available in Adobe Acrobat PDF format. In order to read PDF files, you will need to install the free Acrobat PDF Reader application available at:

http://www.adobe.com/products/acrobat/readstep2.html

Submitting your comments

We are primarily interested in learning if the Standards Metadata Element Set, v3.0 is adequate to describe your standards development work. Specifically, it would be very helpful to know the following:

+ are there too many (or too few) elements?

+ are the definitions of the elements clear?

+ what specific challenges you anticipate in the use of these elements as they are currently described?

+ other considerations in the deployment and maintenance of the registries based on this metadata specification

+ how likely is it that your organization would use this specification?

Please submit your comments by replying to this e-mail (bhager@ansi.org) on or before December 31, 2002. As much as possible, be specific in citing which element or elements you are commenting on.

Thank you in advance for your valuable input.

The Standards Registry Committee

Standards Metadata Element Set, v3.0

(Column headings are Dublin Core v1.1 attributes, with the exception of the column heading "Mapping to Dublin Core v1.1". See attribute definitions in Notes below.)

Name	Identifier	Definition	Comment	Datatype	Obligation	Maximum Occurrence	Mapping to Dublin Core v1.1
Designation	Designation	A unambiguous identifier for the standard	Usually consists of one or more of the following elements: SDO Name or Acronym, Document Number, Date. Examples: ISO 9000-1:2000, ASTM D5966-99. A provision will need to be made to handle standards that are the same or nearly equivalent that carry different designations. Example: The standard "Code of practice for information security management" is known as both ISO 17799:2000 and BSI 7799-1:1999.	Character String	Optional, unless there is no document title	Once	Identifier
Title	Title	Name by which the standard is formally known.		Character String	Mandatory	Once	Title
Description	Description	An account of the content of the standard.	May include but is not limited to an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.	Character String	Optional	Once	Description
Identifier	Identifier	An unambiguous reference to the standard within a given context.	Recommended best practice is to identify the standard by means of a string or number conforming to a formal identification system. This differs from the Designation, which follows a scheme particular to the SDO. Example of formal identification systems include the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI) or the International Standard Book Number (ISBN).	Character String	Optional	Once	Identifier
Name of Standards Developing Organization (SDO)	SDOName	Name of the standards developing organization primarily responsible for developing the content of the standard.	To provide for identical acronyms for different organizations, the full name of the organization should be used with the acronym of the organization following in parenthesis. Note that some organizations use only their acronym, such as ASTM. In the case of shared standards, the names of more than one organization may need to be included.	Character String	Mandatory	Once	Creator or Publisher

Name	Identifier	Definition	Comment	Datatype	Obligation	Maximum Occurrence	Mapping to Dublin Core v1.1
SDO Committee	SDOCommittee	Name of committee (and subcommittee and working group, if applicable)		Character String	Optional	Once	Creator or Publisher
SDO Information	SDOInfo	Additional information about SDO (contact names, addresses, phone, e-mail, etc.)	Most likely expressed as URL to most appropriate web resource supplying this more detailed SDO information.	Character String	Optional	Unlimited	
Subject	Subject	The topic of the content of the document	Typically expressed as keywords, key phrases or classification codes that describe the topic of the standard. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme. When using classification scheme, need provision to cite both scheme used and the specific classification identifier.	Character String	Optional	Unlimited	Subject with SCHEME Qualifier (Diffuse, ICS?)
Current status	CurrentStatus	Current document development status.	Five stages: "Project Initiation" (no draft available), "Draft Available" (draft available for comment), "Preliminary Approval" (any level of approval prior to Final Approval"), "Final Approval" (final approval), and "Published" (final approved version available for distribution)	Character String	Mandatory	Once	Type with Private SCHEME Qualifier
Date of Most Recent Action	DateofAction	Date that document achieved the development stage shown in Current Status element.		Date, YYYY-MM-DD	Optional	Once	Date
Referenced standards	ReferencedStnds	Normative references from/in this standard.		Character String	Optional	Unlimited	Relation.References
Replaces	Replaces	Standard(s) most recently replaced by this standard.		Character String	Optional	Unlimited	Relation.Replaces
Related resources	Related	Other informative (non-normative) related resources, such as endorsements/ adoptions, regulations, etc.		Character String	Optional	Unlimited	

Name	Identifier	Definition	Comment	Datatype	Obligation	Maximum Occurrence	Mapping to Dublin Core v1.1
Format	Format	The physical or digital manifestation of the document.	Format may include the media-type or dimensions of the resource. Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).	Character String	Optional	Unlimited	Format
Language	Language	A language of the intellectual content of the standard.	Recommended best practice is to use RFC 3066 [RFC3066], which, in conjunction with ISO 639 [ISO639], defines two- and three-letter primary language tags with optional subtags. Examples include "en" or "eng" for English, "akk" for Akkadian, and "en-GB" for English used in the United Kingdom. More than one language can be cited for standards that contain more than one language in a single document. Different language versions of a standard should be treated as separate records.	Character String	Optional	Unlimited	Language
Rights Management	Rights	Information about rights held in and over the standard.	Typically a Rights element will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the rights element is absent, no assumptions can be made about the status of these and other rights with respect to the standard.				Rights

Name	Identifier	Definition	Comment	Datatype	Obligation	Maximum Occurrence	Mapping to Dublin Core v1.1
NOTES							
Dublin Core v1.1 Attribute Definitions							
Name: the label assigned to the data element. Will change with language change to metadata element, unlike Identifier							
Identifier: the unique identifier assigned to the data element. Does not change regardless of language of metadata.							
Definition: semantic concept; a statement that clearly represents the concept and essential nature of the data							
Comment: a remark concerning the application of the data element							
Datatype: indicates the type of data that can be represented in the value of the data element.							
Examples of datatypes: Character, Ordinal Number, Integer, Character String							
Obligation: indicates if the data element is required to always or sometimes be present (contain a value). Mandatory, Conditional, or Optional							
Maximum Occurrence: indicates any limit to the repeatability of the data element							
Version: the version of the data element							
Language: the language in which the data element is specified							
Registration Authority: the entity authorized to register the data element							
The following Dublin Core v1.1 attributes are currently the same for every element:							
Version: same as version of metadata standard							
Registration Authority: to be determined							
Language: en (English)							