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STS: Standards Tag Suite

Abstract: The Standards Tag Suite (STS) provides a common XML format that developers, publishers, and distributors of standards, including national standards bodies, regional and international standards bodies, and standards development organizations, can use to publish and exchange full-text content and metadata of standards. STS is based on ANSI/NISO Z39.96 (JATS). Structures are provided to encode both the normative and non-normative content of: standards, adoptions of standards, and standards-like documents that are produced by standards organizations.

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Foreword

(This Foreword is not part of ANSI/NISO Z39.102-2017, STS: Standards Tag Suite (Version 1.0). It is included for information only.)

About This Standard

This is the first edition of this standard. In addition to the element and attribute descriptions, two standards tag sets have been provided as part of NISO STS.

This NISO STS standard is based on the International Organization for Standardization (ISO) Standard Tag Set (ISO STS, version 1.1). NISO STS 1.0 is a fully backwards-compatible superset of ISO STS 1.1. Therefore, any document that is valid to ISO STS 1.1 will be valid to NISO STS 1.0, by changing only the document type declaration (or other schema identification mechanism) and the attribute on the top level element (<standard>).

ISO STS was based on version 0.4 (Publishing) of the Journal Article Tag Suite (JATS), now known in its updated form as ANSI/NISO Z39.96. The current NISO STS standard is based on ANSI/NISO Z39.96-2015, which is based on the National Library of Medicine (NLM) Journal Archiving and Interchange Tag Suite, created by The National Center for Biotechnology Information (NCBI): <https://www.ncbi.nlm.nih.gov> of the National Library of Medicine (NLM): <https://www.nlm.nih.gov>. The NLM Tag Suite was developed as an update of a Document Type Definition (DTD) used by the NCBI/NLM PubMed Central project to archive life science journals from a variety of sources. Input and support from Harvard University Libraries, as well as support from The Andrew W. Mellon Foundation and collaboration with Inera, Inc. and Mulberry Technologies, Inc., allowed the scope of that project to be broadened and resulted in the NLM Journal Archiving and Interchange Tag Suite.

Work on the NISO STS models and documentation, in support of NISO and the NISO STS Committee, was performed by Mulberry Technologies, Inc. Mulberry Technologies' work was supported by ASME (American Society of Mechanical Engineers) and ASTM International.

STS 1.0 and Continuous Maintenance

As JATS 1.0 was released by ANSI/NISO in August 2012 and immediately put into continuous maintenance mode, so is the intent with NISO STS. Information, including action minutes from the meetings that have led to the release of STS version 1.0, may be found at: <http://www.niso.org/workrooms/sts/>.

Instructions for Submittal of Proposed Changes to ANSI/NISO Z39.102-2017 Under Continuous Maintenance

If a provision of the standard is proposed for addition, deletion, or modification, the text of the provision must be submitted in writing. Comments or proposals for revision to any part of the standard may be submitted to NISO at any time. When possible, such proposals should be accompanied by examples. Submissions must be accompanied by the submitter's name, affiliation, telephone number, and email address. Comments may be submitted to NISO online at: <http://www.niso.org/workrooms/sts/>. The STS Standing Committee will review suggestions at least once a year.

Trademarks, Service Marks

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Acknowledgments

During the course of the NISO STS Committee work, a few committee members departed for various reasons. We would like to acknowledge appreciation for their contributions, and for contributions by all the NISO STS Committee Members. Original members who were no longer with the Steering or Technical Committees at the time of the vote include Matt Brown, BSI Standards Limited; Keith Doubleday, IHS; Becky Fadik, SAE International; and Karen Reczek, National Institute of Standards & Technology (NIST). The STS Working Group particularly

appreciates the helpful contributions of the late Linda Guard of U.S. Pharmacopeial Convention, who was a member of the group for several months at the start of the work. NISO and the working group are grateful to ISO for its support of this project. Special thanks are due to Trevor Vyze, David Ratcliffe, Laurent Galichet, and Serge Juillerat. The working group thanks Todd Carpenter, Nettie Lagace, and the staff of NISO for their help and support in this project.

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At the time NISO approved this standard, the following organizations were members of the NISO voting pool that approved this standard.

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NISO STS Technical Committee

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NISO STS: Standards Tag Suite

1 Purpose

The purpose of the NISO Standards Tag Suite (NISO STS) standard is to define a suite of XML elements and attributes that describes the full-text content and metadata of standards—including co-produced standards and standards bodies' adoptions of existing standards—with the intent of providing a common format in which standards organizations, publishers, disseminators, archives, and any lawful user can publish and exchange standards content.

The intent of the Tag Suite is to preserve the intellectual content of standards independent of the form in which that content was originally delivered. The Tag Suite enables the capture of structural and semantic components of material without modeling any particular sequence or textual format.

This standard includes two implementations of the suite, called “Tag Sets”—the Interchange Tag Set and the Extended Tag Set. These tag sets are built from the elements and attributes defined in the Suite and are intended to provide models for standards publishing and interoperability.

2 Background

At the end of 2011, the International Organization for Standardization (ISO) revamped its publishing systems and together with Mulberry Technologies, Inc., developed a derivative of JATS to be used for ISO standards publishing: the ISO STS (ISO Standard Tag Set). This DTD has been in full production since, with few changes. The DTD and documentation were made openly available at: <http://www.iso.org/schema/isosts/> and their open use was and is encouraged.

By 2015, several XML models were in use at different organizations to tag standards and standards-type information, including multiple models based on JATS (ANSI/NISO Z39.96-2012, JATS: Journal Article Tag Suite) and a number of other XML models that had been independently developed. This proliferation of non-standardized XML models for Standards made interoperability between organizations difficult, increased development costs, and required custom tools.

It was agreed that it would be beneficial to all stakeholders to move ISO STS toward standardization and create an official relationship with JATS. The two standards would then remain coupled and an XML solution for standards could be more easily adopted. It was considered that this initiative would result in greater interoperability and create a foundation for standards utility development, which in turn would aid stakeholders and end users and improve the overall future of standards publishing.

The NISO STS work item was approved by the NISO Content and Collections Management Topic Committee on June 26, 2015 and by NISO Voting Members on July 31, 2015.

3 Scope

The Standards Tag Suite defines elements and attributes that describe both the metadata and the full content of published normative standards documents. The Suite, while not specifically designed to describe handbooks, guidelines, other non-normative materials, or any particular publishing formats, may be usable for XML publication of some of these document types if an individual standards organization reviews their structures and determines that they can properly be tagged with STS. While some structures in these non-standards documents may be similar to structures in standards (and journal articles, since STS is based on JATS), other structures may be distinctly different and may not be handled by existing elements and attributes defined in the Tag Suite.

The Steering Committee made some early scope decisions:

- Make all reasonable efforts to keep NISO STS 1.0 backwards compatible with ISO STS version 1.1
- Version 1.0/Phase I of the Tag Suite will consider only normative documents (use of NISO STS for non-normative materials is not precluded, but work was not done to support non-normative documents)
- Version 1.0/Phase I of the Tag Suite will only consider current content/standards, not historical or back-content standards

- Work will be focused on the requirements of published documents (it will not focus on the needs of XML authoring or production, should they differ from final publication requirements)
- Design will not consider formatting, branding, or publisher-specific look and feel
- Supporting non-normative material for the Tag Suite will be available in DTD, XSD, and RelaxNG formats as well as Tag Library documentation (as has been the case for JATS and BITS)
- NISO STS will be based on the JATS 1.1 Publishing Model
- Separate tag sets will be available with MathML 2.0 and MathML 3.0 (because MathML 3.0 is not fully backwards compatible with MathML 2.0)
- There will be an XHTML-table-only tag set (the Interchange Tag Set) and an XHTML-and-CALS-table tag set (the Extended Tag Set)

The Tag Suite is the complete set of elements and attributes described in the standard. Along with these descriptions, the standard includes two discrete standards models or Tag Sets:

- The Interchange Tag Set (in MathML 2.0 and MathML 3.0 variants)
- The Extended Tag Set (in MathML 2.0 and MathML 3.0 variants)

The Tag Suite has been designed to be extensible. Any of the tag sets may be extended or restricted to meet the needs of a given project. A new tag set that is a subset of one of the tag sets described in the standard should be considered “conforming” to the standard. By definition, documents valid to such a conforming subset would also be valid according to the STS model on which the subset is based.

New tag sets may be built from the elements and attributes in the Tag Suite. Tag sets that add structures (elements and/or attributes) to those defined in the standard (leading to documents not valid according to one of the models in the standard) should be called “based on STS.” Such tag sets are not considered “conforming” to the standard.

Similarly, tag sets that extend or loosen the models described in the standard, such that documents valid to these new tag sets may not be valid according to one of the models in the standard, should be called “based on STS.” Such tag sets are also not considered “conforming” to the standard.

There are a number of items that have not been included in this standard but are included in the non-normative supporting information:

1. Schemas—The non-normative schemas (available in DTD, W3C Schema, and RELAX NG syntax) that represent the two Tag Sets in both MathML variants can be found on the STS hosted site:
<http://www.niso-sts.org>
2. Detailed Usage Information—A non-normative Tag Library will be produced and maintained to support the two NISO STS Tag Sets. The Tag Library will describe all of the structures in the Tag Suite. The structures that are available only in the Extended Tag Set will be identified each place that they are mentioned. The Tag Library can be found at: <http://www.niso-sts.org>
3. Non-normative XML-tagged examples are included in the Tag Library just described.
4. Details concerning MathML, the OASIS XML Exchange table model (based on the CALS table elements), and TBX are described in other standards. Specific instructions for using these elements should be retrieved from the original standards referenced in Section 5, Normative References. The default table model for both the NISO STS Tag Sets is based on, and designed to be converted easily to, the XHTML 1.1 table model. Details for the elements and attributes in the XHTML-inspired NISO STS/NISO JATS tables are provided in the STS Tag Library.

3.1 The Interchange Tag Set

The STS Interchange Tag Set provides a format in which standards organizations and publishers can deliver content to a range of other standards bodies and disseminators and into which distributors and licensees/users can more easily translate content from many standards organizations and publishers.

3.2 The Extended Tag Set

The STS Extended Tag Set builds slightly on the Interchange Tag Set, allowing both the XHTML and CALS table models to account for legacy publishing of intensive table information.

4 Application Note: Namespace for STS Elements

There is no default namespace required for the elements and attributes in the Standards Tag Suite. This has been done for two reasons:

1. The majority of the publishing consumers of STS are not using namespaces except for included vocabularies such as MathML; and
2. Introducing a default namespace would not be backwards compatible with ISO STS and would break the majority of existing ISO STS applications.

Although a default namespace is not required for STS, some users may wish to namespace STS elements and attributes in their application of the standard.

If a namespace is to be applied, the namespace URI should be "<http://www.niso-sts.org>", and the namespace prefix should be "niso-sts" or similar.

Using a namespace with STS will require a certain level of namespace and general XML sophistication. If it is done, it should be done in a manner that best facilitates interchange. The following items should be considered:

- The MathML namespace (and the OASIS Exchange table model namespace if appropriate) should be retained.
- When making HTML from STS, the STS table elements will need to be either stripped of the STS namespace or given their own HTML namespace. STS does not incorporate the XHTML 1.1 table model; it uses elements, attributes, and models inspired by and based on the XHTML 1.1 table model.

5 Normative References

This standard relies on the following documents. When cited in the text of this standard, a standard may be referenced solely by its number. Where no date is supplied, the most current version of the standard should be used.

OASIS TR 9901:1999, XML Exchange Table Model Document Type Definition, 29 September 1999.
<http://www.oasis-open.org/specs/tm9901.htm>

W3C. Extensible Markup Language (XML) 1.0, 10 February 1998.
<https://www.w3.org/TR/1998/REC-xml-19980210>

W3C. Mathematical Markup Language (MathML) Version 2.0 (Second Edition), 21 October 2003.
<https://www.w3.org/TR/2003/REC-MathML2-20031021/>

W3C. Mathematical Markup Language (MathML) Version 3.0 (Second Edition), 10 April 2014.
<https://www.w3.org/TR/2014/REC-MathML3-20140410/>

6 References

This standard references the following documents. When cited in the text of this standard, the referenced standard may be referred to by its number only or an abbreviated title. Where no date is supplied, the most current version of the standard should be used.

ISO 30042, Systems to manage terminology, knowledge and content -- TermBase eXchange (TBX).
<https://www.iso.org/standard/45797.html>

NISO RP-22-2015, Access License and Indicators, 5 January 2015.
http://www.niso.org/apps/group_public/download.php/14226/rp-22-2015_ALI.pdf

W3C. Namespaces in XML 1.0 (Third Edition). <https://www.w3.org/TR/REC-xml-names/>

W3C. XHTML Modularization 1.1, Section 5.6.2. Tables Modules, 13 February 2006.

<https://www.w3.org/TR/2006/PR-xhtml-modularization-20060213/>

W3C. XML Linking Language (XLink) Version 1.0, 27 June 2001. <https://www.w3.org/TR/xlink/>

W3C. XML Schema Part 1: Structures Second Edition, 28 October 2004. <https://www.w3.org/TR/xmlschema-1/>

7 Definitions

Term/Acronym	Definition
ANSI	American National Standards Institute. ANSI is a private nonprofit organization that oversees the development of voluntary consensus standards in the U.S.
ASCII	ASCII is a character-encoding scheme based on the English alphabet. It defines the encoding for 128 characters including A-Z, a-z, 0-9, some symbols, and some control characters. It is sometimes used to refer to “plain text,” i.e., text without special characters or equations.
attribute (an XML term)	An attribute is a name-value pair associated with an XML element that modifies certain features of the element. Attributes hold facts about an element, such as which type of list (e.g., numbered, bulleted, or plain) is being requested when using the List <list> element. Each attribute has both a name (e.g., @list-type) and a value (e.g., “bullet”).
container element (an XML term)	An XML term of art that indicates that one element has only other elements inside it, in a parent/child or ancestor/descendent relationship.
Crossref	Crossref is an independent membership association appointed as an official DOI® Registration Agency for scholarly and professional publications.
document type (an XML term)	A class of documents, for example, “standards,” that can be described with a single XML model.
DOI®	Digital Object Identifier. A DOI® is a character string used to identify an electronic document or other object persistently (over changes in time, location, and ownership).
DTD (an XML term)	Document Type Definition. A DTD is a set of markup declarations that define a type of document in XML. DTDs are one type of XML schema language, see also XSD schema and RELAX NG schema.
element (an XML term)	Elements are nouns, such as “section” and “non normative example,” that represent components of standards documents, the standards themselves, and accompanying metadata.
element content (an XML term)	The content of an element that contains only other elements. For example, the element for List (<list>) is a container element for the elements that make up the structure of a list, such as the list title (<title>) and list items (<list-item>). The List element contains no text directly inside it, all list text is inside the contained elements.
emoticon	An icon or small graphic used to depict emotion (for example, a “smiley face” to indicate happiness or laughter).
ftp	File Transfer Protocol. An Internet Engineering Task Force standard (RFC 959) that defines a protocol for transferring files between two hosts over a network.
glyph	A graphical element used to represent a character.
JATS	ANSI/NISO Z39.96 Journal Article Tag Suite.
LaTeX	A document preparation system for the TeX typesetting program.
MathML	A specification of the World Wide Web Consortium (W3C) for describing mathematical notation and capturing both its structure and content in XML.
metadata	Metadata are data about data, such as bibliographic information. Metadata elements that describe a standard (such as the date on which the standard was approved) are distinct from elements that contain the textual narrative and graphical content of the standard.

Term/Acronym	Definition
milestone	A milestone is a marker for the beginning or end of a non-hierarchically nested object, that is, a textual component that cannot be expressed in the normal, non-overlapping, tree structure of an XML document.
mixed content (an XML term)	The content of an element that may contain embedded elements as well as text (letters, numbers, and special characters). For example, a mixed content element may contain the highlighting elements such as bold and italic interspersed in the text.
pixel	In digital imaging, a pixel is a single point in a bitmap.
RELAX NG schema (RNG)	A schema language for XML.
Schematron	A rule-based validation language used for making and testing assertions about an XML instance.
tag set	A model for a particular document type, built from the XML elements and attributes defined in the Tag Suite. Many tag sets can be made from the elements and attributes of the full Tag Suite.
Tag Suite	All of the XML elements and attributes defined as part of this NISO standard. From this Suite of components, individual tag sets for a particular document type may be constructed.
TeX	A typesetting system popular for setting mathematics and physical sciences content.
Unicode®	Used to represent both the Unicode® Standard, which specifies the representation of text in modern software products and standards, and The Unicode Consortium, which is the organization responsible for developing and maintaining the Unicode® Standard.
Unicode Private Use Area	Blocks of characters that are officially not defined by the Unicode standard but are reserved for an organization's private use. Users must understand that characters within the private use area must be defined within a system and that they have no meaning outside of that system.
URI	Uniform Resource Identifier. An identifier (such as a URL) that may be used as a live link, typically naming a website, such as: https://www.mulberrytech.com
wrapper element (an XML term)	An element that contains a series of elements that make up a whole unit; it acts as a single wrapper around all the elements that are part of a single logical component.
XML (Extensible Markup Language)	A specification of the World Wide Web Consortium (W3C) for creating custom markup languages that enable information systems to share structured information.
XML term	A term defined in the XML specification or commonly used by the XML community in the context of XML applications.
XSD schema	XML Schema Definition. A recommendation of the World Wide Web Consortium (W3C) that defines a language for creating XML Schemas: https://www.w3.org/TR/xmlschema-1

8 ANSI/NISO Z39.102-2017 STS (Version 1.0)

8.1 Elements

This standard defines the elements for the two specific NISO STS Tag Sets. By default, all elements are included in both Tag Sets; the few elements that are used only in the Extended Tag Set are so identified.

Each element entry contains:

The XML Name (tag or generic identifier) of the element that is used in tagging XML files, e.g., <comm-ref>.

- The informational name of the element, e.g., “Committee Reference”.
- A description of the element, e.g., for the element <comm-ref>: “Identifies the Technical Committee, Subcommittee, and optionally Working Group responsible for the standard, for example, “ISO/TC 27/SC 4””.

- A list of all of the attributes that may be applied to the element, with first the attribute name and then the attribute's informal expanded name. In this documentation, attribute names will be prefixed with an at sign (“@”), for example:
 - @content-type Type of Content
 - @id Document Internal Identifier
 - @specific-use Specific Use
- An English-language description of the content model of the element in this Tag Set. Each element is identified by its <tag>s and Element Names. The relationships among elements or groups of elements are specified, for example, “Any combination of” if the structures may occur zero or more times in any sequence, or “The following, in order” if the structures must appear in the specified sequence. For example, the model for the element Standards Document (<standard>):
 - The following in order:
 - <front> Front Matter
 - <body> Body of the Standards Document
 - <back> Back Matter, zero or more

8.1.1 <abbrev> Abbreviation or Acronym

Abbreviation, acronym, or emoticon used in the text of a document, possibly including an expansion of the acronym.

Attributes:

@alt **Alternative Text**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- <def> **Definition**

8.1.2 <abstract> Abstract

Summarized description of the content of a standards document.

Attributes:

@abstract-type **Abstract Type**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one

- Any combination of:
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
- Any combination of:
 - Section Elements
 - <sec> **Section**
 - <term-sec> **Terms and Definitions Container/Section**

8.1.3 <access-date> Access Date For Cited Work (deprecated)

The date on which the work which is cited was examined.

This element comes from an older version of JATS and is now deprecated in JATS; therefore, NISO STS users should avoid using it. Use the <date-in-citation> element to record the access date for a citation.

Attributes:

@calendar **calendar**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.4 <accrediting-organization> Accrediting Organization

Records the fact that the SDO producing this standard has been accredited, and by which accrediting agency. The content of this element is typically a phrase, which may or may not be displayed as part of the standards document, such as: “Accredited by the American National Standards Institute”.

Attributes:

@accredit-acronym **Accreditation Acronym**
 @id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.5 <ack> Acknowledgments

Textual material that names the parties which the standards organization wishes to thank or recognize for their assistance in, for example, producing the standard, funding the standard or tests for it, inspiring the standard, or assisting in the research on which the standard is based or tested.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- Any combination of:

- Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
- `<alternatives>` **Alternatives For Processing**
- Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- `<disp-formula>` **Formula, Display**
- `<disp-formula-group>` **Formula, Display Group**
- `<editing-instruction>` **Editing Instruction**
- Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<p>` **Paragraph**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**
- `<fn-group>` **Footnote Group**
- `<glossary>` **Glossary Elements**
- `<ref-list>` **Reference List (Bibliographic Reference List)**
- Optionally, the following sequence (in order):
 - One or more of any of:
 - Section Elements
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - Any combination of:
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.6 `<addr-line>` Address Line

One physical or logical line of an address.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <city> **City (in an address)**
- <country> **Country (in an address)**
- <fax> **Fax Number (in address)**
- <institution> **Institution Name**
- <institution-wrap> **Institution Wrapper**
- <phone> **Phone Number: in an Address**
- <postal-code> **Postal Code: in an Address**
- <state> **State or Province (in an address)**

8.1.7 <address> Address/Contact Information

Container element for contact information such as a postal address for a person or organization.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Address Elements
 - <addr-line> **Address Line**
 - <city> **City (in an address)**
 - <country> **Country (in an address)**
 - <fax> **Fax Number (in address)**
 - <institution> **Institution Name**
 - <institution-wrap> **Institution Wrapper**
 - <phone> **Phone Number: in an Address**
 - <postal-code> **Postal Code: in an Address**
 - <state> **State or Province (in an address)**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**

8.1.8 <adoption> Standard Adoption Document

A wrapper for a document-level element that may contain its own metadata, front matter, and back matter, and that will contain, in addition, one or more complete standards (<standard>) or other adoptions. When a standard is adopted, sometimes the adopting organization wraps their own metadata, front matter, and back matter around a standard, producing a combined, nested document.

Attributes:

@dtd-version **Version of the Tag Set (DTD)**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:ali **NISO ALI Namespace (NISO Access License and Indicators)**
 @xmlns:mml **MathML Namespace Declaration**
 @xmlns:oasis **OASIS Namespace Declaration**
 @xmlns:tbx **TBX Namespace Declaration**
 @xmlns:xi **XInclude Namespace Declaration**
 @xmlns:xlink **XLink Namespace Declaration**
 @xmlns:xsi **XML Schema Namespace Declaration**

Content model:

The following, in order:

- <adoption-front> **Front Matter, Adoption**
- Any one of:
 - The following, in order:
 - <back> **Back Matter**
 - One or more of any of:
 - <standard> **Standards Document**
 - <adoption> **Standard Adoption Document**
 - <std-xref> **Cross-Reference to a Standard**
 - <xi:include> **XInclude**
 - The following, in order:
 - One or more of any of:
 - <standard> **Standards Document**
 - <adoption> **Standard Adoption Document**
 - <std-xref> **Cross-Reference to a Standard**
 - <xi:include> **XInclude**
 - <back> **Back Matter**, zero or one

8.1.9 <adoption-front> Front Matter, Adoption

When a standard is adopted, sometimes the adopting organization wraps their own metadata, front matter, and back matter around a standard, producing a combined, nested document. The <adoption-front> element contains the metadata, any beginning narrative material, and possible back matter that describes the adopting standard (<adoption>).

Content model:

The following, in order:

- <std-doc-meta> **Standards Document Metadata**, zero or one
- <std-meta> **NISO STS Standard Metadata**, zero or one
- Any combination of:
 - <ack> **Acknowledgments**
 - <notes> **Notes Section**
 - <toc> **Table of Contents**
 - <toc-group> **Table of Contents Group**
 - <sec> **Section**
 - <xi:include> **XInclude**

8.1.10 <aff> Affiliation

Name of an institution or organization (for example, university, corporation) with which a contributor is affiliated.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Address Elements
 - <addr-line> **Address Line**
 - <city> **City (in an address)**
 - <country> **Country (in an address)**
 - <fax> **Fax Number (in address)**
 - <institution> **Institution Name**
 - <institution-wrap> **Institution Wrapper**
 - <phone> **Phone Number: in an Address**
 - <postal-code> **Postal Code: in an Address**
 - <state> **State or Province (in an address)**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- <break> **Line Break**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**

- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<label>` **Label of a Figure, Reference, Etc.**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.11 `<aff-alternatives>` Affiliation Alternatives

Container element to hold two or more representations of a single affiliation (for example, the name of a university in two or more languages such as both German and English).

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

`<aff>` **Affiliation**, one or more

8.1.12 `<ali:free_to_read>` Free to Read (NISO ALI)

A flag indicating that the document content can be read or viewed at its current location by any user without payment or authentication; it is free to be read.

Attributes:

`@content-type` **Type of Content**
`@end_date` **NISO ALI End Date**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@start_date` **Start Date**
`@xml:base` **Base**
`@xmlns:ali` **NISO ALI Namespace (NISO Access License and Indicators)**

Content model:

This is an EMPTY element

8.1.13 `<ali:license_ref>` License Reference (NISO ALI)

A URI that is a pointer to a public license or waiver. If the element has content, it must be a URI.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@start_date` **Start Date**
`@xml:base` **Base**
`@xmlns:ali` **NISO ALI Namespace (NISO Access License and Indicators)**

Content model:

Text, numbers, or special characters

8.1.14 <alt-text> Alternate Title Text For a Figure, Etc.

Short phrase used for pronunciation or as an alternative display for a structure or graphical object, typically for reasons of accessibility or graphic-limited devices. For example, <alt-text> may be used to display “behind” a figure, table, graphic, or other structure.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.15 <alt-title> Alternate Title (in an Index)

An alternative version of the title of an Index or a grouping in an Index. Such a “different” title is typically created so that it can be processed in a special way, for example, a short version of a title, an ASCII-only title, a right-running-head title, etc.

Attributes:

@alt-title-type **Type of Alternate Title**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**

- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <break> **Line Break**

8.1.16 <alternatives> Alternatives For Processing

Container element used to hold a group of processing alternatives, for example, a single <graphic> that ships in several formats (tif, gif, and jpeg) or in different resolutions. This element is a physical grouping to contain multiple logically equivalent (substitutable) versions of the same information object. Typically these are processing alternatives, and the reader is expected to see only one version of the object.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @xml:base **Base**

Content model:

One or more of any of:

- <array> **Array (Simple Tabular Array)**
- <chem-struct> **Chemical Structure (Display)**
- <code> **Code Text**
- <graphic> **Graphic**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <inline-supplementary-material> **Inline Supplementary Material**
- <media> **Media Object**
- <preformat> **Preformatted Text**
- <supplementary-material> **Supplementary Material**
- <table> **Table (NISO JATS table model)**
- <oasis:table> **OASIS XML Exchange (CALs) Table (In STS Extended ONLY)**
- <textual-form> **Textual Form**
- Math Elements
 - <mm1:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**

8.1.17 <annex-type> Type of Annex

This element acts as a flag whose content can be both interrogated and displayed. It answers the question, “Is this Annex (<app>) normative or informative (non-normative)?”. The element content is expected to be “(normative)” or “(informative)”.

Content model:

Text, numbers, or special characters

8.1.18 <annotation> Annotation (in a citation)

Commentary, summary, review, or similar non-bibliographic information concerning the cited work that is found in a citation.

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@specific-use **Specific Use**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

Any one of:

- One or more of any of:
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**

8.1.19 <anonymous> Anonymous

Place holder for the name of a contributor whose name is unknown or not disclosed.

Attributes:

@id **Document Internal Identifier**
@specific-use **Specific Use**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

This is an EMPTY element

8.1.20 <app> Appendix

Contains an Annex (normative or informative) to a standards document.

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@originator **Originator**
@specific-use **Specific Use**
@xlink:actuate **Actuating the XLink Link**
@xlink:href **Href (XLink Linking Mechanism)**
@xlink:role **XLink Linking Role**
@xlink:show **Showing the XLink Link**
@xlink:title **Title of the XLink Link**
@xlink:type **Type of XLink Link**
@xml:base **Base**
@xml:lang **Language of an Element**
@xmlns:mml **MathML Namespace Declaration**
@xmlns:tbx **TBX Namespace Declaration**
@xmlns:xi **XInclude Namespace Declaration**
@xmlns:xlink **XLink Namespace Declaration**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- Any one of:
 - The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**
- `<annex-type>` **Type of Annex**, zero or one
- `<title>` **Title**, zero or one
- The following, in order:
 - `<annex-type>` **Type of Annex**, zero or one
 - `<title>` **Title**
- Any combination of:
 - Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
 - `<alternatives>` **Alternatives For Processing**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**
 - `<editing-instruction>` **Editing Instruction**
 - Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
 - Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
 - `<p>` **Paragraph**
 - Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
 - `<disp-quote>` **Quote, Displayed**
 - `<speech>` **Speech**
 - `<statement>` **Statement, Formal**
 - `<verse-group>` **Verse Form For Poetry**
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
- Optionally, the following sequence (in order):
 - One or more of any of:
 - Section Elements
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - Any combination of:
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**

- <normative-note> **Normative-Note**
- <notes-group> **Notes Group**
- <permissions> **Permissions**, zero or one

8.1.21 <app-group> Appendix Group

Container element for one or more Annexes (<app> elements).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:mml **MathML Namespace Declaration**
 @xmlns:tbx **TBX Namespace Declaration**
 @xmlns:xi **XInclude Namespace Declaration**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**

- <statement> **Statement, Formal**
- <verse-group> **Verse Form For Poetry**
- Any combination of:
 - <app> **Appendix**
 - <ref-list> **Reference List (Bibliographic Reference List)**
 - <xi:include> **XInclude**

8.1.22 <array> Array (Simple Tabular Array)

Used to define a *brief* tabular arrangement of text in the narrative flow of the document. An array should not be a full table, and does not typically contain a title, caption, or table headings (column heads). Tabular material which does use a label, title, caption, or table headings should be tagged using a table wrapper (<table-wrap>) element.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @orientation **Orientation**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- Any combination of:
 - Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Any combination of:
 - <alternatives> **Alternatives For Processing**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <table> **Table (NISO JATS table model)**
 - <oasis:table> **OASIS XML Exchange (CALS) Table (In STS Extended ONLY)**
 - <tbody> **Table Body for an XHTML Table**
 - <oasis:tbody> **Table Body for an OASIS XML Exchange (CALS) Table (In STS Extended ONLY)**
- Any combination of:
 - Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.23 <article-title> Article Title (in a citation)

The title of a journal article in the language in which the article was originally published, for use inside citations and <related-article> elements.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**

- `<ext-link>` **External Link**
- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- **Related Material Elements**
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**

8.1.24 `<attrib>` Attribution

Source, author, formal thanks, or other information (other than copyright material) concerning the origins of an extract, a table, a figure, a poem, or similar element.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**

- `<ext-link>` **External Link**
- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- **Related Material Elements**
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- **Citation Elements**
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.25 `<author-comment>` Author Comment

Used for extra textual material associated with a contributor such as an author or editor.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- <title> **Title**, zero or one
- One or more of any of:
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**

8.1.26 <authorization> Authorization

Captures the standards authority/process under which *this* standard has been developed. The element's content is typically a text phrase that may be, but need not be, displayed as part of the standards document, such as "An American National Standard".

Attributes:

@authorize-acronym **Authorization Acronym**
 @id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.27 <award-id> Award Identifier

An identifier that has been assigned to the award, for example, a grant number, a grant reference number, or a contract number.

Attributes:

@id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**

- `<index-term>` **Index Term**
- `<index-term-range-end>` **Index Term Range End**
- `<milestone-end>` **Milestone End**
- `<milestone-start>` **Milestone Start**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.28 `<back>` Back Matter

Ancillary or supporting material not included as part of the main textual content of a standards document or adoption, for example, annexes.

Attributes:

`@id` **Document Internal Identifier**
`@rid` **Reference to an Identifier**
`@xml:base` **Base**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or more
- Any combination of:
 - `<app-group>` **Appendix Group**
 - `<bio>` **Biography**
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - `<ack>` **Acknowledgments**
 - `<notes>` **Notes Section**
 - `<toc>` **Table of Contents**
 - `<toc-group>` **Table of Contents Group**
 - `<index>` **Index**
 - `<index-group>` **Index Group**
 - Section Elements
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - `<xi:include>` **XInclude**

8.1.29 `<bio>` Biography

Biographical data concerning a contributor or the description of a collaboration.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@xlink:actuate` **Actuating the XLink Link**
`@xlink:href` **Href (XLink Linking Mechanism)**
`@xlink:role` **XLink Linking Role**
`@xlink:show` **Showing the XLink Link**
`@xlink:title` **Title of the XLink Link**
`@xlink:type` **Type of XLink Link**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**
`@xmlns:xlink` **XLink Namespace Declaration**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
 - `<alternatives>` **Alternatives For Processing**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**
 - `<editing-instruction>` **Editing Instruction**
 - Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
 - Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
 - `<p>` **Paragraph**
 - Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
 - `<disp-quote>` **Quote, Displayed**
 - `<speech>` **Speech**
 - `<statement>` **Statement, Formal**
 - `<verse-group>` **Verse Form For Poetry**
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
- Optionally, the following sequence (in order):
 - One or more of any of:
 - Section Elements
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - Any combination of:
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.30 <body> Body of the Standards Document

The main textual portion of the standards document.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

The following, in order:

- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
 - <ref-list> **Reference List (Bibliographic Reference List)**
- Any combination of:
 - Section Elements
 - <sec> **Section**
 - <term-sec> **Terms and Definitions Container/Section**
 - <sub-part> **Sub-Part of a Standard**
 - <xi:include> **XInclude**
- <sig-block> **Signature Block**, zero or one

8.1.31 Bold

Used to mark text that should appear in bold face for print or display.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @toggle **Toggle Switch**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- <std-ref> **Standard Reference Designation**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.32 <boxed-text> Boxed Text

Textual material that is part of the body of a standards document but is outside the flow of the narrative text (for example, a sidebar).

