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Pipe Dreams: Harvesting Local Collections into Primo Using OAI-PMH

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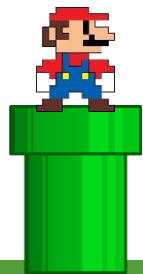




Pipe Dreams



HARVESTING LOCAL COLLECTIONS INTO PRIMO USING OAI-PMH



Characters

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Electronic Resources
Librarian



Marianne Swierenga

Cataloging and
Metadata Librarian



Emily Gross

ILS Specialist



Why Harvest?

From disparate systems

- subject and course guides, local digital collections, scholarly repository, archival finding aids, and the catalog

To integrated discovery

- Unified platform for access and discovery for an improved user experience



Pipes @ WMU

CONTENTdm, May 2015

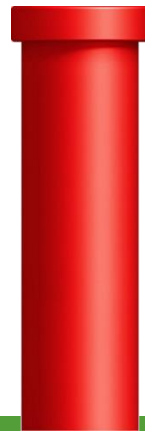
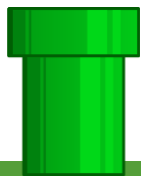
LUNA Insight, March 2016

ScholarWorks (bepress Digital Commons), August 2017

Springshare LibGuides, December 2017

ArchivesSpace, In Progress

Archive-It, Future Project?



Workflow

- Selection
- Configuring External Systems
- Configuring Primo
- Testing
- Documentation



Workflow: Selection

- Identify
- Feasibility Study
- Testing
- Request
- Approval



Workflow: Configuring External Systems

- Enable OAI-PMH
 - Example: <https://oai.datacite.org/oai>
 - Test URL
- Setting permissions
- Mapping metadata



Workflow: Configuring External Systems

Mapping the metadata in OCLC's CONTENTdm:

Configure the field properties

Edit field, select DC mapping

Index the collection after changes

CONTENTdm Administration

admin home | server | collections | items

:: profile : fields : website : reports : export : view collection : help ::

Current collection: Oral Histories at Western Michigan University

Metadata fields

View and configure collection and administrative fields.

Collection field properties									
View, add, edit and delete fields. Enable full text searching and controlled vocabulary. After you have added, changed, or deleted fields, index the collection to update changes.									
	Field name	DC map	Data type	Large	Search	Hide	Required	Vocab	add field
1	Title	Title	Text	No	Yes	No	Yes	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
2	Interviewee	Creator	Text	No	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
3	Interviewee 2	Creator	Text	No	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
4	Interviewer	Creator	Text	No	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
5	Date(s) of Interview	Date-Created	Text	No	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
6	Description	Description	Text	Yes	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
7	Notes	Description	Text	No	No	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
8	Location of Interview	Coverage-Spatial	Text	No	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>
9	Subject 1	Subject	Text	No	Yes	No	No	No	<input type="button" value="move to"/> <input type="button" value="edit"/> <input type="button" value="delete"/>



Workflow: Configuring External Systems

Mapping the metadata:

Expressed as XML;
oai_dc schema

Use the [OAI validator](#) to
view the XML and
troubleshoot metadata
before harvest



```
<metadata>
<oai_dc:dc xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/" xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <dc:title>Liturgy O.C.S.O., 1976, vol. 10, no. 3 (October)</dc:title>
  <dc:contributor>Waddell, Chrysogonus, 1930-2008</dc:contributor>
  <dc:publisher>Cistercians of the Strict Observance, Abbey of Our Lady of Gethsemani (Trappist, Ky.)</dc:publisher>
  <dc:date>1976</dc:date>
  <dc:description>Liturgy O.C.S.O. was published by Gethsemani Abbey, Trappist, KY and edited by Father Chrysogonus Waddell
  <dc:description>Editor's page / Fr. Chrysogonus Waddell -- The internal unity of the Eucharist prayer / Bede Stockill
  <dc:contributor>Stockill, Bede, Dom</dc:contributor>
  <dc:contributor>Rondeau, Marie-Nivard, Fr.</dc:contributor>
  <dc:contributor>Crevant-Humières, Anne-Louise de, 1658-1710</dc:contributor>
  <dc:contributor>Waddell, Chrysogonus, 1930-2008</dc:contributor>
  <dc:contributor>Marlingeas, Bernard</dc:contributor>
  <dc:subject>Lord's Supper--Meditations</dc:subject>
  <dc:subject>God (Christianity)--Name</dc:subject>
  <dc:subject>Catholic Church--Liturgy--Texts</dc:subject>
  <dc:subject>Bible. O.T. Psalms--Prayers and devotions</dc:subject>
  <dc:subject>Forgiveness--Religious aspects--Catholic Church</dc:subject>
  <dc:subject>Reconciliation--Religious aspects--Catholic Church</dc:subject>
  <dc:rights>Digital version of Liturgy, courtesy of Gethsemani Abbey, Trappist, Kentucky, copyright 2010 Western Michigan U
  <dc:language>eng</dc:language>
  <dc:relation>Liturgy O.C.S.O. Journal of Gethsemani Abbey</dc:relation>
  <dc:type>text</dc:type>
  <dc:format>application/pdf</dc:format>
  <dc:format>4,047,056 bytes</dc:format>
  <dc:identifier>exws_LitVoll0_No3</dc:identifier>
  <dc:identifier>http://cdm16259.contentdm.oclc.org/cdm/ref/collection/p15032coll13/id/21</dc:identifier>
</oai_dc:dc>
</metadata>
```



