

Welcome To The Connecticut Digital Archive

Long Term Preservation Services for Nonprofit Connecticut Based Institutions



Topics

- What are the technologies of the CTDA?
- Namespaces
- Organizing Your Content
- The Sandbox
- Your Profile
- Top Level Navigation
- Managing content
- Users
- Resources



What is the CTDA?

- The CTDA is a digital repository.
- The CTDA infrastructure is built on the Open Archival Information System (OAIS) developed by NASA and now an ISO standard (14721:2003)
- OAIS is a conceptual model of an information object that is selfcontained and self-describing. An information object is a set of data elements combined into an internally coherent package that is understood in the electronic and web environment.



Primary Technologies of the CTDA

- FedoraCommons (http://www.fedora-commons.org/about)
 - Not a database but a conceptual framework
 - Not a software application but a generic repository foundation upon which many kinds of applications can be created
 - Not an integrated solution or information silo but a basis for software systems to manage digital information
- Islandora (http://islandora.ca/about)
 - Administrative, Discovery and Presentation layer build on Drupal
- Handle System (http://www.handle.net/)
 - Persistent and unique identifier generation system and lives in the MODS metadata









The CTDA Stack



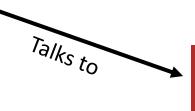
1. Create, Manage, Share Information

2. Manage and Preserve

Repository and Archive Application, Storage Preservation

3. Store

Storage Devices



Handle System®

System that automatically creates persistent identifiers for citation purposes



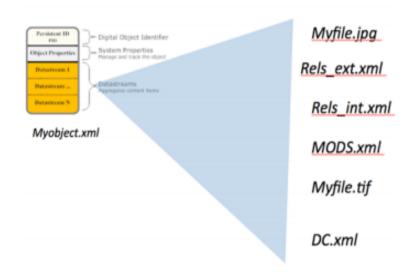
A Brief Introduction to FEDORA



Fedora Digital Objects: Information Packets

Packages and Files

ALL information about an object, including the primary digital content is contained in a set of files called *datastreams* that are organized into an "information package" called a *repository object*



OAIS information package



Fedora Objects Requirements

- All Fedora Objects must have:
 - A local and internal persistent identifier called the PID. This is not the identifier used for citation purposes which is the handle.
 - Datastream(s) for Object Properties that tells the system where the Fedora Object belongs in relation to other Fedora Objects in the repository.
 - Dublin Core datastream
- The CTDA uses two types of Fedora Objects: Container (or collection) and Content Fedora Digital Objects.



Container or Collection Objects

- The container object is the simplest type of Fedora object in that there is just metadata about that collection in various data streams, an internal identifier (PID), and the objects "coordinates", the rels-ext.
- How and why do you describe a collection? It's not necessary. However, you might want to designate the name of a collection and provide a description of what's in the collection for instance.
- Container Objects may contain other containers in an infinite regression.
- Each object has data that positions it in relation to other objects or provides analogously the object's coordinates in the repository, the relsext.

		Groton F	Public Library - 180002:GPL001	
ID	LABEL	TYPE	MIME TYPE	SIZE
RELS-EXT	Fedora Object to Object Relationship Metadata.	Inline X ML	application/rdf+xml	992 B
COLLECTION_POLICY	Collection policy	Inline X ML	text/xml	816 B
MODS	MODS Record	M anaged	text/xml	923 B
DC	DC Record	Inline X ML	text/xml	536 B
TN	TN	M anaged	image/jpeg	17.6 Ki
POLICY	XACML Policy Stream	Inline X ML	text/xml	4.06 Ki



Content Object

- The content object has more data streams in that it has all that the container object does in addition to the digital asset (archival master) and its derivatives one metadata record describes one primary content data stream that many have a number of derivatives.
- This content object is independently discoverable, but the individual parts are not.
- All individual parts are independently addressable.