Attributes:

@content-type **Type of Content**
 @form-type **Form Type**
 @id **Document Internal Identifier**
 @is-form **Is Object a Form**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <object-id> **Object Identifier**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <caption> **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**

- `<fn-group>` **Footnote Group**
- `<glossary>` **Glossary Elements**
- `<ref-list>` **Reference List (Bibliographic Reference List)**
- Optionally, the following sequence (in order):
 - One or more of any of:
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - Any combination of:
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- Any combination of:
 - Ownership Elements
 - `<attrib>` **Attribution**
 - `<permissions>` **Permissions**

8.1.33 `<break>` Line Break

Defined to allow the standards-producing organization to specify an explicit (non machine-generated) line break.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.34 `<caption>` Caption of a Figure, Table, Etc.

Container element for the textual description and title that are associated with an object, for example, with a figure (`<fig>`) or a table (`<table-wrap>`).

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@style` **Style (NISO JATS table model)**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<title>` **Title**, zero or one
- Any combination of:
 - `<p>` **Paragraph**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.35 `<chapter-title>` Chapter Title (in a citation)

Title of a cited book chapter.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.36 <chem-struct> Chemical Structure (Display)

Chemical expression, reaction, equation, etc. that is set apart within the text.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <break> **Line Break**
- Emphasis Elements

- `<bold>` **Bold**
- `<fixed-case>` **Fixed Case**
- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<label>` **Label of a Figure, Reference, Etc.**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<alternatives>` **Alternatives For Processing**
- `<array>` **Array (Simple Tabular Array)**
- `<code>` **Code Text**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- `<preformat>` **Preformatted Text**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.37 `<chem-struct-wrap>` Chemical Structure Wrapper

Wrapper element for a chemical expression, reaction, equation, etc. that is set apart from the text; this element includes any number, label, or caption that accompanies the chemical expression.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@orientation` **Orientation**
`@originator` **Originator**
`@position` **Position**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<object-id>` **Object Identifier**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<caption>` **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Accessibility Elements

- `<alt-text>` **Alternate Title Text For a Figure, Etc.**
- `<long-desc>` **Long Description**
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- One or more of any of:
 - `<alternatives>` **Alternatives For Processing**
 - `<chem-struct>` **Chemical Structure (Display)**
 - `<code>` **Code Text**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<textual-form>` **Textual Form**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- Any combination of:
 - Ownership Elements
 - `<attrib>` **Attribution**
 - `<permissions>` **Permissions**

8.1.38 `<citation-alternatives>` Citation Alternatives

Holds alternative versions of a single citation, for example, the same citation in multiple languages or a single citation tagged as both a `<mixed-citation>`, complete with punctuation and spacing preserved, and as an `<element-citation>`, with punctuation and spacing removed.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

One or more of any of:

- `<element-citation>` **Element Citation**
- `<mixed-citation>` **Mixed Citation**
- `<nlm-citation>` **NLM Citation Model (deprecated)**

8.1.39 `<city>` City (in an address)

The name of a city.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.40 `<code>` Code Text

A container element for technical content such as programming language code, pseudo-code, schemas and DTDs, or a markup fragment.

Attributes:

`@code-type` **Type of Code**
`@code-version` **Code Version**

@executable **Executable**
 @id **Document Internal Identifier**
 @language **Code Language**
 @language-version **Code Language Version**
 @orientation **Orientation**
 @platforms **Platforms**
 @position **Position**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xml:space **Space**

Content model:

Any combination of:

- Text, numbers, or special characters
- Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.41 <col> Table Column (NISO JATS table model)

The description of one column of a table, used to provide attributes relating to a specific column. If there is no <col> these attributes will be inherited from the associated <colgroup>. (This element is based on and intended to be converted easily to the XHMTL col element.)

Attributes:

@align **Horizontal Alignment (NISO JATS table model)**
 @char **Table Cell Alignment Character (NISO JATS table model)**
 @charoff **Table Character Offset (NISO JATS table model)**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @span **Span (NISO JATS table model)**
 @style **Style (NISO JATS table model)**
 @valign **Vertical Alignment (NISO JATS table model)**
 @width **Width (NISO JATS table model)**
 @xml:base **Base**

Content model:

This is an EMPTY element

8.1.42 <colgroup> Table Column Group (NISO JATS table model)

A container element to hold column descriptions (element <col>) for a group of columns in a table—or for all of the columns in the table if there is only one <colgroup> in the table. Attributes on the <colgroup> apply to all of the columns in the group unless over-ridden on the <col>. (This element is based on and intended to be converted easily to the XHMTL colgroup element.)

Attributes:

@align **Horizontal Alignment (NISO JATS table model)**
 @char **Table Cell Alignment Character (NISO JATS table model)**
 @charoff **Table Character Offset (NISO JATS table model)**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @span **Span (NISO JATS table model)**
 @style **Style (NISO JATS table model)**
 @valign **Vertical Alignment (NISO JATS table model)**
 @width **Width (NISO JATS table model)**
 @xml:base **Base**

Content model:

<col> **Table Column (NISO JATS table model)**, zero or more

8.1.43 <collab> Collaborative (Group) Author

Group of contributors credited under a single name, such as an organization credited as a contributor.

Attributes:

@collab-type **Type of Collaboration**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @symbol **Symbol**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- Address Elements
 - `<addr-line>` **Address Line**
 - `<city>` **City (in an address)**
 - `<country>` **Country (in an address)**
 - `<fax>` **Fax Number (in address)**
 - `<institution>` **Institution Name**
 - `<institution-wrap>` **Institution Wrapper**
 - `<phone>` **Phone Number: in an Address**
 - `<postal-code>` **Postal Code: in an Address**
 - `<state>` **State or Province (in an address)**
- `<contrib-group>` **Contributor Group**
- `<address>` **Address/Contact Information**
- `<aff>` **Affiliation**
- `<aff-alternatives>` **Affiliation Alternatives**
- `<author-comment>` **Author Comment**
- `<bio>` **Biography**
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<on-behalf-of>` **On Behalf of**
- `<role>` **Role or Function Title of Contributor**
- `<xref>` **X(cross) Reference**
- `<fn>` **Footnote**

8.1.44 <collab-alternatives> Collaboration Alternatives

Wrapper element for more than one version of a collaboration, for example, the name of a laboratory in more than one language such as the lab name in Japanese kana characters and a transliterated form of the lab name in Latin alphabet.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

<collab> **Collaborative (Group) Author**, one or more

8.1.45 <comm-ref> Committee Reference

Identifies the Technical Committee, Subcommittee, and optionally Working Group responsible for the standard, or example, “ISO/TC 27/SC 4”.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.46 <comm-ref-group> Committee Reference Group

A grouping element to hold the names of multiple standards-producing groups (such as Committees and Subcommittees) that are responsible for the standards document (tagged as <comm-ref>s). A hierarchy of groups is possible as this element may contain a <comm-ref> element to name the top-level group as well as lower-level <comm-ref-group> elements to name subgroups.

Attributes:

@comm-ref-group-type **Committee Reference Group Type**
 @id **Document Internal Identifier**
 @level **Hierarchical Level**
 @originator **Originator**
 @xml:base **Base**

Content model:

The following, in order:

- <comm-ref> **Committee Reference**, one or more
- <comm-ref-group> **Committee Reference Group**, zero or more

8.1.47 <comment> Comment (in a citation)

Used to mark unstructured text within an otherwise element structured bibliographic citation. In an unstructured reference, this text would merely be data characters. Typical comments could include: “<comment>[Abstract]</comment>” and “<comment> translated from Russian</comment>”.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**

- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- **Related Material Elements**
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.48 `<comp1>` Complementary Title Part

The optional complementary title(s) are the final part(s) of a standard's title. Complementary titles follow the main part of the title (`<main>`) and (typically) provide details concerning which particular aspect of the general topic is treated by the standards document.

Attributes:

- `@id` **Document Internal Identifier**
- `@level` **Hierarchical Level**
- `@xml:base` **Base**
- `@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**

- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- **Related Material Elements**
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**
- **Citation Elements**
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**

8.1.49 `<compl-title-wrap>` **Complementary Title Wrapper**

Wrapper element to collect together the `<compl>` title of the standard and its related component parts, such as a label or subtitle(s).

Attributes:

`@id` **Document Internal Identifier**
`@level` **Hierarchical Level**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <compl> **Complementary Title Part**
- <subtitle> **Article Subtitle**, zero or more

8.1.50 <compound-kwd> Compound Keyword

Wrapper element for multi-part keywords (for example, a code and its description/title/meaning).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**

Content model:

<compound-kwd-part> **Compound Keyword Part**, one or more

8.1.51 <compound-kwd-part> Compound Keyword Part

Individual component of a multi-part keyword (for example, a code, the code's meaning).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.52 <compound-subject> Compound Subject Name

Wrapper element to hold all the parts of a multi-part subject (for example, a subject term and the code representing that term).

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@specific-use **Specific Use**
@vocab-term **Vocabulary/Taxonomy Term**
@vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
@xml:base **Base**

Content model:

<compound-subject-part> **Compound Subject Part Name**, one or more

8.1.53 <compound-subject-part> Compound Subject Part Name

Individual component of a multi-part subject (for example, subject term, code for the term).

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.54 <conf-acronym> Conference Acronym (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the short, popular, or jargon name for a conference (for example, “Extreme” for Extreme Markup Languages, “SIGGRAPH” for Special Interest Group on Computer Graphics).

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@specific-use **Specific Use**

@xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.55 <conf-date> Conference Date (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the date(s) on which a conference was held.

Attributes:

@calendar **calendar**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.56 <conf-loc> Conference Location (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the physical location(s) of a conference (for example, city, country, campus, organization location).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Address Elements
 - <addr-line> **Address Line**
 - <city> **City (in an address)**
 - <country> **Country (in an address)**
 - <fax> **Fax Number (in address)**
 - <institution> **Institution Name**
 - <institution-wrap> **Institution Wrapper**
 - <phone> **Phone Number: in an Address**
 - <postal-code> **Postal Code: in an Address**
 - <state> **State or Province (in an address)**

8.1.57 <conf-name> Conference Name (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the full name of a conference, including any qualifiers such as “43rd Annual”.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.58 <conf-sponsor> Conference Sponsor (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), one organization identified as a sponsor of a conference.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- <institution> **Institution Name**
- <institution-wrap> **Institution Wrapper**

8.1.59 <content-language> Content Language

That part of the metadata of a standards document that identifies the official language(s) used in this standard.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.60 <contrib> Contributor

Wrapper element to contain the information about a single contributor, for example, an author or editor.

Attributes:

@contrib-type **Type of Contribution**
 @corresp **Corresponding Author Flag**
 @deceased **Deceased**
 @equal-contrib **Equal Contribution**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

The following, in order:

- <contrib-id> **Contributor Identifier**, zero or more
- Any combination of:
 - Contributor Naming Elements
 - <anonymous> **Anonymous**
 - <collab> **Collaborative (Group) Author**
 - <collab-alternatives> **Collaboration Alternatives**
 - <name> **Name of Person (Structured)**
 - <name-alternatives> **Name Alternatives**
- <degrees> **Degree(s)**, zero or more
- Any combination of:

- <address> **Address/Contact Information**
- <aff> **Affiliation**
- <aff-alternatives> **Affiliation Alternatives**
- <author-comment> **Author Comment**
- <bio> **Biography**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <on-behalf-of> **On Behalf of**
- <role> **Role or Function Title of Contributor**
- <xref> **X(cross) Reference**

8.1.61 <contrib-group> Contributor Group

Wrapper element for information concerning a grouping of contributors, such as the primary authors

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

The following, in order:

- <contrib> **Contributor**, one or more
- Any combination of:
 - <address> **Address/Contact Information**
 - <aff> **Affiliation**
 - <aff-alternatives> **Affiliation Alternatives**
 - <author-comment> **Author Comment**
 - <bio> **Biography**
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
 - <on-behalf-of> **On Behalf of**
 - <role> **Role or Function Title of Contributor**
 - <xref> **X(cross) Reference**

8.1.62 <contrib-id> Contributor Identifier

One identifier for a person such as a contributor. This element will hold an ORCID, a trusted publisher's identifier, a JST (Japan Science and Technology Agency) identifier, or an NII (National Individual Identifier).

Attributes:

@authenticated **Authenticated**
 @content-type **Type of Content**
 @contrib-id-type **Contributor Identifier Type**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.63 <copyright-holder> Copyright Holder

Name of the organizational or personal entity that holds a copyright.

Attributes:

@content-type **Type of Content**

@id **Document Internal Identifier**
@specific-use **Specific Use**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- <institution> **Institution Name**
- <institution-wrap> **Institution Wrapper**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.64 <copyright-statement> Copyright Statement

Copyright notice or statement, suitable for printing or display.

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@specific-use **Specific Use**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.65 <copyright-year> Copyright Year

The year of copyright.

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@specific-use **Specific Use**

@xml:base **Base**

Content model:

Text, numbers, or special characters

8.1.66 <count> Count

Generic count element to count anything a NISO STS standards-producing organization may wish to count in a standards document. The @count-type attribute will name what is being counted (such as appendices, normative-notes, copyright-holders, schemas). The @count attribute will state how many of the objects are in the document.

Attributes:

@count **Count**
 @count-type **Count Type**
 @id **Document Internal Identifier**
 @xml:base **Base**

Content model:

This is an EMPTY element

8.1.67 <country> Country (in an address)

Country name used within an address.

Attributes:

@content-type **Type of Content**
 @country **Country**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.68 <counts> Counts

Container element for counts of a standards document (for example, number of tables, number of figures, number of words).

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- <count> **Count**, zero or more
- <fig-count> **Figure Count**, zero or one
- <table-count> **Table Count**, zero or one
- <equation-count> **Equation Count**, zero or one
- <ref-count> **Reference Count**, zero or one
- <page-count> **Page Count**, zero or one
- <word-count> **Word Count**, zero or one

8.1.69 <custom-meta> Custom Metadata

Wrapper element for a single piece of metadata not otherwise defined in the NISO STS Tag Sets.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**

@xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

The following, in order:

- <meta-name> **Metadata Data Name for Custom Metadata**
- <meta-value> **Metadata Data Value for Custom Metadata**

8.1.70 <custom-meta-group> Custom Metadata Group

Container element for metadata not otherwise defined in the NISO STS Tag Sets.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @xml:base **Base**

Content model:

<custom-meta> **Custom Metadata**, one or more

8.1.71 <data-title> Data Title (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the title of a cited data source such as a dataset or spreadsheet. As <article-title> is to articles, <data-title> is to data sources such as datasets and spreadsheets.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.72 <date> Date (in a citation)

Within a citation (such as <mixed-citation> or <related-object>), this element names the publication date of the cited source. All other dates within a citation should be tagged as <date-in-citation>.

Attributes:

@calendar **calendar**
 @date-type **Type of Date**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @publication-format **Format of Publication**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

The following, in order:

- Optionally any one of:
 - The following, in order:
 - <day> **Day (in a citation)**, zero or one
 - <month> **Month (in a citation)**, zero or one
 - <season> **Season (in a citation)**
- <year> **Year**
- <era> **Era (in a citation)**, zero or one

8.1.73 <date-in-citation> Date in Citation (in a citation)

A container element for any date that may be referenced in a citation, other than the publication date of the cited work. The @content-type attribute should be used to identify the purpose/type of date.

Attributes:

@calendar **calendar**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- <day> **Day (in a citation)**
- <era> **Era (in a citation)**
- <month> **Month (in a citation)**
- <season> **Season (in a citation)**
- <year> **Year**

8.1.74 <day> Day (in a citation)

Numeric, two-digit value of the day of the month, for example, “03”, “25”.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.75 <def> Definition

This element can be used in several very different contexts, which determine its exact meaning and usage:

- As one of the semantic tags within a <term-display> element, the <def> element contains the definition for the term being described (<term>).
- As the second half of a definition list item (<def-item>), which is one item in a two-part list (<def-list>), the <def> element contains a definition, description, or other explanation of the word, phrase, or picture that is the first part of each list item (<term>).
- The <def> element can also be a definition or expansion of an abbreviation or acronym <abbrev>.

Attributes:

@id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any one of:

- One or more of any of:
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**

8.1.76 <def-head> Definition List: Definition Head

Heading over the second column (the definition column) of a definition list (two-part list).

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**

- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.77 `<def-item>` Definition List: Definition Item

One item in a definition (two-part) list.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<term>` **Term**
- `<def>` **Definition**, zero or more

8.1.78 `<def-list>` Definition List

List in which each item consists of two parts: 1) a word, phrase, term, graphic, chemical structure, or equation, that is paired with 2) one or more descriptions, discussions, explanations, or definitions of it.

Attributes:

`@continued-from` **Continued From (list continuation)**
`@id` **Document Internal Identifier**
`@list-content` **List Content**
`@list-type` **Type of List**
`@originator` **Originator**
`@prefix-word` **Prefix Word (For a List Item)**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- `<term-head>` **Definition List: Term Head**, zero or one

- <def-head> **Definition List: Definition Head**, zero or one
- <def-item> **Definition List: Definition Item**, zero or more
- <def-list> **Definition List**, zero or more

8.1.79 <degrees> Degree(s)

Academic titles or professional certifications displayed following a personal name (for example, “MD”, “PhD”).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.80 <disp-formula> Formula, Display

Mathematical equation, expression, or formula that is to be displayed as a block (callout) within the narrative flow.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <break> **Line Break**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- <label> **Label of a Figure, Reference, Etc.**
- Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**

- `<non-normative-note>` **Non-Normative-Note**
- `<normative-example>` **Normative-Example**
- `<normative-note>` **Normative-Note**
- `<notes-group>` **Notes Group**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<alternatives>` **Alternatives For Processing**
- `<array>` **Array (Simple Tabular Array)**
- `<code>` **Code Text**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- `<preformat>` **Preformatted Text**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.81 `<disp-formula-group>` Formula, Display Group

Container element for equations or other mathematical expressions that are displayed together.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<caption>` **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- Any combination of:
 - Accessibility Elements
 - `<alt-text>` **Alternate Title Text For a Figure, Etc.**
 - `<long-desc>` **Long Description**
 - External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- Any combination of:
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**

8.1.82 `<disp-quote>` Quote, Displayed

Extract or extended quoted passage from another work, usually made typographically distinct from surrounding text.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**

@originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
- Any combination of:
 - Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.83 <doc-ident> ISO-Specific Document Identification Section

The ISO-specific element <doc-ident> container element holds information which uniquely identifies this standards document for ISO purposes. Non-ISO organizations are advised to use elements directly within <std-meta> and inside <std-ident> instead.

Attributes:

@id **Document Internal Identifier**

@xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <sdo> **ISO-Specific Name For a Standards Development Organization**, zero or one
- <proj-id> **ISO-Specific Project Identifier**, zero or one
- <language> **ISO-specific Language Designation**, zero or one
- <release-version> **Release-Version**, zero or one
- <urn> **ISO-Specific Uniform Resource Name**, zero or one

8.1.84 <doc-number> Document Number

Gives the document-number part of the document's standard designator; for example, for the designation "ISO 9100", the <doc-number> would be the digits "9100".

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.85 <doc-ref> Document Reference Designation

A pre-constructed, formatted reference to the standard that is used for display purposes (such as online display or assembling PDF), particularly when an editorial variant of the designation is needed for rendering.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.86 <doc-type> Document Type

The NISO STS document model may be used to describe many kinds of standards documents, not just standards and adoptions of standards. It is a guiding principle of this Tag Set that any standards document that can use the modeling rules for a "standard" may be tagged according to this Tag Set. This <doc-type> element names the type of document, for example, a standard ("standard"), a specification ("spec"), or a technical report ("tr").

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.87 <editing-instruction> Editing Instruction

Container element to hold the text that describes how an alteration or addition should be made to the standards document. These instructions are typically placed *before* the portion of the document to be modified.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one

- <title> **Title**, zero or one
- Any combination of:
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**

8.1.88 <edition> Edition Statement

This element is defined and used differently in NISO STS than it is in JATS. Therefore, since the NISO STS Tag Sets inherit many JATS elements, the <edition> element has two different contexts with two different meanings.

- Within standards-specific elements (such as <std-ident> and <std-ref>), an <edition> element gives the edition number for this standards document. (Note: Use of <edition> inside <std-ref> is discouraged.)
- Within citation-related elements (such as <mixed-citation> and <related-object>), an <edition> element contains the full edition statement for the document being cited or described.

Attributes:

@content-type **Type of Content**
 @designator **Designator of Journal Edition/Version**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.89 <element-citation> Element Citation

Bibliographic description of a work. Includes bibliographic reference elements only. Does not include untagged text, spacing, or punctuation.

Attributes:

@id **Document Internal Identifier**
 @publication-format **Format of Publication**
 @publication-type **Publication Type Identifier (in a citation)**
 @publisher-type **Type of Publisher (in a citation)**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

One or more of any of:

- <break> **Line Break**
- Emphasis Elements

- `<bold>` **Bold**
- `<fixed-case>` **Fixed Case**
- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- `<label>` **Label of a Figure, Reference, Etc.**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<annotation>` **Annotation (in a citation)**
- `<article-title>` **Article Title (in a citation)**
- `<chapter-title>` **Chapter Title (in a citation)**
- `<collab>` **Collaborative (Group) Author**
- `<collab-alternatives>` **Collaboration Alternatives**
- `<comment>` **Comment (in a citation)**
- `<conf-acronym>` **Conference Acronym (in a citation)**
- `<conf-date>` **Conference Date (in a citation)**
- `<conf-loc>` **Conference Location (in a citation)**
- `<conf-name>` **Conference Name (in a citation)**
- `<conf-sponsor>` **Conference Sponsor (in a citation)**
- `<data-title>` **Data Title (in a citation)**
- `<date>` **Date (in a citation)**
- `<date-in-citation>` **Date in Citation (in a citation)**
- `<day>` **Day (in a citation)**
- `<edition>` **Edition Statement**
- **External Linking Elements**
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<elocation-id>` **Electronic Location Identifier (in a citation)**
- `<etal>` **Et Al. (in a citation)**
- `<fpage>` **First Page (in a citation)**
- `<gov>` **Government Report (in a citation)**
- `<institution>` **Institution Name**
- `<institution-wrap>` **Institution Wrapper**
- `<isbn>` **ISBN**
- `<issn>` **ISSN (in a citation)**
- `<issn-l>` **ISSN-L (Linking ISSN) (in a citation)**
- `<issue>` **Issue Number (in a citation)**
- `<issue-id>` **Issue Identifier (in a citation)**
- `<issue-part>` **Issue Part (in a citation)**
- `<issue-title>` **Issue Title (in a citation)**

- <lpage> **Last Page (in a citation)**
- <month> **Month (in a citation)**
- <name> **Name of Person (Structured)**
- <name-alternatives> **Name Alternatives**
- <object-id> **Object Identifier**
- <page-range> **Page Ranges (in a citation)**
- <part-title> **Part Title (in a citation)**
- <patent> **Patent Number (in a citation)**
- <person-group> **Person Group (in a citation)**
- <pub-id> **Publication Identifier (in a citation)**
- <publisher-loc> **Publisher's Location (in a citation)**
- <publisher-name> **Publisher's Name (in a citation)**
- <role> **Role or Function Title of Contributor**
- <season> **Season (in a citation)**
- <series> **Series (in a citation)**
- <size> **Size (in a citation)**
- <source> **Source (in a citation)**
- <std> **Citation to a Standard**
- <string-name> **Name of Person (Unstructured)**
- <supplement> **Supplement (in a citation)**
- <trans-source> **Translated Source (in a citation)**
- <trans-title> **Translated Title**
- <version> **Version Statement, Cited**
- <volume> **Volume Number (in a citation)**
- <volume-id> **Volume Identifier (in a citation)**
- <volume-series> **Volume Series (in a citation)**
- <year> **Year**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.90 <elocation-id> Electronic Location Identifier (in a citation)

Bibliographic identifier for a document that does not have traditional printed page numbers.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @seq **Sequence Number**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters

8.1.91 <email> Email Address

Electronic mail address of a person or institution.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**

`@xlink:type` **Type of XLink Link**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**
`@xmlns:xlink` **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters, zero or more

8.1.92 <equation-count> Equation Count

Number of <disp-formula> elements that appear in the document.

Attributes:

`@count` **Count**
`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.93 <era> Era (in a citation)

Era of publication. Used in certain Japanese and Korean dates.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.94 <etal> Et Al. (in a citation)

Indicator of the presence of unnamed contributors. Typically indicated in print with the text “et al.” or with an ellipsis.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.95 <ext-link> External Link

Link to an external file or resource.

Attributes:

`@assigning-authority` **Authority Responsible for an Identifier**
`@ext-link-type` **Type of External Link**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xlink:actuate` **Actuating the XLink Link**
`@xlink:href` **Href (XLink Linking Mechanism)**
`@xlink:role` **XLink Linking Role**
`@xlink:show` **Showing the XLink Link**
`@xlink:title` **Title of the XLink Link**
`@xlink:type` **Type of XLink Link**
`@xml:base` **Base**

@xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.96 <fax> Fax Number (in address)

Portion of an address that contains a fax number.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.97 <fig> Figure

Block of graphic or textual material that is identified as a figure, usually bearing a caption and a label such as “Figure 3.” or “Figure”.

Attributes:

@fig-type **Type of Figure**
 @form-type **Form Type**
 @id **Document Internal Identifier**
 @is-form **Is Object a Form**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <object-id> **Object Identifier**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one

- `<caption>` **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Accessibility Elements
 - `<alt-text>` **Alternate Title Text For a Figure, Etc.**
 - `<long-desc>` **Long Description**
 - External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- Any combination of:
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<fn-group>` **Footnote Group**
 - `<fn>` **Footnote**
 - `<disp-quote>` **Quote, Displayed**
 - `<speech>` **Speech**
 - `<statement>` **Statement, Formal**
 - `<verse-group>` **Verse Form For Poetry**
 - `<table-wrap>` **Table Wrapper**
 - `<p>` **Paragraph**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
 - Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
 - `<alternatives>` **Alternatives For Processing**
 - `<array>` **Array (Simple Tabular Array)**
 - `<code>` **Code Text**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
- Any combination of:
 - Ownership Elements
 - `<attrib>` **Attribution**
 - `<permissions>` **Permissions**

8.1.98 `<fig-count>` Figure Count

Number of `<fig>` elements that appear in the standards document.

Attributes:

`@count` **Count**
`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.99 `<fig-group>` Figure Group

Container element for figures that are to be displayed together.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@orientation` **Orientation**
`@originator` **Originator**

@position **Position**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <caption> **Caption of a Figure, Table, Etc.**, zero or one
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- Any combination of:
 - Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Any combination of:
 - <fig> **Figure**
 - <alternatives> **Alternatives For Processing**
 - <graphic> **Graphic**
 - <media> **Media Object**

8.1.100 <fixed-case> Fixed Case

Used to mark text in which the case of the content should not be changed, even if the content around it is styled to all upper case or all lower.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**

- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.101 `<fn>` Footnote

Additional information tied to a particular location in the text. This material is not considered to be part of the body of the text, but is an aside used instead of, in addition to, as a source for, or as a commentary on either some body text or on an element in the metadata.

Attributes:

`@fn-type` **Type of Footnote**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@symbol` **Symbol**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- One or more of any of:
 - `<p>` **Paragraph**
 - **Standards Note and Example Elements**
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.102 `<fn-group>` Footnote Group

Container element for collecting footnotes in one place, for example, at the end of the standards document body or the footnotes inside a structure such as a section (`<sec>`), an annex (`<app>`), or a text box (`<boxed-text>`).

Attributes:

`@content-type` **Type of Content**

@id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- <fn> **Footnote**, one or more

8.1.103 <fpage> First Page (in a citation)

Page number on which a document begins, typically used as part of citing a journal article or referencing a related journal article.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @seq **Sequence Number**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.104 <front> Front Matter

Container element for the metadata of a standards document and any introductory notes and sections that occur before the body of the standard.

Content model:

The following, in order:

- <std-doc-meta> **Standards Document Metadata**, zero or one
- Any combination of:
 - <std-meta> **NISO STS Standard Metadata**
 - <iso-meta> **ISO-specific Metadata**
 - <reg-meta> **ISO-specific Regional Metadata**
 - <nat-meta> **ISO-specific National-Body Metadata**
- Any combination of:
 - <ack> **Acknowledgments**
 - <notes> **Notes Section**
 - <toc> **Table of Contents**
 - <toc-group> **Table of Contents Group**
 - <sec> **Section**
 - <xi:include> **XInclude**

8.1.105 <full> Full Title

Contains the full title of the standard. Normally, this contains all the introductory, main, and complementary titles and subtitles in a precombined form, possibly with punctuation and spacing added between title components. The full title is a good interchange option, to communicate the title of a standard.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**

8.1.106 `<funding-source>` Funding Source

Agency or organization that funded the research on which a work was based.

Attributes:

- `@country` **Country**
- `@id` **Document Internal Identifier**
- `@rid` **Reference to an Identifier**

@source-type **Source Type**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <institution> **Institution Name**
- <institution-wrap> **Institution Wrapper**

8.1.107 <given-names> Given (First) Names

All given names of a person, such as the first name, middle names, maiden name if used as part of the married name, etc.

Attributes:

@id **Document Internal Identifier**
 @initials **Initials for Personal Names**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.108 <glossary> Glossary Elements

Section whose content is typically a list of terms or abbreviations, usually tagged as one or more two-part lists called <def-list>. Typically part of the back matter of a document.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mm1:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
- <glossary> **Glossary Elements**, zero or more

8.1.109 <glyph-data> Glyph Data For a Private Character

Most characters in an XML document can be expressed as regular Unicode® codes. Characters not in the Unicode Standard tables have traditionally been expressed as explicit font calls (non-portable), created as inline graphics, or defined in one of the Unicode private-use areas where users may define their own characters. The <glyph-data> element is used when there is known to be no font available to render a private-use character. This element provides information on the actual glyph that is associated with the private-use character.

Attributes:

@fontchar **Glyph-Data Font Character Table Offset**
 @fontname **Glyph-Data Font Name**
 @format **Glyph Data Image Format**
 @id **Document Internal Identifier**
 @resolution **Resolution of the Glyph Bitmap**
 @x-size **X Size of the Glyph**
 @xml:base **Base**
 @xml:space **Space**
 @y-size **Y Size of the Glyph**

Content model:

Text, numbers, or special characters

8.1.110 <glyph-ref> Glyph Reference For a Private Character

Once a private character has been declared using a <glyph-data> element, the character need not be defined with the same <glyph-data> element every time it is used. The character can be reused by using the <glyph-ref> element to point to the full <glyph-data> element. The pointing uses the ID/IDREF linking mechanism, with the @glyph-data attribute of the <glyph-ref> element pointing to the @id attribute of an existing <glyph-data> element. Since the reference uses the ID/IDREF, the reference may precede or follow the element to which it is pointing.

Attributes:

@glyph-data **Glyph Data Character Being Referenced**
 @id **Document Internal Identifier**
 @xml:base **Base**

Content model:

This is an EMPTY element

8.1.111 <gov> Government Report (in a citation)

Container element for the identification information (typically the title and/or an identification number) for a cited governmental report or other government publication.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**

- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**

8.1.112 `<graphic>` Graphic

Description of and pointer to an external file containing a still image.

Attributes:

`@content-type` **Type of Content**
`@form-type` **Form Type**
`@id` **Document Internal Identifier**
`@is-form` **Is Object a Form**
`@mime-subtype` **Mime Subtype**
`@mimetype` **Mime Type**
`@orientation` **Orientation**
`@originator` **Originator**
`@position` **Position**
`@specific-use` **Specific Use**
`@xlink:actuate` **Actuating the XLink Link**
`@xlink:href` **Href (XLink Linking Mechanism)**
`@xlink:role` **XLink Linking Role**
`@xlink:show` **Showing the XLink Link**
`@xlink:title` **Title of the XLink Link**
`@xlink:type` **Type of XLink Link**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**
`@xmlns:xlink` **XLink Namespace Declaration**

Content model:

Any combination of:

- **Accessibility Elements**
 - `<alt-text>` **Alternate Title Text For a Figure, Etc.**
 - `<long-desc>` **Long Description**
- `<abstract>` **Abstract**
- **External Linking Elements**
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<caption>` **Caption of a Figure, Table, Etc.**
- `<object-id>` **Object Identifier**
- `<kwd-group>` **Keyword Group**
- `<label>` **Label of a Figure, Reference, Etc.**
- **Ownership Elements**
 - `<attrib>` **Attribution**
 - `<permissions>` **Permissions**

8.1.113 `<hr>` Horizontal Rule

Defined to allow the standards producer to specify an explicit (non machine-generated) rule.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.114 <ics> ICS Code Number

Identifies the subject matter of the standard using a decimal code from the International Classification for Standards. When more than one ICS code describes a standard, the element <ics> (or the element <ics-wrap>) repeats.

Attributes:

@id **Document Internal Identifier**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.115 <ics-desc> ICS Code Description

The name/title/description of a decimal code from the International Classification for Standards. The element <ics> holds the decimal number while this <ics-desc> element holds the text that names/defines the decimal code.

