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www.collectionspace.org
CollectionSpace is an open-source, web-based software application for the description, management, and dissemination of museum collections information – from artifacts and born digital works to loans and acquisitions.
An Institution-Wide Support System

CollectionSpace supports registrars, collections managers, curators, educators, administrators, and more – whether they work in the storage room, in the gallery, in an office, or in the classroom.
Market Landscape

Heritage Health Index, 2007:

- Almost 30% of historical societies, 25% of museums, and 20% of archeological repositories have no catalog records at all.
- 50% of the collecting institutions in the United States have none of their collections available online.

(IMLS + Heritage Preservation)

This information gap represents a lost opportunity for museums and points to a core community need.
Market Landscape

- Global market
  - Served by over 20 different commercial software providers
  - And a vast array of ‘home grown’ solutions
  - 20,000 museums are members of the International Council of Museums

“I’m a research scholar. I believe in the importance of collections and the data that surrounds them. If you start with a research view, all objects are more valuable for teaching, research, and outreach with the supporting documentation that provides rich contextual information. We are 110 years old and we are nowhere near where we need to be with our documentation. Improved digitization and data management are the only way we will manage our collections effectively to support the teaching and research missions of the museum.” - Museum Director
Market Landscape

• Museums have been producing innovative, visitor-facing applications that take advantage of the latest technologies for years.
• Unfortunately, while many of these applications include information drawn from collections management systems, the collections management system itself is rarely improved as a result.

CollectionSpace represents a paradigm shift in collections management technology, which allows users to create a stable, authoritative, and flexible core of collections information from which interpretive materials and experiences - from printed catalogs and mobile gallery guides to research platforms - may be more effectively developed.
Project Leadership

SMK - Statens Museum for Kunst
National Gallery of Denmark

Museum of the Moving Image

Walker Art Center

caret

Fluid

collection space
Project Team

Functionality → UI Design → Development → Deployment

- services
- application
- user interface
Project Ethos

Open, Inclusive, Transparent

- Gather information about functional requirements from museum standards and domain-specific guidelines
- Synthesize information gathered during Community Design Workshops and from user-submitted use cases
- Create definitions and lists of requirements
- Develop schemas to guide wireframe development and information architecture
- Write user stories to clarify incremental deliverables
Storage Location Requirements

Definition
A location is a specific place where an object or group of objects is stored or displayed.

Requirements
The system should allow the user to:

- Create and maintain a controlled list of storage and display locations
- Create a hierarchical list if necessary

Standards, Guidelines + Use Cases

Use Cases and Community Design Workshop Notes

CDWA Current Location: Gallery/Shelf Location

CHIN Humanities Data Dictionary: Storage Location

CiDOC Excerpts: P53-P55

P53 has former or current location (is former or current location of)
Quantification: many to many, necessary (1,n:0,n)
Scope note: This property allows an instance of E53 Place to be associated as the former or current location of an instance of E18 Physical Thing.
Example: silver cup 232 (E22) has former or current location Display Case 4, Room 23, Museum of Oxford (E53)

P54 has current permanent location (is current permanent location of)
Quantification: many to one (0,1:0,n)
Scope note: This property records the foreseen permanent location of an instance of E19 Physical Object at the time this property was recorded.
Object Entry Visualization from the CIDOC CRM:

**OBJECT ENTRY INFORMATION**

- **E39 Actor** (0,n)
  - P14 carried out by (performed)
    - P14.1 in the role of
      - **E55 Type**
  - P28 custody surrendered by (surrendered custody through)
    - P29 custody received by (received custody through)
  - P49 has former or current keeper (is former or current keeper of)
  - P50 has current keeper (is current keeper of)

- **E10 Transfer of Custody** (0,n)
  - P20 had specific purpose (was purpose of)
    - 0,n
  - P21 had general purpose (was purpose of)
    - 0,n

- **E7 Activity** (1,n)
  - P21 had general purpose (was purpose of)
    - 0,n

- **E55 Type** (0,n)
  - P30 transferred custody of (custody transferred through)

- **E18 Physical Stuff** (0,n)
Museum of the Moving Image

Intake (for possible Acquisition)

Donor contacts museum about possible donation OR museum contacts donor with a request for a donation.

If deemed appropriate for the Museum's collection, the artifact(s) is delivered to the museum (donation lot). An artifact receipt is created from a template in Microsoft Word, and issued to donor as proof of transfer of the property to museum for consideration as a donation.

Once a donation is accepted, an intake record is created in the CMS which includes: donor information (managed by the name authority), an accession number, the extent of the donation, the credit line, method of donation, deed of gift date, notes (for valuation and rights). Documents (such as a PDF of the deed of gift) can be attached to this record. The artifacts in the donation lot are given individual number assignments (sometimes in the CMS, sometimes into the Excel inventory worksheet).

Object Entry (after Acquisition or Loan In)

Objects coming in to the Museum are generally inventoried using Microsoft Excel. These inventory sheets are attached to deeds of gift or incoming loan forms. Objects are listed on these inventory sheets at varying hierarchical levels: some in groups, others individually.

Once the donation or loan is formally accepted, the Registrar may assign object accession numbers (handwritten directly onto the Excel sheet) as the objects are processed, or the entire donation/loan may receive one number.