		Branford Hou	ise, Plant's Residence, Eastern P
ID	LABEL	TYPE	MIME TYPE
RELS-EXT	Fedora Object to Object Relationship Metadata.	Inline X ML	application/rdf+xml
MODS	ck141A.xml	M anaged	text/xml
DC	DC Record	Inline XML	text/xml
OBJ	ck141A.tif	M anaged	image/tiff
TECHMD	TECHMD	M anaged	text/xml
TN	Thumbnail	M anaged	image/jpeg
JPG	Medium sized JPEG	M anaged	image/jpeg
JP2	JPEG 2000	M anaged	image/jp2





A Brief Introduction to Islandora



Islandora the framework...

- Allows you to manage and display content.
- Is a set of Drupal modules that facilitate interaction with Fedora through pages and forms.
- Basis for Management and Presentation interfaces to the Fedora repository
- Can be used for multiple sites. The CTDA has a multisite implementation. This means that there is ONE Fedora repository but multiple Islandora/Drupal sites that interact with that one repository.

Manage CTDA Collections

Connecticut State Library

UNIVERSITY LIBRARIES

Archives & Special Collections at the Thomas J. Dodd Research Center

Trinity College Library

The Connecticut Digital Archive Collections



Islandora: Architecture Basics Content Models

- Content Models or Islandora Content Model Digital Objects determine how repository Objects are created and managed in the repository and displayed to the user.
- They are **for the most part** associated with specific file formats because these Content Models tell the system if and which...
 - Viewer to call
 - Derivatives to create
 - Derivatives that are available for download
 - Technical metadata is extracted
 - Object properties are created
 - Specific relationships to other Fedora objects to be created
 - Specific access policies
 - And so much more...



- Collection: Used for container objects (no format as no content is involved)
- Large Image: tiff, jp2 (Viewer has zoom functionality)
- Basic Image: jpg, png, bmp, gif (Simple viewer with no zoom functionality)
- PDF: PDF files (PDF.js viewer replicates PDF viewer for user in display)
- Audio: wav, mp3
- Video: ogg, mp4, mov, qt, m4v, avi
- Book and page: A specialized set of content models for ordered sets of digital files. The book is a container. Pages need to be tiff/tif or jp2 format. There is also a book batch import that can take a PDF file.



- Newspaper, issue and page: A specialized set of content models for serial publications or regularly recurring ordered sets of digital files. The newspaper and issue are containers. Pages need to be tiff/tif, jp2, or jpg format. There is also a batch import that can take a PDF.
- Compound Object: A specialized set of content models for sets of digital files that combine other Objects in an explicit relationship (i.e. front and back of a postcard). All child objects have to be ingested but can be "hidden".
- Citation: A specialized content model that will record a bibliographic citation according to a specific citation style guide such as APA or Chicago Manual of Style. Batch import can be used for PubMed articles. This is particularly useful for faculty citations to materials that cannot be added to a publicly available repository.



- Document: Used for common documents (odt, sxw, rtf, doc, wpd, txt, html, ods, sxc, xls, csv, tsv, odp, sxi, ppt, pdf, docx, xlsx, pptx). Batch import will work for all formats.
- Thesis: Used for theses and dissertations. This includes the ability to embargo objects or datastreams.
- WebARChive: Used for the web archive format (warc), a format revision of the Internet Archive's ARC file format (warc). Upon ingest can also include a screen shot of the web site (as png or jpg) and accompanying txt file.
- Entity/Person: Used to add an object about a person such as a profile of a faculty member. This doesn't involve content and is a specialized container object specialized in terms of how it is displayed and the metadata used to describe the person (EAC-CPF or MADS).
- Entity/Place: Used to add an object about a place such as a profile of a city. This doesn't involve content and is a specialized container object specialized in terms of how it is displayed and the metadata used to describe the person (EAC-CPF or MADS).