Attributes:

@id **Document Internal Identifier**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.116 <ics-wrap> ICS Code/Description Wrapper

A container element for ICS (International Classification for Standards) Codes that holds both the decimal ICS code (<ics>) and the expansion (description/name/title) of that code in natural language (<ics-desc>). When more than one ICS code applies to a standard, the element <ics-wrap> may repeat.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @vocab **Vocabulary/Taxonomy Name**
 @vocab-identifier **Vocabulary/Taxonomy Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- The following sequence (in order), one or more times:
 - <ics> **ICS Code Number**
 - <ics-desc> **ICS Code Description**, zero or more
- <ics-wrap> **ICS Code/Description Wrapper**, zero or more

8.1.117 <index> Index

Structural, multi-level index, typically used for capturing a back-of-the-standard or similar index that is already present in a standard being converted to this Tag Set, although it may also be used for indexes generated from index terms set within the text of the standards document.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @index-type **Type of Index**

@specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <index-title-group> **Index Title Group**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
- One or more of any of:
 - <index-entry> **Index Entry**
 - <index-div> **Index Division**

8.1.118 <index-div> Index Division

Division, typically for the purposes of display, in a structural index, for example, a division holding the heading “A” and all of the initial alphabetically arranged index entries.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- `<index-title-group>` **Index Title Group**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
 - `<alternatives>` **Alternatives For Processing**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**
 - `<editing-instruction>` **Editing Instruction**
 - Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
 - Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
 - `<p>` **Paragraph**
 - Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
 - `<disp-quote>` **Quote, Displayed**
 - `<speech>` **Speech**
 - `<statement>` **Statement, Formal**
 - `<verse-group>` **Verse Form For Poetry**
- One or more of any of:
 - `<index-entry>` **Index Entry**
 - `<index-div>` **Index Division**

8.1.119 `<index-entry>` Index Entry

One entry, with all its subdivisions, see and see also terms, and navigational pointers (if any) presented in a structural index.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@sort-key` **Sort Key for Index Entry**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- <term> **Term**
- Any combination of:
 - <index-entry> **Index Entry**
 - <ext-link> **External Link**
 - <nav-pointer> **Navigation Pointer**
 - <nav-pointer-group> **Navigation Pointer Group**
 - <see-entry> **See Structural Index Entry**
 - <see-also-entry> **See-Also Structural Index Entry**

8.1.120 <index-group> Index Group

Collection of one or more Indexes; the Indexes inside a standards document need not be grouped into this element.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <index-title-group> **Index Title Group**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**

- <verse-group> **Verse Form For Poetry**
- <index> **Index**, one or more

8.1.121 <index-term> Index Term

An index term to be embedded into the narrative of a standards document so that an Index can be created programmatically.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @index-type **Type of Index**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <term> **Term**
- Any one of:
 - <index-term> **Index Term**
 - Any combination of:
 - <see> **See (in an index term)**
 - <see-also> **See-Also (in an index-term)**

8.1.122 <index-term-range-end> Index Term Range End

The marker (an EMPTY element) for the end of a range when an index term embedded into the narrative of a document is the start of a range.

Attributes:

@id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @xml:base **Base**

Content model:

This is an EMPTY element

8.1.123 <index-title-group> Index Title Group

Container element to hold the various titles for a structured Index (or a subdivision of such an Index).

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- <subtitle> **Article Subtitle**, zero or more
- <trans-title-group> **Translated Title Group**, zero or more
- <alt-title> **Alternate Title (in an Index)**, zero or more
- <fn-group> **Footnote Group**, zero or one

8.1.124 <inline-formula> Formula, Inline

Mathematical equation, expression, or formula that is to be displayed inline. The mathematics itself can be expressed as ASCII characters, as a graphic, or using TeX, LaTeX, or MathML mathematics expressions.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**

@xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.125 <inline-graphic> Inline Graphic

Description of and pointer to an external graphic that is displayed or set in the same line as the text.

Attributes:

@baseline-shift **Baseline Shift**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @mime-subtype **Mime Subtype**
 @mimetype **Mime Type**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any one of:

- Optionally any one of:
 - Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**

8.1.126 <inline-supplementary-material> Inline Supplementary Material

An inline description of, and possibly a pointer to, an external file that provides supplementary information for the document.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @mime-subtype **Mime Subtype**
 @mimetype **Mime Type**
 @originator **Originator**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.127 <institution> Institution Name

Name of an institution or organization such as a university or corporation used in an address or within a citation (such as a <mixed-citation> or an <element-citation>).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**

@xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- <break> **Line Break**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.128 <institution-id> Institution Identifier

A externally defined institutional identifier, whether organization-specific (for example, “IEEE”) or from an established identifying authority (for example, “Ringgold” or “ISNI”).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @institution-id-type **Type of Institution Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.129 <institution-wrap> Institution Wrapper

A wrapper element to hold both the name of an institution (<institution>) and any identifiers for that institution (<institution-id>), for example, an INSI or Ringgold ID.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Any combination of:

- <institution> **Institution Name**
- <institution-id> **Institution Identifier**

8.1.130 <intro> Introductory Title Part

Container for the optional first part (introductory part) of a standard's title, that typically indicates the broad context of the standard; for example, words based on the title of the responsible committee or a stock phrase such as "Standard Specification for".

Attributes:

@id **Document Internal Identifier**
 @level **Hierarchical Level**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <break> **Line Break**

- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**

8.1.131 <intro-title-wrap> Introductory Title Wrapper

Wrapper element to collect together the <intro> title of the standard and its related component parts, such as a label or subtitle(s).

Attributes:

@id **Document Internal Identifier**
 @level **Hierarchical Level**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <intro> **Introductory Title Part**
- <subtitle> **Article Subtitle**, zero or more

8.1.132 <is-proof> Document in Proof Stage?

A flag element, whose presence signals that a draft/*- document is being processed as proof.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

This is an EMPTY element

8.1.133 <isbn> ISBN

International Standard Book Number, the international code for identifying a particular product form or edition of a publication, typically a monographic publication, but standards documents are frequently assigned ISBNs.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @publication-format **Format of Publication**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.134 <iso-meta> ISO-specific Metadata

This is a container element for ISO-specific metadata for an ISO standards document. This element contains any ISO-specific overrides to the metadata described for the whole standards document (<std-doc-meta>) as well as any additional ISO-specific metadata.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- <title-wrap> **Title Wrapper**, zero or more
- <doc-ident> **ISO-Specific Document Identification Section**, zero or one

- <std-ident> **Standard Identification Block**, zero or one
- Any combination of:
 - <std-org> **Standards Organization Description**
 - <std-org-group> **Standards Organization Group**
- <content-language> **Content Language**, zero or more
- <std-ref> **Standard Reference Designation**, zero or more
- <doc-ref> **Document Reference Designation**, zero or one
- <pub-date> **Publication Date**, zero or one
- <release-date> **Release-Date**, zero or more
- <meta-date> **Other Metadata Date**, zero or more
- Any combination of:
 - <comm-ref> **Committee Reference**
 - <comm-ref-group> **Committee Reference Group**
- <secretariat> **Secretariat**, zero or more
- Any combination of:
 - <ics> **ICS Code Number**
 - <ics-wrap> **ICS Code/Description Wrapper**
- <subj-group> **Subject Group**, zero or more
- <page-count> **Page Count**, zero or one
- <counts> **Counts**, zero or one
- <is-proof> **Document in Proof Stage?**, zero or one
- <std-xref> **Cross-Reference to a Standard**, zero or more
- <permissions> **Permissions**, zero or more
- <self-uri> **Uri For This Same Article Online**, zero or more
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- <meta-note> **Metadata Note**, zero or more
- <custom-meta-group> **Custom Metadata Group**, zero or more

8.1.135 <issn> ISSN (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the International Standard Serial Number, the international code that uniquely identifies a serial publication title.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @pub-type **Type of Publication**
 @publication-format **Format of Publication**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.136 <issn-1> ISSN-L (Linking ISSN) (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), an ISSN designated by an ISSN Centre to group together the different media versions of a standards document. Since a single ISSN-L is assigned no matter how many media formats of a work there are, the ISSN-L can be used to link among the different media versions of the standards document or continuing resource, for example, both the printed and online versions of the same standards document.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.137 <issue> Issue Number (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), the issue number, issue name, or other identifier of an issue of a journal.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @seq **Sequence Number**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.138 <issue-id> Issue Identifier (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), used to record an identifier such as a DOI that describes an entire issue of a journal.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @pub-id-type **Type of Publication Identifier (in a citation)**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xlinkns:xlink **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters

8.1.139 <issue-part> Issue Part (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), used for the case when a publisher splits a journal issue into two or more separately bound or separately issued parts. This element holds the identifiers (titles, part numbers, etc.) for those publishing components.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.140 <issue-title> Issue Title (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), names the theme or special title for a journal issue.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**

@specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.141 <italic> Italic

Used to mark text that should appear in an italic or slanted font.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @toggle **Toggle Switch**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**

- `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.142 `<journal-id>` Journal Identifier in a Related Article

Within a related article (`<related-article>`) or similar element, this element is the short code or abbreviation that represents the journal; used as an alternative to or short form of the journal title; used for identification of the journal domain.

Attributes:

`@id` **Document Internal Identifier**
`@journal-id-type` **Type of Journal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.143 `<kwd>` Keyword

A keyword is a finding aid used for identification, searching, and indexing purposes that records one specific term, key phrase, abbreviation, taxonomic structure, or other expression that is found within the text of a standards document, or implied (broader, narrower, etc.) from terms found within this text.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@vocab-term` **Vocabulary/Taxonomy Term**
`@vocab-term-identifier` **Vocabulary/Taxonomy Term Identifier**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- Baseline Change Elements

- <sub> Subscript
- <sup> Superscript

8.1.144 <kwd-group> Keyword Group

Container element for one set of keywords (<kwd>, <nested-kwd>, or <compound-kwd>) used to describe a document. A keyword records one specific term, key phrase, abbreviation, taxonomic structure, or other expression that is found within the text of a standards document, or implied (broader, narrower, etc.) from terms found within this text.

Attributes:

@id **Document Internal Identifier**
 @kwd-group-type **Keyword Authority**
 @originator **Originator**
 @specific-use **Specific Use**
 @vocab **Vocabulary/Taxonomy Name**
 @vocab-identifier **Vocabulary/Taxonomy Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- One or more of any of:
 - <kwd> **Keyword**
 - <compound-kwd> **Compound Keyword**
 - <nested-kwd> **Nested Keyword**

8.1.145 <label> Label of a Figure, Reference, Etc.

Number and/or prefix word placed at the beginning of display elements (for example, equation, statement, figure).

Attributes:

@alt **Alternative Text**
 @id **Document Internal Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**

- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.146 `<language>` ISO-specific Language Designation

For ISO-related processing, this element indicates the set of official ISO language(s) used in this document.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.147 `<license>` License Information

Set of conditions under which the content may be used, accessed, and distributed.

Attributes:

`@id` **Document Internal Identifier**
`@license-type` **Type of License**
`@specific-use` **Specific Use**
`@xlink:actuate` **Actuating the XLink Link**
`@xlink:href` **Href (XLink Linking Mechanism)**
`@xlink:role` **XLink Linking Role**
`@xlink:show` **Showing the XLink Link**
`@xlink:title` **Title of the XLink Link**
`@xlink:type` **Type of XLink Link**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**
`@xmlns:xlink` **XLink Namespace Declaration**

Content model:

Any one of:

- One or more of any of:
 - `<ali:license_ref>` **License Reference (NISO ALI)**
 - `<license-p>` **License Paragraph**

8.1.148 `<license-p>` License Paragraph

Paragraph of text within the description of a `<license>`.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**

- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
- `<alternatives>` **Alternatives For Processing**
- Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- `<disp-formula>` **Formula, Display**
- `<disp-formula-group>` **Formula, Display Group**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<award-id>` **Award Identifier**
- `<funding-source>` **Funding Source**
- `<open-access>` **Open Access**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**

- `<index-term-range-end>` **Index Term Range End**
- `<milestone-end>` **Milestone End**
- `<milestone-start>` **Milestone Start**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<ref-list>` **Reference List (Bibliographic Reference List)**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<break>` **Line Break**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<price>` **Price**

8.1.149 `<list>` List

Sequence of two or more items, which may or may not be ordered.

Attributes:

`@continued-from` **Continued From (list continuation)**
`@id` **Document Internal Identifier**
`@list-content` **List Content**
`@list-type` **Type of List**
`@originator` **Originator**
`@prefix-word` **Prefix Word (For a List Item)**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- `<list-item>` **List Item**, one or more

8.1.150 `<list-item>` List Item

Single item (one entry) in a list of items.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- One or more of any of:
 - `<p>` **Paragraph**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**

- <normative-note> **Normative-Note**
- <notes-group> **Notes Group**
- Lists
 - <def-list> **Definition List**
 - <list> **List**

8.1.151 <long-desc> Long Description

Full description or summary of the content of an object such as a graphic, table, figure, or text box.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters, zero or more

8.1.152 <1page> Last Page (in a citation)

Page number on which a document ends, typically used as part of citing a journal article or referencing a related journal article.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.153 <main> Main Title Part

Main portion of the standard's title, indicating the principal subject of the document.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
 - <inline-supplementary-material> **Inline Supplementary Material**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - Emphasis Elements

- `<bold>` **Bold**
- `<fixed-case>` **Fixed Case**
- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**
- **Citation Elements**
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**

8.1.154 `<main-title-wrap>` Main Title Wrapper

Wrapper element to collect together the `<main>` title of the standard and its related component parts, such as a label or subtitle(s).

Attributes:

- `@id` **Document Internal Identifier**
- `@xml:base` **Base**
- `@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<main>` **Main Title Part**
- `<subtitle>` **Article Subtitle**, zero or more

8.1.155 <media> Media Object

Description of and pointer to an external file that holds a media object (for example, an animation, an audio file, or a movie).

Attributes:

@content-type **Type of Content**
 @form-type **Form Type**
 @id **Document Internal Identifier**
 @is-form **Is Object a Form**
 @mime-subtype **Mime Subtype**
 @mimetype **Mime Type**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
- <abstract> **Abstract**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <caption> **Caption of a Figure, Table, Etc.**
- <object-id> **Object Identifier**
- <kwd-group> **Keyword Group**
- <label> **Label of a Figure, Reference, Etc.**
- Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.156 <meta-date> Other Metadata Date

The <meta-date> element names the date of some event relevant to this document or standard for all document production and/or lifecycle dates that are *not covered* by the <release-date> element. For example, internal dates that are unique to a particular standards-producing organization would be tagged as <meta-date>s.

Attributes:

@date-type **Type of Date**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @publication-format **Format of Publication**
 @specific-use **Specific Use**
 @type **Type (class, kind)**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.157 <meta-name> Metadata Data Name for Custom Metadata

Name of a single piece of metadata not otherwise defined in the NISO STS Tag Sets.

Attributes:

@id **Document Internal Identifier**
@xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.158 <meta-note> Metadata Note

Notes within the metadata of a standards document (as opposed to within the <front> matter or the narrative text <body>). Such notes are typically a prose representation of some data that may be included as part of the metadata displayed on the cover page, title page, copyright page, or amongst similar metadata.

Attributes:

@content-type **Type of Content**
@id **Document Internal Identifier**
@originator **Originator**
@specific-use **Specific Use**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

The following, in order:

- <title> **Title**, zero or one
- <p> **Paragraph**, one or more

8.1.159 <meta-value> Metadata Data Value for Custom Metadata

Value of a single piece of metadata not otherwise defined in the NISO STS Tag Sets.

Attributes:

@id **Document Internal Identifier**
@xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**

- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.160 `<milestone-end>` Milestone End

End of a non-hierarchically nested object (for example, a textual component which cannot be expressed in the normal non-overlapping tree structure of an XML document).

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@rationale` **Rationale**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

This is an EMPTY element

8.1.161 `<milestone-start>` Milestone Start

Start of a non-hierarchically nested object (for example, a textual component which cannot be expressed in the normal non-overlapping tree structure of an XML document).

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@rationale` **Rationale**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

This is an EMPTY element

8.1.162 `<mixed-citation>` Mixed Citation

Bibliographic description of a work. Includes a combination of bibliographic reference elements and untagged text. Spacing and punctuation are preserved.

Attributes:

@id **Document Internal Identifier**
 @publication-format **Format of Publication**
 @publication-type **Publication Type Identifier (in a citation)**
 @publisher-type **Type of Publisher (in a citation)**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- <break> **Line Break**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- <label> **Label of a Figure, Reference, Etc.**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <annotation> **Annotation (in a citation)**
- <article-title> **Article Title (in a citation)**
- <chapter-title> **Chapter Title (in a citation)**
- <collab> **Collaborative (Group) Author**
- <collab-alternatives> **Collaboration Alternatives**
- <comment> **Comment (in a citation)**
- <conf-acronym> **Conference Acronym (in a citation)**
- <conf-date> **Conference Date (in a citation)**
- <conf-loc> **Conference Location (in a citation)**
- <conf-name> **Conference Name (in a citation)**
- <conf-sponsor> **Conference Sponsor (in a citation)**
- <data-title> **Data Title (in a citation)**
- <date> **Date (in a citation)**

- `<date-in-citation>` **Date in Citation (in a citation)**
- `<day>` **Day (in a citation)**
- `<edition>` **Edition Statement**
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<elocation-id>` **Electronic Location Identifier (in a citation)**
- `<etal>` **Et Al. (in a citation)**
- `<fpage>` **First Page (in a citation)**
- `<gov>` **Government Report (in a citation)**
- `<institution>` **Institution Name**
- `<institution-wrap>` **Institution Wrapper**
- `<isbn>` **ISBN**
- `<issn>` **ISSN (in a citation)**
- `<issn-l>` **ISSN-L (Linking ISSN) (in a citation)**
- `<issue>` **Issue Number (in a citation)**
- `<issue-id>` **Issue Identifier (in a citation)**
- `<issue-part>` **Issue Part (in a citation)**
- `<issue-title>` **Issue Title (in a citation)**
- `<lpage>` **Last Page (in a citation)**
- `<month>` **Month (in a citation)**
- `<name>` **Name of Person (Structured)**
- `<name-alternatives>` **Name Alternatives**
- `<object-id>` **Object Identifier**
- `<page-range>` **Page Ranges (in a citation)**
- `<part-title>` **Part Title (in a citation)**
- `<patent>` **Patent Number (in a citation)**
- `<person-group>` **Person Group (in a citation)**
- `<pub-id>` **Publication Identifier (in a citation)**
- `<publisher-loc>` **Publisher's Location (in a citation)**
- `<publisher-name>` **Publisher's Name (in a citation)**
- `<role>` **Role or Function Title of Contributor**
- `<season>` **Season (in a citation)**
- `<series>` **Series (in a citation)**
- `<size>` **Size (in a citation)**
- `<source>` **Source (in a citation)**
- `<std>` **Citation to a Standard**
- `<string-name>` **Name of Person (Unstructured)**
- `<supplement>` **Supplement (in a citation)**
- `<trans-source>` **Translated Source (in a citation)**
- `<trans-title>` **Translated Title**
- `<version>` **Version Statement, Cited**
- `<volume>` **Volume Number (in a citation)**
- `<volume-id>` **Volume Identifier (in a citation)**
- `<volume-series>` **Volume Series (in a citation)**
- `<year>` **Year**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.163 `<mm1:math>` Math (MathML Tag Set)

Use documentation for the Mathematical Markup Language (MathML) Tag Set (<https://www.w3.org/TR/MathML3/> or <https://www.w3.org/TR/MathML2/>).

Attributes:

@xmlns:mml **MathML Namespace Declaration**

8.1.164 <monospace> Monospace Text (Typewriter Text)

Used to mark text that should appear in a non-proportional font, such as courier.

Attributes:

@id **Document Internal Identifier**

@specific-use **Specific Use**

@toggle **Toggle Switch**

@xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**

- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- <std-ref> **Standard Reference Designation**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.165 <month> Month (in a citation)

Names one of the months of the year, such as “July” or “07”.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.166 <name> Name of Person (Structured)

Container element for the component elements of personal names, such as a <surname>.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @name-style **Personal Name Style**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- Any one of:
 - The following, in order:
 - <surname> **Surname**
 - <given-names> **Given (First) Names**, zero or one
 - <given-names> **Given (First) Names**
- <prefix> **Prefix (in a name)**, zero or one
- <suffix> **Suffix (in a name)**, zero or one

8.1.167 <name-alternatives> Name Alternatives

Container element for more than one version of a personal name (<name> or <string-name>), for example, one name written in both Japanese Kana characters and in the Latin alphabet.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Any one of:

- One or more of any of:
 - <name> **Name of Person (Structured)**
 - <string-name> **Name of Person (Unstructured)**

8.1.168 <named-content> Named Special (Subject) Content

Word or phrase whose content/subject matter has distinct semantics or content-related significance that is not defined in this Tag Set.

Attributes:

@alt **Alternative Text**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @vocab **Vocabulary/Taxonomy Name**
 @vocab-identifier **Vocabulary/Taxonomy Identifier**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
- <alternatives> **Alternatives For Processing**
- Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**

- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Lists**
 - `<def-list>` **Definition List**
 - `<list>` **List**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**

8.1.169 `<nat-meta>` ISO-specific National-Body Metadata

This element is a container element for metadata specific to or produced by an ISO-related national standards body. This element contains any national-organization-specific overrides to the metadata described for the whole standards document (`<std-doc-meta>`) as well as the organization-specific metadata for the national standards body.

Attributes:

`@id` **Document Internal Identifier**
`@originator` **Originator**
`@xml:base` **Base**

Content model:

The following, in order:

- `<title-wrap>` **Title Wrapper**, zero or more
- `<doc-ident>` **ISO-Specific Document Identification Section**, zero or one
- `<std-ident>` **Standard Identification Block**, zero or one
- Any combination of:
 - `<std-org>` **Standards Organization Description**
 - `<std-org-group>` **Standards Organization Group**
- `<content-language>` **Content Language**, zero or more
- `<std-ref>` **Standard Reference Designation**, zero or more
- `<doc-ref>` **Document Reference Designation**, zero or one
- `<pub-date>` **Publication Date**, zero or one
- `<release-date>` **Release-Date**, zero or more

- <meta-date> **Other Metadata Date**, zero or more
- Any combination of:
 - <comm-ref> **Committee Reference**
 - <comm-ref-group> **Committee Reference Group**
- <secretariat> **Secretariat**, zero or more
- Any combination of:
 - <ics> **ICS Code Number**
 - <ics-wrap> **ICS Code/Description Wrapper**
- <subj-group> **Subject Group**, zero or more
- <page-count> **Page Count**, zero or one
- <counts> **Counts**, zero or one
- <std-xref> **Cross-Reference to a Standard**, zero or more
- <permissions> **Permissions**, zero or more
- <self-uri> **Uri For This Same Article Online**, zero or more
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- <meta-note> **Metadata Note**, zero or more
- <custom-meta-group> **Custom Metadata Group**, zero or more

8.1.170 <nav-pointer> Navigation Pointer

The cross-reference-like element used to point from a Table of Contents entry (<toc-entry>) or Index Entry (<index-entry>) to the place in the text being referenced.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @nav-pointer-type **Type of Navigation Pointer**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
 - Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
 - Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.171 <nav-pointer-group> Navigation Pointer Group

More than one <nav-pointer> element, in a group associated with a Table of Contents entry (<toc-entry>) or Index Entry (<index-entry>).

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- <nav-pointer> **Navigation Pointer**

8.1.172 <nested-kwd> Nested Keyword

Hierarchical or nested keyword, in which several levels of a taxonomy that pertains to the standard can be described.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- One or more of any of:
 - <kwd> **Keyword**
 - <compound-kwd> **Compound Keyword**
- <nested-kwd> **Nested Keyword**, zero or more

8.1.173 <nlm-citation> NLM Citation Model (deprecated)

This alternative type of citation comes from an older version of JATS and is now deprecated in JATS; avoid using it. For NISO STS, use the element <std> for a citation to a standard; use either the <element-citation> element or the <mixed-citation> element to tag a dataset, journal article, book, or any document that is not a standard.

Attributes:

@id **Document Internal Identifier**
 @publication-format **Format of Publication**
 @publication-type **Publication Type Identifier (in a citation)**
 @publisher-type **Type of Publisher (in a citation)**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

The following, in order:

- Any combination of:
 - <person-group> **Person Group (in a citation)**
 - <collab> **Collaborative (Group) Author**
- Any combination of:
 - <article-title> **Article Title (in a citation)**
 - <trans-title> **Translated Title**

- <source> **Source (in a citation)**, zero or one
- <patent> **Patent Number (in a citation)**, zero or one
- <trans-source> **Translated Source (in a citation)**, zero or one
- <year> **Year**, zero or one
- Any one of:
 - The following, in order:
 - <month> **Month (in a citation)**, zero or one
 - <day> **Day (in a citation)**, zero or one
 - <time-stamp> **Time Stamp For Cited Work (deprecated)**, zero or one
 - <season> **Season (in a citation)**, zero or one
- <access-date> **Access Date For Cited Work (deprecated)**, zero or one
- <volume> **Volume Number (in a citation)**, zero or one
- <edition> **Edition Statement**, zero or one
- <conf-name> **Conference Name (in a citation)**, zero or one
- <conf-date> **Conference Date (in a citation)**, zero or one
- <conf-loc> **Conference Location (in a citation)**, zero or one
- Any combination of:
 - <issue> **Issue Number (in a citation)**
 - <supplement> **Supplement (in a citation)**
- <publisher-loc> **Publisher's Location (in a citation)**, zero or one
- <publisher-name> **Publisher's Name (in a citation)**, zero or one
- Zero or more occurrences of the following, in order:
 - <fpage> **First Page (in a citation)**, zero or one
 - <lpag> **Last Page (in a citation)**, zero or one
- <page-count> **Page Count**, zero or one
- <series> **Series (in a citation)**, zero or one
- <comment> **Comment (in a citation)**, zero or more
- <pub-id> **Publication Identifier (in a citation)**, zero or more
- <annotation> **Annotation (in a citation)**, zero or one

8.1.174 <non-normative-example> Non-Normative-Example

An example with non-normative content that is integrated in the text of a standards document, used for giving additional information intended to assist the understanding or use of the standard.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**

- `<alternatives>` **Alternatives For Processing**
- Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- `<disp-formula>` **Formula, Display**
- `<disp-formula-group>` **Formula, Display Group**
- `<editing-instruction>` **Editing Instruction**
- Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<p>` **Paragraph**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**

8.1.175 `<non-normative-note>` Non-Normative-Note

A non-normative note integrated in the text of a document, used for giving additional information intended to assist the understanding or use of the document or lifecycle or adoption status.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
 - `<alternatives>` **Alternatives For Processing**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**

- <normative-note> **Normative-Note**
- <notes-group> **Notes Group**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- <editing-instruction> **Editing Instruction**
- Lists
 - <def-list> **Definition List**
 - <list> **List**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- <p> **Paragraph**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- <disp-quote> **Quote, Displayed**
- <speech> **Speech**
- <statement> **Statement, Formal**
- <verse-group> **Verse Form For Poetry**

8.1.176 <normative-example> Normative-Example

A example with normative content that is integrated in the text of a standards document, used for giving additional information intended to assist the understanding or use of the standard.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**

- Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<p>` **Paragraph**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**

8.1.177 `<normative-note>` Normative-Note

A note with normative content that is integrated in the text of a standards document, used for giving additional information intended to assist the understanding or use of the document or lifecycle or adoption status.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
 - `<alternatives>` **Alternatives For Processing**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**
 - `<editing-instruction>` **Editing Instruction**
 - Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
 - Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**

- `<tex-math>` **TeX Math Equation**
- `<p>` **Paragraph**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**

8.1.178 `<notes>` Notes Section

A container element to hold the notes that may appear within the front matter (`<front>`) or in the rear matter (`<back>`) of a standards document or adoption document.

Attributes:

`@id` **Document Internal Identifier**
`@notes-type` **Type of Publishing Notes**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - `<address>` **Address/Contact Information**
 - `<array>` **Array (Simple Tabular Array)**
 - `<boxed-text>` **Boxed Text**
 - `<chem-struct-wrap>` **Chemical Structure Wrapper**
 - `<code>` **Code Text**
 - `<fig>` **Figure**
 - `<fig-group>` **Figure Group**
 - `<graphic>` **Graphic**
 - `<media>` **Media Object**
 - `<preformat>` **Preformatted Text**
 - `<supplementary-material>` **Supplementary Material**
 - `<table-wrap>` **Table Wrapper**
 - `<table-wrap-group>` **Table Wrapper Group**
 - `<alternatives>` **Alternatives For Processing**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
 - `<disp-formula>` **Formula, Display**
 - `<disp-formula-group>` **Formula, Display Group**
 - `<editing-instruction>` **Editing Instruction**
 - Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
 - Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
 - `<p>` **Paragraph**
 - Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**

- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**
- `<fn-group>` **Footnote Group**
- `<glossary>` **Glossary Elements**
- `<ref-list>` **Reference List (Bibliographic Reference List)**
- Optionally, the following sequence (in order):
 - One or more of any of:
 - Section Elements
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - Any combination of:
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.179 `<notes-group>` Notes Group

Container for a headed (titled) group of normative or non-normative notes and examples within the narrative body, front matter, or back matter of a standard or adoption.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**
- `<editing-instruction>` **Editing Instruction**, zero or more
- Any combination of:
 - `<p>` **Paragraph**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<non-normative-example>` **Non-Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<normative-example>` **Normative-Example**

8.1.180 `<num>` ISO Numeric Emphasis

A number appearing in running prose. The `<num>` element is provided to allow numbers to be tagged so that the decimal separators and group separators appearing in them can be identified explicitly; this is helpful when the document is to be rendered in a style which may require different decimal or group separators in different contexts or for different languages.

Attributes:

`@dsep` **Decimal Separator**
`@gsep` **Group Separator**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters

8.1.181 <asis:table> OASIS XML Exchange (CALS) Table (In STS Extended ONLY)

The rows and columns part of a table using the OASIS XML Exchange (CALS) table model. (This structure is available *only* in the Extended variants of NISO STS; it is *not* available in the Interchange versions of NISO STS.) In order to distinguish the OASIS XML Exchange (CALS) elements from the XHTML table model, all OASIS XML Exchange (CALS) table elements must be namespaced in NISO STS, by default using the OASIS URI and the namespace prefix “asis:”.

Attributes:@xml:base **Base****8.1.182 <asis:tbody> Table Body for an OASIS XML Exchange (CALS) Table (In STS Extended ONLY)**

Container element that holds the rows and columns of the *body* (as opposed to the *header*) portions of an OASIS XML Exchange (CALS) table. (This structure is available *only* in the Extended versions of NISO STS; it is *not* available in the Interchange versions of NISO STS.) In order to distinguish the OASIS XML Exchange (CALS) elements from the XHTML table model, all OASIS XML Exchange (CALS) table elements must be namespaced in NISO STS, by default using the OASIS URI and the namespace prefix “asis:”.

Attributes:@xml:base **Base****8.1.183 <object-id> Object Identifier**

Unique identifier (such as a DOI or URI) for a component *within* a document such as a standard or a journal article (for example, for a figure, table, or text box within a standard).

Attributes:@content-type **Type of Content**@id **Document Internal Identifier**@pub-id-type **Type of Publication Identifier (in a citation)**@specific-use **Specific Use**@xml:base **Base****Content model:**

Text, numbers, or special characters

8.1.184 <on-behalf-of> On Behalf of

When a contributor is acting as a representative of an organization, he/she is said to have written or edited a work “on behalf of” that organization or group, and this element holds the name of the organization or group.

Attributes:@id **Document Internal Identifier**@specific-use **Specific Use**@xml:base **Base**@xml:lang **Language of an Element****Content model:**

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**

- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<institution>` **Institution Name**
- `<institution-wrap>` **Institution Wrapper**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**

8.1.185 `<open-access>` Open Access

A container element to hold metadata concerning the open access provisions that apply to a work (for example, which model of charging was used or who paid the open access charges) or the funding information that provided the open access provisions.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any one of:

- One or more of any of:
 - `<p>` **Paragraph**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.186 `<originator>` Originator

Indicates the short form of the name of the standards-development organization from which the standard emanates (for example, “ISO”, “IEC”, “ASTM”, “DIN”, “CEN” “ASME”, “IEEE”, and similar).

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.187 `<overline>` Overline

Used to mark text that should appear with a horizontal line above each character.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@toggle` **Toggle Switch**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.188 <p> Paragraph

The basic block-unit of textual information; a textual paragraph.

Attributes:

`@content-type` **Type of Content**

@id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @style-type **Style Type**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
- <alternatives> **Alternatives For Processing**
- Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <award-id> **Award Identifier**
- <funding-source> **Funding Source**

- `<open-access>` **Open Access**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- **Lists**
 - `<def-list>` **Definition List**
 - `<list>` **List**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<ref-list>` **Reference List (Bibliographic Reference List)**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<break>` **Line Break**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.189 `<page-count>` **Page Count**

Total number of pages in a work in print; by convention, each page or partial page is counted as one. Electronic-only works do not traditionally have page counts.

Attributes:

`@count` **Count**
`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.190 `<page-range>` **Page Ranges (in a citation)**

Text describing discontinuous pagination (for example, 8-11, 14-19, 40).

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.191 <part-number> Part Number of a Multipart Document

Records the part-number of the part, for individual parts of multipart standards documents. For documents which are not parts of a larger document, this element should be omitted.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.192 <part-of-speech> Part of Speech

One part-of-speech associated with the term (<term>) that is being defined in a <term-display>.

