

ISO/IEC JTC 1/SC 32 N 0321

Date: 1999-05-27

REPLACES: --

<p>ISO/IEC JTC 1/SC 32</p> <p>Data Management and Interchange</p> <p>Secretariat: United States of America (ANSI)</p> <p>Administered by Pacific Northwest National Laboratory on behalf of ANSI</p>
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DOCUMENT TYPE	Proposed NP (proposal under review by WG or SC)
TITLE	Proposal for MetaData Query Service – An Object Technology Extension to the ISO/IEC 11179 Specification.
SOURCE	SC 32/WG 2
PROJECT NUMBER	
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Douglas Mann, Secretariat, ISO/IEC JTC 1/SC 32

Pacific Northwest National Laboratory *, 901 D Street, SW., Suite 900, Washington, DC, 20024-2115,
United States of America

Telephone: +1 703 575 2114; Facsimile: +1 703 681 9180; E-mail: MannD@battelle.org

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NEW WORK ITEM PROPOSAL

Proposer Thomas C. Culpepper	Date of proposal 1999-05-27
TC/SC SC32	Secretariat ISO/IEC JTC1 SC 32 WG2
Date of circulation	Closing date for voting

A proposal for a new work item within the scope of an existing technical committee or subcommittee shall be submitted to the Central Office. The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information. The proposer may be a National Committee of the IEC, the secretariat itself, another technical committee or subcommittee, an organization in liaison, the Committee of Action or one of the advisory committees, or the General Secretary. Guidelines for proposing and justifying a new work item are given in ISO/IEC Directives, Part 1, Annex Q (see extract overleaf). **This form is not to be used for amendments or revisions to existing publications.**

The proposal (to be completed by the proposer)

Title of proposal

MetaData Query Service – An Object Technology Extension to the ISO/IEC 11179 Specification.

Standard Technical Report

Scope (as defined in ISO/IEC Directives, Part 3, 6.2.1)

This is an object technology extension to the ISO/IEC 11179 Specification and focuses upon the need to exploit the behavior of the existing standard through a well-defined interface.

Purpose and justification, including the market relevance and relationship to Safety (Guide 104), EMC (Guide 107), Environmental aspects (Guide 109) and Quality assurance (Guide 102) . (attach a separate page as annex, if necessary)

Specific aims:

International Standard ISO/IEC 11179, parts one to six, *Information technology — Specification and standardization of data elements*, developed by ISO/IEC JTC1/SC 14 Data Element Principles, describes the attribution, classification, definition, naming, identification, and registration of data elements.

The ISO/IEC 11179 Specification provides naming, definitions, and the specification of data element attributes but does not provide an interface that allows for interoperability in a distributed environment.

This interface will be a specification of the boundary of metadata registries in terms of the possible interactions and properties that are visible across the metadata registry boundary. A particular application will then be able to interoperate with another application by calling the services named in the interface.

Main interest:

This standard will further expand upon the 11179 so that Electronic Data Interchange (EDI) data element designers', software engineers, and end-users can understand the behaviors that the metadata registry carries out and the parts of the system responsible for these behavior.

All domains of business that need to store and disseminate information about information will benefit. One such area of interest arises from a need to provide common information models for domains such as medicine. These common information models can be stored in metadata registries whereby a common interface could provide the necessary behaviors for assisting in the manipulation of a particular common information model.

Feasibility:

In order to accomplish this it will be necessary to define objects that are themselves descriptions of sets of behaviors that occur in relationship to the real world uses of a metadata registry. Objects provide a tractable way of organizing the complexity of a particular domain, in this case metadata registries. Consequently, in order to subsume the true benefits of object technology every object has a well-defined interface that

specifies the behavior of the object in a manner that is independent of its implementation. This interface defines a collection of services that can be invoked by other objects. The implementation of an object describes how to carry out its services.

The following service areas will be defined, high volume on-line services such as translation, inference, presentation, and perusal and browsing services as a means of understanding the content and structure of specific metadata.

Timeliness:

There exist many fronts where metadata is being utilized and the need for a standard interface is most likely past due. For example, case tools, and distributed object repositories.

Urgency:

Without a standard it is more likely that proprietary solutions will emerge. It is anticipated that as the industry turns to distributed object computing for enterprise interoperability metadata registries will begin to play a major role, consequently, there must exist a standard interface to these registries to help offset the costs associated with the potential emergence of proprietary solutions.

Benefits:

This interface will determine the external view of metadata, what it is, and how it will act and react.

This interface will document what it does, not how it does it.

The behaviors of this interface will be captured in Interface Definition Language (IDL). IDL provides the standard interface between objects, and is the base mechanism for object interaction.

