Vermont State Archives and Records Administration

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DIGITAL PRESERVATION WORKFLOWS IN PRACTICE
VERMONT STATE ARCHIVES AND RECORDS ADMINISTRATION, OFFICE OF THE SECRETARY OF STATE

• Advises and guides public agencies in records and information management;

• Files, records, and certifies legislative acts and resolves administrative rules, state deeds and leases, vital records, oaths and appointments, municipal charters, and similar statutory filings;

• Appraises and schedules public records so they are preserved only as long as they have a legal or administrative value;

• Preserves and enhances access to the state government’s archival records; and

• Operates a secure record center for inactive agency records.
RIM WORKFLOWS AT PUBLIC AGENCIES:

What happens to records before they get here?
GOVERNANCE

• Authenticity: A record can be proven to a) be what it purports to be; b) have been created or sent by the person purported to have created or sent it; and c) have been created or sent at the time purported.

• Integrity: A record has integrity if it is a) complete; and b) unaltered from its original form.

• Reliability: A record is reliable if it can be trusted as a full and accurate representation of the transactions, activities, or facts to which it attests.

• Accessibility: A record is accessible if it is a) able to be found; b) able to be retrieved; and c) able to be presented and interpreted in an intelligible manner.
Records Management Programs

- Information valuable and important to the agency and its business functions is created and received;
- The right people have access to and use of the right information at the right time;
- Information vital to the agency and its functions is retained and readily available;
- Information appraised as archival is preserved; and
- Non-permanent information is destroyed when its retention requirements have been met.
Retention Schedules capture:

- Retention requirements: length of time a record must be retained; events or triggers that cause records to move from active to inactive state
- Disposition requirements: how an agency must dispose of a record from its legal custody once requirement is met; appraisal value of the records (archival or not)
- Public access requirements: the availability of the record for use and inspection; exemptions from access on a record
- Functional classification (VCLAS): domains (areas of accountability); activities; and record types.
STATE OF VERMONT SPECIFIC RECORD SCHEDULE

SRS-1564.1108: Occupational Safety and Health Review Board Case Files

SRS-1564.1108: This schedule is reserved for recorded evidence of activities and transactions that relate to or affect, in a specific manner, the adjudication of occupational safety and health standards pursuant to 21 V.S.A. § 230.

Classification: Occupational safety and health standards (Adjudicating)

Retention: Complaints, final orders, decisions and any pleadings incorporated by reference, docket, exhibits admitted into evidence, and supporting material that are essential to the final decision are archival records and shall be retained permanently and are eligible for transfer into the Vermont State Archives six (6) years after the case has closed.

Retain declarations, pleadings, orders, and supporting materials for six (6) years after the case is closed and then destroy.

Other records shall be retained as specified in this schedule with the exception of transitory records. Transitory records may be weeded as appropriate in accordance with GRS-1000.1000 (Transitory Records).

Public Access: Redact

SPECIFIC RECORDKEEPING REQUIREMENTS for SRS-1564.1108 (see APPENDIX E for related legal references)

<table>
<thead>
<tr>
<th>Record Category/Type:</th>
<th>Applicability/Use:</th>
<th>Appraised Value:</th>
<th>Retention/Disposition:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRS-1564.1108.24</td>
<td>Use for written citations, complaints, grievances, and similar records that initiate the adjudication process. Includes Notice of Contest.</td>
<td>Permanent (Archival)</td>
<td>RETAIN UNTIL: Completed/Closed PLUS: 6 Year(s) THEN: Archives</td>
</tr>
<tr>
<td>Complaints</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Access: General</td>
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</tr>
</tbody>
</table>

| SRS-1564.1108.133     | Use for written evidence of final decisions. Includes final orders and agreements, exhibits admitted into evidence, pleadings incorporated by reference, and supporting material that has significant value and/or is essential to the final decision. For directions or commands delivered during the course of a proceeding that do not serve as final orders, use "Orders." | Permanent (Archival) | RETAIN UNTIL: Completed/Closed PLUS: 6 Year(s) THEN: Archives |
ELECTRONIC RECORDS MANAGEMENT SYSTEMS

- State-run systems (Office 365; Payroll and HR; VISION financial system; etc.)
- Agency-specific systems (Court docketing systems; law-enforcement case management; etc.)
- What information do these systems capture?
- Is that information meaningful for understanding their records?
SELECTING RECORDS FOR TRANSFER/HOW DO TRANSFERS HAPPEN

• 3 types, generally:
  • Regular/ongoing transfers with established schedule and transfer agreement
  • First-time transfer via Targeted Assistance Program (TAP)
  • Unscheduled records or from sources outside state government

• Valid retention schedule -> transfer agreement -> transfer

• Ad-hoc transfer mechanisms (for now).
SELECTING RECORDS FOR TRANSFER/HOW DO TRANSFERS HAPPEN

1. Electronic Records to be transferred
   - Electronic Records
   - Are all requirements met?
     - No: Return to Records Officer
     - Yes: VSAAR-24: Legal Custody Transfer Agreement

2. VSAAR-24: Legal Custody Transfer Agreement
   - Both approved
     - Transfer List
       - Records Officer
         - Records Officer
         - Physical transition
           - Coordinate pickup/dropoff with Digital Archive
           - Offsite transfer
             - Records Officer Accession
         - Digital transition
           - Accession
           - Records Officer
             - Accession
TOOLS FOR TRANSFER

• Application created for Library of Congress to produce a package of data files according to BagIt specification.