Attributes:

@id **Document Internal Identifier**
 @norm-part-of-speech **Normative part of Speech**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.193 <part-title> Part Title (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), when books are divided into Parts (which may then contain smaller units such as chapters), this element can be used to record the title of the cited Part. The book would be tagged as <source>.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.194 <patent> Patent Number (in a citation)

In a bibliographic citation (<element-citation> or <mixed-citation>) or a citation to a related object (<related-object>), this element holds identification information for a patent.

Attributes:

@content-type **Type of Content**
 @country **Country**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.195 <permissions> Permissions

Container element for copyright and license information.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- <copyright-statement> **Copyright Statement**, zero or more
- <copyright-year> **Copyright Year**, zero or more
- <copyright-holder> **Copyright Holder**, zero or more
- Any combination of:
 - <ali:free_to_read> **Free to Read (NISO ALI)**
 - <license> **License Information**

8.1.196 <person-group> Person Group (in a citation)

Wrapper element for one or more authors, editors, translators, etc. named in a cited reference.

Attributes:

@id **Document Internal Identifier**
 @person-group-type **Type of People (in Person Group)**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Contributor Naming Elements
 - <anonymous> **Anonymous**
 - <collab> **Collaborative (Group) Author**
 - <collab-alternatives> **Collaboration Alternatives**
 - <name> **Name of Person (Structured)**
 - <name-alternatives> **Name Alternatives**
- <aff> **Affiliation**
- <aff-alternatives> **Affiliation Alternatives**
- <etal> **Et Al. (in a citation)**
- <role> **Role or Function Title of Contributor**
- <string-name> **Name of Person (Unstructured)**

8.1.197 <phone> Phone Number: in an Address

Portion of an address which contains a phone number.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.198 <postal-code> Postal Code: in an Address

A postal number such as a zip-code or postal code used to address physical mail.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.199 <prefix> Prefix (in a name)

Honorifics or other qualifiers that usually precede a person's name (for example, Professor, Rev., President, Senator, Dr., Sir, The Honorable).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.200 <preformat> Preformatted Text

Text in which spaces, tabs, and line feeds must be preserved. Content is typically displayed in monofont to preserve character alignment.

Attributes:

@form-type **Form Type**
 @id **Document Internal Identifier**
 @is-form **Is Object a Form**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @preformat-type **Type of Preformatted Text**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xml:space **Space**

Content model:

Any combination of:

- Text, numbers, or special characters
- Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
- External Linking Elements

- <email> **Email Address**
- <ext-link> **External Link**
- <uri> **Uniform Resource Identifier (URI)**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.201 <price> Price

Sale price or licensing fees of a work.

Attributes:

@content-type **Type of Content**
 @currency **Currency**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**

- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**

8.1.202 `<private-char>` Private Character (Custom or Unicode)

Custom character supplied by a publisher, or a custom character from the Unicode private-use area, for which a bitmap or other representation of the glyph is included in or with the XML. The glyph may be represented as an inline graphic, an explicit bitmap glyph, or a reference to a previously defined character.

Attributes:

`@description` **Private Character Description**
`@id` **Document Internal Identifier**
`@name` **Name (in a Private Character)**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

- Any one of:
- Any one of:
 - `<glyph-data>` **Glyph Data For a Private Character**
 - `<glyph-ref>` **Glyph Reference For a Private Character**
 - `<inline-graphic>` **Inline Graphic**, zero or more

8.1.203 `<proj-id>` ISO-Specific Project Identifier

The project number for the project within which this standards document was developed.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.204 `<pronunciation>` Pronunciation

One way to pronounce the term (`<term>`) that is being defined in a display term (`<term-display>`).

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xlink:actuate` **Actuating the XLink Link**
`@xlink:href` **Href (XLink Linking Mechanism)**
`@xlink:role` **XLink Linking Role**
`@xlink:show` **Showing the XLink Link**
`@xlink:title` **Title of the XLink Link**
`@xlink:type` **Type of XLink Link**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**
`@xmlns:xlink` **XLink Namespace Declaration**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - `<bold>` **Bold**
 - `<italic>` **Italic**

- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.205 <pub-date> Publication Date

In ISO STS, this element holds the date on which a standard is (or was) first published. For this NISO STS Tag Set, this publishing date should be recorded using the <release-date> element.

Attributes:

@calendar **calendar**
 @date-type **Type of Date**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @pub-type **Type of Publication**
 @publication-format **Format of Publication**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.206 <pub-id> Publication Identifier (in a citation)

In a bibliographic citation (<element-citation> or <mixed-citation>) or a citation to a related object (<related-object>), this element names an identifier of the cited publication.

Attributes:

@assigning-authority **Authority Responsible for an Identifier**
 @id **Document Internal Identifier**
 @pub-id-type **Type of Publication Identifier (in a citation)**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters

8.1.207 <publisher-loc> Publisher's Location (in a citation)

In a bibliographic citation (<element-citation> or <mixed-citation>) or a citation to a related object (<related-object>), this element names the place of publication of the cited document, typically a city such as "New York" or "London".

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - Address Elements
 - <addr-line> **Address Line**
 - <city> **City (in an address)**
 - <country> **Country (in an address)**

- <fax> **Fax Number (in address)**
- <institution> **Institution Name**
- <institution-wrap> **Institution Wrapper**
- <phone> **Phone Number: in an Address**
- <postal-code> **Postal Code: in an Address**
- <state> **State or Province (in an address)**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.208 <publisher-name> Publisher's Name (in a citation)

In a bibliographic citation (<element-citation> or <mixed-citation>) or a citation to a related object (<related-object>), this element names the publisher of the cited work.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- <institution> **Institution Name**
- <institution-wrap> **Institution Wrapper**

8.1.209 <rb> Ruby Base Text

This element is one half of a Ruby annotation (<ruby>), and it contains the narrative text in the document, which may be as short as a single character, to which a Ruby Textual Annotation (<rt>) should be applied.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters

- `<bold>` **Bold**
- `<fixed-case>` **Fixed Case**
- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**

8.1.210 `<ref>` Reference Item

One item in a bibliographic list, typically a citation describing a referenced work.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- One or more of any of:
 - Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.211 `<ref-count>` Reference Count

Number of references or citations that appear the bibliographic reference list of the standards document.

Attributes:

`@count` **Count**
`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.212 `<ref-list>` Reference List (Bibliographic Reference List)

A list of referenced documents. This element is used both for lists of normative references and for non-normative bibliographies.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**

@xml:lang Language of an Element

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - <p> **Paragraph**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
- <ref> **Reference Item**, zero or more
- <ref-list> **Reference List (Bibliographic Reference List)**, zero or more

8.1.213 <reg-meta> ISO-specific Regional Metadata

This element is a container element for metadata specific to or produced by an ISO-related regional standards body. This element contains any regional-organization-specific overrides to the metadata described for the whole standards document (<std-doc-meta>) as well as the organization-specific metadata for the regional standards body.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @xml:base **Base**

Content model:

The following, in order:

- <title-wrap> **Title Wrapper**, zero or more
- <doc-ident> **ISO-Specific Document Identification Section**, zero or one
- <std-ident> **Standard Identification Block**, zero or one
- Any combination of:
 - <std-org> **Standards Organization Description**
 - <std-org-group> **Standards Organization Group**
- <content-language> **Content Language**, zero or more
- <std-ref> **Standard Reference Designation**, zero or more
- <doc-ref> **Document Reference Designation**, zero or one
- <pub-date> **Publication Date**, zero or one
- <release-date> **Release-Date**, zero or more
- <meta-date> **Other Metadata Date**, zero or more
- <wi-number> **Work Item Number**, zero or one
- Any combination of:
 - <comm-ref> **Committee Reference**
 - <comm-ref-group> **Committee Reference Group**
- <secretariat> **Secretariat**, zero or more
- Any combination of:
 - <ics> **ICS Code Number**
 - <ics-wrap> **ICS Code/Description Wrapper**
- <subj-group> **Subject Group**, zero or more
- <page-count> **Page Count**, zero or one
- <counts> **Counts**, zero or one
- <std-xref> **Cross-Reference to a Standard**, zero or more
- <release-version-id> **ISO-Specific Release Version ID**, zero or one
- <permissions> **Permissions**, zero or more
- <self-uri> **Uri For This Same Article Online**, zero or more
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- <meta-note> **Metadata Note**, zero or more
- <custom-meta-group> **Custom Metadata Group**, zero or more

8.1.214 <related-article> Related Journal Article Information

Description of, and typically a link to, a journal article related to the standards document.

Attributes:

@elocation-id **Elocation Identifier**
 @ext-link-type **Type of External Link**
 @id **Document Internal Identifier**
 @issue **Issue Number of a Related Article**
 @journal-id **Journal Identifier of a Related Article**
 @journal-id-type **Type of Journal Identifier**
 @originator **Originator**
 @page **Page (of Related Article)**
 @related-article-type **Type of Related Article**
 @specific-use **Specific Use**
 @vol **Volume of Related Article**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

- Any combination of:
- Text, numbers, or special characters

- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<journal-id>` **Journal Identifier in a Related Article**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<annotation>` **Annotation (in a citation)**
- `<article-title>` **Article Title (in a citation)**
- `<chapter-title>` **Chapter Title (in a citation)**
- `<collab>` **Collaborative (Group) Author**
- `<collab-alternatives>` **Collaboration Alternatives**
- `<comment>` **Comment (in a citation)**
- `<conf-acronym>` **Conference Acronym (in a citation)**
- `<conf-date>` **Conference Date (in a citation)**
- `<conf-loc>` **Conference Location (in a citation)**
- `<conf-name>` **Conference Name (in a citation)**
- `<conf-sponsor>` **Conference Sponsor (in a citation)**
- `<data-title>` **Data Title (in a citation)**
- `<date>` **Date (in a citation)**
- `<date-in-citation>` **Date in Citation (in a citation)**
- `<day>` **Day (in a citation)**
- `<edition>` **Edition Statement**
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<elocation-id>` **Electronic Location Identifier (in a citation)**
- `<etal>` **Et Al. (in a citation)**
- `<fpage>` **First Page (in a citation)**
- `<gov>` **Government Report (in a citation)**
- `<institution>` **Institution Name**
- `<institution-wrap>` **Institution Wrapper**
- `<isbn>` **ISBN**
- `<issn>` **ISSN (in a citation)**
- `<issn-l>` **ISSN-L (Linking ISSN) (in a citation)**
- `<issue>` **Issue Number (in a citation)**
- `<issue-id>` **Issue Identifier (in a citation)**
- `<issue-part>` **Issue Part (in a citation)**
- `<issue-title>` **Issue Title (in a citation)**
- `<lpage>` **Last Page (in a citation)**
- `<month>` **Month (in a citation)**
- `<name>` **Name of Person (Structured)**
- `<name-alternatives>` **Name Alternatives**
- `<object-id>` **Object Identifier**
- `<page-range>` **Page Ranges (in a citation)**
- `<part-title>` **Part Title (in a citation)**
- `<patent>` **Patent Number (in a citation)**

- <person-group> **Person Group (in a citation)**
- <pub-id> **Publication Identifier (in a citation)**
- <publisher-loc> **Publisher's Location (in a citation)**
- <publisher-name> **Publisher's Name (in a citation)**
- <role> **Role or Function Title of Contributor**
- <season> **Season (in a citation)**
- <series> **Series (in a citation)**
- <size> **Size (in a citation)**
- <source> **Source (in a citation)**
- <std> **Citation to a Standard**
- <string-name> **Name of Person (Unstructured)**
- <supplement> **Supplement (in a citation)**
- <trans-source> **Translated Source (in a citation)**
- <trans-title> **Translated Title**
- <version> **Version Statement, Cited**
- <volume> **Volume Number (in a citation)**
- <volume-id> **Volume Identifier (in a citation)**
- <volume-series> **Volume Series (in a citation)**
- <year> **Year**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.215 <related-object> Related Non-standards Object Information

Description of an object (for example, book chapter, figure, table) related to the content of the standards document.

Attributes:

@content-type **Type of Content**
 @document-id **Related Object Document Identifier**
 @document-id-type **Related Object Document Identifier Type**
 @document-type **Related Object Document Type**
 @id **Document Internal Identifier**
 @link-type **Type of Link (for a Related Object)**
 @object-id **Object Identifier (in Related Object)**
 @object-id-type **Object Identifier Type (in Related Object)**
 @object-type **Object Type (in Related Object)**
 @originator **Originator**
 @source-id **Source Identifier (in Related Object)**
 @source-id-type **Source Identifier Type (in Related Object)**
 @source-type **Source Type**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**

- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<annotation>` **Annotation (in a citation)**
- `<article-title>` **Article Title (in a citation)**
- `<chapter-title>` **Chapter Title (in a citation)**
- `<collab>` **Collaborative (Group) Author**
- `<collab-alternatives>` **Collaboration Alternatives**
- `<comment>` **Comment (in a citation)**
- `<conf-acronym>` **Conference Acronym (in a citation)**
- `<conf-date>` **Conference Date (in a citation)**
- `<conf-loc>` **Conference Location (in a citation)**
- `<conf-name>` **Conference Name (in a citation)**
- `<conf-sponsor>` **Conference Sponsor (in a citation)**
- `<data-title>` **Data Title (in a citation)**
- `<date>` **Date (in a citation)**
- `<date-in-citation>` **Date in Citation (in a citation)**
- `<day>` **Day (in a citation)**
- `<edition>` **Edition Statement**
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<elocation-id>` **Electronic Location Identifier (in a citation)**
- `<etal>` **Et Al. (in a citation)**
- `<fpage>` **First Page (in a citation)**
- `<gov>` **Government Report (in a citation)**
- `<institution>` **Institution Name**
- `<institution-wrap>` **Institution Wrapper**
- `<isbn>` **ISBN**
- `<issn>` **ISSN (in a citation)**
- `<issn-l>` **ISSN-L (Linking ISSN) (in a citation)**
- `<issue>` **Issue Number (in a citation)**
- `<issue-id>` **Issue Identifier (in a citation)**
- `<issue-part>` **Issue Part (in a citation)**
- `<issue-title>` **Issue Title (in a citation)**
- `<lpage>` **Last Page (in a citation)**
- `<month>` **Month (in a citation)**
- `<name>` **Name of Person (Structured)**
- `<name-alternatives>` **Name Alternatives**
- `<object-id>` **Object Identifier**
- `<page-range>` **Page Ranges (in a citation)**
- `<part-title>` **Part Title (in a citation)**
- `<patent>` **Patent Number (in a citation)**
- `<person-group>` **Person Group (in a citation)**
- `<pub-id>` **Publication Identifier (in a citation)**
- `<publisher-loc>` **Publisher's Location (in a citation)**
- `<publisher-name>` **Publisher's Name (in a citation)**
- `<role>` **Role or Function Title of Contributor**
- `<season>` **Season (in a citation)**
- `<series>` **Series (in a citation)**
- `<size>` **Size (in a citation)**
- `<source>` **Source (in a citation)**
- `<std>` **Citation to a Standard**
- `<string-name>` **Name of Person (Unstructured)**
- `<supplement>` **Supplement (in a citation)**
- `<trans-source>` **Translated Source (in a citation)**
- `<trans-title>` **Translated Title**

- `<version>` **Version Statement, Cited**
- `<volume>` **Volume Number (in a citation)**
- `<volume-id>` **Volume Identifier (in a citation)**
- `<volume-series>` **Volume Series (in a citation)**
- `<year>` **Year**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.216 `<related-term>` Related Terms

A term that is related to the `<term>` that is being described inside a `<term-display>`. The related term may be a synonym, see or see also relationship, etc.

Attributes:

`@id` **Document Internal Identifier**
`@related-term-type` **Related Term Type**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<fn>` **Footnote**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<styled-content>` **Styled Special (Subject) Content**

8.1.217 `<release-date>` Release-Date

An important date in the life of a standard, such as the date it was first published or the date it was reinstated. The attributes `@date-type` and `@std-type` should be used to specify what event the date names.

Attributes:

`@date-type` **Type of Date**
`@id` **Document Internal Identifier**
`@iso-8601-date` **ISO-8601 Formatted Date**

@publication-format **Format of Publication**
 @std-type **Type of Standards Document**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.218 <release-version> Release-Version

Text that describes an organization's specific draft version status or lifecycle stage of the current XML document.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.219 <release-version-id> ISO-Specific Release Version ID

Typically used for CEN and CENELEC, this element contains the technical key (unique identifier) in the CEN PROJEXDATA (a service that allows CEN NSBs to download essential project data in XML format) that identifies a standard release version. The CEN standard release version is the version of a standard which corresponds to a major stage of progress of the standard development process (milestone).

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.220 <role> Role or Function Title of Contributor

Title or role of a contributor to a work (for example, editor-in-chief, chief scientist, photographer, translator).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @vocab **Vocabulary/Taxonomy Name**
 @vocab-identifier **Vocabulary/Taxonomy Identifier**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**

- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**

8.1.221 <roman> Roman

Used to mark text that should remain in roman script no matter what style the surrounding text takes on.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @toggle **Toggle Switch**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**

- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.222 `<rt>` Ruby Textual Annotation

This element is one half of a Ruby annotation (`<ruby>`), and it contains the text that annotates the material in the Ruby Base (`<rb>`), which may be as small as a single character.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.223 `<ruby>` Ruby Wrapper

An inline wrapper element that surrounds some of the document narrative text in the same way a bold or italic emphasis would. The `<ruby>` element contains a Ruby Base (`<rb>` element) which contains the document text and a Ruby Textual Annotation (`<rt>` element) that applies to that base text.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

The following, in order:

- `<rb>` **Ruby Base Text**
- `<rt>` **Ruby Textual Annotation**

8.1.224 `<sans-serif>` Sans Serif

Used to mark text that should appear in a sans-serif font.

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@toggle` **Toggle Switch**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Citation Elements

- <citation-alternatives> **Citation Alternatives**
- <element-citation> **Element Citation**
- <mixed-citation> **Mixed Citation**
- <std> **Citation to a Standard**
- **Emphasis Elements**
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- **Inline Display Elements**
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- **Math Elements**
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- **Other Inline Elements**
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- <std-ref> **Standard Reference Designation**
- **Baseline Change Elements**
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.225 <sc> Small Caps

Used to mark text that should appear in a font that creates smaller capital letters.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @toggle **Toggle Switch**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements

- `<related-article>` **Related Journal Article Information**
- `<related-object>` **Related Non-standards Object Information**
- **Citation Elements**
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.226 `<sdo>` ISO-Specific Name For a Standards Development Organization

For ISO-specific processing, indicates the standards development organization from which this document emanates. (The NISO STS Tag Set recommends using the `<std-org>` or the `<originator>` element to hold this information.)

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.227 <season> Season (in a citation)

Season of publication, such as “Spring”. Used inside a date named within a citation (such as a <mixed-citation> or an <element-citation>).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.1.228 <sec> Section

Headed group of material; the basic structural unit of the body of a standards document.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @sec-type **Type of Section**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- Any one of:
 - The following, in order:
 - <label> **Label of a Figure, Reference, Etc.**
 - <title> **Title**, zero or one
 - <title> **Title**
- Any combination of:
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <editing-instruction> **Editing Instruction**
 - Lists
 - <def-list> **Definition List**

- `<list>` **List**
- Math Elements
 - `<mmml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<p>` **Paragraph**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**
- `<fn-group>` **Footnote Group**
- `<glossary>` **Glossary Elements**
- `<ref-list>` **Reference List (Bibliographic Reference List)**
- Optionally, the following sequence (in order):
 - One or more of any of:
 - Section Elements
 - `<sec>` **Section**
 - `<term-sec>` **Terms and Definitions Container/Section**
 - Any combination of:
 - `<fn-group>` **Footnote Group**
 - `<glossary>` **Glossary Elements**
 - `<ref-list>` **Reference List (Bibliographic Reference List)**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**

8.1.229 `<secretariat>` Secretariat

The element `<secretariat>` identifies the organization which serves as secretariat for the group responsible for this standards document.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.230 `<see>` See (in an index term)

Used only within an embedded index term (`<index-term>`) to hold preferred terms that make “See” references when an Index is generated.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**

- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- **Related Material Elements**
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<disp-formula>` **Formula, Display**
- `<disp-formula-group>` **Formula, Display Group**
- `<array>` **Array (Simple Tabular Array)**
- `<code>` **Code Text**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- `<preformat>` **Preformatted Text**

8.1.231 `<see-also>` See-Also (in an index-term)

Used only within an embedded index term (`<index-term>`) to hold non-preferred terms that make “See Also” references when an Index is generated.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

@xml:lang Language of an Element

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- <array> **Array (Simple Tabular Array)**
- <code> **Code Text**
- <graphic> **Graphic**
- <media> **Media Object**
- <preformat> **Preformatted Text**

8.1.232 <see-also-entry> See-Also Structural Index Entry

A See Also (meaning see related term) entry in a structural index.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- <array> **Array (Simple Tabular Array)**
- <code> **Code Text**
- <graphic> **Graphic**

- <media> **Media Object**
- <preformat> **Preformatted Text**

8.1.233 <see-entry> See Structural Index Entry

A See (meaning use as preferred) entry in a structural index.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**

- <sup> **Superscript**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- <array> **Array (Simple Tabular Array)**
- <code> **Code Text**
- <graphic> **Graphic**
- <media> **Media Object**
- <preformat> **Preformatted Text**

8.1.234 <self-uri> Uri For This Same Article Online

URI for another version of a standards document. This element may be used when the document is available in multiple forms (for example, printed and eBook and online).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters, zero or more

8.1.235 <series> Series (in a citation)

Container element for any series information for a journal article or a book that is referenced in a citation (such as a <mixed-citation>, an <element-citation>, or a <related-article>). For example, within a citation to a book series that spans multiple volumes, this element could contain the unique title of the entire series.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
 - Baseline Change Elements
 - <sub> **Subscript**

- <sup> **Superscript**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**

8.1.236 <sig> Signature

One contributor signature and associated material (such as a text restatement of the affiliation) inside a signature block (<sig-block>).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- <break> **Line Break**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <graphic> **Graphic**
- <media> **Media Object**

8.1.237 <sig-block> Signature Block

Area of text and graphic material placed at the end of the body of a document to hold the graphic signature or description of the person(s) responsible for or attesting to the content.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- <break> **Line Break**
- Emphasis Elements

- `<bold>` **Bold**
- `<fixed-case>` **Fixed Case**
- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- `<sig>` **Signature**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.238 `<size>` Size (in a citation)

Size of a resource or object described in a bibliographic reference or related object description. The `@units` attribute must be used to name the units of measure (for example, minutes, hours, linear feet, pages).

Attributes:

`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@units` **Units**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.239 `<source>` Source (in a citation)

Within a citation (such as a `<mixed-citation>` or an `<element-citation>`), this is the title of a journal, book, conference proceedings, etc. that is the source of the cited material.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**

- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.240 `<speaker>` Speaker

One who utters a speech as part of a speech, for example, the computer “HAL” in the exchange ‘HAL: “Hi Dave”’.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- `<degrees>` **Degree(s)**
- `<given-names>` **Given (First) Names**
- `<prefix>` **Prefix (in a name)**
- `<surname>` **Surname**
- `<suffix>` **Suffix (in a name)**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**

8.1.241 `<speech>` Speech

One exchange in a real or imaginary conversation between two or more entities, for example, between an interviewer and the person being interviewed, between a nurse or doctor and a patient, between a person and a computer, etc. Each time a new speaker takes over, a new `<speech>` starts, which names the speaker (`<speaker>`) and then contains one or more paragraphs (`<p>`) that hold what speaker said.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<speaker>` **Speaker**
- One or more of any of:
 - `<p>` **Paragraph**
 - Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**

- `<non-normative-note>` **Non-Normative-Note**
- `<normative-example>` **Normative-Example**
- `<normative-note>` **Normative-Note**
- `<notes-group>` **Notes Group**

8.1.242 `<standard>` Standards Document

The root element for the encoding of a standards document, such as a standard or an amendment.

Attributes:

`@dtd-version` **Version of the Tag Set (DTD)**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**
`@xmlns:ali` **NISO ALI Namespace (NISO Access License and Indicators)**
`@xmlns:mml` **MathML Namespace Declaration**
`@xmlns:oasis` **OASIS Namespace Declaration**
`@xmlns:tbx` **TBX Namespace Declaration**
`@xmlns:xi` **XInclude Namespace Declaration**
`@xmlns:xlink` **XLink Namespace Declaration**
`@xmlns:xsi` **XML Schema Namespace Declaration**

Content model:

The following, in order:

- `<front>` **Front Matter**
- `<body>` **Body of the Standards Document**
- `<back>` **Back Matter**, zero or more

8.1.243 `<state>` State or Province (in an address)

The name of a state, province, territory or other political unit used in an address. This is a lower level subdivision than a country, but higher than a city, county, or parish. The names for such a unit vary geopolitically.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.244 `<statement>` Statement, Formal

A Theorem, Lemma, Proof, Postulate, Hypothesis, Proposition, Corollary, or other formal statement, identified as such with a label, usually made typographically distinct from the surrounding text.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@originator` **Originator**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<editing-instruction>` **Editing Instruction**, zero or more
- `<label>` **Label of a Figure, Reference, Etc.**, zero or one
- `<title>` **Title**, zero or one
- One or more of any of:

- <p> **Paragraph**
- Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
- <statement> **Statement, Formal**
- Any combination of:
 - Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.245 <std> Citation to a Standard

Contains identification information for the standard being cited, wherever in the document the standard is cited, for example, in a normative reference list, in a bibliography, in the narrative text, or in a section title. Within a reference list, the <std> element is one of the three legal types of citations, serving as a standard-specific alternative to the <mixed-citation> and <element-citation> elements.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @std-id **ISO-specific Standard Identifier (for a citation)**
 @type **Type (class, kind)**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - <ext-link> **External Link**
 - <fn> **Footnote**
 - <std-id> **Standard ID**
 - <std-id-group> **Standard ID Group**
 - <std-ref> **Standard Reference Designation**
 - <title> **Title**
 - <uri> **Uniform Resource Identifier (URI)**
 - <xref> **X(cross) Reference**
 - Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
 - Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
 - Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.246 <std-doc-meta> Standards Document Metadata

A container element for metadata that pertains to the entire standards document. By design, the elements inside <std-doc-meta> are the elements that all the standards organizations share. Any element within <std-doc-meta> may be overridden by placing the same element within any of the four organization-specific metadata elements: <std-meta>, <iso-meta>, <reg-meta>, or <nat-meta>.

Attributes:

@id **Document Internal Identifier**
 @std-meta-type **Type of Standard Metadata**
 @std-org-type **Standards Organization Type**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <title-wrap> **Title Wrapper**, zero or more
- <release-version> **Release-Version**, zero or one
- <std-ident> **Standard Identification Block**, zero or one
- Any combination of:
 - <std-org> **Standards Organization Description**
 - <std-org-group> **Standards Organization Group**
- <content-language> **Content Language**, zero or more
- <std-ref> **Standard Reference Designation**, zero or more
- <doc-ref> **Document Reference Designation**, zero or one
- <pub-date> **Publication Date**, zero or one
- <release-date> **Release-Date**, zero or more
- <meta-date> **Other Metadata Date**, zero or more
- Any combination of:
 - <comm-ref> **Committee Reference**
 - <comm-ref-group> **Committee Reference Group**
- <accrediting-organization> **Accrediting Organization**, zero or one
- <authorization> **Authorization**, zero or one
- <secretariat> **Secretariat**, zero or more
- Any combination of:
 - <ics> **ICS Code Number**
 - <ics-wrap> **ICS Code/Description Wrapper**
- <subj-group> **Subject Group**, zero or more
- <page-count> **Page Count**, zero or one
- <counts> **Counts**, zero or one
- <is-proof> **Document in Proof Stage?**, zero or one
- <std-xref> **Cross-Reference to a Standard**, zero or more
- <permissions> **Permissions**, zero or more
- <self-uri> **Uri For This Same Article Online**, zero or more
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- <meta-note> **Metadata Note**, zero or more
- <custom-meta-group> **Custom Metadata Group**, zero or more

8.1.247 <std-id> Standard ID

One identifier (such as a DOI, URN, standard designator, or standards organization's internal document ID) for a standard, using the @std-relationship-type attribute to name the type of identifier (such as dated or undated designations).

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @std-id-link-type **Standard ID Link Type**
 @std-id-type **Standard Identifier Type**

@std-relationship-type **Standard Relationship Type**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.248 <std-id-group> Standard ID Group

A container element that holds one or more standard identifiers (<std-id>s) to indicate that they are alternative identifiers for the same standard, for example, one <std-id> for a DOI and one <std-id> for a URN.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @std-relationship-type **Standard Relationship Type**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

<std-id> **Standard ID**, one or more

8.1.249 <std-ident> Standard Identification Block

The <std-ident> is a container element for the basic identification information concerning this standard, such as its originator, designation, part number (if applicable), and year of publication. This element contains sufficient information to build the standard designation for this document (<std-ref>) from its constituent parts.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <originator> **Originator**, zero or one
- <doc-type> **Document Type**, zero or one
- <doc-number> **Document Number**, zero or one
- <part-number> **Part Number of a Multipart Document**, zero or one
- <edition> **Edition Statement**, zero or one
- <version> **Version Statement, Cited**, zero or one
- <std-id-group> **Standard ID Group**, zero or more
- <isbn> **ISBN**, zero or more
- <issn> **ISSN (in a citation)**, zero or more
- <issn-l> **ISSN-L (Linking ISSN) (in a citation)**, zero or more
- <suppl-type> **Supplement Type**, zero or one
- <suppl-number> **Supplement Number**, zero or one
- <suppl-version> **Supplement Version**, zero or one
- <year> **Year**, zero or one

8.1.250 <std-meta> NISO STS Standard Metadata

This element is a container element for metadata specific to or produced by a standards-producing organization (such as ISO or an SDO) that is publishing or adopting a standard. This element contains any organization-specific overrides to the metadata described for the whole standards document (<std-doc-meta>) as well as the organization-specific metadata for one standards-producing organization.

Attributes:

@id **Document Internal Identifier**
 @std-meta-type **Type of Standard Metadata**
 @std-org-type **Standards Organization Type**

@xml:base **Base**

@xml:lang **Language of an Element**

Content model:

The following, in order:

- <title-wrap> **Title Wrapper**, zero or more
- <proj-id> **ISO-Specific Project Identifier**, zero or one
- <release-version> **Release-Version**, zero or one
- <std-ident> **Standard Identification Block**, zero or one
- Any combination of:
 - <std-org> **Standards Organization Description**
 - <std-org-group> **Standards Organization Group**
- <content-language> **Content Language**, zero or more
- <std-ref> **Standard Reference Designation**, zero or more
- <doc-ref> **Document Reference Designation**, zero or one
- <pub-date> **Publication Date**, zero or one
- <release-date> **Release-Date**, zero or more
- <meta-date> **Other Metadata Date**, zero or more
- <wi-number> **Work Item Number**, zero or one
- Any combination of:
 - <comm-ref> **Committee Reference**
 - <comm-ref-group> **Committee Reference Group**
- <accrediting-organization> **Accrediting Organization**, zero or one
- <authorization> **Authorization**, zero or one
- <secretariat> **Secretariat**, zero or more
- Any combination of:
 - <ics> **ICS Code Number**
 - <ics-wrap> **ICS Code/Description Wrapper**
- <subj-group> **Subject Group**, zero or more
- <page-count> **Page Count**, zero or one
- <counts> **Counts**, zero or one
- <is-proof> **Document in Proof Stage?**, zero or one
- <std-xref> **Cross-Reference to a Standard**, zero or more
- <release-version-id> **ISO-Specific Release Version ID**, zero or one
- <permissions> **Permissions**, zero or more
- <self-uri> **Uri For This Same Article Online**, zero or more
- <abstract> **Abstract**, zero or more
- <kwd-group> **Keyword Group**, zero or more
- <meta-note> **Metadata Note**, zero or more
- <custom-meta-group> **Custom Metadata Group**, zero or more

8.1.251 <std-org> Standards Organization Description

A container element to hold the organization name, abbreviated name, and location information for one of the standards organizations responsible for publishing or adopting the standard.

Attributes:

@id **Document Internal Identifier**

@std-org-level **Standards Organization Hierarchical Level**

@std-org-role **Standards Organization Role**

@std-org-type **Standards Organization Type**

@xml:base **Base**

@xml:lang **Language of an Element**

Content model:

The following, in order:

- <std-org-name> **Standards Organization Name**, zero or one
- <std-org-abbrev> **Standards Organization Abbreviated Name**, zero or more
- <std-org-loc> **Standards Organization Location**, zero or more

8.1.252 <std-org-abbrev> Standards Organization Abbreviated Name

Short name or acronym that names a standards organization.

Attributes:

@id **Document Internal Identifier**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.253 <std-org-group> Standards Organization Group

A grouping element to hold the name and location information (<std-org>) for several standards organizations associated with producing/adopting a standard.

Attributes:

@id **Document Internal Identifier**
@specific-use **Specific Use**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

<std-org> **Standards Organization Description**, one or more

8.1.254 <std-org-loc> Standards Organization Location

Physical location(s) of a standards organization.

Content model:

Any combination of:

- Text, numbers, or special characters
- Address Elements
 - <addr-line> **Address Line**
 - <city> **City (in an address)**
 - <country> **Country (in an address)**
 - <fax> **Fax Number (in address)**
 - <institution> **Institution Name**
 - <institution-wrap> **Institution Wrapper**
 - <phone> **Phone Number: in an Address**
 - <postal-code> **Postal Code: in an Address**
 - <state> **State or Province (in an address)**
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**

8.1.255 <std-org-name> Standards Organization Name

Name of one standards organization responsible for publishing or adopting the standard.

