NISO JATS Standing Committee
Recommended Changes Between
NISO/JATS 1.0 and JATS 1.1d3
(in Response to Comments to on NISO Z39.96-2012 and
JATS Standing Committee Drafts 1.1d1 and 1.1d2 from
September 2013 through February 2015)

March 2015
1. Introduction .............................................................................................................. 1

2. JATS Standing Committee Recommendations .................................................... 2

  2.1. Tag Set Changes .................................................................................................. 2
      Comment 00250: Add Affiliation Identifier .......................................................... 2
      Comment 00251: Make Attributes for <isbn>, like those for <issn> .................... 2
      Comment 00252: New Places for <kwd-group> .................................................. 2
      Comment 00253: New Places for <abstract> ....................................................... 3
      Comment 00254: Fixed Roman, Fixed Italic, Fixed Case ...................................... 3
      Comment 00255: Table Cell Content .................................................................... 4
      Comment 00256, 00288, 00289, 00507: Add Ruby Tagging ............................... 4
      Comment 00257: @id for Top-level Elements/@id Everywhere .......................... 5
      Comment 00258: Parameter Entity for Global Attributes (RDFa) ......................... 5
      Comment 00259: MathML 3.0 .............................................................................. 6
      Comment 00260: Rename MathML Parameter Entities ........................................ 6
      Comment 00261: XML Catalog Files .................................................................... 6
      Comment 00269: Expand Definition of <year>, with <era> ................................. 6
      Comment 00272: Add <xref> as Possible Child of <on-behalf-of> ....................... 7
      Comment 00273: Add a New Element <code> .................................................... 7
      Comment 00275: Could JATS Allow the xml:base Attribute? ............................. 8
      Comment 00276: Add <contrib-group> to <on-behalf-of> ................................ 8
      Comment 00277: Archival Only: Add @id to <trans-abstract> .............................. 8
      Comment 00287: Add <string-date> to <mixed-citation> in Blue ........................ 8
      Comment 00291: Add a New <emphasis> Tag: <correction> ............................ 8
      Comment 00293: Add @label Attribute to <collab> Element ............................ 8
      Comment 00328: Add Elements <city>, <state>, <postal-code> ....................... 9
      Comment 00387: Add a release date for <open-access> and ............................... 9
      Comment 00406: Open Access Metadata and Indicators & JATS 1.1 ................... 9
      Standing Committee Recommendation: ............................................................. 9
      Comment 00440: Statements Need to Nest .......................................................... 9
      Comment 00441: Add Attribute @specific-use to Elements <table>, <tex-math> ........ 10
      Comment 00506: Add <conf-acronym> to Citation Models ................................ 10
      Comment 00508: Allow <volume> to Repeat in <article-meta ................................ 10
      Comment 00522: Add a <title> to <list item> ..................................................... 10
      Comment 00534: Add Two New Elements for Citing Data ................................ 10
      Comment 00535: Add Linking Attributes to Element <pub-id> .......................... 11
      Comment 00538: Add Attribute @assigning-authority for <ext-link> and <pub-id> ...... 11
      Comment 00539: Additional Identifier Values for the @pub-id-type Attribute ........ 11
      ORCID Verification (JATS Standing Committee Request) ..................................... 11

  2.2. Changes to ANSI/NISO Standard Normative Documentation .............................. 11
2.3. Changes to Non-normative Documentation (Tag Libraries)

Comment 00250: Add Affiliation Identifier.........................................................14
Comment 00251: Make Attributes for <isbn> Like Those for <issn>.........................14
Comment 00252: New Places for <kwd-group>....................................................14
Comment 00253: New Places for <abstract>............................................................14
Comment 00257: @id Attribute for Top-level Elements/@id Everywhere..................15
Comment 00258: Parameter Entity for Global Attributes (RDFa)..............................15
Comment 00259: MathML 3.0................................................................................15
Comment 00262: Typo in Description of Mixed Citation............................................15
Comment 00263: Clarifying Meaning of "inside the document metadata".....................16
Comment 00264: Cross References to <inline-supplementary-materials>..................16
Comment 00266: @pub-id-type Attribute Value "pii".................................................16
Comment 00268: Deprecate *-count Elements.........................................................16
Comment 00269: Expand Definition of <year>..........................................................17
Comment 00271: Show Repeating Structures in Samples when allowed...................17
Comment 00275: Could JATS Allow the @xml:base Attribute?.................................17
Comment 00280: Misleading Description of @xml:lang - z39.96-2012.pdf..................17
Comment 00328: Add Elements <city>, <state>, <postal-code>.................................18
Comment 00408: Port the BITS Question-and-Answer Model to JATS.......................18
Comment 00444: Resolve Examples of @mimetype and @min subtype........................18
Comment 00534: Add Two New Elements to Citations for Citing Data.......................18
Comment 00536: Add a New Value for Attribute @publication-type...........................18
Comment 00537: Add a New Value for Attribute @person-group-type........................19
Comment 00543 - Suggested Copy edits of Remarks of <name-alternatives>..............19
Use Attribute Name in Restriction (JATS Standing Committee Request)..................20
1. Introduction

The NISO JATS Standing Committee has completed reviewing the final round of requests for changes to ANSI/NISO Z39.96-2012 and to the JATS Standing Committee Draft Versions 1.1d1 and 1.1d2 before the release of Committee Draft 1.1d3. This document lists the JATS Standing Committee recommendations made in response to change requests submitted between September, 2013 and February, 2015. These committee recommendations are reflected in the Committee Draft 1.1d3 non-normative DTDs, XSDs, RNGs, and Tag Library documentation.