Workflow: Configuring External Systems

Library Search

Refine my results

Expand beyond

Sort by Relevance

Show Only

Peer-reviewed

Journals

Full Text Online

Details

TOP

SEND TO

ONLINE

DETAILS

LINKS

TAGS

Title [Liturgy O.C.S.O., 1976, vol. 10, no. 3 \(October\)](#)

Author [Waddell, Chrysogonus, 1930-2008](#) >
[Stockill, Bede, Dom](#) >
[Rondeau, Marie-Nivard, Fr.](#) >
[Crevant-Humières, Anne-Louise de, 1658-1710](#) >
[Waddell, Chrysogonus, 1930-2008](#) >
[Marlingeas, Bernard](#) >

Subjects [Lord's Supper--Meditations](#) >
[God \(Christianity\)--Name](#) >
[Catholic Church--Liturgy--Texts](#) >
[Bible. O.T. Psalms--Prayers and devotions](#) >
[Forgiveness--Religious aspects--Catholic Church](#) >
[Reconciliation--Religious aspects--Catholic Church](#) >

Description [Liturgy O.C.S.O.](#) was published by Gethsemani Abbey, Trappist, KY and edited by Father Chrysogonus Waddell from 1966-1999. The journal (at that time a newsletter) began after September 1965 meeting of the [Liturgy](#) Commission of the Order of Cistercians of the Strict Observance to report progress in liturgical renewal after Vatican II. The audience and contributors later included secular scholars of the Cistercian [liturgy](#).
Editor's page / Fr. Chrysogonus Waddell -- The internal unity of the Eucharist prayer / Bede Stockill -- The name 'Y H W H' and its usage in the [Liturgy](#) / Fr. Nivard Rondeau -- Eucharistic meditations on the Psalms by the Lady Abbess of Monchy, Madame Anne-Louise de Crevant-D'Humieres 1658-1710 -- Introduction and presentation / Chrysogonus Waddell -- Text of the Meditation -- The process of Reconciliation / Bernard Marlingeas



Workflow: Configuring Primo

Data Source

Scope Value

Normalization Rules

Code Tables

Mapping Tables

Views



Data Source

Why do you need to configure a Data Source?

The Data Source tells Primo some basic information about the data!



Scope Value

What does a Scope Value do?

Defines a set of records



Normalization Rule Set

The set of rules that will apply to the set of records defined by your Scope Value, that came from your Data Source.



Mapping Table

Maps the terms used in original data to terms used in Primo.

Set names in source -> Set names in Primo

Example: “acad_leadership” maps to “Academic Leadership Academy”



Deploy



Don't forget to deploy your:

- Data Source
- Scope Values
- Normalization Rules
- Code Tables & Mapping Tables

...before moving on to the next steps!



Creating the Pipes

You must create three pipes:

- Import Pipe
- Delete Pipe
- Renorm Pipe



Congratulations!

You've created your pipes!

THANK YOU MARIO!

BUT OUR PRINCESS IS IN
ANOTHER CASTLE!



Workflow: Testing

Where's my stuff?

- Harvesting and re-indexing may take a long time
- Make sure the pipe actually harvested something
- Check your search scope settings

Harvesting more/less than you expected?

- Check your export settings at the data source
- Check your mapping table in Primo

Facets not showing?

- Check the normalization rules and code tables



Workflow: Documentation

Bus theory: If you get run over by a bus tomorrow, who will pick up the work?