- Entity/Organization: Used to add an object about an organization such as a profile of a vessel. This doesn't involve content and is a specialized container object — specialized in terms of how it is displayed and the metadata used to describe the person (EAC-CPF or MADS).
- Entity/Event: Used to add an object about an such as a profile of a hurricane. This doesn't involve content and is a specialized container object specialized in terms of how it is displayed and the metadata used to describe the person (EAC-CPF or MADS).
- Finding Aid: Used to add archival finding aids (EAD xml files)
- Binary Object: A specialized content model for alternative formats not listed above



A Brief Word on Organizing Your Content In The Repository



Organizing Your Content

- Learning how to add and manage content using Islandora is like riding a bike. Once you learn it, you have it.
- Organizing your content is different and requires strategies
 - Content can be organized differently.
 - Collections can be nested or not
 - Digital objects can be "shared"
 - Digital objects can be "migrated"
 - There's not one way to add content.
 - Different content models can be applied to content.
 - You don't have to apply the same strategy to everything.
 - You can change your mind.



Information Organization

- How you organize your content depends on:
 - Your users
 - How you would like your users to discover your digital assets
 - How you think users will discover and access your digital assets
- There is not one way to organize all of your content. You can use multiple methods. You can even change your mind.
- Before you add and manage content, it is worth developing an initial method of how you'll organize content and even how you will describe it.



Managing Content From Different Institutions in one Digital Repository

How do we ensure content is associated with the correct institution?



Namespaces

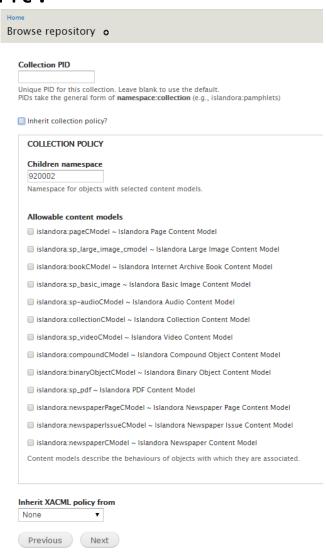
The CTDA is made up of several partners who all have unique content but share the same digital repository. The CTDA uses **NAMESPACES** or a series of digits to identify content from an institution and sometimes a particular set of content within that institution. One institution can have 1+ namespaces.

For a list of our most current namespaces, see http://ctdigitalarchive.org/about/technology/namespaces/.



Why Are Namespaces Important?

- Distinguish your content from other institutions or other sets of content within your institution
- Help you manage your content more appropriately (i.e. an institution can have a range of namespaces that represent different sets of data such as research data, electronic regulations, etc.)
- Add a new container/collection object
 - You MUST create a PID for all container objects. PIDs are your namespace:alphanumericString with NO SPACES or special characters. However, you can use underscores and hyphens.
 - Remember to "Uncheck" "Inherit Collection Policy" when creating a container/collection object





CTDA Sandbox

http://ctda-stage.lib.uconn.edu/



Your Profile

- You can access your profile in one of 2 ways.
 - After you log in
 - By clicking on your username in the upper right corner
- To make changes to your profile, click "Edit"
 - You can change your username and password
 - You can also upload a profile picture
- Remember to save all changes
 - Click on "Save" at the bottom
- If you forget your password, just email ctda@uconn.edu





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<u> </u>	
	f
	Pas
ord	
0 0	ent password to cha ss * @lib.uconn.edu uddress. All e-mails



Top Level Navigation

- Getting to Collections
 - Click on "CTDA Stage"
 - Or search for something
- If you click on CTDA Stage, to see all the test collections, click on "Test Collections"
- You can use the "next", "last", etc. on the right hand side to navigate all the pages of Container Objects (for the most part these will be container Objects and not Content Objects)
- To see what's "in" one of these Container Objects, just click on any one.