All comments posted to the NISO comment site have been addressed, with the following exceptions:

• No action was deemed necessary for the following comments:
  • #00268 asking for deprecation of the specific count elements in favor of the single `<count>` element with an attribute,
  • #00270 requesting a wrapper for header alternatives such as label and caption,
  • #00281 requesting additional funder identification tagging,
  • #00442 requesting `@specific-use` on subject,
  • #00509 (since the request in #00508 was accepted and covered the same material), and
  • #00516 requesting additional locations for `<string-date>`.

• Comments #00439, #00529, and 00544 that were withdrawn by the original requestors.

• Test comments such as #00286 that required no action by the JATS Standing Committee.

This document is divided into three sections:

• Tag Set Technical Changes (to the DTDs and schemas),
• Normative Documentation Changes (to the text of ANSI/NISO Z39.96-2012), and
• Non-normative Documentation Changes (to the Tag Libraries).

The recommendations in this document:

• Have been submitted to NISO, but
• Have not been approved for incorporation in the NISO JATS Standard.

Thus, any tools and supporting materials based on these recommendations must be considered drafts.

Key: The following Tag Set icons appear with each suggested change to indicate to which of the Tag Sets a change will apply (Scope):

- Archiving
- Article Authoring
- Publishing
2. JATS Standing Committee Recommendations

2.1. Tag Suite Changes

Comment 00250: Add Affiliation Identifier

Standing Committee Recommendation

- Create a new element `<institution-id>`, which can hold either a publisher-specific identifier for an institution or such an identifier from an established system of institutional identifiers.
- Place attributes on the identifier to specify:
  - The source of the identifier (such as “AIP”, “Ringgold”, or “ISNI”),
  - The language of the identifier (using `@xml:lang`), and
  - Other attribute types similar to those currently used on the element `<contrib-id>`.
- Create a new element `<institution-wrap>` that can hold an `<institution>` element and all its identifiers (<institution-id>s). Allow this element everywhere `<institution>` is currently allowed.

Comment 00251: Make Attributes for `<isbn>` like those for `<issn>`

Standing Committee Recommendation

- Associate the following attributes with both `<issn>` and `<isbn>`. All these attributes will be defined as data characters and optional (CDATA, `#IMPLIED`).
  - `@publication-format`,
  - `@content-type`, and
  - `@specific-use`.
- The `<issn>` element will retain the `@pub-type` attribute, for backwards compatibility.
- The attributes for the linking ISSN (<issn-l>) will not be changed.

Comment 00252: New Places for `<kwd-group>`

Standing Committee Recommendation

Keywords will be added to the following elements:
- ack
- app
- app-group
- bio
- boxed-text
- chem-struct-wrap
- disp-formula
Standing Committee Recommendation

• These keyword changes will not be made to the Authoring Tag Set.

Comment 00253: New Places for <abstract>

Standing Committee Recommendation

Abstracts will be added to the following elements:

• ack
• app
• app-group
• bio
• boxed-text
• chem-struct-wrap
• disp-formula
• disp-formula-group
• fig
• fig-group
• graphic
• media
• notes
• sec
• statement
• supplementary-material
• table-wrap
• table-wrap-group

Standing Committee Recommendation

• These changes will not be made to the Authoring Tag Set.

Comment 00254: Fixed Roman, Fixed Italic, Fixed Case

Standing Committee Recommendation
• The attribute @toggle (values “yes” and “no”) will be placed on all of the emphasis class elements. (This class can include: bold, italic, monospace, overline, roman, sans-serif, sc, strike, and underline.)

• The Archiving-only attributes of <overline-start>, <overline-end>, <underline-start>, and <underline-end> will not be given this @toggle attribute.

• On most of the face markup elements, the default value will be optional (#IMPLIED). On <italic>, which JATS has documented as a toggle, the default value will be “yes”. On <roman>, which JATS has documented as fixed, the default value will be “no”.

• Create a new <fixed-case> element to be allowed anywhere face markup is allowed. This element is not a toggle and should take the attributes @specific-use and @content-type.

Comment 00255: Table Cell Content

Standing Committee Recommendation

• The Standing Committee denies the request to allow nested tables (element <table-wrap>) inside a table cell. We believe that <array> handles the need. The Standing Committee denies the request to allow only block-level content inside table cells.