Existing regulations:

Not applicable.

Other:

A first draft proposal for this standard is attached. It contains a discussion section as a focal point for members to review. It is meant to be a working document that will live in parallel with the standards work.

Target date	for first CDJuly1999.....	for ISMay2000?.....
Estimated number of meetings 3	Frequency of meetings 2 per year	Date and place of first meeting: February 9-11, 1999.....
Proposed working methods	<input checked="" type="checkbox"/> E-mail	<input checked="" type="checkbox"/> ftp

Relevant documents to be considered

ISO/IEC 11179

<ftp://sdct-sunsv1.ncsl.nist.gov/x318/x318docs/11179>

Metamodel for the Management of Shareable Data

<ftp://sdct-sunsv1.ncsl.nist.gov/x318/x318docs/x3.285/docs/dpX3-285.doc>

Lexicon Query Service

<ftp://sdct-sunsv1.ncsl.nist.gov/x318/sc32wg2/projects/11179obj/LexiconQueryService.doc>

Relationship of project to activities of other international bodies

Object Management Group (OMG)
Health Level 7 (HL7)

Liaison organizations

1. Object Management Group (OMG)
2. Health Level 7
3. W3C

Need for coordination within ISO or IEC

Coordination with SC 32 will be required in order to stay in alignment with the national and international standards.

Preparatory work

Check one of the two following boxes

A draft is attached for vote comment

An outline is attached

We nominate a project leader as follows in accordance with ISO/IEC Directives, Part 1, 2.3.4 (name, address, fax and e-mail):

Thomas C. Culpepper
575 West Murray Blvd
Murray, Utah 84123-4611
801 265 4534
801 263-3553 Fax
tcculpepper@wpmail.code3.com

Harold R. Solbrig
575 West Murray Blvd
Murray, Utah 84123-4611
801 265 4312
801 263-3553 Fax
hrsolbrig@wpmail.code3.com

Concerns known patented items (see ISO/IEC Directives, Part 2)

yes

no

If yes, provide full information as an annex

Name and signature of the proposer

Thomas C. Culpepper

Comments and recommendations from the TC/SC officers

Comments with respect to the proposal in general, and recommendations thereon

1) Work allocation

Project team New working group Existing working group no:

2) Draft suitable for direct submission as

CD CDV

3) General quality of the draft (conformance with ISO/IEC Directives, Part 3)

Little redrafting needed Substantial redrafting needed no draft (outline only)

4) Relationship with other activities

In IEC

In other organizations

Other remarks

Elements to be clarified when proposing a new work item

Title

Indicate the subject matter of the proposed new standard.

Indicate whether it is intended to prepare a standard, a technical report or an amendment to an existing standard.

Scope

Give a clear indication of the coverage of the proposed new work item and, if necessary for clarity, exclusions.

Indicate whether the subject proposed relates to one or more of the fields of safety, EMC, the environment or quality assurance.

Purpose and justification

Give details based on a critical study of the following elements wherever practicable.

- The specific aims and reason for the standardization activity, with particular emphasis on the aspects of standardization to be covered, the problems it is expected to solve or the difficulties it is intended to overcome.
- The main interests that might benefit from or be affected by the activity, such as industry, consumers, trade, governments, distributors.
- Feasibility of the activity: Are there factors that could hinder the successful establishment or general application of the standard?
- Timeliness of the standard to be produced: Is the technology reasonably stabilized? If not, how much time is likely to be available before advances in technology may render the proposed standard outdated? Is the proposed standard required as a basis for the future development of the technology in question?
- Urgency of the activity, considering the needs of the market (industry, consumers, trade, governments etc.) as well as other fields or organizations. Indicate target date and, when a series of standards is proposed, suggest priorities.
- The benefits to be gained by the implementation of the proposed standard; alternatively, the loss or disadvantage(s) if no standard is established within a reasonable time. Data such as product volume or value of trade should be included and quantified.
- If the standardization activity is, or is likely to be, the subject of regulations or to require the harmonization of existing regulations, this should be indicated.

If a series of new work items is proposed, the purpose and justification of which is common, a common proposal may be drafted including all elements to be clarified and enumerating the titles and scopes of each individual item.

Relevant documents

List any known relevant documents (such as standards and regulations), regardless of their source. When the proposer considers that an existing well-established document may be acceptable as a standard (with or without amendments), indicate this with appropriate justification and attach a copy to the proposal.

Cooperation and liaison

List relevant organizations or bodies with which cooperation and liaison should exist.

Preparatory work

Indicate the name of the project leader nominated by the proposer.