Attributes:

@id **Document Internal Identifier**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters

- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.256 <std-ref> Standard Reference Designation

<std-ref> contains the value (as a string) of one standard reference designator, for example, “ISO 9001:2015”. This designator typically consists of an originator or SDO-abbreviated name (e.g., “ISO”) and a standard number or identifier (such as “9001”), and it may also include a year (such as “2015”) or other information that uniquely identifies a given standard.

Attributes:

@id **Document Internal Identifier**
 @type **Type (class, kind)**
 @xml:base **Base**

Content model:

- Any combination of:
- Text, numbers, or special characters
 - <originator> **Originator**
 - <doc-type> **Document Type**
 - <doc-number> **Document Number**
 - <part-number> **Part Number of a Multipart Document**
 - <edition> **Edition Statement**
 - <isbn> **ISBN**
 - <suppl-type> **Supplement Type**
 - <suppl-number> **Supplement Number**
 - <suppl-version> **Supplement Version**
 - <version> **Version Statement, Cited**
 - <year> **Year**

8.1.257 <std-xref> Cross-Reference to a Standard

Used within one of the standards metadata elements to identify, and possibly provide a link to, another standard. This element is used to name a related standard, for example, a standard that has been revised, amended, or replaced by the current standard.

Attributes:

@id **Document Internal Identifier**
 @type **Type (class, kind)**
 @xml:base **Base**

Content model:

- The following, in order:
- One or more of any of:
 - <std-ident> **Standard Identification Block**
 - <std-ref> **Standard Reference Designation**
 - <std-id-group> **Standard ID Group**
 - <release-date> **Release-Date**, zero or more
 - <meta-date> **Other Metadata Date**, zero or more

8.1.258 <strike> Strike Through

Used to mark text that should appear with a line through it so as to appear “struck out” on display or print.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @toggle **Toggle Switch**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.259 `<string-name>` Name of Person (Unstructured)

Container element for personal names captured with mixed-content where the order of the name components is not enforced.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**

@name-style **Personal Name Style**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- <degrees> **Degree(s)**
- <given-names> **Given (First) Names**
- <prefix> **Prefix (in a name)**
- <surname> **Surname**
- <suffix> **Suffix (in a name)**

8.1.260 <styled-content> Styled Special (Subject) Content

Stylistically distinct word or phrase within the text that cannot be tagged using any of the other mechanisms for such content. In other words, the content cannot be described with bold, italic, monospace, or any of the other emphasis elements; and <named-content> is inappropriate because the semantic reason behind the typographic distinction is unknown or not clear.

Attributes:

@alt **Alternative Text**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @style **Style (NISO JATS table model)**
 @style-type **Style Type**
 @toggle **Toggle Switch**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
- <alternatives> **Alternatives For Processing**
- Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**

- `<normative-note>` **Normative-Note**
- `<notes-group>` **Notes Group**
- `<disp-formula>` **Formula, Display**
- `<disp-formula-group>` **Formula, Display Group**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Lists**
 - `<def-list>` **Definition List**
 - `<list>` **List**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<disp-quote>` **Quote, Displayed**
- `<speech>` **Speech**
- `<statement>` **Statement, Formal**
- `<verse-group>` **Verse Form For Poetry**

8.1.261 `<sub>` Subscript

Used to mark text that should appear lower than the baseline and slightly smaller; inferior or subscript text.

Attributes:

`@arrange` **Arrangement of Subscripts and Superscripts**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements

- `<email>` **Email Address**
- `<ext-link>` **External Link**
- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.262 `<sub-part>` Sub-Part of a Standard

A numbered sub-part inside the body (`<body>`) of a standards document. Sub-parts are physically included within the standard, but a sub-part contains its own body and may contain its own metadata and back matter as well.

Attributes:

`@id` **Document Internal Identifier**
`@originator` **Originator**
`@part-type` **Type of Part**
`@specific-use` **Specific Use**

@xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- Any one of:
 - The following, in order:
 - <label> **Label of a Figure, Reference, Etc.**, zero or one
 - <title> **Title**
 - <std-meta> **NISO STS Standard Metadata**
- <body> **Body of the Standards Document**
- <back> **Back Matter**, zero or one

8.1.263 <subj-group> Subject Group

Container element for the subject matter descriptors (<subject>) that name the classifications, categories, topics, or themes of the standards document, for example: IPC Codes, UNSPSC Codes, or UNS Codes.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @subj-group-type **Type of Subject Group**
 @vocab **Vocabulary/Taxonomy Name**
 @vocab-identifier **Vocabulary/Taxonomy Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- One or more of any of:
 - <subject> **Subject Name**
 - <compound-subject> **Compound Subject Name**
- <subj-group> **Subject Group**, zero or more

8.1.264 <subject> Subject Name

Name of one overarching category, broad classification, topic, or theme used to describe a standards document, as a higher-level descriptor of its content.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**

- `<strike>` **Strike Through**
- `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.265 `<subtitle>` Article Subtitle

This element always holds a subsidiary part of a title, but it has different applications in several contexts:

- Within the standards document metadata, a `<subtitle>` holds one secondary part of one of the standards document component titles: `<intro>`, `<main>`, or `<compl>`.
- Some structural components of a standards document (such as Indexes and Tables of Contents) may take also contain `<subtitle>`s.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements

- `<math>` **Math (MathML Tag Set)**
- `<math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**

8.1.266 `<suffix>` Suffix (in a name)

Qualifiers that follow a person's name (for example, Sr., Jr., III, 3rd).

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.267 `<sup>` Superscript

Used to mark text that should appear higher than the baseline and slightly smaller; superior or superscript text.

Attributes:

`@arrange` **Arrangement of Subscripts and Superscripts**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**

- `<mixed-citation>` **Mixed Citation**
- `<std>` **Citation to a Standard**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- `<std-ref>` **Standard Reference Designation**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.268 `<suppl-number>` Supplement Number

For documents which are supplements to a standard, gives the document number of the supplement.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.269 `<suppl-type>` Supplement Type

For documents which are supplements to a standard, this element names the kind of alteration or addition that is represented by this supplement.

Attributes:

`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.270 <suppl-version> Supplement Version

For documents which are supplements to a standard, gives the version number for the supplement.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.271 <supplement> Supplement (in a citation)

Container element for all information particular to a supplement, for any work published as a supplement (for example, identification numbers, supplement titles, supplement series information) within a citation or other reference to a work that is not a standard.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @supplement-type **Type of Supplement**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <contrib-group> **Contributor Group**
- <title> **Title**

8.1.272 <supplementary-material> Supplementary Material

Container element for a description of, and possibly a pointer to, external resources that support the standards document, but which are not part of the content of the standard.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @mime-subtype **Mime Subtype**
 @mimetype **Mime Type**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <object-id> **Object Identifier**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <caption> **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Any combination of:
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <fn-group> **Footnote Group**
 - <fn> **Footnote**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
 - <table-wrap> **Table Wrapper**
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - <alternatives> **Alternatives For Processing**
 - <array> **Array (Simple Tabular Array)**

- `<code>` **Code Text**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- `<preformat>` **Preformatted Text**
- Any combination of:
 - Ownership Elements
 - `<attrib>` **Attribution**
 - `<permissions>` **Permissions**

8.1.273 `<surname>` Surname

Surname of a person.

Attributes:

`@id` **Document Internal Identifier**
`@initials` **Initials for Personal Names**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.274 `<table>` Table (NISO JATS table model)

The rows and columns part of a full table. (This element is based on and intended to be converted easily to the XHTML `table` element.)

Attributes:

`@border` **Border (Frame) around a Table (NISO JATS table model)**
`@cellpadding` **Cell Padding (NISO JATS table model)**
`@cellspacing` **cellspacing**
`@content-type` **Type of Content**
`@frame` **Frame (NISO JATS table model)**
`@id` **Document Internal Identifier**
`@rules` **Rules (NISO JATS table model)**
`@specific-use` **Specific Use**
`@style` **Style (NISO JATS table model)**
`@summary` **Summary (NISO JATS table model)**
`@width` **Width (NISO JATS table model)**
`@xml:base` **Base**

Content model:

The following, in order:

- Any one of:
 - `<col>` **Table Column (NISO JATS table model)**, zero or more
 - `<colgroup>` **Table Column Group (NISO JATS table model)**, zero or more
- Any one of:
 - The following, in order:
 - `<thead>` **Table Header (NISO JATS table model)**, zero or one
 - `<tfoot>` **Table Footer (NISO JATS table model)**, zero or one
 - `<tbody>` **Table Body for an XHTML Table**, one or more
 - `<tr>` **Table Row**, one or more

8.1.275 `<table-count>` Table Count

Number of `<table-wrap>` elements that appear in the document.

Attributes:

`@count` **Count**
`@id` **Document Internal Identifier**
`@xml:base` **Base**

Content model:

This is an EMPTY element

8.1.276 <table-wrap> Table Wrapper

Wrapper element for a complete table, including the tabular material (rows and columns), caption (including title), footnotes, and alternative descriptions of the table for purposes of accessibility.

Attributes:

@content-type **Type of Content**
 @form-type **Form Type**
 @id **Document Internal Identifier**
 @is-form **Is Object a Form**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <object-id> **Object Identifier**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <caption> **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Any combination of:
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - <alternatives> **Alternatives For Processing**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <table> **Table (NISO JATS table model)**
 - <oasis:table> **OASIS XML Exchange (CALs) Table (In STS Extended ONLY)**
- Any combination of:
 - <table-wrap-foot> **Table Wrap Footer**
 - Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.277 <table-wrap-foot> Table Wrap Footer

Container element to hold the footnotes, general notes, or other paragraphs at the end of a table. This element does not contain tabular data.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- <title> **Title**, zero or one
- One or more of any of:
 - <p> **Paragraph**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <fn-group> **Footnote Group**
 - <fn> **Footnote**
 - Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.278 <table-wrap-group> Table Wrapper Group

Container element for tables (<table-wrap> elements) that are to be displayed together.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @orientation **Orientation**
 @originator **Originator**
 @position **Position**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <caption> **Caption of a Figure, Table, Etc.**, zero or one
- Any combination of:
 - Accessibility Elements
 - <alt-text> **Alternate Title Text For a Figure, Etc.**
 - <long-desc> **Long Description**
 - External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- One or more of any of:
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <table-wrap> **Table Wrapper**

8.1.279 <target> Target of an Internal Link

May be placed anywhere within textual material such as a paragraph to provide a location (anchor) to which a cross reference can point.

Attributes:

@id **Document Internal Identifier**
@specific-use **Specific Use**
@target-type **Type of Target**
@xml:base **Base**
@xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.280 <tbody> Table Body for an XHTML Table

Container element that holds the rows and columns in one of the *body* (as opposed to the *header*) portions of a table.

Attributes:

@align **Horizontal Alignment (NISO JATS table model)**
@char **Table Cell Alignment Character (NISO JATS table model)**
@charoff **Table Character Offset (NISO JATS table model)**
@content-type **Type of Content**
@id **Document Internal Identifier**
@style **Style (NISO JATS table model)**
@valign **Vertical Alignment (NISO JATS table model)**
@xml:base **Base**

Content model:

<tr> **Table Row**, one or more

8.1.281 <tbx:entailedTerm> Entailed Term

For usage information and contents, see the documentation for ISO TBX at <https://www.iso.org/schema/nisosts/v0.2/doc/tbx/index.html>. The TBX vocabulary is derived and extended from ISO 30042

8.1.282 <tbx:termEntry> Term Entry (Concept Entry)

Container for TBX encoding of one entry in a terminological database.

For usage information and contents, see the documentation for ISO TBX at <https://www.iso.org/schema/nisosts/v0.2/doc/tbx/index.html>. The TBX vocabulary is derived and extended from ISO 30042

8.1.283 <td> Table Data Cell (NISO JATS table model)

One ordinary cell in the body of a table, as opposed to a cell in the table header. (This element is based on and intended to be converted easily to the XHTML `td` element.)

Attributes:

@abbr **Abbreviation** (NISO JATS table model)
 @align **Horizontal Alignment** (NISO JATS table model)
 @axis **Axis** (NISO JATS table model)
 @char **Table Cell Alignment Character** (NISO JATS table model)
 @charoff **Table Character Offset** (NISO JATS table model)
 @colspan **Column Span** (NISO JATS table model)
 @content-type **Type of Content**
 @headers **Headers** (NISO JATS table model)
 @id **Document Internal Identifier**
 @rowspan **Row Span** (NISO JATS table model)
 @scope **Scope** (NISO JATS table model)
 @style **Style** (NISO JATS table model)
 @valign **Vertical Alignment** (NISO JATS table model)
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <hr> **Horizontal Rule**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- <break> **Line Break**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**

- `<fig>` **Figure**
- `<fig-group>` **Figure Group**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Lists**
 - `<def-list>` **Definition List**
 - `<list>` **List**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Standards Note and Example Elements**
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- `<p>` **Paragraph**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<alternatives>` **Alternatives For Processing**
- `<array>` **Array (Simple Tabular Array)**
- `<code>` **Code Text**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- `<preformat>` **Preformatted Text**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.284 `<term>` Term

This element can be used in several very different contexts, which determine its exact meaning and usage:

- As one of the semantic tags within a `<term-display>` element, the `<term>` element contains the term being described.
- As the first half of a definition list item (`<def-item>`) which is one item in a two-part list (`<def-list>`), the `<term>` element contains a word, phrase, or picture that is being defined, described, or otherwise explained with the definition (`<def>`).

Attributes:

`@id` **Document Internal Identifier**
`@rid` **Reference to an Identifier**
`@specific-use` **Specific Use**
`@term-status` **Term Status**
`@term-type` **Type of Term**
`@vocab` **Vocabulary/Taxonomy Name**
`@vocab-identifier` **Vocabulary/Taxonomy Identifier**

@vocab-term **Vocabulary/Taxonomy Term**
 @vocab-term-identifier **Vocabulary/Taxonomy Term Identifier**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <disp-formula> **Formula, Display**
- <disp-formula-group> **Formula, Display Group**
- <array> **Array (Simple Tabular Array)**
- <code> **Code Text**
- <graphic> **Graphic**
- <media> **Media Object**
- <preformat> **Preformatted Text**

8.1.285 <term-display> Term-Display

Non-TBX tagging of term and definition entries, which may be appearance-oriented or tagged semantically with terms, definitions, parts of speech, etc.

This element is intended to be tagged in display sequence, as a supplement or alternative to the more structured <tbx:termEntry>.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <title> **Title**, zero or more
- Any combination of:
 - <def> **Definition**
 - <part-of-speech> **Part of Speech**
 - <pronunciation> **Pronunciation**
 - <related-term> **Related Terms**
 - <term> **Term**
 - <term-source> **Term Source Elements**
 - <p> **Paragraph**
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**

8.1.286 <term-head> Definition List: Term Head

Heading over the first column (the term column) of a definition list (two-part list).

Attributes:

@id **Document Internal Identifier**
@xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.287 <term-sec> Terms and Definitions Container/Section

Container element for the detailed terminology definitions in a standards document, which may include TBX-based terminology sections, natural language <term-display> elements that describe term and definition material, or both.

Attributes:

@id **Document Internal Identifier**
 @originator **Originator**
 @sec-type **Type of Section**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <editing-instruction> **Editing Instruction**, zero or more
- <label> **Label of a Figure, Reference, Etc.**, zero or one
- Any combination of:
 - <tbx:termEntry> **Term Entry (Concept Entry)**
 - <term-display> **Term-Display**
 - <p> **Paragraph**
 - Paragraph-level Display Elements
 - <address> **Address/Contact Information**
 - <array> **Array (Simple Tabular Array)**
 - <boxed-text> **Boxed Text**
 - <chem-struct-wrap> **Chemical Structure Wrapper**
 - <code> **Code Text**
 - <fig> **Figure**
 - <fig-group> **Figure Group**
 - <graphic> **Graphic**
 - <media> **Media Object**
 - <preformat> **Preformatted Text**
 - <supplementary-material> **Supplementary Material**
 - <table-wrap> **Table Wrapper**
 - <table-wrap-group> **Table Wrapper Group**
 - <alternatives> **Alternatives For Processing**
 - Standards Note and Example Elements
 - <non-normative-example> **Non-Normative-Example**
 - <non-normative-note> **Non-Normative-Note**
 - <normative-example> **Normative-Example**
 - <normative-note> **Normative-Note**
 - <notes-group> **Notes Group**
 - <disp-formula> **Formula, Display**
 - <disp-formula-group> **Formula, Display Group**
 - Lists
 - <def-list> **Definition List**
 - <list> **List**
 - Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
 - Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
 - <disp-quote> **Quote, Displayed**
 - <speech> **Speech**
 - <statement> **Statement, Formal**
 - <verse-group> **Verse Form For Poetry**
- <term-sec> **Terms and Definitions Container/Section**, zero or more
- Any combination of:
 - <fn-group> **Footnote Group**
 - <glossary> **Glossary Elements**
 - <ref-list> **Reference List (Bibliographic Reference List)**

8.1.288 <term-source> Term Source Elements

Origin of the term described in a <term-display> element inside a terms and definitions section.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.289 <tex-math> TeX Math Equation

Used to hold encoded math, expressed in TeX or LaTeX.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @notation **Notation**
 @specific-use **Specific Use**
 @version **Version of TeX or LaTeX**
 @xml:base **Base**

Content model:

Text, numbers, or special characters

8.1.290 <textual-form> Textual Form

Container element (for Best Practice used only inside <alternatives>) that will hold text and mixed content objects that act as alternatives to, for example, graphics.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements

- `<bold>` **Bold**
- `<fixed-case>` **Fixed Case**
- `<italic>` **Italic**
- `<monospace>` **Monospace Text (Typewriter Text)**
- `<num>` **ISO Numeric Emphasis**
- `<overline>` **Overline**
- `<roman>` **Roman**
- `<ruby>` **Ruby Wrapper**
- `<sans-serif>` **Sans Serif**
- `<sc>` **Small Caps**
- `<strike>` **Strike Through**
- `<underline>` **Underline**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- **Math Elements**
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- `<named-content>` **Named Special (Subject) Content**
- `<styled-content>` **Styled Special (Subject) Content**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.291 `<tfoot>` Table Footer (NISO JATS table model)

The footer rows and columns within a NISO JATS table. (This element is based on and intended to be converted easily to the XHMTL `tfoot` element.)

Attributes:

`@align` **Horizontal Alignment (NISO JATS table model)**
`@char` **Table Cell Alignment Character (NISO JATS table model)**
`@charoff` **Table Character Offset (NISO JATS table model)**
`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@style` **Style (NISO JATS table model)**
`@valign` **Vertical Alignment (NISO JATS table model)**
`@xml:base` **Base**

Content model:

`<tr>` **Table Row**, one or more

8.1.292 `<th>` Table Header Cell (NISO JATS table model)

One cell in the table header, as opposed to an ordinary cell in the body of a table. (This element is based on and intended to be converted easily to the XHMTL `th` element.)

Attributes:

`@abbr` **Abbreviation (NISO JATS table model)**
`@align` **Horizontal Alignment (NISO JATS table model)**
`@axis` **Axis (NISO JATS table model)**
`@char` **Table Cell Alignment Character (NISO JATS table model)**
`@charoff` **Table Character Offset (NISO JATS table model)**
`@colspan` **Column Span (NISO JATS table model)**
`@content-type` **Type of Content**
`@headers` **Headers (NISO JATS table model)**
`@id` **Document Internal Identifier**
`@rowspan` **Row Span (NISO JATS table model)**
`@scope` **Scope (NISO JATS table model)**
`@style` **Style (NISO JATS table model)**
`@valign` **Vertical Alignment (NISO JATS table model)**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<hr>` **Horizontal Rule**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- `<disp-formula>` **Formula, Display**
- `<disp-formula-group>` **Formula, Display Group**
- `<break>` **Line Break**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<fig>` **Figure**
- `<fig-group>` **Figure Group**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Lists
 - `<def-list>` **Definition List**
 - `<list>` **List**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Standards Note and Example Elements
 - `<non-normative-example>` **Non-Normative-Example**
 - `<non-normative-note>` **Non-Normative-Note**
 - `<normative-example>` **Normative-Example**
 - `<normative-note>` **Normative-Note**
 - `<notes-group>` **Notes Group**
- `<p>` **Paragraph**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<alternatives>` **Alternatives For Processing**
- `<array>` **Array (Simple Tabular Array)**

- `<code>` **Code Text**
- `<graphic>` **Graphic**
- `<media>` **Media Object**
- `<preformat>` **Preformatted Text**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**

8.1.293 `<thead>` Table Header (NISO JATS table model)

Container element for the table header rows of a table. (This element is based on and intended to be converted easily to the XHTML `thead` element.)

Attributes:

`@align` **Horizontal Alignment (NISO JATS table model)**
`@char` **Table Cell Alignment Character (NISO JATS table model)**
`@charoff` **Table Character Offset (NISO JATS table model)**
`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@style` **Style (NISO JATS table model)**
`@valign` **Vertical Alignment (NISO JATS table model)**
`@xml:base` **Base**

Content model:

`<tr>` **Table Row**, one or more

8.1.294 `<time-stamp>` Time Stamp For Cited Work (deprecated)

Used to record any time stamp that was found on a cited resource when it was examined

This element comes from an older version of JATS and is now deprecated in JATS; therefore, NISO STS users should avoid using it; use `<date-in-citation>` to record time and date information for citation.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.295 `<title>` Title

Heading or title for a structural element (for example, `<sec>`, `<app>`, `<boxed-text>`).

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements

- `<email>` **Email Address**
- `<ext-link>` **External Link**
- `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**
- Citation Elements
 - `<citation-alternatives>` **Citation Alternatives**
 - `<element-citation>` **Element Citation**
 - `<mixed-citation>` **Mixed Citation**
 - `<std>` **Citation to a Standard**

8.1.296 `<title-wrap>` Title Wrapper

Container element to hold all the titles of a standards document: both components of the title such as introductory, main, or complementary titles as well as a full all-parts-present title.

Attributes:

- `@id` **Document Internal Identifier**
- `@originator` **Originator**
- `@xml:base` **Base**
- `@xml:lang` **Language of an Element**

Content model:

The following, in order:

- Any combination of:
 - `<intro>` **Introductory Title Part**
 - `<intro-title-wrap>` **Introductory Title Wrapper**
- Optionally any one of:
 - `<main>` **Main Title Part**
 - `<main-title-wrap>` **Main Title Wrapper**
- Any combination of:
 - `<compl>` **Complementary Title Part**
 - `<compl-title-wrap>` **Complementary Title Wrapper**
- `<full>` **Full Title**, zero or one

8.1.297 <toc> Table of Contents

Structural, multi-level Table of Contents, typically used for capturing a Table of Contents already present in a standards document being converted to this Tag Set, although it may also be used for Tables of Contents generated from standard and adoption metadata.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<toc-title-group>` **Table of Contents Title Group**, zero or one
- `<p>` **Paragraph**, zero or more
- One or more of any of:
 - `<toc-entry>` **Table of Contents Entry**
 - `<toc-div>` **Table of Contents Division**
- `<fn-group>` **Footnote Group**, zero or more

8.1.298 <toc-div> Table of Contents Division

Division, typically for the purposes of display, in a structural Table of Contents, for example, a division holding the first Part of a 3-part standard, and the titles of all the sections within that Part.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<toc-title-group>` **Table of Contents Title Group**, zero or one
- `<p>` **Paragraph**, zero or more
- Optionally any one of:
 - `<ext-link>` **External Link**
 - `<nav-pointer>` **Navigation Pointer**
 - `<nav-pointer-group>` **Navigation Pointer Group**
- One or more of any of:
 - `<toc-entry>` **Table of Contents Entry**
 - `<toc-div>` **Table of Contents Division**

8.1.299 <toc-entry> Table of Contents Entry

One entry in a structural Table of Contents.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or more
- <subtitle> **Article Subtitle**, zero or more
- Optionally any one of:
 - <ext-link> **External Link**
 - <nav-pointer> **Navigation Pointer**
 - <nav-pointer-group> **Navigation Pointer Group**
- <toc-entry> **Table of Contents Entry**, zero or more

8.1.300 <toc-group> Table of Contents Group

Collection of one or more Tables of Contents. Collected Tables of Contents need not be grouped inside this element.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <toc-title-group> **Table of Contents Title Group**, zero or one
- <p> **Paragraph**, zero or more
- <toc> **Table of Contents**, one or more

8.1.301 <toc-title-group> Table of Contents Title Group

Container element to hold the various titles for a structured Table of Contents (or a subdivision of such a ToC).

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- <subtitle> **Article Subtitle**, zero or more

8.1.302 <tr> Table Row

Container element for all the cells in a single table row. (This element is based on and intended to be converted easily to the XHTML `tr` element.)

Attributes:

@align **Horizontal Alignment (NISO JATS table model)**
 @char **Table Cell Alignment Character (NISO JATS table model)**
 @charoff **Table Character Offset (NISO JATS table model)**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @style **Style (NISO JATS table model)**
 @valign **Vertical Alignment (NISO JATS table model)**
 @xml:base **Base**

Content model:

One or more of any of:

- <th> **Table Header Cell (NISO JATS table model)**
- <td> **Table Data Cell (NISO JATS table model)**

8.1.303 <trans-source> Translated Source (in a citation)

Within a citation (such as a <mixed-citation> or an <element-citation>), this is the title of a journal, book, conference proceedings, etc. that is the source of the cited material, but with the source name given in a different language from the source as given in the <source> element.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.304 <trans-subtitle> Translated Subtitle

A subtitle that has been translated into a language other than that of the original standards document.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**

- Related Material Elements
 - `<related-article>` **Related Journal Article Information**
 - `<related-object>` **Related Non-standards Object Information**
- Emphasis Elements
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- Inline Display Elements
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- Math Elements
 - `<mml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- Other Inline Elements
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- Baseline Change Elements
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**

8.1.305 `<trans-title>` Translated Title

A title that has been translated into a language other than that of the original standards document.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - `<email>` **Email Address**
 - `<ext-link>` **External Link**
 - `<uri>` **Uniform Resource Identifier (URI)**
- `<inline-supplementary-material>` **Inline Supplementary Material**
- Related Material Elements

- `<related-article>` **Related Journal Article Information**
- `<related-object>` **Related Non-standards Object Information**
- **Emphasis Elements**
 - `<bold>` **Bold**
 - `<fixed-case>` **Fixed Case**
 - `<italic>` **Italic**
 - `<monospace>` **Monospace Text (Typewriter Text)**
 - `<num>` **ISO Numeric Emphasis**
 - `<overline>` **Overline**
 - `<roman>` **Roman**
 - `<ruby>` **Ruby Wrapper**
 - `<sans-serif>` **Sans Serif**
 - `<sc>` **Small Caps**
 - `<strike>` **Strike Through**
 - `<underline>` **Underline**
- `<alternatives>` **Alternatives For Processing**
- **Inline Display Elements**
 - `<inline-graphic>` **Inline Graphic**
 - `<private-char>` **Private Character (Custom or Unicode)**
- `<chem-struct>` **Chemical Structure (Display)**
- `<inline-formula>` **Formula, Inline**
- **Math Elements**
 - `<mmml:math>` **Math (MathML Tag Set)**
 - `<tex-math>` **TeX Math Equation**
- **Other Inline Elements**
 - `<abbrev>` **Abbreviation or Acronym**
 - `<index-term>` **Index Term**
 - `<index-term-range-end>` **Index Term Range End**
 - `<milestone-end>` **Milestone End**
 - `<milestone-start>` **Milestone Start**
 - `<named-content>` **Named Special (Subject) Content**
 - `<styled-content>` **Styled Special (Subject) Content**
- `<fn>` **Footnote**
- `<target>` **Target of an Internal Link**
- `<tbx:entailedTerm>` **Entailed Term**
- `<xref>` **X(cross) Reference**
- **Baseline Change Elements**
 - `<sub>` **Subscript**
 - `<sup>` **Superscript**
- `<break>` **Line Break**

8.1.306 `<trans-title-group>` Translated Title Group

Container element for translated and transliterated titles.

Attributes:

`@content-type` **Type of Content**
`@id` **Document Internal Identifier**
`@specific-use` **Specific Use**
`@xml:base` **Base**
`@xml:lang` **Language of an Element**

Content model:

The following, in order:

- `<trans-title>` **Translated Title**
- `<trans-subtitle>` **Translated Subtitle**, zero or more

8.1.307 `<underline>` Underline

Used to mark text that should appear with a horizontal line beneath it.

Attributes:

@id **Document Internal Identifier**
 @specific-use **Specific Use**
 @toggle **Toggle Switch**
 @underline-style **Appearance of the Underline**
 @xml:base **Base**

Content model:

Any combination of:

- Text, numbers, or special characters
- External Linking Elements
 - <email> **Email Address**
 - <ext-link> **External Link**
 - <uri> **Uniform Resource Identifier (URI)**
- <inline-supplementary-material> **Inline Supplementary Material**
- Related Material Elements
 - <related-article> **Related Journal Article Information**
 - <related-object> **Related Non-standards Object Information**
- Citation Elements
 - <citation-alternatives> **Citation Alternatives**
 - <element-citation> **Element Citation**
 - <mixed-citation> **Mixed Citation**
 - <std> **Citation to a Standard**
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Math Elements
 - <mml:math> **Math (MathML Tag Set)**
 - <tex-math> **TeX Math Equation**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**
- <std-ref> **Standard Reference Designation**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.308 <uri> Uniform Resource Identifier (URI)

Identifies a Uniform Resource Identifier (such as a URL) that may be used as a live link, typically naming a website, such as: “<uri>https://www.mulberrytech.com</uri>”).

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters, zero or more

8.1.309 <urn> ISO-Specific Uniform Resource Name

For ISO Processing, this element holds an ISO Uniform Resource Name (URN) for this document, as specified by RFC 5141.

Attributes:

@id **Document Internal Identifier**
 @xml:base **Base**

Content model:

Text, numbers, or special characters, zero or more

8.1.310 <verse-group> Verse Form For Poetry

Song, poem, or verse.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @originator **Originator**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

The following, in order:

- <label> **Label of a Figure, Reference, Etc.**, zero or one
- <title> **Title**, zero or one
- <subtitle> **Article Subtitle**, zero or one
- One or more of any of:
 - <verse-line> **Line of a Verse**
 - <verse-group> **Verse Form For Poetry**
- Any combination of:
 - Ownership Elements
 - <attrib> **Attribution**
 - <permissions> **Permissions**

8.1.311 <verse-line> Line of a Verse

One line of a poem or verse.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- <alternatives> **Alternatives For Processing**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <chem-struct> **Chemical Structure (Display)**
- <inline-formula> **Formula, Inline**
- Other Inline Elements
 - <abbrev> **Abbreviation or Acronym**
 - <index-term> **Index Term**
 - <index-term-range-end> **Index Term Range End**
 - <milestone-end> **Milestone End**
 - <milestone-start> **Milestone Start**
 - <named-content> **Named Special (Subject) Content**
 - <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**
- <fn> **Footnote**
- <target> **Target of an Internal Link**
- <tbx:entailedTerm> **Entailed Term**
- <xref> **X(cross) Reference**

8.1.312 <version> Version Statement, Cited

This element is defined and used differently in NISO STS than it is in JATS. Since the NISO STS Tag Sets use both STS and JATS elements, and standards and journal articles may mix within a single database, in NISO STS, the <version> element has *two different contexts* with two different meanings.

- Within standards-specific elements (such as <std-ident> and <std-ref>), a <version> element is an inward-facing element that names the version number for this standards document (e.g., “1-amd1.v1-cor3”).
- Within JATS-defined citation-related elements (such as <mixed-citation> and <related-object>), a <version> element is an outward-facing element that contains the version statement for the data or software that is cited or described. This usage may be limited to a version digit, but it may also contain ordinals or text as well.

Attributes:

@content-type **Type of Content**
 @designator **Designator of Journal Edition/Version**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.313 <volume> Volume Number (in a citation)

Number of a journal (or other document) within a series.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @seq **Sequence Number**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.314 <volume-id> Volume Identifier (in a citation)

Name or identifier (for example, DOI) that describes an entire volume.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @pub-id-type **Type of Publication Identifier (in a citation)**
 @specific-use **Specific Use**
 @xlink:actuate **Actuating the XLink Link**
 @xlink:href **Href (XLink Linking Mechanism)**
 @xlink:role **XLink Linking Role**
 @xlink:show **Showing the XLink Link**
 @xlink:title **Title of the XLink Link**
 @xlink:type **Type of XLink Link**
 @xml:base **Base**
 @xml:lang **Language of an Element**
 @xmlns:xlink **XLink Namespace Declaration**

Content model:

Text, numbers, or special characters, zero or more

8.1.315 <volume-series> Volume Series (in a citation)

This uncommon metadata element holds a series number of a journal volume for the very rare case where a single journal has multiple volumes with the same volume number.

Attributes:

@content-type **Type of Content**
 @id **Document Internal Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters, zero or more

8.1.316 <wi-number> Work Item Number

Gives the work item number for the work item within which this standard was developed.

Attributes:

@id Document Internal Identifier
 @xml:base Base

Content model:

Text, numbers, or special characters, zero or more

8.1.317 <word-count> Word Count

Approximate number of words that appear in the textual portion of a standards document (not including the words in the metadata or header information).