• The paragraph element <p> will be added to the contents of table cells, to allow both #PCDATA mixed content and block-level objects inside table cells. This will allow both <break> and <p> inside table cells and should meet the need of the request for block-level content in table cells without making current JATS documents invalid.

Comment 00256, 00288, 00289, 00507: Add Ruby Tagging

Standing Committee Recommendation

• Add tags for Ruby coding (<ruby>) following the model of HTML5.

• The element <ruby> will be added anywhere face markup is allowed, not merely in the article narrative body, but also in metadata elements such as <abstract> and <kwd>.

• On the Ruby Textual Annotation (<rt>) element, provide at least the attributes:
  • @xml:lang,
  • @content-type, and
  • @specific-use.

• Add the element Ruby Parenthesis (<rp>) to the content model of Ruby in the Archiving Tag Set, to allow capture of existing <rp> elements. Thus the Archiving model will be the full HTML5 model with Ruby parentheses:

    (rb, (rt | (rp, rt, rp)))

• The models for Publishing and Authoring will only permit Ruby base and textual annotation, without Ruby parentheses:

    (rb, rt)
Note: Committee Draft 1.1d1 Incompatibility

The Ruby models initially described in JATS Committee Draft 1.1d1 are not the same as the final versions given above. The 1.1d1 models were based on the JATS Standing Committee interpretation of the then-current draft HTML5 model. These models were replaced for Committee Draft 1.1d2 to match the HTML5 recommendation. Any implementations based on Version 1.1d1 that contain more than one Ruby annotation on a single Ruby base will need to be modified, if they are to be valid according to Version 1.1d2. The interim, now non-backwards compatible models were:

\[(rb, (rt | (rp, rt, rp))+)
(rb, rt+)
\]

Comment 00257: @id for Top-level Elements/@id Everywhere

**Standing Committee Recommendation**

- The @id attribute will be added to all elements in the Tag Suite.

Comment 00258: Parameter Entity for Global Attributes (RDFa)

**Standing Committee Recommendation**

- Add a parameter entity to hold global attributes (named “jats-common-atts”) and add this parameter entity to the attribute list of each element in the Tag Suite, including the table elements for both the XHTML-inspired table models and the CALS-based OASIS Exchange table model, but excluding the <mml:math> element. This new parameter entity will enable users to customize the NISO JATS Tag Sets by adding attributes such as @xml:lang, CSS classes, and RDFa attributes to all elements.
- This parameter entity addition must be done in such a way that duplication warnings for the @id attribute do not occur. This will require changes to current attribute list parameter entities. Note: While the new parameter entity will cause no existing NISO JATS documents to break, it may break JATS customizations.
- In recognition of the fact that the @id attribute, although optional for most elements, is required for some elements, this request will be implemented using two parameter entities: one for common attributes where the @id attribute is optional and one for common attributes where the @id attribute is required:
  - jats-common-atts
  - jats-common-atts-id-required
- This new parameter entity mechanism will also be used to add the @xml:base attribute to every element in the Tag Suite.
Comment 00259: MathML 3.0

Standing Committee Recommendation

- The next release (Version 1.1) of the standard will replace MathML 2.0 with MathML 3.0.
- For backwards compatibility, the non-normative DTDs will be made available using MathML 2.0. Looking to the immediate future, the non-normative DTDs shall also be made available using MathML 3.0.

Comment 00260: Rename MathML Parameter Entities

Standing Committee Recommendation

- For this release, change the name of the parameter entity that clashes with NISO JATS in the MathML 3.0 module. This issue will be revisited at the next full (2.0 or above) JATS release.

Comment 00261: XML Catalog Files

Standing Committee Recommendation

- Exactly two OASIS XML Catalog Specification-cased catalog files will continue to be made available with each new JATS release. These files will be renamed to be (where “n” below represents the current version number):
  - catalog-jats-vn-with-base; and
  - catalog-jats-vn-no-base
- The @xml:base provided in the catalog that contains @xml:base will be made even more obviously a fake exemplar than it is now, using something similar to “replace-with-a-real-base”.
- Comments within the catalog files will be expanded to make it obvious which files are used only by a single Tag Set, such as Archiving, and which are used (or potentially used) in all the Tag Sets. The comments will make it clear that if you are using only one Tag Set, you may delete the files which are specific to the other Tag Sets. Non-normative documentation will include a reminder to users that unused files in an XML catalog do not cause problems.

Comment 00269: Expand Definition of <year> with <era>

Standing Committee Recommendation

- An <era> element will be added to all date-like models, such as <date>, <date-in-citation>, <pub-date>, and <string-date>.
- In Archiving only, this element will be added to <access-date> and <time-stamp>.
Comment 00272: Add <xref> as Possible Child of <on-behalf-of>

**Front Committee Recommendation**

- The element <xref> will be added to the content of <on-behalf-of>.

