

## ISO/IEC JTC 1/SC 32

## Data Management and Interchange

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## 1. Namespaces in WG3 Standards

In the brave not-so-new world of the Internet and the World Wide Web, particularly with the increasing usage of XML, XHTML, RDF, and the like, it has become necessary for many specifications to consider the use of a *namespace* to help uniquely identify certain objects defined by those specifications.

For example, ISO/IEC 9075-14, *Information technology – Database languages – SQL – Part 14: XML-Related Specifications (SQL/XML)*, defines an XML Schema that defines types and notations used in 9075-14. The XML Schema defines a *target namespace*, which is in this case “<http://standards.iso.org/iso/9075/2003/sqlxml>”. That specific target namespace was assigned by ITTF prior to the publication of ISO/IEC 9075-14:2003 after negotiation with the project editor. (The project editor believes that ITTF created the server URI [standards.iso.org](http://standards.iso.org) specifically in response to the request to establish a namespace URI for 9075-14.)

Other ISO standards that define namespaces in the ISO space include ISO 14688, a standard developed by ISO TC 211. That standard provides a namespace XML Schema document (actually, several) located “at” the target namespace URI. It is common practice for namespace creators to provide a namespace document – preferably both machine-readable and human-readable – at a location to which the target namespace URI resolved. ISO/IEC 9075-14 has followed that practice.

It is worth noting that namespaces need not be created as XML namespaces with or without accompanying namespace documents. In a certain sense, a “namespace” is nothing more than a context within which a name is unique or, equivalently, uniquely identifies some entity.

## 2. GUIDELINE: Creation of Namespaces for WG3 Standards

When a standard, technical report, or similar document being developed as part of a project assigned to Working Group 3 requires definition of an namespace, this guideline *shall* apply.

The structure of the *namespace name* (that is, the namespace URI) *shall* be:

`http://standards.iso.org/iso/nnnnn/yyyy/string`

or:

`http://standards.iso.org/iso/nnnnn/yyyy/mm/string`

where “*nnnnn*” is the four- or five-digit standard or TR number assigned to the document, “*yyyy*” is the year of publication<sup>1</sup> (and, if used, “*mm*” is the month of publication<sup>2</sup>) of the standard or TR, and “*string*” is a unique string mnemonic of the document or the specific purpose of the namespace. (An example currently in use is <http://standards.iso.org/iso/9075/2003/sqlxml>) The unique string should be kept reasonably short and shall use no characters<sup>3</sup> other than A-Z, a-z, 0-9, hyphen ( - ), and underscore ( \_ ).

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<sup>1</sup> During development of a standard or a TR, it is frequently impossible to predict the year in which the document will be finalized. It is acceptable for interim namespace URIs to be created using a “*yyyy*” value corresponding to another year (*e.g.*, the year in which a given Working Draft, Committee Draft, *etc.*) is published. However, the guideline specified in Section 3 should be kept in mind.

<sup>2</sup> Use of the “*mm*” value is prohibited for the namespace URI defined as part of a published standard. Use is optional for namespace URIs defined in Working Drafts, but *discouraged* for use in any ballot document (*e.g.*, Committee Draft).

<sup>3</sup> Namespace URIs, unlike ordinary Web URIs, are case-sensitive.

### 3. GUIDELINE: Maintenance of Namespaces for WG3 Standards

From time to time – such as when a revision of a standard or TR is published or such a document progresses through various stages of processing – the definition of namespace URIs *must* be reconsidered. If the content of a namespace has changed in a significant<sup>4</sup> way, then a new namespace name *must* be created (in which case, the guideline defined in section 2 applies). If the content of a namespace has changed, but not in a significant way, then a new namespace name *should not* be created<sup>5</sup>.

Under no circumstances shall any existing namespace, once published (even as a Working Draft), be “removed”, nor shall any corresponding namespace documents be removed or deleted. However, namespace documents *may* be updated to reflect editorial changes and *should be* updated to reflect additions that have been determined to be not significant changes.

### 4. GUIDELINE: Responsibility for Namespaces for WG3 Standards

The project editor *should* normally be the individual assigned responsibility for creation and maintenance of all namespaces associated with a given project. Circumstances may dictate that some other individual (*e.g.*, the Working Group Convenor) be assigned that responsibility.

The responsible person must contact ITTF<sup>6</sup> to request an account on <http://isotc.iso.ch/livelink/livelink.exe> (“LiveLink”). Once the account has been created, the project editor is able to create new directories (within the space corresponding to the document number) corresponding to the namespace URIs and to upload namespace documents to those directories. The structure of the directory paths *shall* be identical to the namespace URIs with the trailing “/sssss” removed.

In the directories that have been created, one file *shall* be uploaded. That file *should* have the name “sssss” and *should* be considered to be the official namespace document. It may be a RDDDL document (preferred), an actual schema document, or a natural language document. If there is a schema definition (using one of several well-known schema definition languages, including – but not limited to – XML Schema, XML DTD, and RELAX NG) corresponding to the namespace being defined, a second file containing that schema definition *should* be uploaded as well. That second document *should* have the name “sssss.ext” (where “ext” is a filename extension consistent with the specific schema definition document contained within the file – “xsd” for XML Schema documents, “dtd” for XML Document Type Definition documents, *etc.*).

It is *recommended* that a third file be uploaded to the same directories, with a name that describes the type and purpose of the document (*e.g.*, “XML Schema document for the yyyy edition of the *name\_of\_standard* namespace”). The content of that file *may* be identical to the namespace document or to the schema document, or *may* be something else entirely, as long as it matches the expectations of a reasonable user.

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<sup>4</sup> A *significant* change to the content of a namespace includes all changes to existing objects in the namespace that would render an existing use of the namespace incompatible. This specifically includes deletion of objects in the namespace, renaming such objects, changing the types of such objects, and the like. It may or may not include the addition of new objects in the namespace. Whether or not such additions are significant is a decision best made by the authors of the standard or TR.

<sup>5</sup> New namespace names should not be created when no significant change has been made to the namespace content because existing implementations and users of the standard depend on “knowing” the content of the namespace. Changing the namespace name gratuitously causes those implementations and applications to become outdated or invalidated without a compensating benefit.

<sup>6</sup> Unfortunately, the specific person responsible for this activity changes from time to time. The ISO editor responsible for the project should be able to direct the project editor to the right person.