JATS XML Implementation

JATS supporting editorial and production workflow

Mike Di Natale | Business Systems Analyst | mdinatale@ariessys.com
orcid.org/0000-0002-0136-5875 | @mdinatSTM
Workflow Solutions

Aries Systems transforms the way scholarly publishers bring high-value content to the world. The company’s innovative and forward-looking workflow solutions help manage the complexities of modern print and electronic publishing – from submissions to editing and peer review, to production tracking.

Editorial Manager®
Web-based manuscript submission and peer review

ProduXion Manager
Web-based production tracking

Commerce Manager™
Integrated ecommerce
Company Overview

- More than 6,700 publications using Aries’ solutions
- Founded in 1986
- 70+ Full-Time Employees based in US, UK, and Germany
- Independently owned and operated
- Management team with 30+ years of scholarly publishing experience
Company Overview

- 1.75+ million manuscripts processed annually
- 99.9% service availability over past 8 years
- $6,000,000+ invested annually in product development
- Two major releases, annually
- 30,000 SQL transactions/second (peak)
- 8,000 Web server requests/second (peak)
Company Overview

Editorial Manager is used by societies, university presses, commercial publishers
JATS Implementation

- Journal Article Tag Suite (JATS) implemented in Editorial Manager (EM) and ProduXion Manager (PM) for sending and receiving submission metadata multiple ways:
  - EM Ingest – Automatic manuscript submission from submission partners
  - JATS Import (Transferred Submissions) – Automatic manuscript import from sister publications
  - Editorial Transmittal – JATS XML sent at end of editorial to a third party, usually production system
  - Product Task Transmittal – JATS XML sent along with submission files to vendors and other services
JATS Implementation

- JATS offers a stable schema, but continues to evolve as necessary

- Provides an accepted and increasingly used NISO standard for importing and exporting data

- Allows interchange between the varies pieces of infrastructure supporting the scholarly publishing system
JATS Implementation

- Many emerging and developed standards for identifying people, places, and things
  - ORCID
  - Ringgold
  - Open Funder Registry (FundRef)
  - CRediT (soon)

- Keeps this data portable and ready for any needs that might arise during production and beyond
JATS Implementation

- JATS allows identifiers related to a submission to be gathered in a standardized, machine readable format which also contains comprehensive XML for all article metadata.
JATS Implementation

- JATS 1.0 first supported for transmittal (2013)
  - Support for JATS 1.1 added in EM v12.0

- Support for ORCID and Open Funder Registry (FundRef) IDs (2014)

- Support for Ringgold Institution IDs (2015)

- JATS is used for an import method to bring papers from non-EM publications into EM sites (2015) as well as our EM Ingest Service for submission partners (2015)
JATS Implementation

- The JATS implementation in EM are regularly updated as new features are rolled out and integrated
  - Transmittal will include CRediT data using existing tags in upcoming 13.0 release
    - Transmittal process will be updated when new elements for CRediT are added to official DTD

- Book Interchange Tag Suite (BITS) support is targeted for EM 14.0 release
  - BITS is based on JATS 1.1
EM Ingest

Allows Author to submit to EM publications through Submissions Partners
EM Ingest

An alternative way to get submissions into EM publications

Submission partners

EM publication
What is a Submission Partner?

- Collaborative authoring tools
- Publisher portals
- Language editing services
- Journal selectors
- Pre-review services
- QA services
Example workflow

**OPTION 1**
Author submits directly to journal

**OPTION 2**
Author submits via a Submission Partner

**Submission Partner**
- Language editing service
- Pre-peer review service
- Journal selection service
- Publisher branded portal
- Collaborative authoring tool

**Ingest Service**

**em**

Files & JATS XML
Ingest Process

- Submission Partner uploads files to Aries’ FTP
  - Includes trigger file which verifies the partner’s license and a zip file containing submission files and the JATS XML metadata file

- Contents is verified and then a submission record is built from the JATS XML
  - ORCID data in JATS is used to match EM users to the paper when available, otherwise email and name is used
  - EM also registers accounts for corresponding Author based on data provided in XML if no existing match found
  - Submission Partner recorded with submission record
Submission transfer from non-EM publications

JATS XML to import submissions into their EM publications
Transfer from non-EM publications

- Similar process to EM Ingest
  - Submission files packaged with JATS XML for metadata
  - XML used to create submission and Author record
  - Incorporates an external ID value which would correspond with source of transfer

- Submissions also arrive in “Transferred Submissions” folder on Editor Main Menu as they would if transferred from an EM publication

- Example: Customer has non-EM publications and wants to move submissions to an open access journal on EM
EM workflow

- Submission appears in *Transferred Submissions* folder

- Files are imported to submission’s ‘File Inventory’

- Editor can process the submission or send it back to the Author so that they can add journal-specific requirements can be addressed; Corresponding Author receives email from system

- Since the Corresponding Author is registered, they can log into system and complete information

- Submission then sent into normal workflow process for a new submission
What do we read from JATS XML?

- Corresponding Author information
  - Name, address, and affiliation
  - Includes ORCID and Ringgold ID for Author institution, if available!
  - Account is registered for Corresponding Author by proxy in EM, if no matching registered user is found

- Co-author information

- Funding info `<funding-source>` - includes Open Funder Registry identifiers
What do we read from JATS XML?

- Manuscript Metadata
  - Abstract
  - Keywords
  - Article Title
  - Article Type
  - Classifications
  - Section/Category

- Custom metadata - User created ‘Additional Manuscript Details’ fields
  - `<custom-meta-meta-group><custom-meta>`
Transmittals

JATS serves as a standard for data exports to external systems, repositories, and publishing platforms.
Transmittals

- JATS is the primary standard by which EM/PM shares data with external systems, vendors, repositories, and publishing platforms

- This allows EM to communicate with any other system during the production so long as it supports JATS

- Transmittal can include submission and production files as well metadata as XML
Transmittals

- ‘Editorial Transmittal’ sent from EM to a single external destination upon completion of editorial workflow

- ‘Submission Production Task Transmittal’ sent from PM using a Submission Production Tasks
  - Can be sent using multiple tasks to different destinations and vendors as needed
  - Transmittal occurs when a task is assigned, manually or through automated triggers
  - Allows for transmittals to be integrated into numerous steps of a production workflow
Transmittals

- Benefit of using JATS as the standard for data exchange is a smooth process and simplified workflow, as others already know JATS as a common tool.

- Transmittals allow publishers to use their data outside of the EM ecosystem in a variety of ways:
  - Transfer to production system
  - Providing data to a vendor
  - Send data to publishing platform
  - Deposits in repositories

- With JATS there’s no need to reinvent the wheel for each separate process.
Thanks!

Mike Di Natale
mdinatale@ariessys.com
@mdinatSTM