Comment 00273: Add a New Element <code>

**Front Committee Recommendation**

- Add a new block-level element <code> to the Tag Suite. The inline element <inline-code> will not be added to the Suite.
- The element <code> will be allowed inside the element <alternative>.
- The definition, related elements, and attributes for this new block element as discussed in email were accepted:
  - <code> is defined as “a container element for technical content such as programming language code, pseudo-code, schemas, or a markup fragment”.
  - The <code> element is similar to <preformat> in the preservation of whitespace, line-endings, and such formatting. The <code> element differs from <preformat> semantically; a <preformat> element may contain almost anything, for example: ASCII art, a man-machine dialogue, error messages, 3 words on a line with space between them, or a poem. The <code> element is specifically for technical coding fragments, for example: computer programming language code; executable binary code; illustrative pseudo-code; an XSD, RNG or DTD schema fragment; an SQL or XQuery query, or a markup fragment that is part of an XML document instance.
  - That attributes for <code> will be:

    | Attribute       | Type        | Default      | Description                                                                 |
    |-----------------|-------------|--------------|-----------------------------------------------------------------------------|
    | id              | ID          | #IMPLIED     |                                                                             |
    | xml:base        | CDATA       | #IMPLIED     |                                                                             |
    | position        | (anchor | background | float | margin)                     | 'anchor'                                                                      |
    | orientation     | (portrait | landscape) | #IMPLIED                     |                                                                             |
    | specific-use    | CDATA       | #IMPLIED     |                                                                             |
    | xml:lang        | NMTOKEN     | #IMPLIED     |                                                                             |
    | xml:space       | (default | preserve) | #FIXED 'preserve' |                                                                             |
    | code-type       | CDATA       | #IMPLIED     |                                                                             |

    The type of code samples when the <code> element contains non-programming language material such as pseudo-code, XML document instances, XML DTDs, XML XSD Schemas, or database schemas. Code samples that are used to hold programming language material should name the language using the @language and @language-version attributes.

    | Attribute       | Type        | Default      | Description                                                                 |
    |-----------------|-------------|--------------|-----------------------------------------------------------------------------|
    | code-version    | CDATA       | #IMPLIED     |                                                                             |
    | executable      | (yes | no)     | #IMPLIED     |                                                                             |
    | language        | CDATA       | #IMPLIED     |                                                                             |
    | language-version| CDATA       | #IMPLIED     |                                                                             |
    | platforms       | CDATA       | #IMPLIED     |                                                                             |
Comment 00275: Could JATS Allow the xml:base Attribute?

Standing Committee Recommendation

- Add the attribute @xml:base to every element in the Tag Suite.

Comment 00276: Add <contrib-group> to <on-behalf-of>

Standing Committee Recommendation

- The elements <institution> and <institution-wrap> will be added to the content of <on-behalf-of>. The elements <contrib> and <contrib-group> will not be added to the content of <on-behalf-of>.

Comment 00277: Archiving Only: Add @id to <trans-abstract>

Standing Committee Recommendation

- Add <object-id> (optional and repeatable) to <trans-abstract>.

Comment 00287: Add <string-date> to <mixed-citation> in Publishing

Standing Committee Recommendation

- The element <string-date> will be added to <mixed-citation> and <element-citation>.

Comment 00291: Add a New <emphasis> Tag: <correction>

Standing Committee Recommendation

- No <correction> element or generic <emphasis> element will be added to the Tag Suite since the <styled-content> element already provides the requested capability. To ensure that <styled-content> can handle anything such a generic emphasis would have handled, add the @toggle attribute to <styled-content>.

Comment 00293: Add @label Attribute to <collab> Element

Standing Committee Recommendation

- A @symbol attribute will be added to <collab>, allowing a JATS user to record the symbol used for this cross-reference.
Comment 00328: Add Elements <city>, <state>, <postal-code>

**AP**

**Standing Committee Recommendation**

- Add <city>, <state>, and <postal-code> to all element that use the address.class and address-line.class. The elements should be added to all the location-recording elements such as <conf-loc> and <publisher-loc>.
- All three elements should take at least the attributes @content-type and @specific-use.
- As part of the addition of <city>, <state>, and <postal-code>, the address-related elements should be regularized to use all of the address class elements, which will change several models including <conf-loc> and <publisher-loc>.

Comment 00387: Add a release date for <open-access> and

Comment 00406: Open Access Metadata and Indicators & JATS 1.1

**AP**

**Standing Committee Recommendation:**

The JATS SC accepts the recommendations of *NISO Access License and Indicators (ALI) NISO RP-22-2015*. Two new elements (<ali:free_to_read> and <ali:license_reference>) will be added to the Tag Suite and documented in the JATS Tag Libraries and the NISO standard.