- Begin your documenting as you work in the Sandbox
- Take notes as you go along; record the how and why
- Note any information gleaned from tickets with Ex Libris
- Step-by-step instructions



Pipes @ WMU

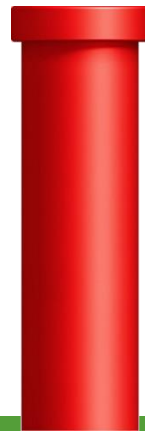
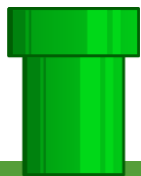
CONTENTdm

LUNA Insight

ScholarWorks (bepress Digital Commons)

Springshare LibGuides

ArchivesSpace



Pipe: CONTENTdm

Unique issues:

OAI already set up for WorldCat and Summon harvests

Already mapped to Dublin Core

All collections were open and accessible



Pipe: LUNA

Unique issues:

Complex metadata need to be mapped to simple Dublin Core

Not all collections are open with some requiring configurations to block harvesting

Thumbnail link creating two different records in Primo



Pipe: ScholarWorks

Unique issues:

ScholarWorks Librarian needed to curate items and collections

Not a scheduled harvest since ingestion of new materials is sporadic

Primo Back Office is case sensitive:

- 01WMU_SCHOLARWORKS_Set_Names
- 01WMU_Scholarworks_Set_Names



Pipe: LibGuides

Unique issues:

First time we needed to create new resource type



Pipe: ArchivesSpace

Unique issues:


Needed IT assistance to set up the OAI

Finding aids are multi-part and hierarchical, requiring determination of what level a resource should be harvested


Links were not directing user to the resource




Finding Aids in Primo

Besmilr Brigham-Will Inman Correspondence Collection × / Everything ▼ 

PAGE 1 64 Results Personalize

1  FINDING AID ” ✉ 📌 ⋮

Besmilr Brigham-Will Inman Correspondence Collection
Brigham, Besmilr; Inman, Will, 1923-2009
Western Michigan University Special Collections; Western Michigan University 1971-1978; bulk 1977-1978

[Online access](#)  >





Everything



ADVANCED

Refine my results

 Expand beyond my library**Sort by** Relevance

Show Only

Peer-reviewed Journals (239)

Full Text Online (715)

Available in the Library (4)

Resource Type

Articles (545)

Audio Visual (2)


PAGE 1 738 Results Personalize

-  **ARTICLE**
CHAPEAU DE PAILLE.
The Atlantic Souvenir; A Christmas and New Year's Offering (1826-1832), 1829, p.158
[Online](#)
-  **DIGITAL OBJECT**
Chapeau de paille de riz. Robe de reps indien.
Western Michigan University 1828
Le Conseiller des Graces. [Paris: Chez Marcilly],
[Online](#)
-  **DIGITAL OBJECT**
Chapeau de paille de riz. Redingote en Organdi.
Western Michigan University 1832?
Le Conseiller des Graces. [Paris: Chez Marcilly],
[Online](#)



CHAPEAU DE PAILLE.

The Atlantic Souvenir; A Christmas and New Year's Offering (1826-1832); Philadelphia (1829): 158.

 Browse this issue

Full text - PDF | Page view - PDF | Details

1 of 5 Automatic Zoom

CHAPEAU DE PAILLE.
The Atlantic Souvenir; A Christmas and New Year's Offering (1826-1832); 1829; Am...
pg. 158

CHAPEAU DE PAILLE.

This picture, a chef d'œuvre of Rubens, is now at Windsor

ALL loved who saw her for her noble mien,
Not for the splendour of her rich attire;
'Twas not those robes that might become a qu
But her sweet looks that kindled soft desire.
Her sparkling eyes, and cheeks with roses spr
These could the hearts of fond adorers draw,
Not the bright gems that streaming radiance s
Nor the gay flaunting of THE HAT OF STRAW.

Costume History Collection

COLLECTIONS | EXPLORE | CREATE | SHARE | EMBED | PRINT | HELP

MEDIA INFORMATION

COLLECTION NAME:
Costume History
Record ▾

Work Record ID:
14118

Work Type:
prints (visual works)

Title:
Chapeau de paille de riz. Robe de reps
indien.

Title Alternative:
Rice-straw hat. Rep weave dress.