Attributes:

@count Count
 @id Document Internal Identifier
 @xml:base Base

Content model:

This is an EMPTY element

8.1.318 <xi: fallback> XInclude Fallback

To quote the XInclude Recommendation, “the <xi: fallback> element appears as a child of an <xi: include> element. It provides a mechanism for recovering from missing resources. When a resource error is encountered, the <xi: include> element is replaced with the contents of the <xi: fallback> element. If the <xi: fallback> element is empty, the <xi: include> element is removed from the result.”

Attributes:

@xmlns:xi XInclude Namespace Declaration

Content model:

Text, numbers, or special characters

8.1.319 <xi: include> XInclude

Adds the XInclude mechanism to the NISO STS Tag Set, so that standards and adoption documents can be managed as separate files and “included” as needed into a final document.

Attributes:

@accept XInclude Accept Header
 @accept-language XInclude Accept Language Header
 @encoding XInclude Encoding
 @href XInclude Href Linking Mechanism
 @parse XInclude Parse Flag
 @xmlns:xi XInclude Namespace Declaration
 @xpointer XInclude XPointer

Content model:

<xi: fallback> XInclude Fallback, zero or one

8.1.320 <xref> X(cross) Reference

Reference to an object within the standards document (for example, a table, a bibliographic citation, a figure).

Attributes:

@alt Alternative Text
 @id Document Internal Identifier

@ref-type **Type of Cross-Reference**
 @rid **Reference to an Identifier**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Any combination of:

- Text, numbers, or special characters
- Emphasis Elements
 - <bold> **Bold**
 - <fixed-case> **Fixed Case**
 - <italic> **Italic**
 - <monospace> **Monospace Text (Typewriter Text)**
 - <num> **ISO Numeric Emphasis**
 - <overline> **Overline**
 - <roman> **Roman**
 - <ruby> **Ruby Wrapper**
 - <sans-serif> **Sans Serif**
 - <sc> **Small Caps**
 - <strike> **Strike Through**
 - <underline> **Underline**
- Inline Display Elements
 - <inline-graphic> **Inline Graphic**
 - <private-char> **Private Character (Custom or Unicode)**
- <named-content> **Named Special (Subject) Content**
- <styled-content> **Styled Special (Subject) Content**
- Baseline Change Elements
 - <sub> **Subscript**
 - <sup> **Superscript**

8.1.321 <year> Year

Numerical, 4-digit year.

Attributes:

@calendar **calendar**
 @content-type **Type of Content**
 @id **Document Internal Identifier**
 @iso-8601-date **ISO-8601 Formatted Date**
 @specific-use **Specific Use**
 @xml:base **Base**
 @xml:lang **Language of an Element**

Content model:

Text, numbers, or special characters

8.2 Attributes

This standard defines the attributes for the two specific NISO STS Tag Sets. By default, all attributes are included in both Tag Sets; the few attributes that are used only in the Extended Tag Set are so identified.

Attribute entries contain:

- The XML Name of the attribute, e.g., *@specific-use*
- The informational name of the attribute, e.g. “Specific Use”
- A description of the attribute, e.g., “Specifies distinctions in the applicability of a particular element”.
- Then, for each element or group of elements in these Tag Sets in which the attribute is identically defined, there is a block of usage information with required or suggested values and other information. Note that:
 - Some attributes are used on many elements

- Some attributes are used in the same way on all elements in a Tag Set, but some may have different optionality or values when used on different elements in the same Tag Set.
- For each usage block, the attribute entry contains:
 - A list of the elements for which this block of information is relevant.
 - A restrictions statement, which may have any of the following values:
 - “This attribute *may* be used if the element is used.” Meaning that the attribute is optional, and there is no default.
 - “This attribute *must* be used if the element is used.” Meaning that the attribute is required, and there is no default.
 - “This attribute *must* have the value [*quoted actual value given*].”
 - A description of the allowed contents of the attribute, which will either be a description of the type of information allowed in the attribute or a table of allowed values and their meanings.

8.2.1 @abbr Abbreviation (NISO JATS table model)

An abbreviated version of the cell’s content. This allows visual browsers to use the short form if space is limited, and non-visual browsers can give a cell’s header information in an abbreviated form before rendering each cell. (This attribute is based on and intended to be converted easily to the XHTML `abbr` attribute.)

In elements `<td>` and `<th>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A brief note of what is in the cell, mostly for use by accessibility software.

8.2.2 @abstract-type Abstract Type

Type or style of abstract as identified by the standards organization (for example, “short”, “graphic”, “ASCII”, “section”).

The Tag Set does not prescribe values for this attribute, so any type of abstract that a standards organization records can be preserved.

In element `<abstract>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Brief name for the type of abstract, such as “short” or “executive-summary”.

8.2.3 @accept XInclude Accept Header

An Accept Header for an HTTP request (if any) for the resource being included. See the W3C XInclude documentation (<https://www.w3.org/TR/xinclude/>).

In element `<xi:include>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The text of the Accept header

8.2.4 @accept-language XInclude Accept Language Header

An Accept Language Header for an HTTP request (if any) for the resource being included. See the W3C XInclude documentation (<https://www.w3.org/TR/xinclude/>).

In element `<xi:include>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The text of the Accept language header

8.2.5 @accredit-acronym Accreditation Acronym

Names the accrediting organization, for example, United States SDOs can name “ANSI”. This attribute provides a machine-searchable normalized version of the organization since the content of the `<accrediting-organization>` element is free form.

Best Practice: Since the attribute name includes the word “acronym”, the values (such as “ANSI”) should be given in ALL CAPS.

In element `<accrediting-organization>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	An acronym that names the accrediting organization referenced in the <code><accrediting-organization></code> element

8.2.6 @align Horizontal Alignment (NISO JATS table model)

Sets the horizontal (line) alignment inside a table cell. (This attribute is based on and intended to be converted easily to the XHTML `align` attribute.)

In elements `<col>`, `<colgroup>`, `<tbody>`, `<td>`, `<tfoot>`, `<th>`, `<thead>`, and `<tr>`, this attribute *may* be used if the element is used.

Value	Meaning
center	Center align the cell contents.
char	Align the text on the character identified with the <code>@char</code> attribute.
justify	Fully justify cell contents (right and left justification).
left	Left justify cell contents.
right	Right justify cell contents.

8.2.7 @alt Alternative Text

Word or phrase that serves as a textual alternative for the element.

In elements `<abbrev>`, `<label>`, `<named-content>`, `<styled-content>`, and `<xref>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Simple textual words or phrases provided as a textual alternative to its element, for example, a phrase to be pronounced by screen readers.

8.2.8 @alt-title-type Type of Alternate Title

Reason for or purpose of an alternate title (for example, “toc” for a title used in a Table of Contents, “right-running” for a right-running-head title for print).

In element `<alt-title>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A word or phrase describing the rationale for this version of the title, for example, “right-running-head”.

8.2.9 @arrange Arrangement of Subscripts and Superscripts

Indicates whether multiple subscripts or superscripts applying to the same character should stack (be placed one above the other as compactly as possible) or stagger (be stretched out in a line).

In elements <sub> and <sup>, this attribute *may* be used if the element is used.

Value	Meaning
stack	The multiple subscripts or superscripts should be placed one above the other as compactly as possible.
stagger	The multiple subscripts or superscripts should be stretched out in a line.

8.2.10 @assigning-authority Authority Responsible for an Identifier

Names the authority (such as Crossref, GenBank, or PDB) that assigned the identifier or is responsible for the identifier

In elements <ext-link> and <pub-id>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The name of the organization assigning the identifier.

8.2.11 @authenticated Authenticated

An authority (such as Crossref) has marked this contributor identifier as “authenticated”.

In element <contrib-id>, this attribute will be assigned the value *false* by default.

Value	Meaning
true	This contributor identifier has been marked by the issuing authority as authenticated.
false	No guarantee has been made about this contributor identifier.

8.2.12 @authorize-acronym Authorization Acronym

Names the type of authorization, for example, United States SDOs can name “ANS” indicating an American National Standard. This attribute provides a machine-searchable normalized version of the authorization since the content of the <authorization> element is free form.

Best Practice: Since the attribute name includes the word “acronym”, the values (such as “ANS”) should be given in ALL CAPS.

In element <authorization>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	An acronym that names the authorization type referenced in the <authorization> element

8.2.13 @axis Axis (NISO JATS table model)

A method of categorizing table cells. The value of this attribute should be one or more category names. (This attribute is based on and intended to be converted easily to the XHMTL *axis* attribute.)

In elements `<td>` and `<th>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the conceptual axis or a comma-separated list of axis names.

8.2.14 @baseline-shift Baseline Shift

The position of an inline graphic with respect to the current text baseline (above, on, or below the baseline).

In element `<inline-graphic>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the position of the inline graphic.

8.2.15 @border Border (Frame) around a Table (NISO JATS table model)

Thickness, in pixels, of the border to draw around the table. A value of “0” indicates that the table has no border. (This attribute is based on and intended to be converted easily to the XHMTL `border` attribute.)

In element `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
Counting number	Thickness, measured in pixels, of the border around the table.

8.2.16 @calendar calendar

Name of the calendar used in naming a date such as a publication date, for example, “Gregorian”, “Japanese” (Emperor years), or “Thai Buddha”.

In elements `<access-date>`, `<conf-date>`, `<date>`, `<date-in-citation>`, `<pub-date>`, and `<year>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Name of the calendar used in the date, for example, “Gregorian”, “Japanese”, or “Chinese”

8.2.17 @cellpadding Cell Padding (NISO JATS table model)

Amount of space, measured in pixels, between the border of a cell and the contents of a table cell. (This attribute is based on and intended to be converted easily to the XHMTL `cellpadding` attribute.)

In element `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
Counting number	Thickness, measured in pixels, of the cell padding.

8.2.18 @cellspacing cellspacing

Width of space between cells in a table. (This attribute is based on and intended to be converted easily to the XHMTL `cellspacing` attribute.)

In element `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
Counting number	Thickness, measured in pixels, of the space between cells in a table.

8.2.19 @char Table Cell Alignment Character (NISO JATS table model)

The character to be used in horizontal alignment of the contents of an entry in a table. The content of a table data or table header element is to be aligned horizontally based on the character named in this attribute, for example, alignment on a period for decimal alignment or on an equal sign for alignment of variables. (This attribute is based on and intended to be converted easily to the XHTML `char` attribute.)

In elements `<col>`, `<colgroup>`, `<tbody>`, `<td>`, `<tfoot>`, `<th>`, `<thead>`, and `<tr>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	When used in conjunction with <code>align="char"</code> , the contents of the table entry are aligned relative to the character specified by this attribute.

8.2.20 @charoff Table Character Offset (NISO JATS table model)

Horizontal offset from the alignment character specified by the `@char` attribute; the percent of the current column width to the left of the (left edge of the) alignment character. (This attribute is based on and intended to be converted easily to the XHTML `charoff` attribute.)

In elements `<col>`, `<colgroup>`, `<tbody>`, `<td>`, `<tfoot>`, `<th>`, `<thead>`, and `<tr>`, this attribute *may* be used if the element is used.

Value	Meaning
Number	Where to set the alignment. Although this Tag Set can enforce only that this attribute contain any characters, validation beyond the DTD (for example, schema validation or Schematron validation) can constrain this value to a counting number (positive integer).

8.2.21 @code-type Type of Code

The type of this code, used to categorize or describe the code.

In element `<code>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Typically a descriptive word such as “pseudo-code” or “scripting” that describes the type of language (not the name of the language) in which the code is written.

8.2.22 @code-version Code Version

Version of this code.

In element `<code>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Version of the program (code) that is shown inside the <code><code></code> element, for example, “25.1 second patch”.

8.2.23 @collab-type Type of Collaboration

Type or role of the collaborators; what function they played in the publication (for example, “translators”, “editors”).

In element `<collab>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Word or phrase that describes the role that the collaborators played in the publication, for example, “Working-Group”.

8.2.24 @colspan Column Span (NISO JATS table model)

Table attribute used to request horizontal spanning of more than one column. (This attribute is based on and intended to be converted easily to the XHTML `colspan` attribute.)

In elements `<td>` and `<th>`, this attribute will be assigned the value 1 by default.

Value	Meaning
Counting number	How many column widths this cell will span, for example, “3”.

8.2.25 @comm-ref-group-type Committee Reference Group Type

The element `<comm-ref>` identifies the Technical Committee, Subcommittee, or Working Group responsible for the standard, for example, “ISO/TC 27/SC 4”. The element `<comm-ref-group>` holds multiple standards-producing groups to create a hierarchy of groups, since the element may contain a `<comm-ref>` element to name itself, a series of lower-level `<comm-ref>`s, as well as lower-level `<comm-ref-group>`s. This `@comm-ref-group-type` attribute names the type of group, for example, “partner” or “sponsor”.

In element `<comm-ref-group>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The type of group, for example, “partner”.

8.2.26 @content-type Type of Content

Subject or type of content that makes this element semantically distinct.

In element `<named-content>`, this attribute *must* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names/describes the distinct function for the <code><named-content></code> that cannot otherwise be described by the elements in this Suite. For example, a chapter in a medical book might use the value “body-system” or “gene” while a chapter in a management book might use the value “product-name” or “stock-code”.

In elements `<abbrev>`, `<access-date>`, `<ack>`, `<addr-line>`, `<address>`, `<aff>`, `<ali:free_to_read>`, `<ali:license_ref>`, `<alt-text>`, `<annotation>`, `<app>`, `<app-group>`, `<array>`, `<author-comment>`, `<bio>`, `<boxed-text>`, `<caption>`, `<chem-struct>`, `<chem-struct-wrap>`, `<city>`, `<col>`, `<colgroup>`, `<comment>`, `<compound-kwd>`, `<compound-kwd-part>`, `<compound-subject>`, `<compound-subject-part>`, `<conf-acronym>`, `<conf-date>`, `<conf-loc>`, `<conf-name>`, `<conf-sponsor>`, `<contrib-group>`, `<contrib-id>`, `<copyright-holder>`, `<copyright-statement>`, `<copyright-year>`, `<country>`, `<data-title>`, `<date-in-citation>`, `<day>`, `<degrees>`, `<disp-formula>`, `<disp-formula-group>`, `<disp-quote>`, `<editing-instruction>`, `<edition>`, `<elocation-id>`, `<email>`, `<era>`, `<fax>`, `<fig-group>`, `<fixed-case>`, `<fn-group>`, `<fpage>`, `<glossary>`, `<gov>`, `<graphic>`, `<index>`, `<index-div>`, `<index-entry>`, `<index-group>`, `<index-term>`, `<inline-formula>`, `<inline-graphic>`, `<inline-supplementary-material>`, `<institution>`, `<institution-id>`, `<isbn>`, `<issn>`, `<issue>`, `<issue-id>`, `<issue-part>`, `<issue-title>`, `<kwd>`, `<license-p>`, `<long-desc>`, `<lpage>`, `<media>`, `<milestone-end>`, `<milestone-start>`, `<month>`, `<name>`, `<nav-pointer>`, `<nested-kwd>`, `<object-id>`, `<p>`, `<page-range>`, `<patent>`, `<phone>`, `<postal-code>`, `<prefix>`, `<price>`, `<rb>`, `<ref>`, `<ref-list>`, `<related-object>`, `<role>`, `<rt>`, `<ruby>`, `<season>`, `<see>`, `<see-also>`, `<see-also-entry>`, `<see-entry>`, `<self-uri>`, `<series>`, `<sig>`, `<sig-block>`, `<source>`, `<speaker>`, `<speech>`, `<state>`, `<statement>`, `<std>`, `<string-name>`,

<subject>, <subtitle>, <suffix>, <supplementary-material>, <table>, <table-wrap>, <table-wrap-group>, <tbody>, <td>, <tex-math>, <tfoot>, <th>, <thead>, <time-stamp>, <title>, <toc>, <toc-div>, <toc-entry>, <toc-group>, <tr>, <trans-source>, <trans-title>, <trans-title-group>, <uri>, <verse-group>, <verse-line>, <version>, <volume>, <volume-id>, <volume-series>, and <year>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names/describes any distinct semantics of the associated element. This may be used to preserve the semantic intent of prior tagging, for example, to record that a table cell was a total or subtotal amount. This may also be used to attach information classes to an element for retrieval purposes.

In elements <non-normative-example>, <non-normative-note>, <normative-example>, <normative-note>, and <notes-group>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names/describes any distinct semantics of the associated note or group of notes. The @content-type attribute may be used to describe the semantic intent of the note.

In element <meta-note>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names/describes any distinct semantics of the associated metadata note (<meta-note>). The @content-type attribute may be used to preserve the semantic intent of the note, such as a adoption note or issuance information.

8.2.27 @continued-from Continued From (list continuation)

An IDREF-type attribute that points to the @id attribute of a list which the current list continues; used to connect discontinuous lists that constitute one logical list.

In elements <def-list> and <list>, this attribute *may* be used if the element is used.

Value	Meaning
A pointer (IDREF)	Points to the existing identifier (@id) of a list element, to mark the current list as continued from the targeted (pointed to) list, which may be a list (<list>) or a definition list (<def-list>).

8.2.28 @contrib-id-type Contributor Identifier Type

Names the type of contributor identifier or the authority that is responsible for the creation of the contributor identifier.

In element <contrib-id>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of contributor identifier or the authority (such as a publisher or industry organization) that is responsible for the creation of the contributor identifier, for example, an ORCID (value "orcid") or a JST identifier (value "jst").

8.2.29 @contrib-type Type of Contribution

Type of contribution made by the individual (for example, "author", "editor", "illustrator", "translator", "research-assistant").

In element <contrib>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Word or phrase naming or describing the contribution, such as “editor”.

8.2.30 @corresp Corresponding Author Flag

Indicates whether or not the contributor is the corresponding contributor for the content.

In element <contrib>, this attribute *may* be used if the element is used.

Value	Meaning
no	This author (or other contributor) is not a corresponding author.
yes	This author (or other contributor) is a corresponding author.

8.2.31 @count Count

Number of specific objects that appear in the document.

In elements <count>, <equation-count>, <fig-count>, <page-count>, <ref-count>, <table-count>, and <word-count>, this attribute *must* be used if the element is used.

Value	Meaning
Counting number	The number of objects being counted, for example, “5” for five tables or five figures.

8.2.32 @count-type Count Type

Names what is being counted by the <count> element, for example, methods, working group members, non-normative references, algorithms, etc.

In element <count>, this attribute *must* be used if the element is used.

Value	Meaning
The name of an object, element, structure	The object being counted, for example, “code” when counting the number of code fragments or “method” for the number of methods.

8.2.33 @country Country

An abbreviation or code that names a country. This is information that can be used to identify a country that granted a patent or to provide a machine-comparable form of the name of a country as an addition to the content of the <country> element.

In elements <country>, <funding-source>, and <patent>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	An abbreviation for a country, typically using the ISO 3166-1 two-letter alphabetic codes, for example, “US” for the United States of America.

8.2.34 @currency Currency

Type of currency in which the price is presented.

In element <price>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	An abbreviation for a currency, typically using the ISO 4217 three-letter alphabetic codes, for example, “USD” for the United States Dollar.

8.2.35 @date-type Type of Date

Event in the lifecycle of a standard that this date is marking, for example, the date the standards document was published. These values are not standard lifecycle events, such as “amended”.

In elements <date> and <release-date>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Names a date referring to a single instance of a specific published edition of a standard (single publication of a dated designation). In other words, this names a date in the lifecycle of this standard rather than a type of standard from the standards lifecycle (such as “Addenda”).

In element <meta-date>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Names, for example, a lifecycle stage that should not be expressed with <release-date> or a circumstance that is unique to a particular standards organization, for example, “Date of Issuance” for ASME or “Date of ratification” for CEN-CENELEC. There are no suggested values for this attribute. Best Practice for new documents is to use this @date-type attribute instead of the ISO-specific @type attribute to record this date-typing information.

In element <pub-date>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The meaning and values for @date-type for this element were taken directly from JATS and are more appropriate to journal articles than to standards. Best Practice for NISO STS is to use the element <release-date> to indicate publication dates.

8.2.36 @deceased Deceased

Indicates whether or not the contributor described in the element was deceased when the document or document component was published.

In element <contrib>, this attribute *may* be used if the element is used.

Value	Meaning
no	The contributor was living when the document was published.
yes	The contributor had died by the time the document was published.

8.2.37 @description Private Character Description

Human-readable description of a defined private character (for example, “Arrow, normal weight, single line, two-headed, Northwest to Southeast”).

In element <private-char>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A rough visual description of the appearance of the <private-char> character, for example, “Greek capital letter omega with tonos”.

8.2.38 @designator Designator of Journal Edition/Version

This attribute was inherited from JATS and *does not* have anything to do with a standard’s designation. The attribute is used to hold the edition number, version number, or similar publishing identifier (for a journal, book, etc.) as an unadorned numeric or alphabetic value for machine comparisons.

In elements `<edition>` and `<version>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Machine processable version of an edition/version number for journal articles.

8.2.39 `@document-id` Related Object Document Identifier

Identifier of a document within a publication that is (or contains) the target of the `<related-object>` element.

In element `<related-object>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	An identifier for the document that contains the related object (<code><related-object></code>).

8.2.40 `@document-id-type` Related Object Document Identifier Type

Type of document identifier (for example, a DOI or a publisher's identifier) named in the `@document-id` attribute of the `<related-object>` element to identify a document.

In element `<related-object>`, this attribute *may* be used if the element is used.

Value	Meaning
The type of document identifier of the related object, for example, a DOI.	The type of document identifier named in the <code>@document-id</code> attribute for a (<code><related-object></code>) element. This attribute qualifies the <code>@document-id</code> attribute.

8.2.41 `@document-type` Related Object Document Type

Type of document being described by the `<related-object>` element.

In element `<related-object>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of related object, for example, "Guide" for a Guide to a standard.

8.2.42 `@dsep` Decimal Separator

In a number, the symbol (typically either "." or ",") that marks the boundary between the integral and fractional parts of a decimal number. For example, in "2,543.24", the "." is the decimal separator.

In element `<num>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The delimiter character that marks the boundary between the integral and fractional parts of a decimal number, typically either "." or ","

8.2.43 `@dtd-version` Version of the Tag Set (DTD)

Version of the NISO STS Tag Set that should be used to validate this standards document.

In elements `<adoption>` and `<standard>`, this attribute *must* have the value 1.0 (as given below).

Value	Meaning
1.0	The version of the NISO STS Tag Set that is being used.

8.2.44 @elocation-id Elocation Identifier

Bibliographic identifier for a document that does not have traditional printed page numbers.

In element `<related-article>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The value of the elocation identifier.

8.2.45 @encoding XInclude Encoding

The encoding to use for the resource being included. The encoding attribute has no effect when the parse attribute value “`parse="xml"`” is set on the `<xi:include>` element. See the W3C XInclude documentation (<https://www.w3.org/TR/xinclude/>).

In element `<xi:include>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A valid encoding name.

8.2.46 @end_date NISO ALI End Date

Date on which the document stops being “free-to-read” or ends the given license, as defined in *NISO Access License and Indicators* (ALI) NISO RP-22-2015.

In element `<ali:free_to_read>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The ISO 8601 date on which this standards document stops being “free-to-read”. If this attribute is not used, the absence indicates that the document is permanently “free-to-read”.

8.2.47 @equal-contrib Equal Contribution

Indicates whether or not all contributors contributed equally.

In element `<contrib>`, this attribute *may* be used if the element is used.

Value	Meaning
no	This contributor did not participate equally with all other contributors.
yes	This contributor participated equally with all other contributors.

8.2.48 @executable Executable

Indicates whether or not the code snippet to which the attribute is attached is intended for direct execution.

In element `<code>`, this attribute *may* be used if the element is used.

Value	Meaning
no	The code cannot or should not be executed.
yes	The code is intended to be run.

8.2.49 @ext-link-type Type of External Link

Type of external link; may include a specific source (for example, “`pdb`”, “`pir`”), identifier type (for example, “`doi`”), or access method (for example, “`ftp`”, “`uri`”).

In elements `<ext-link>` and `<related-article>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the type of link (for example, “doi” or “uri”) or the type of access (“ftp”).

8.2.50 `@fig-type` Type of Figure

Type or format of the figure (for example, “cartoon”, “chart”, “diagram”, “map”, “plate”, “workflow”).

In element `<fig>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of object shown in the figure, for example, “diagram”, “chart”, or “map”.

8.2.51 `@fn-type` Type of Footnote

Type of information conveyed in the footnote (for example, financial disclosure).

There are many reasons why the text or metadata of a standard might be footnoted. Where those reasons are known, this attribute can preserve that information. This could be a means of preserving, for example, that a member of the original Working Group or Committee is now deceased.

Since the use of `@fn-type` in standards documents is currently uncommon, there is no list of suggested values, and standards organizations are use any value for this attribute.

In element `<fn>`, this attribute *may* be used if the element is used.

Value	Meaning
Letter, numbers, of special characters	The reason for the footnote or type of footnote, such as “Conflict of interest”, “deceased”, or “financial-disclosure”

8.2.52 `@fontchar` Glyph-Data Font Character Table Offset

Offset of the character into a glyph table, such as a Unicode character.

In element `<glyph-data>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The offset of the character into a glyph table.

8.2.53 `@fontname` Glyph-Data Font Name

Name of the font for the character.

In element `<glyph-data>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A name for the font.

8.2.54 `@form-type` Form Type

When an object such as a figure or boxed text is marked as a “form” (using the attribute `@is-form`), this `@form-type` attribute may be used to indicate the type of the form’s content.

In elements `<boxed-text>`, `<fig>`, `<graphic>`, `<media>`, `<preformat>`, and `<table-wrap>`, this attribute *may* be used if the element is used.

Value	Meaning
blank	No content, an empty form that could be printed and filled in.
exemplar	The form is already filled in, with words that provide a user with real examples of how the form should be filled in, such as “phone: +1 301-315-9631”.
instructions	The form is already filled in, with words that provide a user with explanations or instructions concerning how the form is to be filled out, for example, “insert phone number, including country prefix”.
unspecified	The type of form content is not given.

8.2.55 @format Glyph Data Image Format

Name of the image format for the bitmap that is provided with a `<glyph-data>` element. This element is used to define a private use character when the `<private-char>` contains a bitmap.

In element `<glyph-data>`, this attribute *may* be used if the element is used.

Value	Meaning
A word	A word containing only letters, numbers, and a few special characters.

8.2.56 @frame Frame (NISO JATS table model)

Specifies which sides of the table should be given rules, making a box or frame of lines around the table. (This attribute is based on and intended to be converted easily to the XHMTL `frame` attribute.)

In element `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
above	Rule above only (top).
below	Rule below only (bottom).
border	Rules on all table rows and columns.
box	Rules on all 4 sides.
hsides	Rules on horizontal sides only (topbot).
lhs	Left side rule only.
rhs	Right side rule only.
void	No border (none).
vsides	Rules on vertical sides only (sides).

8.2.57 @glyph-data Glyph Data Character Being Referenced

An IDREF-type attribute that points to the `@id` attribute of the `<glyph-data>` character inside a `<private-char>` element. The idea is to use the full `<glyph-data>` with its name and bitmap once, then point to an existing character instead of defining the entire `<glyph-data>` element repeatedly.

In element `<glyph-ref>`, this attribute *may* be used if the element is used.

Value	Meaning
An identifier (IDREF)	The pointing uses the ID/IDREF mechanism, using the <code>@glyph-data</code> attribute of the <code><glyph-ref></code> element to point to the <code>@id</code> attribute of an existing <code><glyph-data></code> element.

8.2.58 @gsep Group Separator

In a number, the symbol (typically either a space or a comma) to delimit the groups within the number. For example, in “2, 238, 543.24”, the comma “,” is the group separator.

In element `<num>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Typically a comma or a space, to indicate what the separator is for the given number.

8.2.59 @headers Headers (NISO JATS table model)

List of `@ids` for table data and header cells. (This attribute is based on and intended to be converted easily to the XHTML `headers` attribute.)

In elements `<td>` and `<th>`, this attribute *may* be used if the element is used.

Value	Meaning
One or more identifiers (IDREFS)	Points to (contains) a list of one or more <code>IDS</code> of rows and columns that supply header information.

8.2.60 @href XInclude Href Linking Mechanism

A URI reference (or an IRI reference) that specifies the location of the resource to include. See W3C XInclude documentation (<https://www.w3.org/TR/xinclude/>).

In element `<xi:include>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The URI of a resource to be included.

8.2.61 @id Document Internal Identifier

Unique internal identifier of an element; allows element to be cross-referenced (made into a link). Value must be unique across a document, not just for an element type.

In element `<target>`, this attribute *must* be used if the element is used.

Value	Meaning
An XML identifier (ID)	A unique identifier for the element. An XML parser can verify that an <code>IDREF</code> -style attribute pointing to one of these is pointing to a valid <code>ID</code> .

In elements `<abbrev>`, `<abstract>`, `<access-date>`, `<accrediting-organization>`, `<ack>`, `<addr-line>`, `<address>`, `<adoption>`, `<aff>`, `<aff-alternatives>`, `<ali:free_to_read>`, `<ali:license_ref>`, `<alt-text>`, `<alt-title>`, `<alternatives>`, `<annotation>`, `<anonymous>`, `<app>`, `<app-group>`, `<array>`, `<article-title>`, `<attrib>`, `<author-comment>`, `<authorization>`, `<award-id>`, `<back>`, `<bio>`, `<body>`, `<bold>`, `<boxed-text>`, `<break>`, `<caption>`, `<chapter-title>`, `<chem-struct>`, `<chem-struct-wrap>`, `<citation-alternatives>`, `<city>`, `<code>`, `<col>`, `<colgroup>`, `<collab>`, `<collab-alternatives>`, `<comm-ref>`, `<comm-ref-group>`, `<comment>`, `<compl>`, `<compl-title-wrap>`, `<compound-kwd>`, `<compound-kwd-part>`, `<compound-subject>`, `<compound-subject-part>`, `<conf-acronym>`, `<conf-date>`, `<conf-loc>`, `<conf-name>`, `<conf-sponsor>`, `<content-language>`, `<contrib>`, `<contrib-group>`, `<contrib-id>`, `<copyright-holder>`, `<copyright-statement>`, `<copyright-year>`, `<count>`, `<country>`, `<counts>`, `<custom-meta>`, `<custom-meta-group>`, `<data-title>`, `<date>`, `<date-in-`

citation>, <day>, <def>, <def-head>, <def-item>, <def-list>, <degrees>, <disp-formula>, <disp-formula-group>, <disp-quote>, <doc-ident>, <doc-number>, <doc-ref>, <doc-type>, <editing-instruction>, <edition>, <element-citation>, <elocation-id>, <email>, <equation-count>, <era>, <etal>, <ext-link>, <fax>, <fig>, <fig-count>, <fig-group>, <fixed-case>, <fn>, <fn-group>, <fpage>, <full>, <funding-source>, <given-names>, <glossary>, <glyph-data>, <glyph-ref>, <gov>, <graphic>, <hr>, <ics>, <ics-desc>, <ics-wrap>, <index>, <index-div>, <index-entry>, <index-group>, <index-term>, <index-term-range-end>, <index-title-group>, <inline-formula>, <inline-graphic>, <inline-supplementary-material>, <institution>, <institution-id>, <institution-wrap>, <intro>, <intro-title-wrap>, <is-proof>, <isbn>, <iso-meta>, <issn>, <issn-l>, <issue>, <issue-id>, <issue-part>, <issue-title>, <italic>, <journal-id>, <kwd>, <kwd-group>, <label>, <language>, <license>, <license-p>, <list>, <list-item>, <long-desc>, <lpage>, <main>, <main-title-wrap>, <media>, <meta-date>, <meta-name>, <meta-note>, <meta-value>, <milestone-end>, <milestone-start>, <mixed-citation>, <monospace>, <month>, <name>, <name-alternatives>, <named-content>, <nat-meta>, <nav-pointer>, <nav-pointer-group>, <nested-kwd>, <nlm-citation>, <non-normative-example>, <non-normative-note>, <normative-example>, <normative-note>, <notes>, <notes-group>, <num>, <object-id>, <on-behalf-of>, <open-access>, <originator>, <overline>, <p>, <page-count>, <page-range>, <part-number>, <part-of-speech>, <part-title>, <patent>, <permissions>, <person-group>, <phone>, <postal-code>, <prefix>, <preformat>, <price>, <private-char>, <proj-id>, <pronunciation>, <pub-date>, <pub-id>, <publisher-loc>, <publisher-name>, <rb>, <ref>, <ref-count>, <ref-list>, <reg-meta>, <related-article>, <related-object>, <related-term>, <release-date>, <release-version>, <release-version-id>, <role>, <roman>, <rt>, <ruby>, <sans-serif>, <sc>, <sdo>, <season>, <sec>, <secretariat>, <see>, <see-also>, <see-also-entry>, <see-entry>, <self-uri>, <series>, <sig>, <sig-block>, <size>, <source>, <speaker>, <speech>, <standard>, <state>, <statement>, <std>, <std-doc-meta>, <std-id>, <std-id-group>, <std-ident>, <std-meta>, <std-org>, <std-org-abbrev>, <std-org-group>, <std-org-name>, <std-ref>, <std-xref>, <strike>, <string-name>, <styled-content>, <sub>, <sub-part>, <subj-group>, <subject>, <subtitle>, <suffix>, <sup>, <suppl-number>, <suppl-type>, <suppl-version>, <supplement>, <supplementary-material>, <surname>, <table>, <table-count>, <table-wrap>, <table-wrap-foot>, <table-wrap-group>, <tbody>, <td>, <term>, <term-display>, <term-head>, <term-sec>, <term-source>, <tex-math>, <textual-form>, <tfoot>, <th>, <thead>, <time-stamp>, <title>, <title-wrap>, <toc>, <toc-div>, <toc-entry>, <toc-group>, <toc-title-group>, <tr>, <trans-source>, <trans-subtitle>, <trans-title>, <trans-title-group>, <underline>, <uri>, <urn>, <verse-group>, <verse-line>, <version>, <volume>, <volume-id>, <volume-series>, <wi-number>, <word-count>, <xref>, and <year>, this attribute *may* be used if the element is used.

