

Rockefeller Archive Center
National Digital Stewardship Residency
Project Proposal

Project title:

Disk imaging and beyond: developing integrated imaging workflows at the Rockefeller Archive Center

Project Summary

Formalize RAC disk imaging workflows, collaborate with RAC accessioning and processing archivists to streamline the appraisal and weeding of disk images, provide training to familiarize RAC archivists with working with disk images, and integrate disk images into the larger RAC digital preservation workflow.

Specific Project Goals and Objectives

- Develop and refine disk imaging workflows for the following media formats: 3.5 and 5.25 floppy disks, CDs, DVDs, ZIP disks, external hard drives, and USB flash drives.
- Document common imaging errors and other problems with either particular physical media types or imaging hardware tools.
- In instances when hardware is not available onsite, recommend imaging requirements for media sent offsite to vendors and if possible, identify such vendors.
- Collaborate with RAC archivists to create appraisal and disposition workflows and criteria to delete disposable disk images.
- Familiarize RAC archivists with disk imaging workflows and provide training on how to view and interpret disk images.
- Integrate disk imaging into the larger RAC preservation workflow.
- Record imaging metrics.

Project Timeframe and Deliverables:

Deliverables will mainly take the form of documentation and reports:

- A “Guide to Imaging at the RAC” covering imaging practices and workflows for all digital media types

- Documentation and training on appraising and/or weeding disk images
- A report on recommended imaging vendors and requirements for materials that need to be sent offsite
- A report on the metrics gathered for imaging based on particular media format types, data sizes captured, and imaging software/hardware tools

Phase One [Months 1 – 5]

The Resident will familiarize themselves with the current workflows and documentation for imaging, noting areas that have been superseded, are lacking in completeness or detail, or are otherwise in need of improvement. The Resident will work closely with the mentor to image representative collections, improve documentation and refine (or create) workflows as needed. A draft of a “Guide to Imaging at the RAC” will be expected at the end of this phase, as will the imaging requirements for media sent offsite to vendors. Imaging metrics will also be designed and initially captured.

Phase Two [Months 6 – 7]

The resident will work with various RAC archivists involved in appraisal and processing to develop a special workflow to appraise and potentially weed disk images. This may include using forensic software such as the Forensic Toolkit (FTK) and BitCurator. The Resident will assist RAC archivists with interpreting disk image information, and RAC archivists will integrate key appraisal decision-making gleaned into the jointly created documentation. The Resident will also review the Archivematica workflow for digitized materials to familiarize themselves with the process.

Phase Three [Months 8 – 9]

Building off knowledge gained in the previous two phases, the Resident will provide training to RAC archivists on disk imaging and the interpretation of forensics data. The Resident will also finalize the “Guide to Imaging at the RAC,” integrating questions that arise during training. Lastly, the Resident will move imaged disks through the initial Archivematica transfer process and into the digital materials backlog, enhancing the Archivematica documentation as needed.

Resources Required for the Project:

The RAC has a designated disk imaging and forensics workspace, housed within the Digital Team workspace, which will be made available for the Resident’s sole use.

The disk imaging and forensics workspace is equipped with the following:

Hardware:

Dedicated computer for Resident’s use

Forensic Recovery of Evidence Device (FRED)
Kryoflux
Deviceside 5025
USB Zip Drive
Computer monitor(s)

Software:

Forensic Toolkit
BitCurator
Archivematica

All proprietary software and hardware has been purchased. A desktop or laptop computer will also be made available for the Resident's use. The Resident will also have access to the Mentor and RAC accessioning and processing archivists.

Required Knowledge and Skills for Residents

- Knowledge of digital preservation principles and digital forensics techniques
- Aptitude for complex, analytical work with attention to detail.
- Ability to work in a team-oriented approach with fellow staff members towards the organization's goals.
- Excellent written, verbal, analytical and organizational skills.
- Excellent interpersonal skills.
- Knowledge of archival standards and procedures.

Expectations of All Positions:

Each employee is expected to:

- Respect and value those who partner with or request assistance from the RAC.
- Appreciate the value of diversity and equal opportunity in all work relationships.
- Respect the contribution of each employee of the RAC and support colleagues in fulfilling their individual responsibilities.
- Appreciate differences in perspectives and point of view and work collaboratively with colleagues toward shared goals and objectives.
- Commit time to RAC activities and conversations that strengthen the RAC's culture and improve its effectiveness.
- Be able to lift a 25 lb. box.
- Adhere to the Code of Ethics for Archivists.

Preferred Knowledge and Experience of Residents

- Experience with a wide range of computing operating systems and file systems.
- Familiarity with software used to create and view disk images.