Measurements:
23.2 14.5 cm

Material:

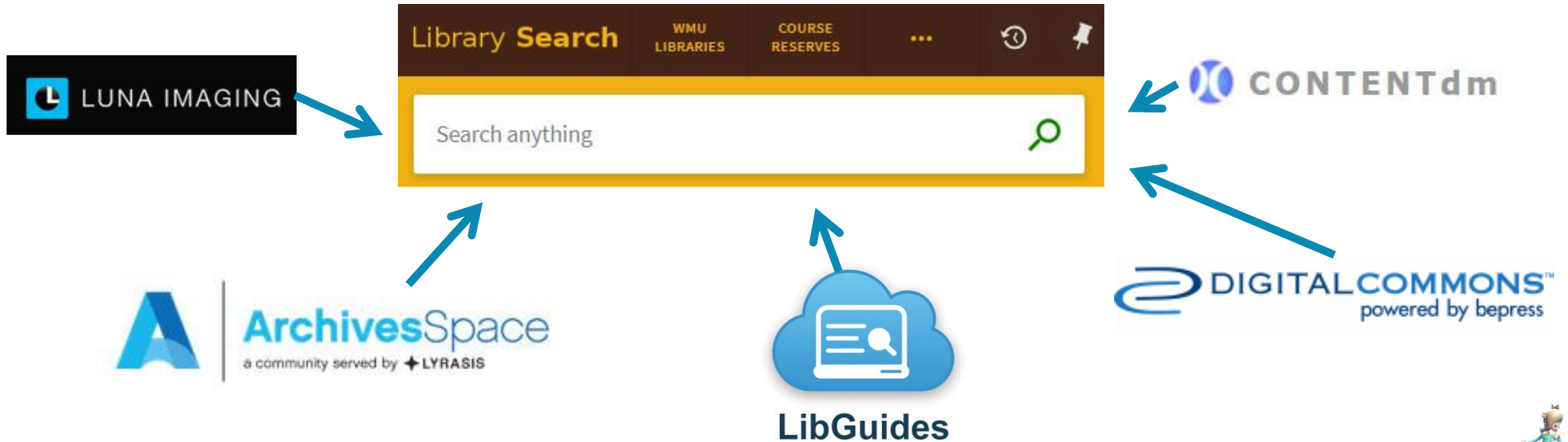
Chapeau de paille de riz. Robe de reps indien.



Conclusion

Have we achieved the vision of a unified platform of access and discovery?

Yes!



Useful Links

Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH):

<https://www.openarchives.org/pmh/>

OAI Repository Explorer: <http://re.cs.uct.ac.za/>

OAI Validator: <http://validator.oaipmh.com/>

CONTENTdm OAI support:

<https://www.oclc.org/support/services/contentdm/help/server-admin-help/oai-support.en.html>

Import Records into Primo from OAI Repositories:

<https://www.orbiscascade.org/blog/9/?bid=153>

Configuring OAI-PMH in ArchivesSpace:

<https://github.com/archivesspace/archivesspace#configuring-oai-pmh>

Ingesting LibGuides into Primo: <http://documents.el-una.org/1513/>



Contact Us!

Questions? Comments?



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WESTERN MICHIGAN UNIVERSITY

University Libraries

wmich.edu/library

Pipes, Step-by-Step

HOW TO SET UP YOUR VERY OWN PIPE



Definitions

Pipes : set of steps that the source information goes through before being turned into the PNX record

Search Scope : defines a group of records that can be searched together

Normalization Rules : takes the data and maps them to the PNX

PNX : Primo Normalized XML

Data Source : source of records

Digital Assets Management System : software supporting collections

OAI-PMH : Open Archives Initiative Protocol for Metadata Harvesting is the mechanism supporting the data interchange



Workflow: Data Source Configuration

Why do you need to configure a Data Source? The Data Source tells Primo some basic information about the data you will bring in via the pipes!

Two ways to get there:

Primo Home > Ongoing Configuration Wizards > Pipe Configuration Wizard > **Data Sources Configuration**



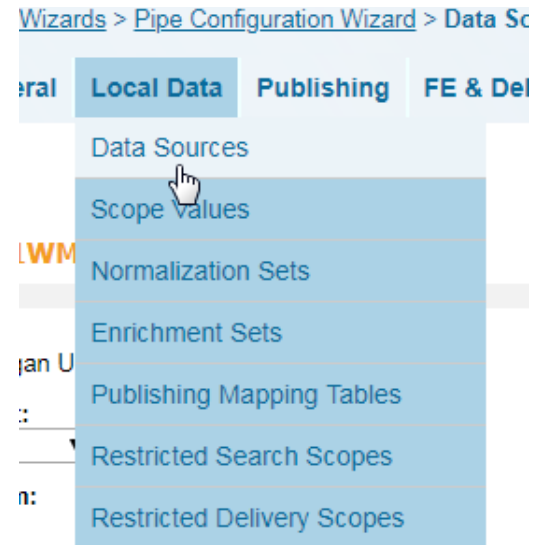
Primo DC04 PMTD-NA01 Production Back Office