Value	Meaning
An XML identifier (ID)	A unique identifier for the element. An XML parser can verify that an IDREF-style attribute pointing to one of these is pointing to a valid ID.

8.2.62 @index-type Type of Index

Names the specific indexes in which an index term (<index-term>) should be used, for example, “materials”, “subject”, “chemical”, “regulations and code”.

In element <index>, this attribute *may* be used if the element is used.

Value	Meaning
A word or phrase	The name of the index, for example, “species”, “chemical”, “subject”, etc.

In element `<index-term>`, this attribute *may* be used if the element is used.

Value	Meaning
One or more words	A word naming the index, or a series of words each representing a specific index

8.2.63 @initials Initials for Personal Names

Initial(s) for the surname or the given names of a person.

In elements `<given-names>` and `<surname>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The initial letters of a person’s given names.

8.2.64 @institution-id-type Type of Institution Identifier

Type or source of the institution identifier, such as ISNI or Ringgold.

In element `<institution-id>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Type or source of the institution identifier, such as ISNI or Ringgold.

8.2.65 @is-form Is Object a Form

Used on block-level structures such as figures and boxed-text to indicate that the content of the object is (semantically) a form.

In elements `<boxed-text>`, `<fig>`, `<graphic>`, `<media>`, `<preformat>`, and `<table-wrap>`, this attribute *may* be used if the element is used.

Value	Meaning
form	Yes, the object is a form. (The <code>@form-type</code> attribute can be used to describe the style or type of the form.)
noform	The object is not a form. This value only exists for completeness; if the item is not a form, the <code>@is-form</code> attribute should not be used.

8.2.66 @iso-8601-date ISO-8601 Formatted Date

A machine-processable, ISO 8601 formatted date value (“YYYY-MM-DDThh:mm:ss”) for a JATS date-specific element, whether the date be specified as text, an ISO date, a partial date, or as any other date format. If the date given in the content of the element is in a non-Gregorian calendar, this attribute will hold the Gregorian calendar equivalent of that date.

In elements `<access-date>`, `<conf-date>`, `<date>`, `<date-in-citation>`, `<meta-date>`, `<pub-date>`, `<release-date>`, and `<year>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The ISO 8601 standard date format (“YYYY-MM-DDThh:mm:ss”) for the date given in the element, for example, “2015-07-15”.

8.2.67 @issue Issue Number of a Related Article

Issue number of a journal which contains the related article.

The @issue attribute can be used, along with the @vol, @journal-id, and @page attributes, to provide the metadata for the related journal article.

In element <related-article>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The number of the journal issue, such as “48”.

8.2.68 @journal-id Journal Identifier of a Related Article

Identifier for the journal that contains the related article.

The @journal-id attribute can be used, along with the @vol, @issue, and @page attributes, to provide the metadata for the related journal article.

In element <related-article>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A journal abbreviation or other journal identifier.

8.2.69 @journal-id-type Type of Journal Identifier

Type of journal identifier or the authority that created a particular journal identifier.

In elements <journal-id> and <related-article>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Word or phrase that identifies the organization or service who assigned the identifier (for example, “index” to indicate an abstracting or indexing service) or names the type of identifier (for example, “doi”).

8.2.70 @kwd-group-type Keyword Authority

An authority, typically at different organizational level than a standards organization, that placed these keywords into the XML of this standards document, for example, “working-group”, “committee”, or “inspec”.

In element <kwd-group>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The source of keywords. This may be a standards organization (such as “IEEE”); another type of organization (such as “inspec”); the name of a thesaurus, index, or ontology that has established keywords for a field; or the name of the standards producer that defined these keywords (such as “RFC”).

8.2.71 @language Code Language

Programming language in which this code is written, for example:

- “javascript”, for code written in “Javascript 3.0” (Note: The “3.0” can be recorded in the @language-version attribute.); or
- “dtd” for an XML DTD fragment.

In element <code>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The lower case name of the programming or scripting language

8.2.72 @language-version Code Language Version

Version of the language in which this code is written, e.g., “3.0”, for code written in “Javascript 3.0”. (The “javascript” should be recorded in the @language attribute.)

In element <code>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The version of the language in the code sample, such as “3.0”, “8A”, etc.

8.2.73 @level Hierarchical Level

Used on elements that can name a nested hierarchy (for example, <comm-ref-group> or complementary or introductory titles) to indicate the level of nesting. Such groups start at “1”, with embedded groups taking higher numbers.

In elements <comm-ref-group>, <compl>, <compl-title-wrap>, <intro>, and <intro-title-wrap>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The level of this element in the hierarchy, typically a counting number such as “2”.

8.2.74 @license-type Type of License

Type of license described by the <license> element.

In element <license>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of license, for example, “open-access” for a license permitting unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited; or “ccc” for a Copyright Clearance Center statement.

8.2.75 @link-type Type of Link (for a Related Object)

How a <related-object> element is related to the current standards document, for example, a Technical Report concerning the standard.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of relationship between the related object and the current standards document.

8.2.76 @list-content List Content

Type of list, usually with a semantically meaningful name (for example, a “where-list” for the list of the variables that follows an equation, a “notation-list”, or a “procedure-list” for a list of procedural steps to follow).

In elements <def-list> and <list>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of list for named list types, for example, a “where-list” for a list of the variables that frequently follows an equation, a “notation” list, or a “procedure-list” or “step-list” for a list of procedural steps to follow.

8.2.77 @list-type Type of List

Specifies what prefix character should precede each list item. For example, the style may suggest the character type (“simple” or “ordered”), or the style may name the character explicitly (“lower-alpha” for a list numbered “a.”, “b.”, “c.”).

In elements <def-list> and <list>, this attribute *may* be used if the element is used.

Value	Meaning
A word	A word that either (1) specifies the character to be used for the list-item prefix (for example, the word “bullet” for a list with bulleted items) or (2) describes the appearance or format of the list items (for example, the word “simple” for a list that has no prefix character before each list item or the word “ordered” for a numbered list whose prefix style is set at display time).

8.2.78 @mime-subtype Mime Subtype

Mime subtype for a graphic, multimedia object, or piece of supplementary material.

In elements <graphic>, <inline-graphic>, <inline-supplementary-material>, <media>, and <supplementary-material>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A specific mime subtype (IANA).

8.2.79 @mimetype Mime Type

Mime type for a graphic, multimedia object, or piece of supplementary material.

In elements <graphic>, <inline-graphic>, <inline-supplementary-material>, <media>, and <supplementary-material>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The appropriate mime type for the object.

8.2.80 @name Name (in a Private Character)

The unique name for the character being defined by <private-char>.

In element <private-char>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	For use with <private-char>, supplies the name of the character being defined. By convention, this character should be named in a fashion similar to names found in the Unicode Standard (for example, in all uppercase ASCII, “NORTHWEST SOUTHEAST ARROW”).

8.2.81 @name-style Personal Name Style

Style of processing requested for a structured personal name.

In elements `<name>` and `<string-name>`, this attribute will be assigned the value `western` by default.

Value	Meaning
eastern	The name will both be displayed and sorted/inverted with the family name preceding the given name.
given-only	The single name provided is a given name, not a family name/surname. The single name will be both the sort and the display name.
islensk	The name will both be displayed and sorted/inverted with the given name preceding the family name.
western	The name will be displayed with the given name preceding the family name, but will be sorted/inverted with the family name preceding the given name.

8.2.82 `@nav-pointer-type` Type of Navigation Pointer

Indicates the kind of navigation pointer (`<nav-pointer>`) being used in a structural index entry, i.e., the pointer could identify a single page (value “point”) in the narrative text, or the beginning and end of a page range (values “start-of-range” and “end-of-range” respectively).

In element `<nav-pointer>`, this attribute *may* be used if the element is used.

Value	Meaning
end-of-range	The end of a page range
point	A single page
start-of-range	The start of a page range

8.2.83 `@norm-part-of-speech` Normative part of Speech

Used to name one of a small set of normative (base) parts of speech, such as “verb”. This attribute can provide a machine-readable, interchangeable part-of-speech term when the actual part of speech has been recorded in greater detail. The attribute can also act as an English-language gloss for part-of-speech content in another language.

In element `<part-of-speech>`, this attribute *may* be used if the element is used.

Value	Meaning
adj	The part of speech is an adjective.
adv	The part of speech is an adverb.
noun	The part of speech is a noun.
verb	The part of speech is a verb.

8.2.84 `@notation` Notation

Indicates that the content of the associated element will be coded in one of the named notations.

In element `<tex-math>`, this attribute *may* be used if the element is used.

Value	Meaning
LaTeX	The content of the associated element will be in LaTeX.
TEX	The content of the associated element will be in TeX.
TeX	The content of the associated element will be in TeX.
tex	The content of the associated element will be in TeX.

8.2.85 @notes-type Type of Publishing Notes

Type of notes that are contained in the <notes> element. This element is inherited from JATS and is used for publishing notes, not for normative notes, non-normative notes, or metadata notes.

In element <notes>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The type of publishing note

8.2.86 @object-id Object Identifier (in Related Object)

Identifier of an object (for example, a table, figure, or sidebar) within a separate document that is the target of the <related-object> element.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The identifier of the text or graphical object for a <related-object> element.

8.2.87 @object-id-type Object Identifier Type (in Related Object)

Type of object identifier (for example, an XML ID, a string, the label of the object, a DOI) for a <related-object> element.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of the identifier, for example, “ID” for an XML attribute of type ID.

8.2.88 @object-type Object Type (in Related Object)

Type of object (for example, “table”, “figure”, “sidebar”) that is the target of the <related-object> element.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the type of related object, such as “table”.

8.2.89 @orientation Orientation

Indicates whether an object (for example, a figure or table) should be positioned in a tall manner with the long edge vertical (“portrait”) or in a wide manner with the long edge horizontal (“landscape”).

In elements <array>, <boxed-text>, <chem-struct-wrap>, <code>, <fig>, <fig-group>, <graphic>, <media>, <preformat>, <supplementary-material>, <table-wrap>, and <table-wrap-group>, this attribute will be assigned the value *portrait* by default.

Value	Meaning
landscape	The object should be rotated by 90 degrees, so that the display is wide rather than tall.
portrait	The object should not be rotated by 90 degrees; the display will be taller than it is wide.

8.2.90 @originator Originator

The name of the standards organization that created the element for which this is an attribute. This name is typically the short form name, such as “ASME”.

In elements `<nat-meta>` and `<reg-meta>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The name of the regional or national producing standards organization, such as “CEN”, “NEN”, “DIN”, or “SFS”.

In elements `<abstract>`, `<address>`, `<alternatives>`, `<app>`, `<array>`, `<boxed-text>`, `<chem-struct-wrap>`, `<comm-ref-group>`, `<custom-meta-group>`, `<def-list>`, `<disp-formula>`, `<disp-formula-group>`, `<disp-quote>`, `<fig>`, `<fig-group>`, `<fn-group>`, `<glossary>`, `<graphic>`, `<inline-supplementary-material>`, `<isbn>`, `<issn>`, `<issn-l>`, `<kwd-group>`, `<list>`, `<media>`, `<meta-note>`, `<non-normative-example>`, `<non-normative-note>`, `<normative-example>`, `<normative-note>`, `<notes-group>`, `<p>`, `<preformat>`, `<ref-list>`, `<related-article>`, `<related-object>`, `<sec>`, `<speech>`, `<statement>`, `<std-id>`, `<std-id-group>`, `<sub-part>`, `<subj-group>`, `<supplementary-material>`, `<table-wrap>`, `<table-wrap-group>`, `<term-sec>`, `<title-wrap>`, and `<verse-group>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The name of the standards organization responsible for creating the content of this element, for example, “IEEE”, “ASME”, “ASTM”, or “DIN”.

8.2.91 @page Page (of Related Article)

Page number of a related journal article, which may be either the number of the journal page on which the article starts or a page range.

The `@page` attribute can be used with the `@vol`, `@issue`, and `@journal-id` attributes to identify the related article `<related-article>`.

In element `<related-article>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The page number on which a related article starts or the range of pages for a related article. For example, the value may be a page number such as “1145”, a page range such as “35–583”, or a letter/number combination, such as “46a” or “iii”.

8.2.92 @parse XInclude Parse Flag

Treat the included object as text or as parsed XML. See the W3C XInclude documentation (<https://www.w3.org/TR/xinclude/>).

In element `<xi:include>`, this attribute will be assigned the value `xml` by default.

Value	Meaning
text	Included object is to be treated as text.
xml	Included object is to be treated as XML.

8.2.93 @part-type Type of Part

Identifies the semantic type of an independent part of a standards document (`<sub-part>`).

In element `<sub-part>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Names the type of semantic content included in the part or sub-part.

8.2.94 @person-group-type Type of People (in Person Group)

Role of the persons being named in <person-group> element (for example, authors, editors, members of the G&S chorus).

In element <person-group>, this attribute *may* be used if the element is used.

Value	Meaning
allauthors	Used to identify a complete list of authors when a subset of the author group is used elsewhere in the citation. This may occur, for example, when a citation identifies both a book and a chapter within the book.
assignee	Persons to whom a patent is awarded.
author	Content creators.
compiler	Persons who put together a composite work from multiple sources.
curator	Person or group responsible for data curation or archival curation
director	Directors.
editor	Content editors.
guest-editor	Content editors that have been invited to edit all or part of a work.
inventor	Idea, software, or machine creators.
transed	Editors of a translated version of a work.
translator	Persons who translated the cited work from one language into another.

8.2.95 @platforms Platforms

Name(s) of hardware and/or software platform(s) on which this code is intended to run. It is assumed that each such platform will have a one-word “name”, and multiple platform names will be separated by spaces.

In element <code>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Platform on which the <code> is intended to run, for example, “Mac OS X”.

8.2.96 @position Position

Typically indicates whether a display object (for example, figure, table, boxed text) must be anchored in its exact location within the text or may float to a different location in the document (for example, top of the next page, into the next column, within a separate window). Also used to indicate that the display object should be placed in the margin or used as a background image behind the text.

In elements <boxed-text>, <chem-struct-wrap>, <code>, <fig-group>, <graphic>, <media>, <preformat>, <supplementary-material>, <table-wrap>, and <table-wrap-group>, this attribute will be assigned the value `float` by default.

Value	Meaning
anchor	The object must remain in its exact location in the text flow.
background	The object (typically an image) is used as background displayed visually “behind” the narrative text.

Value	Meaning
float	The object is not anchored and may be moved to a new column, a new window, a new page, the end of the document, etc.
margin	In print, the object should be placed in the margin or gutter; online, the object should remain closely associated with the text.

In element `<fig>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Whether the figure (<code><fig></code>) must be anchored in its exact location within the text or may float to a different location in the document (for example, top of the next page). Values for this attribute are unlimited; they include any one of the values listed above, as well as other values such as “float-left” and “float-right”.

8.2.97 @prefix-word Prefix Word (For a List Item)

Word or phrase to be added to the beginning of each item in a list (for example, “Step”, “Procedure”).

In elements `<def-list>` and `<list>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The prefix word to be used for the list; for example, the word “Step” might be used to display a list numbered “Step1.”, “Step2.”, “Step3.”, etc.

8.2.98 @preformat-type Type of Preformatted Text

Type of content contained in the `<preformat>` element (for example, man-machine dialogs, poetry, ASCII art).

Distinctions between different types of preformatted objects can be preserved using the `@preformat-type` attribute, for example, by recording the content type of the text, such as “man-machine-dialogue”.

In element `<preformat>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A word or phrase that describes the content or names the type of content for the <code><preformat></code> element, for example, “dtd” for a DTD fragment or “xml” for an XML-tagged data sample.

8.2.99 @pub-id-type Type of Publication Identifier (in a citation)

Type of publication identifier or the organization or system that defined the identifier.

This attribute is used in several contexts:

- Inside a bibliographic citation element (such as `<mixed-citation>` or `<element-citation>`), for example, on the `<pub-id>` element, which identifies a publication cited in a bibliographic reference list;
- On an object identifier element (`<object-id>`), which can act as an identifier for any number of different elements.

In element `<pub-id>`, this attribute *may* be used if the element is used.

Value	Meaning
accession	(Bioinformatics) a unique identifier given to a DNA or protein sequence record for tracking the sequence record and the associated sequence over time in a data repository.
ark	Archival Resource Key — a Uniform Resource Locator (URL) containing the word “ark” that is a multi-purpose identifier for information objects of any type
art-access-id	Generic article accession identifier for interchange and retrieval between archives.

Value	Meaning
arxiv	arXiv archive of electronic preprints.
coden	Obsolete PDB/CCDC identifier (may be present on older articles).
doaj	Directory of Open Access Journals.
doi	Digital Object Identifier.
handle	Handle identifier, part of the Handle System for assigning, managing, and resolving persistent identifiers for digital objects and other resources on the Internet
isbn	International Standard Book Number.
manuscript	Identifier assigned to a manuscript.
medline	NLM Medline identifier.
other	None of the named identifiers in this list.
pii	The original “Publisher Item Identifier” (PII) was a system to provide unique and concise identification for individual published documents with a highly specified string. The PII specification is no longer in common use (2010).
pmcid	PubMed Central identifier.
pmid	PubMed ID; see https://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed .
publisher-id	Publisher’s identifier, such as an “article-id”, “artnum”, “identifier”, “article-number”, “pub-id”, etc.
sici	Serial Item and Contribution Identifier (An older ANSI/NISO Z39.56 code to uniquely identify volumes, journal articles, or other parts of a periodical. A journal article may have more than one SICI, for example, one for a print version and another for an electronic version.).
std-designation	The official number of a standard, from a standards body such as ISO, NISO, IEEE, ASME, and others, for example, “Z39.96-2015”.

In elements `<issue-id>` and `<volume-id>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of identifier of the cited objects, which may be a standard, book, journal article, etc. This attribute is typically used to name the type of identifier (such as “doi”) or the name of the organization or type of organization that created the identifier (“ISO” or “archive”).

In element `<object-id>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of identifier assigned to an internal structure such as a figure or boxed text (typically, a “doi”, but the attribute may name the organization that created the identifier, “CEN”, or the type of organization that created the identifier, “reseller”).

8.2.100 @pub-type Type of Publication

Combined form of both the type and format of publication, combined. This attribute comes from an older version of JATS; Deprecated in NISO STS.

In elements `<issn>` and `<pub-date>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Precombined type and format of the document. Best Practice is not to use this attribute. See Remarks above.

8.2.101 @publication-format Format of Publication

Format or medium of the document (for example, “print”). This element has several uses:

- to describe the format/medium of a standards document for a publication date or other lifecycle date (<release-date>) or for an organization-specific lifecycle date (<meta-date>);
- to name the format/medium of a document being cited as part of a bibliographic reference; or
- to name the format/medium for an ISBN or similar identifier.

In elements <date>, <element-citation>, <isbn>, <issn>, <meta-date>, <mixed-citation>, <nlm-citation>, <pub-date>, and <release-date>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The format for the publication of this standards document, for example, “print”, “online”, “epub”. This value is not constrained, so any standards organization is free to use the values it needs for processing.

8.2.102 @publication-type Publication Type Identifier (in a citation)

Type of publication identifier or the organization or system that defined the identifier for a non-standard citation, typically a reference to a technical report, book, journal article, etc.

This attribute is *not* used to name the type of cited standard for a <std>; the <std> element used the @type attribute.

This attribute is used inside a bibliographic citation element such as <mixed-citation> or <element-citation> to identify what is being cited.

In elements <element-citation>, <mixed-citation>, and <nlm-citation>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of identifier “doi” or name or type of organization that created the identifier “aggregator”.

8.2.103 @publisher-type Type of Publisher (in a citation)

Type of publisher or publishing organization of a work being cited that is not a standard (for example, “government”, “university”, “commercial”, “foundation”, “private”, or “corporate”).

This attribute is not used to name the type of publisher for a cited standard (<std>).

In elements <element-citation>, <mixed-citation>, and <nlm-citation>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	For citing works that are <i>not</i> standards, this attribute holds the type of publisher or publishing organization, for example, “government”.

8.2.104 @rationale Rationale

Identifies why this milestone exists, what problem it is solving, and/or what object cannot be modeled using the regular hierarchy.

In elements <milestone-end> and <milestone-start>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The reason for a milestone or information about an object that cannot be modeled using the regular hierarchy.

8.2.105 @ref-type Type of Cross-Reference

Type of element that is the target of the cross-reference (for example, a figure (“fig”), a table (“table”), or a footnote (“fn”). The values may be used for type-specific processing or validation.

In element <xref>, this attribute *may* be used if the element is used.

Value	Meaning
aff	Affiliation.
app	Appendix.
author-notes	Author notes.
bibr	Bibliographic reference (typically to a <ref> element, but it may point to a <element-citation> or an <mixed-citation> if there are multiple citations inside the <ref> element).
boxed-text	Textbox or sidebar.
chem	Chemical structure (to a <chem-struct> or <chem-struct-wrap> element).
contrib	Contributor.
collab	Collaboration.
corresp	Corresponding author.
disp-formula	Display formula.
fig	Figure or group of figures (to a <fig> or <fig-group> element).
fn	Footnote.
kwd	Keyword.
list	List or list item (to a <list> or <list-item> element; also, possibly to a <def-list> or <def-item> element).
other	None of the items listed.
plate	Plate.
scheme	Scheme.
sec	Section.
statement	Statement.
supplementary-material	Supplementary information.
table	Table or group of tables (to a <table-wrap> or <table-wrap-group> element).
table-fn	Table footnote.

8.2.106 @related-article-type Type of Related Article

Type of article being described by the <related-article> element.

In element <related-article>, this attribute *must* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The article type for the related article, for example, “announcement”.

8.2.107 @related-term-type Related Term Type

Describes the relationship between the related term (<related-term>) and the term (<term>) that is being defined in a term section using the <term-display> element. For example, the related term is a deprecated form of the term being defined.

In element <related-term>, this attribute *must* be used if the element is used.

Value	Meaning
acronym	The related term is the initial letters of the preferred term, or other combination pronounced as a word, rather than as a sequence of letters.
contrast-with	The related term is unlike the preferred term and provides a contrast.
deprecatedTerm	The related term is not preferred and should not be used.
see	Someone looking for a term should use this related term instead of the term found.
see-also	Someone looking at the preferred term might also be interested in this related term.
synonym	The related term has a very similar meaning to the preferred term.

8.2.108 @resolution Resolution of the Glyph Bitmap

Resolution of a bitmap in dots per inch, expressed as a decimal integer (for example, “72”, “300”).

In element <glyph-data>, this attribute *may* be used if the element is used.

Value	Meaning
Decimal integer	The number of dots per inch of the bitmap.

8.2.109 @rid Reference to an Identifier

Value of the identifier of an associated element; used for internal links of related elements. For example, an <xref> can point to the @id of a figure (<fig>).

In element <index-term-range-end>, this attribute *must* be used if the element is used.

Value	Meaning
An identifier (IDREF)	Must point to an existing identifier within the standards document.

In elements <milestone-end>, <milestone-start>, <nav-pointer>, and <related-term>, this attribute *may* be used if the element is used.

Value	Meaning
An identifier (IDREF)	Points to the existing identifier within the standards document.

In elements <aff>, <award-id>, <back>, <bio>, <contrib>, <def>, <editing-instruction>, <funding-source>, <named-content>, <see>, <see-also>, <see-also-entry>, <see-entry>, <sig>, <sig-block>, <term>, and <xref>, this attribute *may* be used if the element is used.

Value	Meaning
One or more identifiers (IDREFS)	Points to one or more existing identifiers within the standards document.

8.2.110 @rowspan Row Span (NISO JATS table model)

Table attribute used to request vertical spanning by naming the number of rows a cell spans in a vertical span. (This attribute is based on and intended to be converted easily to the XHTML `rowspan` attribute.)

In elements <td> and <th>, this attribute will be assigned the value 1 by default.

Value	Meaning
A counting number	How many rows this cell will span vertically, for example, “3”.

8.2.111 @rules Rules (NISO JATS table model)

Defines which rules to draw between the rows and columns of an XHTML 1.1 table. (This attribute is based on and intended to be converted easily to the XHMTL `rules` attribute.)

In element `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
all	Rules on all rows and columns.
cols	Rules between columns.
groups	Rules between groups.
none	No rules in table.
rows	Rules between rows.

8.2.112 @scope Scope (NISO JATS table model)

Specifies the cells for which the `<td>` element provides header information. This provides an alternative to using explicitly named header elements (`<th>`) if the arrangement of header cells is not complex. (This attribute is based on and intended to be converted easily to the XHMTL `scope` attribute.)

In elements `<td>` and `<th>`, this attribute *may* be used if the element is used.

Value	Meaning
col	Provides header information for the rest of a column.
colgroup	Provides header information for the rest of a column group (i.e., the remaining cells within the <code><colgroup></code> element).
row	Provides header information for the rest of a row.
rowgroup	Provides header information for the rest of a row group (i.e., the remaining cells of the current <code><thead></code> , <code><tfoot></code> , or <code><tbody></code>).

8.2.113 @sec-type Type of Section

Used to record the type of semantic content included in the section (for example, “foreword”, “terms”, or “scope”).

In elements `<sec>` and `<term-sec>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Names the main semantic type of the section content, such as “scope”. This is not a restricted list; the attribute may take any value.

8.2.114 @seq Sequence Number

Sequence number of a document within the type of sequence named by the element to which this attribute is attached: on a `<volume>` element, the sequence within the volume; on an `<issue>` element, the sequence within the issue; on an `<fpage>` element, the sequence within a single page; and on an `<elocation-id>` element, the electronic sequence.

In elements `<elocation-id>`, `<fpage>`, `<issue>`, and `<volume>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The number of the document in a sequence of documents within a volume, issue, electronic compilation, or even on the same page.

8.2.115 @sort-key Sort Key for Index Entry

Provide an alternative version of the index entry for use as a sort key, for example, an ASCII version replacing an accented character with an unaccented one.

In element <index-entry>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A version of the index entry for sorting

8.2.116 @source-id Source Identifier (in Related Object)

Identifier of a journal, book, conference proceedings, or other publication that is (or contains) the target of the <related-object>.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The identifier of the source for the <related-object>.

8.2.117 @source-id-type Source Identifier Type (in Related Object)

Type of source identifier (for example, a DOI, ISSN, ISBN, or publisher's identifier) for a <related-object>.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
The type of identifier that names the source of the related object, for example, a DOI.	The type of document identifier named in the @source-id attribute for a (<related-object>) element. This attribute qualifies the @source-id attribute.

8.2.118 @source-type Source Type

This attribute can be used with two elements:

- to identify the kind of source providing an award that sponsored a work or the research on which a work was based (with the element <funding-source>)
- to identify the type of publication, for example, a “book”, “guide”, or “database” that is (or contains) the target of the <related-object>.

In element <funding-source>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Type of entity (such as an organization or an individual) that is the source of an award which sponsors a work or the research underlying the work.

In element <related-object>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of object named in the related object (<related-object>) element, for example, a “database”.

8.2.119 @span Span (NISO JATS table model)

The number of columns that will share the <col> or <colgroup> element's attributes. (This attribute is based on and intended to be converted easily to the XHTML span attribute.)

In elements <col> and <colgroup>, this attribute will be assigned the value 1 by default.

Value	Meaning
A counting number	How many columns will have the same attributes, for example, "3".

8.2.120 @specific-use Specific Use

Specifies distinctions in the applicability of a particular element.

This Tag Set does not limit the uses of the @specific-use attribute. As examples, @specific-use could be used to mark content (such as a paragraph, note, or section) that:

- Is intended for organization internal use or Working Group use only;
- Only appears in one format ("web-only", "print-only", "voice-only", "electronic-only"); or
- Contains an accessibility alternative that screen readers could "read" but that visual display devices would ignore. (See also the @alt attribute.)

In elements <abbrev>, <abstract>, <access-date>, <ack>, <addr-line>, <address>, <adoption>, <aff>, <ali:free_to_read>, <ali:license_ref>, <alt-text>, <alt-title>, <annotation>, <anonymous>, <app>, <app-group>, <array>, <attrib>, <author-comment>, <award-id>, <bio>, <body>, <bold>, <boxed-text>, <caption>, <chapter-title>, <chem-struct>, <chem-struct-wrap>, <city>, <code>, <collab>, <comment>, <compound-kwd>, <compound-subject>, <conf-acronym>, <conf-date>, <conf-loc>, <conf-name>, <conf-sponsor>, <contrib>, <contrib-group>, <contrib-id>, <copyright-holder>, <copyright-statement>, <copyright-year>, <country>, <custom-meta>, <data-title>, <date>, <date-in-citation>, <day>, <def>, <def-item>, <def-list>, <degrees>, <disp-formula>, <disp-formula-group>, <disp-quote>, <editing-instruction>, <edition>, <element-citation>, <elocation-id>, <email>, <era>, <etal>, <ext-link>, <fax>, <fig>, <fig-group>, <fixed-case>, <fn>, <fn-group>, <fpage>, <funding-source>, <glossary>, <gov>, <graphic>, <ics-wrap>, <index>, <index-div>, <index-entry>, <index-group>, <index-term>, <inline-formula>, <inline-graphic>, <inline-supplementary-material>, <institution>, <institution-id>, <isbn>, <issn>, <issn-l>, <issue>, <issue-id>, <issue-part>, <issue-title>, <italic>, <journal-id>, <kwd>, <kwd-group>, <license>, <license-p>, <list>, <list-item>, <long-desc>, <lpage>, <media>, <meta-date>, <meta-note>, <milestone-end>, <milestone-start>, <mixed-citation>, <monospace>, <month>, <name>, <named-content>, <nav-pointer>, <nested-kwd>, <nlm-citation>, <non-normative-example>, <non-normative-note>, <normative-example>, <normative-note>, <notes>, <notes-group>, <num>, <object-id>, <on-behalf-of>, <open-access>, <overline>, <p>, <page-range>, <part-of-speech>, <part-title>, <patent>, <person-group>, <phone>, <postal-code>, <prefix>, <preformat>, <price>, <private-char>, <pronunciation>, <pub-id>, <publisher-loc>, <publisher-name>, <rb>, <ref>, <ref-list>, <related-article>, <related-object>, <related-term>, <role>, <roman>, <rt>, <ruby>, <sans-serif>, <sc>, <season>, <sec>, <see>, <see-also>, <see-also-entry>, <see-entry>, <self-uri>, <series>, <sig>, <sig-block>, <size>, <source>, <speaker>, <speech>, <standard>, <state>, <statement>, <std>, <std-id>, <std-id-group>, <std-org-group>, <strike>, <string-name>, <styled-content>, <sub>, <sub-part>, <subj-group>, <subject>, <subtitle>, <suffix>, <sup>, <supplement>, <supplementary-material>, <table>, <table-wrap>, <table-wrap-group>, <target>, <term>, <term-display>.

<term-sec>, <term-source>, <tex-math>, <textual-form>, <time-stamp>, <title>, <toc>, <toc-div>, <toc-entry>, <toc-group>, <trans-source>, <trans-subtitle>, <trans-title>, <trans-title-group>, <underline>, <uri>, <verse-group>, <verse-line>, <version>, <volume>, <volume-id>, <volume-series>, <xref>, and <year>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A specific distinction in the applicability of a particular element, for example, “print-only”.

8.2.121 @start_date Start Date

Date on which the document starts being “free-to-read” or begins the given license, as defined in NISO RP-22-2015, *Access License and Indicators*.

In elements <ali:free_to_read> and <ali:license_ref>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The ISO 8601 date on which the document starts being “free-to-read” or begins the given license.

8.2.122 @std-id ISO-specific Standard Identifier (for a citation)

In ISO STS, this attribute named the designator for the standard being cited (in the element <std>). Current NISO STS Best Practice does not use this attribute; rather the identifier for a standard being cited should be tagged either

- in a <std-id> element (for a single identifier, equivalent to this attribute) or, more typically,
- using the element <std-id-group> which holds several standard identifiers (<std-id>), for example, both a dated and an undated designator.

In element <std>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Provides the designator for the standard being cited (in element <std>), but Best Practice is not to use this attribute. (See Best Practice above.)

8.2.123 @std-id-link-type Standard ID Link Type

Names the type of link that the <std-id> contains, for example, a DOI

In element <std-id>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type of link that the <std-id> contains, for example, a DOI

8.2.124 @std-id-type Standard Identifier Type

What type of identifier is named in the <std-id> element, for example, “dated”.

In element <std-id>, this attribute *must* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The type of identifier expressed in a <std-id> element, for example, “undated” or “short”.

8.2.125 @std-meta-type Type of Standard Metadata

Identifies the type of standards body (international, national, SDO, consortia, etc.) that is creating or adopting this standard.

In elements <std-doc-meta> and <std-meta>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The type of standards body producing or adopting this standard, for example, “international”, “sdo”, “consortia”, etc. There is no fixed list; standards organizations will self-identify.

8.2.126 @std-org-level Standards Organization Hierarchical Level

Used on the <std-org> element, which can name a nested hierarchy, to indicate the level of nesting standards bodies. Such groups start at “1”, with embedded groups taking higher numbers.