- <ali:free_to_read> (namespace "http://www.niso.org/schemas/ali/1.0/"") This is an EMPTY element whose presence indicates that the article is free to be read. Start and end dates may be present as attributes.
  - This element will be a child of <permissions>
  - <ali:free_to_read> will be optional and repeatable, with the values differentiated by start and end attributes.
- <ali:license_reference> (namespace "http://www.niso.org/schemas/ali/1.0/"") This is an element intended as a pointer to a public license or waiver, this element may take content or be empty. The start date may be present as an attribute.
  - This element will be a child of <license>, as a peer with <license-p>.
  - This element will be optional and repeatable.
  - This arrangement has the result that JATS will recommend moving the URL for the license from the @xlink:href attribute of <license> to a child of <license>. However, we will leave @xlink:href as an attribute on <license> for users who choose not to use the new ALI recommendation and for backwards compatibility.

Comment 00440: Statements Need to Nest

**AP**

**Standing Committee Recommendation**

- Allow <statement> elements inside <statement> elements.
Comment 00441: Add Attribute @specific-use to Elements <table>, <tex-math>

Standing Committee Recommendation

- Add the attribute @specific-use to the elements <table> (XHTML), <oasis:table> (OASIS CALS Exchange), and <tex-math>.

Comment 00506: Add <conf-acronym> to Citation Models

Standing Committee Recommendation

- The element <conf-acronym> will be added to the models for citation elements (<mixed-citation>, <element-citation>). None of the other conference elements will be added; most of them are already present.

Comment 00508: Allow <volume> to Repeat in <article-meta>

Standing Committee Recommendation

- Allow <volume> to repeat. This usage should parallel <issue> in the use of @content-type to differentiate volumes.
- The elements <volume-id> and <issue-id> can be external identifiers, so the might-link attributes will be added to their attribute lists.
- A new optional element <volume-issue-group> was added inside <article-meta>, following all current volume and issue elements, to hold volume-issue pairs (or n-tuples) when a second and subsequent <volume> has its own related <issue> information.

Comment 00522: Add a <title> to <list-item>

Standing Committee Recommendation

- The optional element <title> will be added to the model of <list-item>.

Comment 00534: Add Two New Elements for Citing Data

Standing Committee Recommendation

- The <version> element will be added to the list of citation-content elements, for inclusion in citations, product descriptions, et al. This element will be defined as “The precise version number of the data or software being cited”. This element is similar to, but not the same as, the current JATS <edition> element.
- The <data-title> element (for the name of the data piece being referenced) will be added to the list of citation-content elements, for inclusion in citations, product descriptions, et al.
Comment 00535: Add Linking Attributes to Element <pub-id>

Standing Committee Recommendation

- The might-link attributes will be added to <pub-id>, so that a <pub-id> that is a DOI can carry the linking attributes and be made into a live link. In this use of <pub-id>, the identifier acts as a link as well as an identifier.

Comment 00538: Add Attribute @assigning-authority for <ext-link> and <pub-id>

Standing Committee Recommendation

- Add the new attribute @assigning-authority to the elements <ext-link> and <pub-id>. The @pub-id-type can then state that the element content is, for example a “DOI” and the assigning authority is “crossref” or “figshare” (note lower case values). This attribute may also be used to lessen the semantic overloading of the @pub-id-type attribute say that the @authority for the content is an organization such as “PDB” or “GenBank”.

- Note: This new attribute makes better semantic sense for <pub-id>. The @authority on <ext-link> will probably be rarely used, but covers the case in which an <ext-link> (a link by definition) codes an identifier, as can happen with DOIs.

Comment 00539: Additional Identifier Values for the @pub-id-type Attribute

Standing Committee Recommendation

- The attribute @pub-id-type is defined as the “Type of publication identifier or the organization or system that defined the identifier”. In Publishing and Authoring, this is a restricted list of values. In Archiving, this is a suggested list of values. The following identifier-type values will be added to these values lists: 'accession', 'ark', and 'handle'.

ORCID Verification (JATS Standing Committee Request)

Standing Committee Recommendation

- The CrossRef metadata for ORCIDs for authors has a Boolean attribute named @authenticated with a default value 'false'. The new @authenticated attribute will be added to <contrib-id>, as an optional Boolean value.

2.2. Changes to ANSI/NISO Standard Normative Documentation

Changes to content models are direct changes to the text of ANSI/NISO Z39.96-2012. In addition, changes to element names, attribute names, or attribute values are all reflected in the text of the NISO standard. The following changes are documentation-specific change requests as
well as change requests repeated from the previous section that led to wording changes in normative text of the NISO standard.

Comment 00257: @id for Top-level Elements/@id Everywhere

Standing Committee Text Recommendation

- The prose name of the @id attribute will be changed from “Identifier” to “Document Internal Identifier”, to help disambiguate internal ID/IDREF identifiers from externally assigned identifiers such as DOIs, ORCIDs, etc.

Comment 00267: Definition of Element def-item

Standing Committee Text Recommendation

- The definition for the term “container element” in the NISO Standard list of terms will be replaced to indicate that a “container element” is an XML term-of-art, merely indicating that one element is inside another, typically a parent/child relationship but perhaps ancestor/descendent.
- The definition for <def-item> will read, “One item in a definition (two-part) list.”