Manage & Browse Digital Collections

This site provides CTDA participants with an opportunity to expension environment. Participants are encouraged to create collections. Since this is a staging and testing site, content from the site we prepare and test collections and objects prior to ingest into a $\mathfrak p$



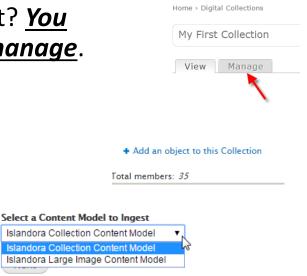
1 2 3 Heat / last //		1	2	3	next >	last »
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Create A New Collection (Container Object)

- No matter where you are in the system, it is the same process to create a Container Object. How does CTDA know where to create your Container Object? <u>You</u> <u>have to go to that location and then click manage</u>.
- Create a collection
 - Click Manage
 - Click "Add an object to this Collection"
 - Select "Islandora Collection Content Model"
 - Click Next
 - Fill out the Collection PID
 - UNCHECK INHERIT COLLECTION POLICY SEE





Container Object Continued

- The Collection PID <u>MUST</u> have your institution's namespace colon and then any alphanumeric string
 - PIDs cannot contain any spaces or unusual characters such as slashes, question marks or brackets
 - PIDs can contain underscores and hyphens
- <u>UNCHECK</u> "Inherit collection policy"
- Leave the default for Inherit XACML policy from.

	que PID for this collection. Leave blank to use the default. s take the general form of namespace:collection (e.g., islandora:pamphlets)
ı	nherit collection policy?
(COLLECTION POLICY
(Children namespace
	920002
N	Namespace for objects with selected content models.
ļ	Allowable content models
0	islandora:pageCModel ~ Islandora Page Content Model
0	islandora:sp_large_mage_cmodel ~ Islandora Large Image Content Model
0	islandora:bookCModel ~ Islandora Internet Archive Book Content Model
0	islandora:sp_basic_image ~ Islandora Basic Image Content Model
0	islandora:sp-audioCModel ~ Islandora Audio Content Model
0	islandora:collectionCModel ~ Islandora Collection Content Model
0	islandora:sp_videoCModel ~ Islandora Video Content Model
0	islandora:compoundCModel ~ Islandora Compound Object Content Model
0	islandora:binaryObjectCModel ~ Islandora Binary Object Content Model
(islandora:sp_pdf ~ Islandora PDF Content Model
0	islandora:newspaperPageCModel ~ Islandora Newspaper Page Content Model
0	islandora:newspaperIssueCModel ~ Islandora Newspaper Issue Content Model
0	islandora:newspaperCModel ~ Islandora Newspaper Content Model
(Content models describe the behaviours of objects with which they are associate
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Container Object Continued

- Select the content models that are appropriate for this collection
 - You want to create a collection to only ingest tiff images. Select Islandora Large Image Content Model
 - You want to create a collection to only ingest a book. Select Islandora Page Content Model and Islandora Internet Archive Book Content Model
 - You want to create a collection where you can ingest different formats. Select all the appropriate content models.
- Click "Next"
- Fill out the metadata form
- Click "Ingest" at the bottom of the form

he name	of the organization
ous	Ingest

Allowable content models islandora:pageCModel ~ Islandora Page Content Model islandora:sp_large_image_cmodel ~ Islandora Large Image Content Model □ islandora:bookCModel ~ Islandora Internet Archive Book Content Model islandora:sp_basic_image ~ Islandora Basic Image Content Model islandora:collectionCModel ~ Islandora Collection Content Model islandora:compoundCModel ~ Islandora Compound Object Content Model islandora:sp_pdf ~ Islandora PDF Content Model ■ islandora:sp-audioCModel ~ Islandora Audio Content Model ■ islandora:newspaperCModel ~ Islandora Newspaper Content Model □ islandora:newspaperPageCModel ~ Islandora Newspaper Page Content Model □ islandora:sp_web_archive ~ Islandora Web ARChive Content Model islandora:sp_videoCModel ~ Islandora Video Content Model □ islandora:newspaperIssueCModel ~ Islandora Newspaper Issue Content Model islandora:OACCModel ~ Islandora Annotation CModel islandora:personCModel ~ Islandora Person Content Model islandora:organizationCModel ~ Islandora Organization Content Model islandora:entityCModel ~ Islandora Entity Content Model islandora:eventCModel ~ Islandora Event Content Model islandora:placeCModel ~ Islandora Place Content Model islandora:binaryObjectCModel ~ Islandora Binary Object Content Model Content models describe the behaviours of objects with which they are associated. Previous Next