Accession numbers at the Museum are modeled: Year.Donation Number.Object Number, e.g. 1984.5.63. In the CMS, zeros are added to these numbers to ensure proper filing, e.g. 1984.005.0063. If the Registrar does not assign individual accession numbers to objects in a deed, the first accessions (e.g. 1883.15) become one accession block.
## Cataloging Schema

<table>
<thead>
<tr>
<th>Information Group</th>
<th>Information Unit</th>
<th>Definition</th>
<th>Field Type</th>
<th>Repeatable</th>
<th>Notes</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object</td>
<td>Object number</td>
<td>A unique number identifying an object or specimens, including any separated parts.</td>
<td>Controlled number</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other number</td>
<td>An alternative number for an object other than the Object number.</td>
<td>Controlled number</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other number type</td>
<td>A description of an Other number assigned to an object.</td>
<td>Controlled text</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brief description</td>
<td>A text description of an object in approximately one sentence; normally used for administrative and identification purposes. It records the most important information from a number of separate descriptive units of information.</td>
<td>TEXT</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td>Additional comments made about an object by visitors, curators or researchers.</td>
<td>TEXT</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distinguishing features</td>
<td>A description of features which could uniquely identify an object, bringing together details from other groups or units of information such as Identification, Inscription, condition which could in a sentence uniquely identify an object.</td>
<td>TEXT</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of objects</td>
<td>A record of the number of objects at the next level down in an object record.</td>
<td>Number</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Object name</td>
<td>A description of the form, function or type of object.</td>
<td>Controlled text</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Object name currency</td>
<td>A statement of the status of an Object name.</td>
<td>Controlled text</td>
<td>No</td>
<td>archaic</td>
<td></td>
</tr>
</tbody>
</table>
Functionality

**Resource Management**
- Media Handling
- Variable Media Cataloging

**Collections Management**
- Object Entry
- Acquisition
- Inventory Control
- Location and Movement Control
- Cataloging
- Object Exit
- Structure Object Management
- Retrospective Documentation
- Batch Processing

**Data Management**
- Collections Exposure
- Data Import and Export
- Search
- Metadata Configuration
- Reporting

**Vocabulary + Authority Control**
- Names
- Places
- Concepts

**Conservation**
- Object Condition Checking and Technical Assessment

**Customization + Personalization**
- System Administrator Customization
- System Technician Customization

**System Administration**
- Audit Trail
- Roles and Permissions
- Security
- Documentation

**Loans**
- Loans In
- Loans Out
A Flexible Application

• **Services-oriented architecture** provides an approach and an application that can be used as a cohesive whole, or in smaller implementations to achieve specific goals.

• Two deployment options: stand-alone and SaaS

• Designed to “play well with others,” including digital asset management systems and web-based publishing platforms.

• Default data schema is based on the widely-used **SPECTRUM documentation standard**, which has allowed us to focus on developing core functionality – those activities which we share in common – without limiting usefulness to specific domains.
Schema Extension Model

- **Common Entity Schema**
  (common semantics)

- **Domain–Community specific extensions**
  (common across many institutions)

- **Deployment–specific extensions**
  (specific to one deployment, workflow)

**Object Identification Information**
- Identification Number: 1984.068.0001
- Title: Posters. Hearts Adrift
- Caption: Poster, *Hearts Adrift*, 1914
- Administrative remarks

**Object Description Information**
- Description: Poster for the film *Hearts Adrift*. The poster features an illustration of Mary Pickford.
Project Ethos

• Develop features and functions that meet local needs then contribute them back for use by the entire community

• Code contribution process:
  • Same principles as CSpace software development process
  • May result in contribution being integrated into the core code
  • or
  • May result in availability via registry

• Examples:
  • Variable media and NAGPRA cataloging templates
  • Condition check – checklist for loans
  • Translations into many languages
Sustainability

Colleges + Universities

Software Developers

Funders

Professional Organizations

Service Providers

Archives and Libraries
Broad: Focus on Six Profiles

- Historical Artifacts and Popular Culture
  - Museum of the Moving Image

- Art Centers/Contemporary Art
  - The Walker Art Center

- Fine Art
  - Statens Museum for Kunst

- Anthropology
  - Phoebe A. Hearst Museum

- Herbaria/Botanical
  - University and Jepson Herbaria/Botanical Garden

- Visual Resources
  - History of Art Visual Resource Collection
Deep: 2 Deployment Options

• Stand-alone option
  • Current release 3.2

• SaaS option (http://saas-demo.collectionspace.org/)
  • Timkin Museum (fine art)
  • Museum of Man (anthropology)
  • Walker Art Center (art center)

• Cultivating Service Providers
  • US/UK/Europe/Australia/Asia
Sustained: Healthy organization

- Subscription model
- Governance that includes
  - Advisors
  - Board of Directors
  - Core Team
- On-going core development, hosted offering, support services
- Community of registered service providers
- Standardized stand-alone and SaaS offerings
- Strong partnerships and collaborations with sister projects (ConservationSpace, ResearchSpace), adjacent domains, and audiences
Join us!

- CollectionSpace website: www.collectionspace.org
- Try CollectionSpace: demo.collectionspace.org
- Join the conversation: http://lists.collectionspace.org/mailman/listinfo/talk_lists.collectionspace.org
- Contribute a use-case: wiki.collectionspace.org
- Follow the development cycle: issues.collectionspace.org