In element <std-org>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Typically a counting number that names the level, such as “1”.

8.2.127 @std-org-role Standards Organization Role

The <std-org> element holds name and location information for one of the standards organizations responsible for publishing or adopting the standard. What part that standards organization played in the production or adoption of the standard can be described with this attribute, for example, “lead”, “co-producer”, “co-publisher”.

In element <std-org>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	What part the standards organization played in producing or adopting this standard, for example, “lead”, “co-producer”, etc.

8.2.128 @std-org-type Standards Organization Type

The type of standards organization that is named in the <std-org> element, for example, an international standards body or an SDO.

In elements <std-doc-meta>, <std-meta>, and <std-org>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The type of standards organization named in the <std-org> element, for example, “sdo”.

8.2.129 @std-relationship-type Standard Relationship Type

Name of the lifecycle stage or type of the designators contained in a <std-id> element or in a group of such elements within a <std-id-group>. There may be many such standard identifiers, differentiated by this attribute.

In elements <std-id> and <std-id-group>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The lifecycle stage or type of the <std-id> elements, for example, “std-as-published” or “std-family” or the lifecycle stage or type for a group of <std-id> elements (<std-id-group>).“

8.2.130 @std-type Type of Standards Document

Names a standards lifecycle event (document type) that extends or modifies a base standard (i.e., the undated designation)

In element <release-date>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The name of the lifecycle event named by this date.

8.2.131 @style Style (NISO JATS table model)

Names the concrete style or rendering to be applied to the element. This attribute can be used in several contexts:

- with the styled content element (<styled-content>), records XHTML classes or similar styling information;
- with many of the elements within a NISO JATS table (<table>), records the name of the style to be applied to the element.

In elements <caption>, <col>, <colgroup>, <table>, <tbody>, <td>, <tfoot>, <th>, <thead>, and <tr>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the markup style for one of the elements within a table or for the entire table.

In element <styled-content>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the inline markup style for the element.

8.2.132 @style-type Style Type

Description or explanation of the stylistic difference being recorded (for example, illuminated letters, drop cap).

In elements <p> and <styled-content>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Type of style being requested.

8.2.133 @subj-group-type Type of Subject Group

General subject, discipline, field of study, or information class of a particular <subj-group> element.

In element <subj-group>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Type of subject.

8.2.134 @summary Summary (NISO JATS table model)

A summary of the contents or the semantics of the table, provided for speech-synthesis and non-visual browsers. (This attribute is based on and intended to be converted easily to the XHTML `summary` attribute.)

In element `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Textual description of the contents of a table, intended to be read to the audience for the table.

8.2.135 @supplement-type Type of Supplement

Type of supplement or the reason for the supplement (for example, “conference” for a supplement containing information from a conference or symposium).

In element `<supplement>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The type or reason for the supplement, for example, “conference” or “issue”.

8.2.136 @symbol Symbol

Stores the symbol (for example, an asterisk, numeral, section mark) that was displayed in the original document to identify a specific footnote, if this symbol is to be preserved.

In elements `<collab>` and `<fn>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The symbol, such as a dagger “†”, used to mark a footnote or inclusion in a collaboration.

8.2.137 @target-type Type of Target

Kind of `<target>` that has been created (for example, describes the reason why some portion of text has been designated for cross-references purposes).

In element `<target>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names/describes the rationale for designating a portion of text for cross-reference.

8.2.138 @term-status Term Status

The current status of a term (`<term>` inside a `<term-display>`) in a terms and definitions section, for example, “deprecated”.

In element `<term>`, this attribute *may* be used if the element is used.

Value	Meaning
admitted	A term that does not meet the requirements to be a preferred term, but is not deprecated, possibly because it is in common use. Expanded and abbreviated forms of a term are sometimes used as admitted terms.
non-preferred	This term is deprecated in favor of a preferred term. Deprecated terms include obsolete and superseded terms.
preferred	This term is the one to be used.

8.2.139 @term-type Type of Term

The type of term (<term> inside a <term-display>) in a terms and definitions section, for example, “acronym”.

In element <term>, this attribute *may* be used if the element is used.

Value	Meaning
acronym	The term is an acronym.
abbreviation	The term is an abbreviation.
fullForm	The term is the full form of a word or phrase.
symbol	The term is a symbol.
variant	This is a variant term.
formula	The term is a formula.
equation	The term is an equation.

8.2.140 @toggle Toggle Switch

Specifies if the styling of the element it modifies should act as a toggle-switch. When the toggle-switch is on, the textual content of the element will always be visually set apart from its context. When the switch is off, the rendition is fixed to the style requested and will not change based on context.

In element <italic>, this attribute will be assigned the value *yes* by default.

Value	Meaning
no	The element does not act as a toggle; the emphasized text remains in the requested style, no matter what the surrounding text does.
yes	The emphasis element acts as a toggle. If the surrounding text is set to the same emphasis style, the text within this element will change to another emphasis style, so that the text will always be typographically distinct from its surroundings.

In element <roman>, this attribute will be assigned the value *no* by default.

Value	Meaning
no	The element does not act as a toggle; the emphasized text remains in the same emphasis, no matter what the surrounding text does.
yes	The emphasis element acts as a toggle. If the surrounding text is set to the same emphasis, the text within this element will change to another emphasis style, so that the text will always be typographically distinct from its surroundings.

In elements <bold>, <monospace>, <overline>, <sans-serif>, <sc>, <strike>, <styled-content>, and <underline>, this attribute *may* be used if the element is used.

Value	Meaning
no	The element does not act as a toggle; the emphasized text remains in the same emphasis, no matter what the surrounding text does.
yes	The emphasis element acts as a toggle. If the surrounding text is set to the same emphasis, the text within this element will change to another emphasis style, so that the text will always be typographically distinct from its surroundings.

8.2.141 @type Type (class, kind)

Provides type or kind classing for the content of its element. The values for this attribute vary depending on the element to which the attribute is attached.

In element <meta-date>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	Names, for example, a lifecycle stage that should not be expressed with <release-date> or a circumstance that is unique to a particular standards organization, for example, “Date of Issuance” for ASME or “Date of ratification” for CEN-CENELEC. There are no suggested values for this attribute. The attribute @type is retained for backwards compatibility with ISO STS. Best Practice for new documents is to use the @date-type attribute instead of the @type attribute to record this information.

In element <std>, this attribute *may* be used if the element is used.

Value	Meaning
dated	The standard being cited is a specific dated version of a standard.
multipart	The standard being cited is a multipart standard.
undated	The standard being cited is a standard without a specifying date.

In element <std-ref>, this attribute *may* be used if the element is used.

Value	Meaning
dated	The standard designator is a dated version of a standard.
short	The standard designator is a short form of the standard designator.
undated	The standard designator does not include a specifying date.

In element <std-xref>, this attribute *must* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The type of standard to which this cross-reference is pointing, for example, a value of “supersedes” would indicate that this cross-reference points to the standard that the current standard supersedes.

8.2.142 @underline-style Appearance of the Underline

Style of underline to be used (for example, “single”, “double”, “dashed”).

In element <underline>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The style of underlining requested; for example, “double” would mean underlined by two rules, very close together.

8.2.143 @units Units

The units of measure in which the size or length of a cited work is expressed (for example, a @units value might record “pages”, “minutes”, “seconds”, or “linear-feet”).

In element <size>, this attribute *must* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Names the units of measure in which the size is expressed, for example, “MB”.

8.2.144 @valign Vertical Alignment (NISO JATS table model)

Sets the vertical alignment inside a table cell. (This attribute is based on and intended to be converted easily to the XHTML `valign` attribute.)

In elements `<col>`, `<colgroup>`, `<tbody>`, `<td>`, `<tfoot>`, `<th>`, `<thead>`, and `<tr>`, this attribute *may* be used if the element is used.

Value	Meaning
baseline	All cells in the same row as a cell whose <code>@valign</code> attribute has this value should have their textual data positioned so that the first text line occurs on a baseline common to all cells in the row. This constraint does not apply to subsequent text lines in these cells.
bottom	Cell data is flush with the bottom of the cell.
middle	Cell data is centered vertically within the cell.
top	Cell data is flush with the top of the cell.

8.2.145 @version Version of TeX or LaTeX

Version of TeX or LaTeX used to produce the mathematics.

In element `<tex-math>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	Version of TeX or LaTeX used in the equation.

8.2.146 @vocab Vocabulary/Taxonomy Name

The name of a controlled vocabulary (defined formally) or a generic vocabulary (subject area defined informally), taxonomy, ontology, database, term list, thesaurus, index, etc. that is the source of the term.

In elements `<ics-wrap>`, `<kwd-group>`, `<named-content>`, `<role>`, `<subj-group>`, and `<term>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The name of the vocabulary, taxonomy, ontology, database, term list, index, etc. that is the source of the term named in the element's content.

8.2.147 @vocab-identifier Vocabulary/Taxonomy Identifier

Unique identifier of the controlled vocabulary, taxonomy, ontology, database, thesaurus, index, etc. that is the source of the terms in a group of terms such as a keywords group or subject group. The content is typically (but not limited to) a URI or DOI.

In elements `<ics-wrap>`, `<kwd-group>`, `<named-content>`, `<role>`, `<subj-group>`, and `<term>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A unique identifier of the source of the term named in the element content. This is typically a URI or DOI, but it may be any identifier.

8.2.148 @vocab-term Vocabulary/Taxonomy Term

The canonical form of the term. (Note: The content of the element to which this attribute is attached is the free prose version of the vocabulary or taxonomic term. The `@vocab-term` attribute holds a canonical version of the same term, as it appears in the vocabulary. For example, if the attribute value was “digitized-vor”, the element might contain the display text “Digitized Version of Record”.)

In elements `<compound-kwd>`, `<compound-subject>`, `<ics>`, `<ics-desc>`, `<kwd>`, `<named-content>`, `<nested-kwd>`, `<role>`, `<subject>`, and `<term>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters.	The canonical form of the term as it exists in the named vocabulary.

8.2.149 `@vocab-term-identifier` Vocabulary/Taxonomy Term Identifier

Unique identifier of the term to which this attribute is attached within a specific vocabulary, such as (but not limited to) an item number, a URI, DOI, etc.

In elements `<compound-kwd>`, `<compound-subject>`, `<ics>`, `<ics-desc>`, `<kwd>`, `<named-content>`, `<nested-kwd>`, `<role>`, `<subject>`, and `<term>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A unique identifier of the term within a particular vocabulary, taxonomy, ontology, database, index, etc. This is typically a URI or DOI, but it may be any identifier, for example, an item number.

8.2.150 `@vol` Volume of Related Article

Volume of the journal in which a related journal article exists.

The `@vol` attribute can be used, along with the `@journal-id`, `@issue`, and `@page` attributes, to provide the metadata for a related journal article.

In element `<related-article>`, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The journal volume number for a related journal article, for example, “3” for the third volume, “125” for the one hundred and twenty-fifth, or “xv” for the fifteenth.

8.2.151 `@width` Width (NISO JATS table model)

This attribute can be used within a NISO JATS table (based on and designed to be converted easily to the XHTML 1.1 table model) to specify component width (as defined in the XHTML 1.1 table model to take advantage of existing software for table handling).

In elements `<col>`, `<colgroup>`, and `<table>`, this attribute *may* be used if the element is used.

Value	Meaning
Number	Within the NISO JATS Table model (<code><table></code>), the width of the table. By default, the JATS table model (based on and designed to be converted easily to the XHTML 1.1 table model) should be used as defined in the XHTML 1.1 table model, to take advantage of existing software for table handling.

8.2.152 `@x-size` X Size of the Glyph

The pixels per row in the bit-mapped glyph that has been declared with a `<glyph-data>` element as part of a `<private-char>` element.

In element `<glyph-data>`, this attribute *may* be used if the element is used.

Value	Meaning
A number	An integer number of pixels, for example, “45”, that is the number of pixels in each row of the bitmap of the <glyph-data> element.

8.2.153 @xlink:actuate Actuating the XLink Link

The intended behavior for an XLink link when activated by an application, specifically, the timing for obtaining or retrieving the content of a link (for example, by a user clicking on the link to request the material, or by the material being automatically loaded with a document when the document or document component is loaded).

In elements <abbrev>, <app>, <bio>, <chem-struct>, <collab>, <contrib>, <custom-meta>, <element-citation>, <email>, <ext-link>, <funding-source>, <graphic>, <inline-graphic>, <inline-supplementary-material>, <institution>, <issue-id>, <license>, <long-desc>, <media>, <mixed-citation>, <named-content>, <nml-citation>, <pronunciation>, <pub-id>, <related-article>, <self-uri>, <supplementary-material>, <uri>, and <volume-id>, this attribute *may* be used if the element is used.

Value	Meaning
none	The behavior is unconstrained, and no other markup is generally available in the link to assist an application in deducing the retrieval mechanism.
onLoad	An application should retrieve the link at the same time a user obtains the initial document load.
onRequest	An application should only retrieve the link after a user has physically triggered the retrieval, for example, clicked on the link.
other	The behavior is unconstrained, but other markup is generally available in the link to assist an application in deducing the retrieval mechanism.

8.2.154 @xlink:href Href (XLink Linking Mechanism)

An address or identifier that permits an XLink application to find a remote resource, for example, a URI (such as a URL or filename) that links to an online site associated with the author or the online definition of a term. As specified in XML Linking Language (XLink) Version 1.0, the value of an @xlink:href *must* be a valid URI. (See <https://www.w3.org/TR/xlink/>)

In elements <graphic>, <inline-graphic>, and <media>, this attribute *must* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A pointer (which may be a URL) to a resource.

In elements <abbrev>, <app>, <bio>, <chem-struct>, <collab>, <contrib>, <custom-meta>, <element-citation>, <email>, <ext-link>, <funding-source>, <inline-supplementary-material>, <institution>, <issue-id>, <license>, <long-desc>, <mixed-citation>, <named-content>, <nml-citation>, <pronunciation>, <pub-id>, <related-article>, <self-uri>, <supplementary-material>, <uri>, and <volume-id>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A pointer (which may be a URL) to a resource.

8.2.155 @xlink:role XLink Linking Role

A URI reference pointing to some resource that describes the role or function of an XLink link.

In elements <abbrev>, <app>, <bio>, <chem-struct>, <collab>, <contrib>, <custom-meta>, <element-citation>, <email>, <ext-link>, <funding-source>, <graphic>, <inline-graphic>, <inline-supplementary-material>, <institution>, <issue-id>, <license>, <long-desc>, <media>, <mixed-citation>, <named-content>, <nml-citation>, <pronunciation>, <pub-id>, <related-article>, <self-uri>, <supplementary-material>, <uri>, and <volume-id>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The URI of a resource that describes the role, reason, or rationale for the link.

8.2.156 @xlink:show Showing the XLink Link

The intended presentation behavior for an XLink link, specifically the manner in which the content of a link will be displayed, for example, as embedded material or in a separate window.

In elements <abbrev>, <app>, <bio>, <chem-struct>, <collab>, <contrib>, <custom-meta>, <element-citation>, <email>, <ext-link>, <funding-source>, <graphic>, <inline-graphic>, <inline-supplementary-material>, <institution>, <issue-id>, <license>, <long-desc>, <media>, <mixed-citation>, <named-content>, <nml-citation>, <pronunciation>, <pub-id>, <related-article>, <self-uri>, <supplementary-material>, <uri>, and <volume-id>, this attribute *may* be used if the element is used.

Value	Meaning
embed	The link should be displayed as part of the initial document being viewed, i.e., the material will be “embedded” directly into the initial document.
new	The link should be displayed as a new, separate window, frame, pane, or other presentation context.
none	The presentation behavior is unconstrained, and no other markup is generally available in the link to assist an application in deducing the display mechanism.
other	The presentation behavior is unconstrained, but other markup is generally available in the link to assist an application in deducing the display mechanism.
replace	The link should be displayed in the same window, frame, pane, or other presentation context as the initial document, thereby “replacing” the document or other object being linked.

8.2.157 @xlink:title Title of the XLink Link

Describes the function of an XLink link’s remote resource in human-readable fashion.

In elements <abbrev>, <app>, <bio>, <chem-struct>, <collab>, <contrib>, <custom-meta>, <element-citation>, <email>, <ext-link>, <funding-source>, <graphic>, <inline-graphic>, <inline-supplementary-material>, <institution>, <issue-id>, <license>, <long-desc>, <media>, <mixed-citation>, <named-content>, <nml-citation>, <pronunciation>, <pub-id>, <related-article>, <self-uri>, <supplementary-material>, <uri>, and <volume-id>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	A descriptive, human-readable title that acts as a brief description of the link.

8.2.158 @xlink:type Type of XLink Link

The kind of XLink link used with an element. For all elements in this Tag Set that can take links (except the `<mml:math>` element), this attribute may be either omitted; or it must be set to the word “simple”, which means that the link is a simple, one-ended link.

In elements `<abbrev>`, `<app>`, `<bio>`, `<chem-struct>`, `<collab>`, `<contrib>`, `<custom-meta>`, `<element-citation>`, `<email>`, `<ext-link>`, `<funding-source>`, `<graphic>`, `<inline-graphic>`, `<inline-supplementary-material>`, `<institution>`, `<issue-id>`, `<license>`, `<long-desc>`, `<media>`, `<mixed-citation>`, `<named-content>`, `<nml-citation>`, `<pronunciation>`, `<pub-id>`, `<related-article>`, `<self-uri>`, `<supplementary-material>`, `<uri>`, and `<volume-id>`, this attribute *must* have the value simple (as given below).

Value	Meaning
simple	The link is an XML simple (one-ended) link.

8.2.159 @xml:base Base

Provides a base URI for identifiers in the XML-tagged standards document or a part of an XML-tagged standards document. Within this standards document, or a portion of the document, all URIs are assumed to be built on the “base” provided as the value of this attribute. For example, if a document has an `@xml:base` of “https://mulberrytech.com/”, a URI inside the document of “scope/rationale.html” would be processed as if it were “https://mulberrytech.com/scope/rationale.html”. Values of `@xml:base` are inherited from the closest base, meaning that if there is an `@xml:base` on a document and on a part of the document, uses inside the part of the document take the value of the part, not the whole.

In elements `<abbrev>`, `<abstract>`, `<access-date>`, `<accrediting-organization>`, `<ack>`, `<addr-line>`, `<address>`, `<adoption>`, `<aff>`, `<aff-alternatives>`, `<ali:free_to_read>`, `<ali:license_ref>`, `<alt-text>`, `<alt-title>`, `<alternatives>`, `<annotation>`, `<anonymous>`, `<app>`, `<app-group>`, `<array>`, `<article-title>`, `<attrib>`, `<author-comment>`, `<authorization>`, `<award-id>`, `<back>`, `<bio>`, `<body>`, `<bold>`, `<boxed-text>`, `<break>`, `<caption>`, `<chapter-title>`, `<chem-struct>`, `<chem-struct-wrap>`, `<citation-alternatives>`, `<city>`, `<code>`, `<col>`, `<colgroup>`, `<collab>`, `<collab-alternatives>`, `<comm-ref>`, `<comm-ref-group>`, `<comment>`, `<compl>`, `<compl-title-wrap>`, `<compound-kwd>`, `<compound-kwd-part>`, `<compound-subject>`, `<compound-subject-part>`, `<conf-acronym>`, `<conf-date>`, `<conf-loc>`, `<conf-name>`, `<conf-sponsor>`, `<content-language>`, `<contrib>`, `<contrib-group>`, `<contrib-id>`, `<copyright-holder>`, `<copyright-statement>`, `<copyright-year>`, `<count>`, `<country>`, `<counts>`, `<custom-meta>`, `<custom-meta-group>`, `<data-title>`, `<date>`, `<date-in-citation>`, `<day>`, `<def>`, `<def-head>`, `<def-item>`, `<def-list>`, `<degrees>`, `<disp-formula>`, `<disp-formula-group>`, `<disp-quote>`, `<doc-ident>`, `<doc-number>`, `<doc-ref>`, `<doc-type>`, `<editing-instruction>`, `<edition>`, `<element-citation>`, `<elocation-id>`, `<email>`, `<equation-count>`, `<era>`, `<etal>`, `<ext-link>`, `<fax>`, `<fig>`, `<fig-count>`, `<fig-group>`, `<fixed-case>`, `<fn>`, `<fn-group>`, `<fpage>`, `<full>`, `<funding-source>`, `<given-names>`, `<glossary>`, `<glyph-data>`, `<glyph-ref>`, `<gov>`, `<graphic>`, `<hr>`, `<ics>`, `<ics-desc>`, `<ics-wrap>`, `<index>`, `<index-div>`, `<index-entry>`, `<index-group>`, `<index-term>`, `<index-term-range-end>`, `<index-title-group>`, `<inline-formula>`, `<inline-graphic>`, `<inline-supplementary-material>`, `<institution>`, `<institution-id>`, `<institution-wrap>`, `<intro>`, `<intro-title-wrap>`, `<is-proof>`, `<isbn>`, `<iso-meta>`, `<issn>`, `<issn-l>`, `<issue>`, `<issue-id>`, `<issue-part>`, `<issue-title>`, `<italic>`, `<journal-id>`, `<kwd>`, `<kwd-group>`, `<label>`, `<language>`, `<license>`, `<license-p>`, `<list>`, `<list-item>`, `<long-desc>`, `<lpage>`, `<main>`, `<main-title-wrap>`, `<media>`, `<meta-date>`, `<meta-name>`, `<meta-note>`, `<meta-`

value>, <milestone-end>, <milestone-start>, <mixed-citation>, <monospace>, <month>, <name>, <name-alternatives>, <named-content>, <nat-meta>, <nav-pointer>, <nav-pointer-group>, <nested-kwd>, <nml-citation>, <non-normative-example>, <non-normative-note>, <normative-example>, <normative-note>, <notes>, <notes-group>, <num>, <oasis:table>, <oasis:tbody>, <object-id>, <on-behalf-of>, <open-access>, <originator>, <overline>, <p>, <page-count>, <page-range>, <part-number>, <part-of-speech>, <part-title>, <patent>, <permissions>, <person-group>, <phone>, <postal-code>, <prefix>, <preformat>, <price>, <private-char>, <proj-id>, <pronunciation>, <pub-date>, <pub-id>, <publisher-loc>, <publisher-name>, <rb>, <ref>, <ref-count>, <ref-list>, <reg-meta>, <related-article>, <related-object>, <related-term>, <release-date>, <release-version>, <release-version-id>, <role>, <roman>, <rt>, <ruby>, <sans-serif>, <sc>, <sdo>, <season>, <sec>, <secretariat>, <see>, <see-also>, <see-also-entry>, <see-entry>, <self-uri>, <series>, <sig>, <sig-block>, <size>, <source>, <speaker>, <speech>, <standard>, <state>, <statement>, <std>, <std-doc-meta>, <std-id>, <std-id-group>, <std-ident>, <std-meta>, <std-org>, <std-org-abbrev>, <std-org-group>, <std-org-name>, <std-ref>, <std-xref>, <strike>, <string-name>, <styled-content>, <sub>, <sub-part>, <subj-group>, <subject>, <subtitle>, <suffix>, <sup>, <suppl-number>, <suppl-type>, <suppl-version>, <supplement>, <supplementary-material>, <surname>, <table>, <table-count>, <table-wrap>, <table-wrap-foot>, <table-wrap-group>, <target>, <tbody>, <td>, <term>, <term-display>, <term-head>, <term-sec>, <term-source>, <tex-math>, <textual-form>, <tfoot>, <th>, <thead>, <time-stamp>, <title>, <title-wrap>, <toc>, <toc-div>, <toc-entry>, <toc-group>, <toc-title-group>, <tr>, <trans-source>, <trans-subtitle>, <trans-title>, <trans-title-group>, <underline>, <uri>, <urn>, <verse-group>, <verse-line>, <version>, <volume>, <volume-id>, <volume-series>, <wi-number>, <word-count>, <xref>, and <year>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	The base URI

8.2.160 @xml:lang Language of an Element

The language of the intellectual content of the element for which this is an attribute. This attribute may be set on many elements, including the two document elements (<standard> and <adoption>) and the values are inherited by all the element's children, unless overridden explicitly.

In elements <adoption>, <part-of-speech>, <pronunciation>, <related-term>, <standard>, <term-display>, and <term-source>, this attribute will be assigned the value en by default.

Value	Meaning
An alphanumeric string, which may include hyphens	An abbreviation for a natural language (such as "en" for English or "de" for German) or for a language and a script ("ja-Kana").

In elements <abbrev>, <abstract>, <ack>, <addr-line>, <address>, <aff>, <alt-text>, <alt-title>, <annotation>, <anonymous>, <app>, <app-group>, <array>, <article-title>, <attrib>, <author-comment>, <award-id>, <bio>, <boxed-text>, <caption>, <chapter-title>, <chem-struct>, <chem-struct-wrap>, <city>, <code>, <collab>, <comment>, <compl>, <compl-title-wrap>, <conf-acronym>, <conf-date>, <conf-loc>, <conf-name>, <conf-sponsor>, <content-language>, <contrib-id>, <copyright-holder>, <copyright-statement>, <country>, <custom-meta>, <data-title>, <date-in-

citation>, <day>, <def>, <def-item>, <def-list>, <degrees>, <disp-formula>, <disp-formula-group>, <disp-quote>, <doc-ident>, <edition>, <element-citation>, <email>, <era>, <etal>, <ext-link>, <fig>, <fig-group>, <fn>, <fn-group>, <fpage>, <full>, <funding-source>, <glossary>, <gov>, <graphic>, <ics-desc>, <index>, <index-div>, <index-entry>, <index-group>, <index-term>, <inline-formula>, <inline-graphic>, <inline-supplementary-material>, <institution>, <institution-id>, <intro>, <intro-title-wrap>, <issue>, <issue-id>, <issue-part>, <issue-title>, <journal-id>, <kwd-group>, <label>, <license>, <list>, <list-item>, <long-desc>, <lpage>, <main>, <main-title-wrap>, <media>, <meta-note>, <milestone-end>, <milestone-start>, <mixed-citation>, <month>, <name>, <named-content>, <nav-pointer>, <nlm-citation>, <notes>, <on-behalf-of>, <open-access>, <p>, <page-range>, <part-title>, <patent>, <person-group>, <postal-code>, <prefix>, <preformat>, <price>, <pub-date>, <publisher-loc>, <publisher-name>, <rb>, <ref>, <ref-list>, <related-article>, <related-object>, <role>, <rt>, <season>, <sec>, <see>, <see-also>, <see-also-entry>, <see-entry>, <self-uri>, <series>, <sig>, <size>, <source>, <speaker>, <speech>, <state>, <statement>, <std>, <std-doc-meta>, <std-id>, <std-id-group>, <std-ident>, <std-meta>, <std-org>, <std-org-abbrev>, <std-org-group>, <std-org-name>, <string-name>, <styled-content>, <sub-part>, <subj-group>, <subtitle>, <suffix>, <supplement>, <supplementary-material>, <table-wrap>, <table-wrap-group>, <target>, <term>, <term-sec>, <textual-form>, <title-wrap>, <toc>, <toc-div>, <toc-entry>, <toc-group>, <trans-source>, <trans-subtitle>, <trans-title>, <trans-title-group>, <uri>, <verse-group>, <verse-line>, <version>, <volume>, <volume-id>, <volume-series>, <xref>, and <year>, this attribute *may* be used if the element is used.

Value	Meaning
An alphanumeric string, which may include hyphens	An abbreviation for a natural language (such as “en” for English or “de” for German) or for a language and a script (“ja-Kana”).

8.2.161 @xml:space Space

When printing or displaying the associated element, all white space (such as tabs, ordinary spaces, and line breaks) should be preserved.

In elements <code>, <glyph-data>, and <preformat>, this attribute *must* have the value `preserve` (as given below).

Value	Meaning
preserve	White space should be preserved. (This value is fixed and cannot be changed in a document.)

8.2.162 @xmlns:ali NISO ALI Namespace (NISO Access License and Indicators)

This is not an attribute, but the namespace pseudo-attribute. The value provides a prefix and URI to use for the ALI (NISO *Access License and Indicators*) elements. All namespace prefixes must be associated with a URL, and the prefix “ali” has been set to the URL <http://www.niso.org/schemas/ali/1.0> as per the NISO ALI Best Practices recommendation.

In elements <adoption>, <ali:free_to_read>, <ali:license_ref>, and <standard>, this attribute *must* have the value <http://www.niso.org/schemas/ali/1.0> (as given below).

Value	Meaning
http://www.niso.org/schemas/ali/1.0	The URI named in the NISO <i>Access License and Indicators</i> for the ALI elements.

8.2.163 @xmlns:math MathML Namespace Declaration

This is not an attribute, but the namespace pseudo-attribute. The value provides a prefix and URI to use for the MathML elements. All namespace prefixes must be associated with a URL, and the prefix “math” has been set to the URL for the World Wide Web Consortium (W3C) MathML Tag Set.

In elements <adoption>, <app>, <app-group>, <math>, and <standard>, this attribute *must* have the value <http://www.w3.org/1998/Math/MathML> (as given below).

Value	Meaning
http://www.w3.org/1998/Math/MathML	The prefix “math” has been set to the URL for the W3C MathML Tag Set.

8.2.164 @xmlns: oasis OASIS Namespace Declaration**(In STS Extended ONLY)**

This is not an attribute, but the namespace pseudo-attribute. The value provides the URI to use for the OASIS Exchange (CALS) table element. All namespace prefixes must be associated with a URL, and the OASIS table namespace prefix has been set to “oasis”.

In elements <adoption> and <standard>, this attribute *must* have the value <http://www.niso.org/standards/z39-96/ns/oasis-exchange/table> (as given below).

Value	Meaning
http://www.niso.org/standards/z39-96/ns/oasis-exchange/table	The URI used for the prefix “oasis” to use OASIS Exchange (CALS) tables in the standards document.

8.2.165 @xmlns: tbx TBX Namespace Declaration

This is not an attribute, but the namespace pseudo-attribute. The value provides a prefix and URI to use for the TBX elements. All namespace prefixes must be associated with a URL.

In elements <adoption>, <app>, <app-group>, and <standard>, this attribute *must* have the value <urn:iso:std:iso:30042:ed-1> (as given below).

Value	Meaning
urn:iso:std:iso:30042:ed-1	The URI that goes with the “tbx” prefix

8.2.166 @xmlns: xi XInclude Namespace Declaration

This is not an attribute, but the namespace pseudo-attribute. The value provides a namespace prefix and URI to use for the XInclude elements. All namespace prefixes must be associated with a URL, and the prefix “xi” has been set to the URL for the World Wide Web Consortium (W3C) XInclude Recommendation.

In elements <adoption>, <app>, <app-group>, <standard>, <xi: fallback>, and <xi: include>, this attribute *must* have the value <http://www.w3.org/2001/XInclude> (as given below).

Value	Meaning
http://www.w3.org/2001/XInclude	The prefix “xi” has been set to the URL for the W3C XInclude Recommendation.

8.2.167 @xmlns: xlink XLink Namespace Declaration

This is not an attribute, but the namespace pseudo-attribute. The value provides a URI to use for the XLink linking attributes (which has been set to a prefix of “xlink”). All namespace prefixes must be associated with a URL, and the prefix “xlink” has been set to the URL for the World Wide Web Consortium (W3C) XLink Recommendation.

In elements <abbrev>, <adoption>, <app>, <bio>, <chem-struct>, <collab>, <contrib>, <custom-meta>, <element-citation>, <email>, <ext-link>, <funding-source>, <graphic>, <inline-graphic>, <inline-supplementary-material>, <institution>, <issue-id>, <license>, <long-desc>, <media>, <mixed-citation>, <named-content>, <nml-citation>, <pronunciation>, <pub-id>, <related-article>, <self-uri>, <standard>, <supplementary-material>, <uri>, and <volume-id>, this attribute *must* have the value <http://www.w3.org/1999/xlink> (as given below).

Value	Meaning
http://www.w3.org/1999/xlink	The prefix “xlink” has been set to the URL for the W3C XLink Recommendation.

8.2.168 @xmlns:xsi XML Schema Namespace Declaration

This is not an attribute, but a namespace pseudo-attribute. The value provides a URI to use for the @xsi_schemaLocation attribute. All namespace prefixes must be associated with a URL, and the prefix “xsi” has been set to the URL for the World Wide Web Consortium (W3C) XML Schema.

In elements <adoption> and <standard>, this attribute *must* have the value <http://www.w3.org/2001/XMLSchema-instance> (as given below).

Value	Meaning
http://www.w3.org/2001/XMLSchema-instance	The prefix “xsi” has been set to the URL for W3C XML Schema.

8.2.169 @xpointer XInclude XPointer

When the attribute @parse is set to XML (parse="xml"), the XPointer contained in this attribute is evaluated to identify a portion of the resource to include. This attribute is optional; when omitted, the entire resource is included. See the W3C XInclude documentation: <https://www.w3.org/TR/xinclude/>

In element <xi:include>, this attribute *may* be used if the element is used.

Value	Meaning
Text, numbers, or special characters	XPointer pointing to a portion of a resource

8.2.170 @y-size Y Size of the Glyph

The number of rows in the bit-mapped glyph that has been declared with a <glyph-data> element as part of a <private-char> element.

In element <glyph-data>, this attribute *may* be used if the element is used.

Value	Meaning
Number	The number of rows (for example, “25”) used to define the glyph in a <glyph-data> element.

Bibliography

(This Bibliography is not part of ANSI/NISO Z39.102-2017, STS: Standards Tag Suite (Version 1.0). It is included for information only.)

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