Add 1 Digital Asset (Your Content)

- Two options to add content: one at a time or by batch import. Remember that your collection has to be set up with the appropriate content models. If you want to add a PDF and you didn't select that content model then you have to add that Content Model in Manage, then Collections and Collection Policies.
- Adding one digital asset at a time (Single upload)
 - Click "Manage"
 - Click "Add an object to this Collection"
 - If you set your Container Object for several Content models, you will need to select a Content Model to Ingest (i.e. you need to tell the system the format of your content, large image, basic image, PDF, audio, video). Once selected click "Next"
 - You might have several custom Metadata forms. If so, then select a Metadata entry form (default Islandora form, CHI, or CTDA)
 - Fill out the form about your content and click "Next"
 - Choose your file
 - You can click "Upload" and then "Ingest" or just "Ingest". There is no difference.



Batch Import Your Content

- Adding 1+ digital assets with or without associated metadata (Batch import)
 - All metadata files must be in XML and follow the CTDA MODS Implementation Guidelines (http://ctdigitalarchive.org/resources-for-participants/)
 - All XML files **MUST** be valid and well-formed
 - For content and their associated metadata files, the content file and MODS xml file <u>MUST</u> have the exact file name (i.e. myTiffimage01.tiff, myTiffimage.xml)
 - All files **MUST** be in a zipped folder.
- Book batch: This works to ingest 1 book and its pages. There's the MODS.xml file and each folder has the page number and in that folder is the page.

□	1/20/2013 3:32 141	THE TOTAL
<u></u> 6	7/20/2015 5:52 PM	File folder
<u></u> 7	7/20/2015 5:52 PM	File folder
<u>⊪</u> 8	7/20/2015 5:52 PM	File folder
<u>⊪</u> 9	7/20/2015 5:52 PM	File folder
<u></u> 10	7/20/2015 5:52 PM	File folder
<u></u> 11 11 11 11 11 11 11 11 11 11 11 11 11	7/20/2015 5:52 PM	File folder
<u></u> 12	7/20/2015 5:52 PM	File folder
	7/20/2015 5:52 PM	File folder
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	7/20/2015 5:52 PM	File folder
№ 16	7/20/2015 5:52 PM	File folder
<u></u> 17	7/20/2015 5:52 PM	File folder
	7/20/2015 5:52 PM	File folder
<u></u> 19	7/20/2015 5:52 PM	File folder
<u></u> 20 €	7/20/2015 5:52 PM	File folder
№ 21	7/20/2015 5:52 PM	File folder
<u></u> 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	7/20/2015 5:52 PM	File folder
	7/20/2015 5:52 PM	File folder
24	7/20/2015 5:52 PM	File folder
MODS.xml	7/20/2015 5:34 PM	XML File



Adding A Book

- A Book is essentially a container that has pages and is done is 2 steps unless you do book batch
 - Click Manage and then "Add an object to this collection"
 - Select "Islandora Internet Archive Book Content Model" and click Next
 - Describe the book using the form and click Next
 - You can add the PDF of the book pages. If you do this, you can select the Page Image Settings, Resolution and Page OCR/Text Settings. Choose and upload your file. Select your settings. Click "Ingest"
 - If you don't have a PDF, then just select the language and click "Ingest"
- Book batch: This works to ingest 1 book and its pages. There's the MODS.xml file and each folder has the page number and in that folder is the page.