Comment 00460: Change Element Name for Supplementary Material

Standing Committee Text Recommendation

- The element (prose) name of the <supplementary-material> element will be changed from “Supplementary Material” to “Supplementary Material Metadata”, so that it will be more obvious that the <supplementary-material> element holds a description of Supplementary Material, not the supplemental object.
- The corresponding change will also be made to the element <inline-supplementary-material>.

Change Attribute Name for @name Attribute (JATS Standing Committee Request)

Standing Committee Text Recommendation

- Because of confusion with many other kinds of names, the name of the @name attribute, used only on the element <private-char>, will be changed to “Name (Private Character)”.
- The new definition of this same attribute will read: “This attribute is used for use with <private-char>, to contain the unique name for the private character being defined.”
Remove `<mml:math>` Attribute Descriptions (JATS Standing Committee Request)

**Standing Committee Text Recommendation**

- The MathML vocabulary is an external vocabulary that is developed, documented, and maintained by the W3C, which is called in by the JATS Tag Sets (namespaced with the prefix “mml:”). The JATS Standing Committee has no control over or say in what attributes are assigned to the top-level MathML element, what these attributes mean, and whether they are required, optional, etc. Even more critically, the attribute names and attribute values *differ* between MathML 2.0 and MathML 3.0, each of which may be used in a valid JATS Tag Set (though only one per Tag Set).

- Therefore, the MathML attributes used on `<mml:math>` will not be defined in the ANSI/NISO JATS standard nor in the non-normative Tag Library documentation. This change entails removing MathML naming references, attributes, and values from:
  - The Definition of the `@style` attribute (third usage to be removed),
  - The Element Name and Definition of the `@width` attribute (table usage left and math usage to be removed),
  - The Definition of the `@xlink:type` attribute (to remove math exception), and
  - Schema Location. Change the Definitions of the `@xmlns:xsi` and the `@xsi:schemaLocation` attributes, remove the `@Schema-location` attribute, and change the Definition of the Schema.xmlns.attrib parameter entity to remove the math focus.

Changing Minor Errors and Infelicities (JATS Standing Committee Requests)

**Standing Committee Text Recommendation**

- **Caption** — In the Definition of the element `<caption>`, replace the reference to `<table>` (incorrect) with a reference to `<table-wrap>` (correct).

- **Unstructured Keywords** — The Definition of the element `<unstructured-kwd>` was found to be confusing, change it from:
  - “Contains multiple keywords that are not tagged individually.”
  to
  - “Container element for one set of keywords used to describe a document, where the individual keywords are not tagged as separate `<kwd>`s, but instead are all run together in one long text field.”

- **Use Lower Case for All Attribute Values** — There was a discussion at JATS-Con, requesting that attribute values be always *illustrated* in suggested lists and examples as lower case, even for proper nouns such as DOI ("doi"). This will not change the ability of a JATS user to use upper case or mixed case value, it will only illustrate best practice. An exception can be made for version numbers named by the developer such as "16A", where the case might have a meaning. For example, the definition of the attribute `@language-version` was changed to use a lower case “javascript”, as follows:
  - “...language in which this code is written, e.g. "Javascript", for code written in "Javascript 3.0". (The "3.0" is recorded in the `@language-version` attribute.)” to
• "...language in which this code is written, e.g. "javascript", for code written in "Javascript 3.0". (The "3.0" is recorded in the @language-version attribute.)"

2.3. Changes to Non-normative Documentation (Tag Libraries)

The Tag Libraries for the three ANSI/NISO JATS Tag Sets are non-normative documentation written as an aid to JATS users and maintained at the National Library of Medicine (NLM) site (http://jats.nlm.nih.gov/index.html). The following changes are documentation-specific change requests as well as change requests repeated from the previous sections that led to wording changes in non-normative Tag Library documents.

Comment 00250: Add Affiliation Identifier

Standing Committee Documentation Recommendation

• Document that both <institution>s and <institution-id>s are hierarchical, and may exist at several levels, such as a University and a particular department or laboratory. For example, the same lab can be part of multiple institutions. A single affiliation may require several <institution-id>s. The documentation will describe this situation and give simple as well as complex examples.

Comment 00251: Make Attributes for <isbn> Like Those for <issn>

Standing Committee Documentation Recommendation

• The @pub-type attribute will be deprecated everywhere. This deprecation implies:
  • Calling the attribute deprecated in the text wherever it is mentioned,
  • Removing the attribute from all tagged examples, and
  • Showing the alternative attributes (the attribute @publication-format, plus @date-type when appropriate) for all tagged examples.

Comment 00252: New Places for <kwd-group>

Standing Committee Documentation Recommendation

The documentation will include examples that illustrate keywords (<kwd-group>) used for mobile apps on section elements (<sec>) and on figure elements (<fig>) for searchability.

Comment 00253: New Places for <abstract>

Standing Committee Documentation Recommendation

• Document a clear distinction between <abstract> and the accessibility elements (<alt-text> and <long-desc>).
• Document a clear distinction between the abstracts for document components (such as section and figure) and the abstract in <article-meta> that represents the entire article.

