

MECA and JATS Compatibility: A Case Study

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Manuscript Exchange Common Approach (MECA)

- Cross-industry effort to streamline transmission of manuscripts among publishing partners
- Minimize redundancy for authors, reviewers, publishers
- Emphasis on best practices
- Partners define their own minimal viable product – can provide just enough metadata to get started with submission

Manuscript Exchange Common Approach (MECA)

- Defines DTDs for
 - Manifest
 - Reviews
 - Transfer
- Works with any article schema, including JATS
 - Working Group decided DTDs should be JATS-compatible

JATS Compatibility Meta Model (JCMM)

- Enabling expansion of JATS family of schemas
- Describes compatibility properties
 - Semantic match
 - Element or attribute
 - Section-like model
 - Whitespace handling
 - Contains alternatives
 - ID/IDREF

JCMM Compatibility Table

APPENDIX B: JATS COMPATABILITY PROPERTIES CATALOG

JATS Structure Name	Element or Attribute Property	Alternatives* Property	Section-like* Property	Handling# Whitespace Property	Attribute ID or IDREF Property
abbr	attribute				
abbrev	element			D	

Compatibility Analysis Table

Summary Table

* indicates a JATS-compatibility problem

Structure Name	Semantic match Y/N	Model	Element or Attri				
addr-line	Y	JATS	element			D	
		MECA	element			D	
aff*	Y	JATS	element			D*	
		MECA	element			E*	

Added columns for semantic match and model name

Compatibility Analysis Table

Summary Table

* indicates a JATS-compatibility problem

Structure Name	Semantic match Y/N	Model	Element or Attribute			(D or E)	
addr-line	Y	JATS	element			D	
		MECA	element			D	
aff*	Y	JATS	element			D*	
		MECA	element			E*	

Row split to record properties of each model for side by side comparison

Comparing the models

MECA manifest.dtd

```
<!ELEMENT metadata (name, value) >  
<!ELEMENT name (#PCDATA) >  
<!ELEMENT value (#PCDATA)
```

NISO JATS-common1.ent

```
<!-- NAME OF PERSON (STRUCTURED) -->  
<!-- Wrapper element for personal names. -->  
<!ELEMENT name (((surname, given-names?) |  
                given-names, prefix?, suffix?))>
```


Summary Table

* indicates a JATS-compatibility problem

Structure Name	Semantic match Y/N	Model	Element or Attribute	Alt	Section-like	Whitespace handling (D or E)	ID/IDREF
name*	N*	JATS	element			E*	
		MECA	element			D* (manifest.dtd) E* (reviews.dtd)	
	Y	JATS	attribute				
		MECA	attribute				

<name>

JATS name: Name of Person

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

MECA usage: In reviews.dtd, <name> in <contrib>, captures name of a reviewer. In manifest.dtd, <name> in <metadata>, gives the name in a name/value pair for metadata. Model is element-only content in <contrib>, #PCDATA in <metadata>.

Conflict: Inconsistency within the MECA model; the definition in manifest.dtd matches neither the JATS semantic definition nor the whitespace handling properties.

Possible solution: Use different element name in manifest.dtd to identify the name of a name/value pair for metadata. Consider JATS <custom-meta> model.

```
<!ELEMENT metadata (#PCDATA)>
<!ATTLIST metadata
    metadata-name CDATA #REQUIRED>
```

Resolving Incompatibilities

- Change MECA element model to be compatible JATS
- Change MECA element/attribute name
- Submit change request to NISO JATS Standing Committee

Updating the JATS

JATS @date-type definition was:

Event in the lifecycle of an article

Attribute was being used to capture dates of non-article objects (date in product); MECA WG submitted request to redefine attribute as:

Event in the lifecycle of an object

NISO JATS Standing Committee accepted the change request

MECA Moving Forward

- NISO MECA Recommended Practice (fully compatible with JATS) published July 2020
- NISO MECA Standing Committee established
- Current work items:
 - Integration with current peer review taxonomies
 - Exploring JSON API
 - Multi-lingual support

Questions?