Primo Home > Ongoing Configuration Wizards > Pipe Configuration Wizard

Home | Deploy & Utilities | General | Local Data | Publishing | FE & D

- > Pipe Configuration Wizard
- ⊗ **Data Sources Configuration**
Manage and configure Data Sources
- ⊗ Scope Values Configuration
Manage and configure Scopes
- ⊗ Normalization Mapping Tables
Manage the Normalization mapping table values
- ⊗ Normalization Rules configuration
Manage and configure Normalization Rules
- ⊗ Enrichment Sets Configuration
Manage and configure Enrichment Sets
- ⊗ Pipes Configuration
Manage and configure Pipes

Local Data > **Data Sources**



Wizards > Pipe Configuration Wizard > Data Sources Configuration

General | **Local Data** | Publishing | FE & Delivery

- Data Sources
- Scope Values
- Normalization Sets
- Enrichment Sets
- Publishing Mapping Tables
- Restricted Search Scopes
- Restricted Delivery Scopes



Workflow: Data Source Configuration

You will need the following information, usually configured like this:

Owner: **[Your Institution]**

Source format: **[Format of your data]**

Source system: **Other**

File Splitter: **OAI splitter**

Source name: **[Name your source]**

Description: **[Source name] data source**

Character Set: [usually **UTF-8**]

Transformation file name: <blank>

Source code: **[Same as source name]**

Original Source Code: <blank>

Version: <blank>

Input Record Path: **[oai_dc:dc, record, or knowledge_unit]**

Add a New Data Source

Owner:	Western Michigan Univer	Source name:		Source code:	
Source system:	Select a Source System	Source format:	Select a Source Format	Version	
<input type="checkbox"/> File needs transformation		Transformation file name		Original Source Code	
XREF keys	LCCN OCLC ISSN ISBN				
File Splitter:	Select a File Splitter	Character Set:	UTF-8	Input Record Path	record
Description:					<input type="button" value="Add"/>

https://knowledge.exlibrisgroup.com/Primo/Product_Documentation/060Back_Office_Guide/050Pipe_Configuration_Wizard/040Configuring_Data_Sources



Workflow: Data Source Configuration

Example

> Data Sources

Data Source Attributes for 01WMU_SCHOLARWORKS

Source Description

Owner:
Western Michigan University (Alma)

Source format:
DC

Source Definition

Source system:
Other

File Splitter:
OAI splitter

File needs transformation

Source name:
01WMU_SCHOLARWORKS

Description:
01WMU ScholarWorks data source

Character Set:
UTF-8

Transformation file name

Source code:
01WMU_SCHOLARWORKS

Original Source Code

Version

Input Record Path
oai_dc:dc

XREF keys
LCCN
OCLC
ISSN
ISBN

Created Jun 08, 2017, Last updated Jul 18, 2017 By emily.n.gross@wmich.edu



Workflow: Scope Value Configuration

Two ways to get there:

Primo Home > Ongoing Configuration Wizards > Pipe Configuration Wizard > **Scope Values Configuration**

Local Data > **Scope Values**

Primo DC04 PMTD-NA01 Production B

[Primo Home](#) > [Ongoing Configuration Wizards](#) > [Pipe Configuration Wizard](#)

[Home](#) [Deploy & Utilities](#) [General](#) [Local Data](#) [Pub](#)

- > **Pipe Configuration Wizard**
- » **Data Sources Configuration**
Manage and configure Data Sources
- » **Scope Values Configuration**
Manage and configure Scopes
- » **Normalization Mapping Tables**
Manage the Normalization mapping table values
- » **Normalization Rules configuration**
Manage and configure Normalization Rules
- » **Enrichment Sets Configuration**
Manage and configure Enrichment Sets
- » **Pipes Configuration**
Manage and configure Pipes

[Ongoing Configuration Wizards](#) > [Pipe Configuration Wizard](#)

[Local Data](#) [Publishing](#) [FE & Del](#)

Data Sources

Scope Values

Normalization Sets

Enrichment Sets

Publishing Mapping Tables

Restricted Search Scopes

Restricted Delivery Scopes



Workflow: Scope Value Configuration

You will need the following information, usually configured like this:

Owner: **[Your institution]**

Scope Value Name: **[Same name as your Data Source]**

Scope Value Code: **[Same name as your Scope Value Name]**

Description: **[Scope Value Name] Scope**

Scope Type: **Collection**

Use Scope for: **Search**

Create a new scope value

Owner: Western Michigan University (Alma)

Scope Value Code:

Scope Value Name:

Type:

Use Scope for: Search

Restricted Search

Restricted Delivery

Create



Workflow: Scope Value Configuration

Example

General Attributes for Scope 01WMU_SCHOLARWORKS

Owner:	Western Michigan University (Alma)		
Scope Value Name:	<input type="text" value="01WMU_SCHOLARWORKS"/>		
Scope Value Code:	<input type="text" value="01WMU_SCHOLAR\"/>		
	<input type="checkbox"/> Manually defined Search Scope		
	<input type="text" value="scope:(01WMU_SCHOLARWORKS)"/>		
Description:	<input type="text" value="01WMU Scholarworks Scope"/>		
Scope Type:	<input type="text" value="Collection"/>		
Use Scope for:	<input checked="" type="checkbox"/> Search	<input type="checkbox"/> Restricted Search	<input type="checkbox"/> Restricted Delivery



Workflow: Normalization Rule Set Configuration

Primo Home > Advanced Configuration > **Full Normalization Rule Configuration**

Primo DC04 PMTD-NA01 Production

[Primo Home](#) > [Advanced Configuration](#)

[Home](#) | [Deploy & Utilities](#) | [General](#) | [Local Data](#) | [Pu](#)

> **Advanced Configuration**

- » **All Code Tables**
Manage all Code Tables
- » **All Mapping Tables**
Manage all Mapping Tables
- » **Full Normalization Rule Configuration**
Manage and configure Normalization Rules
- » **Tags Management**
Manage and configure Tags
- » **Resource Recommender**
Manage Recommended Resources
- » **Search Engine Configurations**
Manage the search engine configurations



Workflow: Normalization Rule Set Configuration

You will need to fill in the following information:

Owner: [**Your institution**]

Duplicate from existing Normalization Rules Set: [**Whichever Metadata format you need**]

Name: [**Use the same name as your Data Source**]

Create a New Normalization Rules Set

Owner: Western Michigan University (Alma) Duplicate from existing Normalization Rules Set

Generic Dublin Core - Template

Name Create

- 01WMU_LUNA
- 01WMU_ALMA
- 01WMU_CONTENTDM
- WMU_LibGuides
- 01WMU_SCHOLARWORKS
- Complex Xml - Template
- MetaLib KB - Template
- WARC - Template
- Xml - Template
- ALEPH MAB - Template
- ALMA KORMARC - Template
- SFX - Template
- DigiTool MARC - Template
- ALEPH UNIMARC - Template
- ALEPH MARC - Template
- Alma MARC - Template
- Unicom - Template
- DigiTool DC - Template
- Generic MARC - Template
- Generic Dublin Core - Template

Back



Workflow: Mapping Table

General > **Mapping Tables**

...then select SubSystem: **Normalization**



> Mapping Tables

Update for Owner: Western Michigan University (Alma) Sub System :



Workflow: Mapping Table

Add the following information:

Table Name: [**Same name as your Data Source**]**_Set_Names**

Description: [**Same name as your Table Name**]

Create a New Code Table

Table Name:

Sub System: NORMALIZATION

Description:

Create



Workflow: Mapping Table

Take the OAI URL for scholarworks and enter it into the OAI validator:

<http://validator.oaipmh.com/>

Click “List Sets” and view the XML tab. The names and codes listed will be what you enter into the target code and source code of the mapping table.

Validate URL Validate By Direct Input Download XML REST API About References

OAI-PMH URL:

Example OAI-PMH URL: <http://repository.parthenonfrieze.gr/frieze-oai/request>

AVAILABLE COMMANDS

- Identify
- ListMetadataFormats
- ListSets**
- ListIdentifiers
- ListRecords SIMPLE-DUBLIN-CORE
- ListRecords OALDC
- ListRecords OAI-DC
- ListRecords DCS
- ListRecords

ListSets Validation **369** XML Result **7 KB**

```
<?xml version="1.0" encoding="UTF-8"?>
<OAI-PMH
  xmlns="http://www.openarchives.org/OAI/2.0/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/
    http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
  <responseDate>2017-06-08T13:41:34Z</responseDate>
  <request verb="ListSets">http://scholarworks.wmich.edu/do/oai/</request>

  <ListSets>
  <set>
    <setSpec>publication:acad_leadership</setSpec>
    <setName>Academic Leadership Academy</setName>
  </set>
  <set>
    <setSpec>publication:accessus</setSpec>
    <setName>Accessus</setName>
  </set>
  </ListSets>
</OAI-PMH>
```