Comment 00257: @id Attribute for Top-level Elements/@id Everywhere

Standing Committee Documentation Recommendation

• The document will state clearly the distinction between @id attribute values, which are internal document identifiers used by software to perform a simple link, and identifier elements (such as <contrib-id> and <article-id>), which are part of the metadata for a document and hold as their content externally defined identifiers such as an ORCID personal identifier or a DOI. This text will be added to the descriptions of @id as well as the elements which can hold external identifier (<article-id>, <contrib-id>, <institution-id>, et al.).

Comment 00258: Parameter Entity for Global Attributes (RDFa)

Standing Committee Recommendation

• Add a parameter entity to hold global attributes (named “jats-common-atts”) and add this parameter entity to the attribute list of each element in the Tag Sets, excluding the <mml:math> element. This parameter entity will require changes to current attribute list parameter entities. Note: While the new parameter entity will cause no existing NISO JATS documents to break, it may break customizations. Document this clearly for existing users.

Comment 00259: MathML 3.0

Standing Committee Recommendation

• Since the non-normative DTDs will now be available in a potentially confusing variety of forms, the Tag Library documentation will describe all ten Tag Set options and provide a decision chart or similar to guide users.

Comment 00262: Typo in Description of Mixed Citation

Standing Committee Documentation Recommendation

• The NLM DTD/JATS version numbering is complicated and confusing. In the text of the JATS documentation, all references to previous versions of the JATS or NLM DTDs (except the few paragraphs detailing the history of the Tag Sets) will be replaced with text similar to “in previous versions of this Tag Set”.

Comment 00263: Clarifying Meaning of “inside the document metadata”

Standing Committee Documentation Recommendation

- References to “metadata” and “document metadata” throughout the JATS documentation will include the parenthetical (<article-meta>), to indicate what is meant. Minor rewording may also be necessary.

Comment 00264: Cross References to <inline-supplementary-materials>

Standing Committee Documentation Recommendation

- A subcommittee rewrote the Remarks and Related elements for <supplementary-material> and <inline-supplementary-material>. The Standing Committee approved the rewrite. This rewrite should include the following:
  - The difference between ‘integral’ and ‘additional’ material as defined in this NISO Best Practices will be explained, and how it relates to the appropriate NISO JATS elements.

Comment 00266: @pub-id-type Attribute Value "pii"

Standing Committee Documentation Recommendation

- The following text will be removed from the JATS documentation, as PMC has ceased using “pii”, replacing it with “publisher-id”:
  
  “A more generic ‘pii’ defined as ‘publisher’s internal identifier’ is used by some archives, for example, PubMed Central, to mark ‘any internal reference identifier that has been assigned by the publisher’.”

- The “pii” value will be removed from any tagged examples.

- The value “pii” will be removed from any lists of suggested values.

Comment 00268: Deprecate *-count Elements

Standing Committee Documentation Recommendation

- Documentation will make it clear that the current generic <count> element is not to be used for elements, such as a figure, whose count can be recorded by specific count elements, such as <fig-count>. 
Comment 00269: Expand Definition of <year>

Standing Committee Documentation Recommendation

- The definition of <year> will read:
  “Representation, usually numerical, of a calendar year.”
- The @iso-9601-date attribute will be defined as:
  "A machine-processable, ISO 8601 formatted date value
  (“YYYY-MM-DDThh:mm:ss”) for a JATS date-specific element, whether 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."

Comment 00271: Show Repeating Structures in Samples when allowed

Standing Committee Documentation Recommendation

- Examples of repeating structures, for example, multiple keywords (<kwd>) within a
  <kwd-group>, will be added to the non-normative documentation.

Comment 00275: Could JATS Allow the @xml:base Attribute?

Request part 2: Change definition of @xlink:href to say it “must” be a URI

Standing Committee Documentation Recommendation

- Update non-normative documentation for @xlink:href to include reference the W3C
  XLink recommendation which states that the value must be a URI.

Comment 00280: Misleading Description of @xml:lang - z39.96-2012.pdf

Standing Committee Recommendation

- The definition of @xml:lang will read:

  The value of this attribute must conform to IETF RFC 5646
  (http://tools.ietf.org/html/rfc5646). For most uses, a primary-language subtag such as
  “fr” (French), “en” (English), “de” (German), and “zh” (Chinese) is sufficient. These
  values are NOT case sensitive, but current best practice uses all lower case. In addition to
  the primary language subtag, the value of the attribute may contain other subtags as well.
  Values for the various subtags (which can be used in certain combinations) can be
  obtained from the IANA Language Subtag Registry:
Comment 00328: Add Elements <city>, <state>, <postal-code>

Standing Committee Recommendation

- Define in the documentation and that <state> should be used for any country subdivision such as a province, parish, or territory. Provide an index entry cross-reference to <state> from common alternatives such as Province.

Comment 00408: Port the BITS Question-and-Answer Model to JATS

Standing Committee Recommendation

- Provide, in the non-normative documentation, instructions for adding the BITS Question-and-Answer capability to any of the DTD versions of JATS.