• Creates directory of data (transferred files)

• Creates manifest and checksum for all files in the transfer and additional info.
DIGITAL PROCESSING WORKSTATION

- Windows host OS with Ubuntu VM (VirtualBox)
- Non-networked (but connected to internet for cloud ingest)
- Hardware: 3.5” USB floppy drive; cassette deck; VCR
- BitCurator
- IT policy = lack of full control over system
- Budget restrictions
- Support challenges
BITCURATOR TOOLS – WHAT WE’RE USING AND WHY

• Legacy Media
  • Guymager (disk image)
  • Bitcurator Disk Image Access Tool (file extraction)
  • BitCurator Reporting Tool (annotated file analysis reports)

• All Electronic Records (incl. legacy media)
  • ClamTK (virus/malware scan)
  • bulk_extractor (file analysis reports; cryptographic hashing)
  • FSLint (de-duping; file analysis reports)
  • Microsoft Office/Libre Office tools (Excel; Word; Outlook)
  • VBA Macro (XML metadata generation)
RECORDS GET TO VSARA – WHAT HAPPENS NEXT?

- Prepare the “preservation package.”
  - Scan for viruses/malware.
  - Generate file manifest and checksum.
- Create SIP
- Ingest SIP in VT ReTain
RECORDS GET TO VSARA – WHAT HAPPENS NEXT?

• Prepare the “processing package.”
  • Extract/copy files and deposit on workstation.
  • Generate reports.
  • Create descriptive metadata template.
<table>
<thead>
<tr>
<th>DATE</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**ENTER THE ARCHIVISTS:**

**DEVELOPING A PROCESSING PLAN**

<table>
<thead>
<tr>
<th>RECORDS INFORMATION</th>
<th>DATE (Brief)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creator</td>
<td></td>
</tr>
<tr>
<td>Extent</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accession Number</th>
<th>Applicable Record Schedule(s)</th>
</tr>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Related Records (such as paper record series)</th>
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<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Describe the Present Arrangement and Condition</th>
</tr>
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<tr>
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</tbody>
</table>
ARRANGEMENT: HOW MUCH IS TOO MUCH?

Accession: Minimal “processing” done; original order is clear and undisturbed; no challenges with file formats, record types, or public records exemptions; basic VSARAcore metadata is applied.

Standard: A little more work needs to be done; multiple record types/file formats need to be managed; records will need to be reviewed more carefully for exemptions; descriptive metadata beyond VSARAcore needs to be created.

Premium: Our most challenging situations – every item needs to be reviewed; major issues around exempt records; original order is lost and some type of order needs to be applied; detailed descriptive metadata needs to be created.
DESCRIPTION: ITS ALL ABOUT THE METADATA

- Agency
- Series ID
- Series Name
- Series Description
- Series From Date
- Series To Date
- VCLAS Domain
- VCLAS Activity
- Record Creator Individual
- Record Contributor Individual
- Record Title
- Record Date
- VCLAS Record Type
- Record ID
- Access Requirements
The majority of the records found in this section of the Shumlin records are correspondence, agreements, disaster declarations and supporting material between FEMA and the State of Vermont and between Vermont agencies. They are permanent, archival records and no known exemptions apply.

General arrangement will not be changed – file names and arrangement will be preserved exactly as received from the Shumlin office.

As there are only 80 folders in total, we can review the entire collection in one day.

Records will be weeded against relevant records schedules as appropriate. See the next section for outline of items weeded and schedule.

**DOCUMENTATION:**

**RETURN OF THE PROCESSING PLAN**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Problems:</td>
<td>1) An error occurs when you open folder: FEMA-4022-DR FEMA-3338-EM. It is unclear to me if I’m able to see all the files in this folder.</td>
</tr>
<tr>
<td></td>
<td>2) Item: FEMA 4022-DR Sept 2012 - Dec 2012 - Shortcut link in folder: FEMA 4022-DR Sept 2012 - Dec 2012 seems to be a broken shortcut link and can probably just be removed.</td>
</tr>
</tbody>
</table>
THE PROCESSING WORKFLOW

(In Theory)
Arrangement

Archivist Analyzes Records

Are these records an accrual to existing records? - No

Does original order exist and is it meaningful? - No

Re-create context as best as possible

Archivist Proposes Arrangement

Yes

Maintain Original Order (as best as possible)

Can these records be (seamlessly) integrated into existing arrangement(s)? - No

Are additional accruals to these records expected? - No

Integrate into existing records

Yes

Create new collection(s) and/or folder(s)

Yes

Create "sustainable" record structure

Create "one-time" arrangement
Processing “Phase 2” (Description)

Create “at risk” file plan or alternate description/access plan for “difficult” file formats if necessary

Create “multiple manifestations” (if necessary)

Update Processing Plan with new info

Updated Processing Plan

Weeding (in-depth)

De-Dupe (similar copies)

Pre-Ingest Migration/Normalization (if necessary)

Finalize File Structure (according to processing plan)

File Explorer

TBD

fsLint

For files that cannot be normalized by Preservica

TBD

Out of Scope
Final Manifest of Electronic Records

Did agency have its own metadata?

Yes →

Are records being served back to agency system through Preservice?

Yes →

Determine Metadata Requirements

No →

Generation of new metadata →

Select schema(s) →

Create of Metadata Templates →

Populate templates

Transformation/migration of attendant metadata (sourced from creator)

Select schema(s) →

Creation of Metadata Templates →

Create .metadata files

XIP

VTCore

Processing Manual

VSARA Metadata Standards

Agency Schemas(?)
THE WEIRD STUFF: DATABASES, WEBSITES AND BLOCKCHAINS, OH MY!
ANY QUESTIONS?

• VT ReTain: https://vermont.access.preservica.com/
• Rachel Muse, rachel.muse@vermont.gov, 802-828-2397
• Zack Whitaker, zachery.whitaker@vermont.gov, 802-828-2397