

Workflow Decisions Points for Software Curation in Libraries

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Using [Nance McGovern's digital content review](#) as a prompt, this document outlines curation workflow decision points, suggested implementation steps, and provides related resources for collecting, acquiring, describing, preserving, and providing access to research software of institutional significance.

Software Collection Development/Selection/Rights

Workflow decision points for library curators

- What kinds of software does your institution want to collect? E.g., *Library created software?* *Institutional output with software components?*) For each type of institutional content, identify which software elements should be collected
- What copyright/intellectual property issues are associated with collecting this software? Is there specific language to include in deposit agreements?

Implementation steps

- Develop a collection policy for software and software-related components.
- Determine institutional appraisal criteria for collecting software.
- Determine rights management approach.
- Adapt software intake template for local institutional context

Recommended resources

- [Library of Congress Recommended Formats Statement for Software](#)
- Bearman, D. (1987). [Collecting Software: A New Challenge for Archives & Museums](#). Pittsburgh: Archives & Museum Informatics.
- [The C4 Model for Software Architecture](#)
- Whyte, A. & Wilson, A. (2010). "[How to Appraise and Select Research Data for Curation](#)". DCC How-to Guides. Edinburgh: Digital Curation Centre.
- Spencer, L., Ritchie, J., Lewis, J., Dillon, L. (2003) "[Quality in Qualitative Evaluation: A Framework for Assessing Research Evidence.](#)" National Center for Social Research.

Software Acquisition / Pre-ingest

Workflow decision points for library curators

- What changes (if any) need to be made to existing workflow to acquire software?
- Where will acquired materials be stored pre-ingest?
- What quality assurance will be done after acquiring software?
- What precautions should be made for handling obsolete/at-risk media?

Implementation steps

- Identify tools for trustworthy content acquisition
- Identify staging area for pre-ingest
- Identify and take necessary precautions for at-risk source media

Recommended resources

- [National Archives Preserving Electronic Records](#)
- [Media Stability Ratings](#)
- [Data Curation Profiles Toolkit](#)
- [Timbus Project Context Model](#)
- [Debian Extractors](#)
- [Exactly Tool](#)

Software Description / Access / Use

Workflow decision points for library curators

- How can shelved/legacy software be integrated into existing finding aids/catalogs? What about newly acquired software?
- Is your institution planning to provide access to accessioned software? If so, what kind?
- How will sensitive/copyright material be flagged?

Implementation steps

- Identify appropriate metadata elements for cataloging software.
- Ensure that software description observes Force11 Citation Principles.
- Ensure workflow mechanisms are in place to protect sensitive/copyright information.

Recommended resources

- [Example UMN Digital Conservancy Catalog Record with software and data](#)
- [Example Computer History Museum Catalog Record for software code print out](#)

- [Force11 software citation principles](#)
- [UC Guidelines for Born-Digital Archival Description](#)
- [The Old Version Flickers More: Digital Preservation from the Users' Perspective](#)
- [Significance is in the Eye of the Stakeholder](#)

Preservation / Archival Storage

Workflow decision points for library curators

- What preservation strategies best fit institutional commitment to software? (e.g., migration, emulation, storage)
- What components of software do you want to preserve? (e.g., source code, binary code, dependencies, documentation)

Implementation steps

- Assess software components to gauge institutional value and risk of obsolescence.
- Map preservation strategies to software components and assign levels of prioritization.

Recommended resources

- [Digital Preservation Metadata Practice for Computing Environments](#)
- [Media Stability Ratings](#)
- [Using a Suite of Ontologies For Preserving Workflow-Centric Research Objects. A Framework for Software System Handover](#)
- [Software Retirement Process Model](#)
- [Technical properties of play: A technical analysis of significant properties for video game preservation](#)
- [The Preservation of Complex Objects: Vol 2 Software Art](#)