

# The archivematica® Open-Source Digital Preservation System

Procuring Preservation: Writing and understanding  
requirements in digital preservation

London – Royal Institute of British Architects – December 13, 2013  
Courtney C. Mumma, MAS/MLIS, Archivematica product manager

# What is Archivematica?

- Free and open-source
- OAIS and beyond
- Simplifies the universe of tools
- Flexible workflows
- Consistent, standards-compliant Archival Information Packages (AIPs) and Dissemination Information Packages (DIPs) [Bagit, Dublin Core, METS, PREMIS]
- Storage and Access system agnostic

- Bagit
- Bulk extractor
- Clam AV (anti-virus)
- ElasticSearch
- FFmpeg
- File Information Tool Set (FITS)
- Fido
- fiwalk
- AtoM
- Imagemagick
- mediainfo
- p7zip
- Inkscape
- LibreOffice
- NFS-common
- PyODConverter Daemon
- Poster
- Samba/CIFS
- Md5deep
- UUID
- Ubuntu Linux
- Zip
- Django
- Gearman

# Web-based dashboard

archivematica

Transfer 1 Ingest 1 Archival storage Preservation planning Access Administration x ▾

Type Standard Transfer name /home/courtney/archivematica-sa Accession no. Browse Start transfer

Transfer	UUID	Transfer start time	
Memphis Jack files	55fd7dd2-48cb-463e-a625-1c41283e92e0	2013-04-29 13:43	
► Micro-service: Create SIP from Transfer			
Job: Create SIP(s) [?]	Awaiting decision		Actions
Job: Load options to create SIPs	Completed successfully		
Job: Check transfer directory for objects	Completed successfully		
► Micro-service: Complete transfer			
► Micro-service: Characterize and extract metadata			
► Micro-service: Clean up names			
► Micro-service: Scan for viruses			
► Micro-service: Extract packages			
► Micro-service: Quarantine			
► Micro-service: Generate METS.xml document			
► Micro-service: Verify transfer checksums			
► Micro-service: Assign file UUIDs and checksums			
► Micro-service: Include default Transfer processingMCP.xml			
► Micro-service: Rename with transfer UUID			
► Micro-service: Verify transfer compliance			
► Micro-service: Approve transfer			
Job: Approve standard transfer	Completed successfully		
bug5008	39eca2f1-771d-4837-a809-d2fbc2577090	2013-04-29 12:16	

# Flexible workflows

archivematica Transfer 1 Ingest 2 Archival storage Preservation planning Access Administration demo@example.com ▾

Processing configuration

General

Failures

Transfer source locations

AIP storage locations

AtoM DIP upload

CONTENTdm DIP upload

Archivists Toolkit DIP upload

PREMIS agent

REST API

## Processing configuration

Send transfer to quarantine Yes

Approve normalization Yes

Store AIP Yes

Remove from quarantine after 2.0 days

Create SIP(s) Create single SIP and continue pr

Normalize Normalize for preservation and ac

Select file format identification command (Transfer)

Select file format identification command (Ingest) Fido version 1 PUID runs Identify using Fido  
File Extension version 0.1 file extension runs Identify by File Extension  
Skip File Identification

Select compression algorithm 7z using bzip2

Select compression level 5 - normal compression mode

Store AIP location Store AIP in standard Archivematica

Save

# the Archivematica AIP

## [archivematica.org/wiki/AIP\\_structure](http://archivematica.org/wiki/AIP_structure)

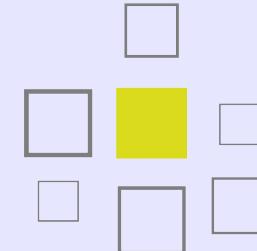
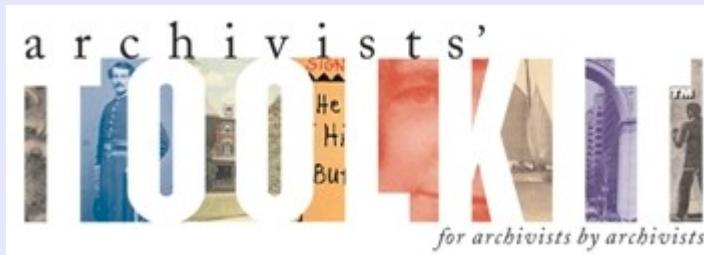
A Bag containing

- original digital objects
- preservation versions of the objects
- submission documentation
- logs
- METS.xml with PREMIS

# Digital Repository Interfaces



CONTENTdm®



D SPACE



archivematica.®

artefactual  
systems inc.

# [archivematica.org/wiki/Internal\\_audit\\_tool](http://archivematica.org/wiki/Internal_audit_tool)

## Audit and Certification of Trustworthy Digital Repositories (TRAC - based)

### Status Summary

Section	Total Requirements *	Average Compliance Rating
3. Organizational Infrastructure	23	1.6522
4. Digital Object Management	59	3.0508
5. Infrastructure and Security Risk Management	24	0.5417

\* The total number of requirements include sub-requirements and sub-sub-requirements for which TRAC provides a basis for a compliance rating.

### Requirement Status

3.1 Governance and Organizational Viability	Compliance Rating	Status
3.1.1 Mission statement	4	Ready for review
3.1.2 Preservation Strategic Plan	3	Ready for review
3.1.2.1 Succession, contingency, and/or escrow plans	0	In progress
3.1.2.2 Organizational environment	0	In progress
3.2 Organizational Structure and Staffing	Compliance Rating	Status
3.2.1 Adequate staffing	0	In progress
3.2.1.1 Established duties	0	In progress
3.2.1.2 Number of staff	0	In progress
3.2.1.3 Professional development	1	In progress
3.3 Procedural Accountability and Preservation Policy Framework	Compliance Rating	Status
3.3.1 Designated Community	4	Ready for review
3.3.2 Preservation Policies	4	Ready for review
3.3.2.1 Ongoing development of Preservation Policies	0	In progress
3.3.3 History of changes	0	In progress
3.3.4 Transparency and accountability	1	In progress
3.3.5 Information integrity measurements	3	In progress
3.3.6 Self-assessment and external certification	4	Ready for review

# Sustainability

Development  
partnerships

Community

Responsiveness

Integration

Dedication

Installation and  
support packages

Code contributors

Expertise

Support partnerships

Documentation



United Nations  
Educational, Scientific and  
Cultural Organization

# artefactual

systems inc.



digital preservation consulting  
open-source software for archives and libraries

**a**rchivematica. **a**tom



SFU



Yale UNIVERSITY LIBRARY

**MoMA**  
The Museum of Modern Art

# archivematica.org

Twitter: @archivematica

Online demo:  
[sankofa.archivematica.org](http://sankofa.archivematica.org)

User: demo@example.com

Password: demodemo

Me: [courtney@artefactual.com](mailto:courtney@artefactual.com)  
(Ask me for free stickers and pins!)