Mapping Tables

Update for Owner: Western Michigan University (Alma) Sub System : NORMALIZATION Table Name : Search in Table:

Mapping Table Rows

Enabled	sourceCode1*	targetCode	Description	Last Updated
<input checked="" type="checkbox"/>	<input type="text" value="acad_leadership"/>	<input type="text" value="Academic Leadership Academy"/>	<input type="text"/>	06/08/17 By emily.n.gross@wmich.edu <input type="button" value="Delete"/>

Table Description:

Create a New Mapping Row

sourceCode1	targetCode	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>



Workflow: Mapping Table

Alternatively, you can load an excel (must be .xls NOT the newer versions of excel) file with headers:

Enabled

sourceCode1

targetCode

Description

InstallationCode

InstitutionCode

	A	B	C	D	E	F
1	Enabled	sourceCode1	targetCode	Description	InstallationCode	InstitutionCode
2	true	acad_leadership	Academic Leadership Academy		CUSTOMER	01WMU
3	true	accessus	Accessus		CUSTOMER	01WMU
4	true	accessus_gallery	Accessus Gallery		CUSTOMER	01WMU
5	true	accountancy	Accountancy		CUSTOMER	01WMU
6	true	accountancy_honors	Accountancy Honors Theses		CUSTOMER	01WMU
7	true	accreditation	Institutional accreditation		CUSTOMER	01WMU
8	true	ace_intl_lab	American Council on Education Internationalization Laboratory		CUSTOMER	01WMU
9	true	africancenter	Center for African Development Policy Research		CUSTOMER	01WMU
10	true	africancenter_icad	International Conference on African Development		CUSTOMER	01WMU

Enabled column must say “true” all the way down. Installation code must be “Customer” all the way down. Institution code must be “[Your institution code]” all the way down



DEPLOY



Don't forget to deploy your:

Data Source

Scope Values

Normalization Rules

Code Tables & Mapping Tables

...before moving on to the next steps!



Workflow: Creating the Pipes

Primo Home > Monitor Primo Status > **Pipe Monitoring**

...or go to Publishing > **Create New Pipe**

You will create three pipes:

Import Pipe

Delete Pipe

Renorm Pipe

Primo DC04 PMTD-NA01 Production

[Primo Home](#) > [Monitor Primo Status](#)

Home | **Deploy & Utilities** | General | Local Data | Pipe Monitoring

- > **Monitor Primo Status**
- >> **Pipe Monitoring**
Monitor the pipe processes and view errors
- >> **Tools Monitoring**
Monitor the tools processes and view errors
- >> **Process Monitoring**
Monitor the processes and view errors
- >> **Job Monitoring**
Monitor all the jobs running on the system
- >> **Deploy Monitoring**
Monitor Deploy Jobs
- >> **Search Engine Monitoring**
Monitor and manage search servers and indexing

Publishing | FE & Delivery | Search Engine

- Pipe List
- Create New Pipe**
- Indexing**
- Tools List
- Scheduler
- Jobs Monitor
- PNX Viewer



Workflow: Creating the Pipes

IMPORT (“REGULAR”) PIPE

Pipe Name: [Use the same name as your Data Source]

Pipe Description: [Pipe Name]

Pipe Type: **Regular**

Data Source: [Choose the Data Source you created]

Normalization Mapping Set: [Choose the Mapping Set you created]

Harvesting method: **OAI**

Server: [Server URL]

Enrichment set: **No Enrichments – Template**

Metadata format: **oai_dc** [if Dublin Core]

Harvested file format: ***.tar.gz**

System Last Stage: **Persistence**

Start Harvesting records from: [Earliest date you can pick]

ISSUES

Sometimes your Normalization Mapping Set won't appear in the list of options. Redeploy Normalization Rules and Code Tables & Mapping Tables and give it some time. Try again later.

Pick the earliest date possible for “Start Harvesting records from”. Because this is the first ‘major’ load, and later loads are incremental, you want to make sure you capture all the relevant data.



