POST (modern) design
An integrated web platform for our records and researchers

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About the speakers

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Program Manager, Digital Archive Program

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Coordinator, Communications and Online Engagement
Agenda

1. Introduction
   About PROV, our current work and collection

2. Conceptual foundation (Julie)
   Archival Control Model, arrangement and preservation

3. Technology (Owen)
   POST systems, integration and architecture

4. Access (Kate)
   Researching, ordering and locating records
About PROV

- Victorian State Government archive
- Established in 1973 with records dating back to 1830s
- First Digital Archive implemented in 2003
- Funding received in 2015 to renew key systems
Our collection at a glance

- **AGENCIES**: ~4,500
- **RECORD SERIES**: ~18,500
- **FUNCTIONS**: ~400
- **PHYSICAL ITEMS**: ~7.5mil
  - 95km
- **BORN DIGITAL ITEMS**: ~600k
Conceptual foundation for documenting records and context
PROV has revised its conceptual approach to archival description and digital preservation and we’re updating our technology accordingly.

• Revised Archival Control Model (RACM)
• New flexible requirements for the preservation and encapsulation of digital records
Previous model

- Function
  - Group
    - Agency
      - Series
        - Consignment
          - Unit
            - Item
              - Sub-Item

Key:
- Original CRS entity
- PROV additional entity
- Applicable to physical records only
New model
Entity types

**RECORD**
- Record series
- Record item

**FUNCTION**
- Function
- Term

**AGENT**
- Agency
- Person
## Entity relationships

### Relationship types for **AGENT** entity

<table>
<thead>
<tr>
<th>Relationship types</th>
<th>Records / Records</th>
<th>Records / Agent Series / Agency</th>
<th>Records / Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Controlled by / Controls</td>
<td>Recorded by</td>
<td>Generates / Generated by</td>
</tr>
<tr>
<td></td>
<td>Previous / Subsequent</td>
<td>Responsible (control relationship)</td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td>Contains / Is part of</td>
<td>Transferred by</td>
<td>Generated by</td>
</tr>
<tr>
<td></td>
<td>Related</td>
<td>In Custody of</td>
<td></td>
</tr>
</tbody>
</table>

### Relationship types for **FUNCTION** entity

<table>
<thead>
<tr>
<th>Relationship types</th>
<th>Function / Function</th>
<th>Function / Agent</th>
<th>Function / Record</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Broader / Narrower</td>
<td>Primary responsibility</td>
<td>Generates / Generated by</td>
</tr>
<tr>
<td></td>
<td>Previous / Subsequent</td>
<td>Secondary responsibility</td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td>Related</td>
<td>Use for</td>
<td></td>
</tr>
</tbody>
</table>

### Relationship types for **RECORD** entity

<table>
<thead>
<tr>
<th>Relationship types</th>
<th>Record / Record</th>
<th>Record (Series)/Agency</th>
<th>Record / Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Controlled by / Controls</td>
<td>Recorded by</td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td>Previous / Subsequent</td>
<td>Responsible (control relationship)</td>
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<td></td>
<td>Related</td>
<td>In Custody of</td>
<td></td>
</tr>
</tbody>
</table>
Demonstration of the entity relationships

VF 309 Crown Lands (public)

VF 27 Botanic gardens (1851 – ct.)

VF 309 Crown Lands (government)

VF 17 Survey

VF 86 Observatory
Record entity – Digital

Preservation Package - Single VEO
Metadata scope and principles

Scope

- ACM Entities
  - Agents – Agency, Person
  - Records – Series, Items
  - Functions & Terms
- Archival Management (access, disposal, etc.)

Principles

✓ Consistency with Australian Series System and other schemas
✓ Support key PROV business practices
✓ Preserve our data asset (backwards compatible)
✓ Flexibility and extensibility
Metadata for describing records

**Mandatory metadata** includes: Agent, date, identifier, security classification information.

**Other metadata** includes:
Disposal, description and format.

**Digital Records (VEOs)** can have either:
- AGLS; or
- AS/NZS 5478

Plus additional agency metadata packages can be added to the VEOs to provide more context.
Enhanced description

Our new model:

✓ Provides more flexibility in describing digital and physical records
✓ Allows us to assign more labels to data, e.g. dates, admission date, meeting date are all possible
✓ Permits any level of description, e.g. a physical photograph album:
Implementing new technology and systems across PROV
**The POST in POST Modern**

**POST** = PROV Operational Systems Transformation program

Commenced late 2015, due for completion 2020

**Objective 1:** Integrate archival data with contextual information about the collection

**Objective 2:** Describe the collection using a model and structure that enables flexibility
Overview of POST program

**PRESCRIBE**
- Physical Collection
- Digital Collection

**MANAGE**
- Archival Mgmt System
- Digital Archive Mgmt System
- Warehouse Mgmt System
- Persistent Identifier Service

**ACCESS**
- Website
  - Website
  - Search Engine
- SAMS
  - Payment System
- Crowd-Sourcing
  - Transcription
- Image Viewer
  - Record Request

**USE**
- Public
- Gov’t
- Research Community
- Peer Org’s
## Key data sources

<table>
<thead>
<tr>
<th>System</th>
<th>Function</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS (Archival Management System)</td>
<td>Archival documentation</td>
<td>Collective Access</td>
</tr>
<tr>
<td>WMS (Warehouse Management System)</td>
<td>Location management</td>
<td>Made4Net</td>
</tr>
<tr>
<td>Request and Pay</td>
<td>Ordering, payment, etc.</td>
<td>Open Cart + custom interface</td>
</tr>
<tr>
<td>SAMS (Secondary Asset Management System)</td>
<td>Additional contextual info</td>
<td>Fedora Commons</td>
</tr>
</tbody>
</table>
Back to the new model
A semantic view of the systems and data

ACM is semantic web-like

- Relationships between archival Entities are defined consistently
- Relationships between archival Entities and additional contextual information are defined consistently
- Persistence is key

Some key technologies we’ve used:

- Handles: Persistently identify archival entities
- RDF (Resource Description Framework): structures contextual information about records
- IIIF (International Image Interoperability): Digitised content
SAMS: Linking contextual data to the ACM
Bringing it together: Drupal interface

Online catalogue
Data from AMS

Record display
Data from SAMS
Challenges

- Small organisation, big responsibilities
- Implementing semantic web technologies in an archival context: it’s hard!
- Limited expertise in underlying technologies and standards
- Storage infrastructure: small (8TB), but high value
- IT support: what to insource and what to outsource??
- Scope change. A lot :S
Helping researchers search and locate records
Many researchers are not looking for one record, they’re looking through many records over a long period of time.
8 units or 8 records
Remove unit?
Designing the Archive Conference | 23 October 2019
What about context?
Agency: Housing Commission Victoria

What happened to unit?
Hmm...8 records at a time...and I'm still on A
Design for the future and for today
Questions?


Slide images:
Melbourne Harbor Trust Photographic Collection (VPRS 8357)
https://flic.kr/s/aHsmEpXxmJ