Comment 00444: Resolve Examples of @mimetype and @min subtype

Standing Committee Text Recommendation

- The existing @mimetype and @min subtype examples will be replaced by better examples.

Comment 00534: Add Two New Elements to Citations for Citing Data

Standing Committee Documentation Recommendation

- The <data-title> is the formal title of the data source or part of the data source being cited (may include applicable dates). The scope of the <data-title> is intended to be more like the scope of <article-title> than like the scope of <source>. The documentation must make these levels clear, since both <data-title> and <source> might be applicable for a cited dataset.

- The <version> element is the version number of a software package or data site being cited. Examples for both software and data sources should be given, if possible.

Comment 00536: Add a New Value for Attribute @publication-type

Standing Committee Documentation Recommendation

The attribute @publication-type is currently used on the citation elements <mixed-citation> and <element-citation> to record the type of publication being cited, for example, "book", "journal", or "standard". The data-specific value “data” will be added to the non-normative suggested value lists for the attribute @publication-type, with the meaning: “a dataset or other research data collection such as a spreadsheet”.

Comment 00537: Add a New Value for Attribute @person-group-type

Standing Committee Documentation Recommendation

The @person-group-type attribute is used on the <person-group> element to indicate the role of the contributors named in the group, for example, “author”, “compiler”, “editor”, et al. For the purposes of citing datasets and art, the value “curator” will be added to this list.

Comment 00543 - Suggested Copyedits of Remarks of <name-alternatives>

Standing Committee Documentation Recommendation

The Remarks for <name-alternatives> were rewritten by subcommittee to read as follows:

Remarks

The <name-alternatives> element is intended to collect multiple versions of a single name without appearing to multiply the number of names. (Three versions of a name is not the same as three different contributors.) Like the element <name-alternatives>, which is a similar construction for objects such as graphics, an application must determine how multiple versions of a single name are to be processed. The @specific-use, @content-type, and @xml:lang attributes can be used to distinguish the cases for separate processing.

Usage: The <name-alternatives> element can be used to record:

- A name in multiple languages (for example, a name in Korean or Chinese-Han characters and a transliterated version of the same name in the Latin alphabet);
- A name in multiple language/script combinations (For example, a name in Japanese [xml:lang="ja-Jpan" for Han + Hiragana + Katakana] and the same name written in Kanji [xml:lang="ja-Hani"]);
- An alternate name for sorting or searching (for example, a name in French with accented letters [such as an “é”] and a plain-letter lower-ASCII version of the same name with “é” replaced by “e” for sorting. The @specific-use attribute can be used to indicate that the ASCII version is only for sort, not for display.);
- An alternate name for indexing (For example, a publisher may choose to record name variants for an individual, as examples: a nickname, author-pseudonym, maiden name, religious name, or tribal name. The attribute @specific-use could be used to record the rationale for the name variant, such as “primary”, “index”, or “table-of-contents”. Alternatively, or in addition, the attribute @content-type could be used to record the type of name variant, such as “nickname”, “maiden-name”, or “pseudonym.”);
- A version of the name in a different arrangement (For example, since the order of the <surname> and <given-names> is fixed in JATS, a publisher might also wish to record a byline-style version of the name in given-surname order and could use a
<string-name> of @content-type="byline" to accompany the name inside a <name-alternatives> element.; or

- Both validated and known-to-be-incorrect names. (For example, in the PubMed DTD, there is an attribute called “ValidYN” [valid yes or no], that can be used to record the fact that one version of a name was received, found to be in error, and then corrected. An application might be set up to display only the corrected version, while both name variants might be retained for searching or quality control. In JATS, this information can be recorded as two <name> elements inside a <name-alternatives> wrapper, with the @content-type attribute used to tell the correct from the incorrect.).

**ID Attribute:** The names inside a <name-alternatives> do not generally have a unique identifier because they are all the same name. This Tag Set assumes that any necessary unique identifier will be placed on the enclosing element (such as the <contrib> element or the <principal-investigator> element) that contains the <name-alternatives> wrapper.

**String Name Best Practice:** Both <name> and <string-name> are allowed inside <name-alternatives>. However, for this Tag Set, the <string-name> within a <name-alternatives> should not be used for the primary name. The primary name should be tagged with a <name> element. Within a <name-alternatives>, the element <string-name> can be used to hold, for example, an undifferentiated transliteration (one not tagged with specific name elements such as <surname>) or a search-specific name.

**Use Attribute Name in Restriction (JATS Standing Committee Request)**

**Standing Committee Documentation Recommendation**

Since the HTML pages are getting longer, to help clarify which attribute page a user is reading, insert the name of the attribute into the Restriction clause of each attribute. The Restriction clause is the statement of the default value (if any) and optionality of the attribute. For example, for the @style attribute, the text: “This attribute is an optional attribute; there is no default.” was changed to “@style is an optional attribute; there is no default.”

* * *