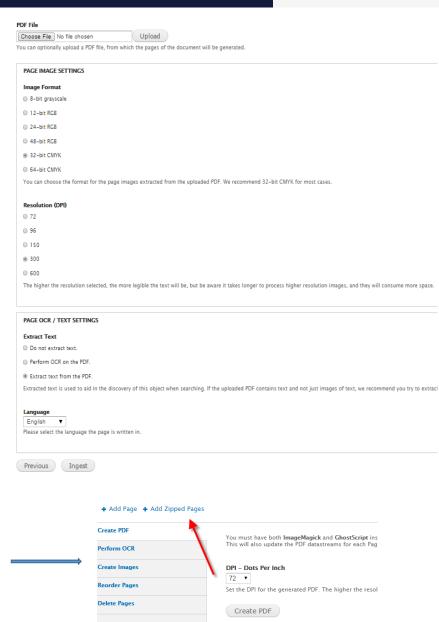
7/20/2015 5:52 PM File folder 7/20/2015 5:52 PM File folder

7/20/2015 5:34 PM



Adding A Newspaper

- Newspaper is a 3 step process. There is the newspaper, the issue and the pages of the issue.
 - Click Manage and "Add an object to this collection" and click Next
 - Select "Islandora Newspaper Content Model"
 - Describe the newspaper in the form and click "Ingest". This will create a "container" for the issues of this newspaper
 - In this newspaper, click Manage and "Add Issue".
 Describe the issue and click Next.
 - You can add the PDF of the issue pages. If you do this, you can select the Page Image Settings, Resolution and Page OCR/Text Settings. Choose and upload your file. Select your settings. Click "Ingest"
 - If you don't have a PDF, then just select the language and click "Ingest"
- Batch import pages of an issue: If you didn't upload a PDF and have pages you want to batch import, go to the issue and click Manage. Go to the tab called "Issue" which opens a new window. Click "Add zipped pages". Select your language and zip file to upload. Click upload and then "Add files"





Adding A Compound Object

- Compound objects are parent/child relationships
- All of the child digital assets have to be uploaded before creating the compound object. You can put the child objects in a collection of their own if you want
- Note the PIDs of the digital assets that are to be children – you'll need to enter these PIDs later
- Create the parent.
 - Click Manage and "Add an object to this collection"
 - Select "Islandora Compound Object Content Model" and click Next
 - Describe the "parent" in the form and click "Ingest"
 - Click Manage again and click on the tab "Compound"
 - In the new window, enter the 1st PID of the child digital asset and click "Save". Repeat for all children.

Child Object Pid/Labo	<u> </u>	0
		0
ASSOCIATE WITH PAR	ENT OBJECT	
Add this object to a p	arent object	
Parent Object Pid/Lab	oel	
		0
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Adding A Web Archive File

- The Islandora Web Archive Content accepts warc file formats, a screen shot of that website and an associated text file.
- The text file needs to have the extension .txt.
- The Screen shot can be either an image that is the format jpg/jpeg or png.
- The warc format specifies a method for combining multiple digital resources into an aggregate archival file together with related information. It is a revision of the Internet Archives' ARC file format. More information can be found at:

http://www.digitalpreservation.gov/formats/fdd/fdd00 0236.shtml

- If you have a warc file
 - Click Manage and "Add an object to this collection"
 - Select "Islandora WebARChive Content Model" and click Next
 - Describe the file and click "Next"
 - Select your warc file and click "Upload"
 - If you want to add a screen shot, click the box where you can select your image and upload. Same thing for your text file.

Choose File No file chosen	Upload
Select warc to upload. Files must be less than 128 MB. Allowed file types: warc.	
Upload a screenshot?	
Upload a Text file	
Previous Ingest	



Adding A Document

- The Islandora Document Content Model is used for most documents such as word, text files, or pdf.
- Click Manage and "Add an object to this collection"
- Select Islandora Document Content Model and Next
- Describe the document and click "Next"
- Choose your
- If you have a PDF, odt, sxw, doc, docx, wpd, txt, html, ods, sxc, xls, csv, tsv, odp, sxi, ppt, pptx, xlsx file type
 - Click Manage and "Add an object to this collection"
 - Select "Islandora Document Content Model" and click Next
 - Describe the file and click "Next"
 - Select your file and click "Upload"

Choose File	No file chosen	Upload
Select file to u Files must be Allowed file ty	less than 2048 MB.	
Add text fi	le to this upload?	