Workflow: Creating the Pipes

> Define Pipe

Owner: Western Michigan University (Alma) Pipe Name: 01WMU_SCHOLARWORKS Pipe Type: Regular

Pipe Description: 01WMU_SCHOLARWORKS - ScholarWorks pipe

Source	Normalization and Enrichment	Errors
<p>Data Source: * 01WMU_SCHOLARWORKS ▼</p> <p>Harvesting method: * OAI ▼</p> <p>Server: * http://scholarworks.w</p> <p>Metadata format: * oai_dc</p> <p>Set: []</p> <p>Encode Resumption Token: false ▼</p> <p>Start harvesting files/records from: * Oct 03, 2017 []</p> <p>Start time: 05 ▼ : 41 ▼ : 19 ▼</p> <p>Test Connection</p>	<p>Normalization Mapping Set: * 01WMU_SCHOLARWORKS ▼</p> <p>Enrichment Set: * No Enrichments - Template ▼</p> <p>Harvested File Format: * .tar.gz ▼</p> <p>System Last Stage: * PERSISTENCE ▼</p>	<p>Maximum error threshold: 5 % (1-100)</p> <p><input type="checkbox"/> Force DEDUP ⓘ</p> <p><input type="checkbox"/> Force FRBR ⓘ</p>

ALWAYS “Test Connection”!



Workflow: Creating the Pipes

DELETE PIPE

Pipe Name: [**Same name as the Data Source**]**_DELETE**

Pipe Description: [**Same name as Pipe Name**]

Pipe Type: **Delete Data Source**

Data Source: [**Select the Data Source you created earlier**]

> Define Pipe

Owner: Western Michigan University (Alma) Pipe Name: 01WMU_SCHOLARWORKS_DELETE Pipe Type: Delete Data Source

Pipe Description: 01WMU_SCHOLARWORKS_DELETE - delete all
01WMU_SCHOLARWORKS

Source	Normalization and Enrichment	Errors
Data Source: * 01WMU_SCHOLARWORKS ▾	Priority: * Medium ▾	
<input type="checkbox"/> Force DEDUP ⓘ		
<input type="checkbox"/> Force FRBR ⓘ		



Workflow: Creating the Pipes

RENORM PIPE

What is a Renorm pipe? Instead of harvesting or deleting data, the Renorm pipe applies changes in the Normalization rules to existing data already harvested.

Pipe Name: **[Same name as Data Source]_RENORM**

Pipe Description: **[Same as Pipe Name]**

Pipe Type: **No harvesting - Update Data Source**

Data Source: **[Select the Data Source you created earlier]**

Normalization Mapping Set: **[Select the Mapping Set created earlier]**

Enrichment set: **No Enrichments – Template**

System Last Stage: **Persistence**

> Define Pipe

Owner: Western Michigan University (Alma) Pipe Name: 01WMU_SCHOLARWORKS_RENORM Pipe Type: No harvesting - Update Data Source

Pipe Description: 01WMU_SCHOLARWORKS_RENORM - apply normalization rules to existing ScholarWorks data in Primo

Source	Normalization and Enrichment	Errors
Data Source: * 01WMU_SCHOLARWORKS ▼	Normalization Mapping Set: * 01WMU_SCHOLARWORKS ▼	Priority: * Medium ▼
	Enrichment Set: * No Enrichments - Template ▼	Maximum error threshold: 5 % (1-100)
	System Last Stage: * PERSISTENCE ▼	<input type="checkbox"/> Force DEDUP ⓘ <input type="checkbox"/> Force FRBR ⓘ



Congratulations!

You've created your pipes!

Sorry, you're not done...

THANK YOU MARIO!

BUT OUR PRINCESS IS IN
ANOTHER CASTLE!



Workflow: Code Tables

Adjust Code tables at the institutional level:

Primo Home > Advanced Configuration > **All Code Tables**

...or go to General > **Code Tables**



*****For all code tables: if a line already exists in Primo, you just need to click “Customize” so that you can edit it, otherwise it is ‘grayed out’. If no code line exists, you may need to add it!**



Workflow: Code Tables

Check Code table “**FrontEnd Display Fields**” to select the next available local display field (**Ids##**) not yet in use and customize it.

Name it whatever you would like things in this collection to display. For example, we have used:

“ScholarWorks at WMU”

“ArchivesSpace”

“LUNA Insight Collection”

...etc.

Code Table Rows

Enabled	Field Code ▲▼	Field Name ▲▼	Language ▲
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	en_US ▼
<input checked="" type="checkbox"/>	Ids18	ScholarWorks at WMU	en_US
<input checked="" type="checkbox"/>	Ids04	LUNA Insight Collection	en_US

Don't forget which Ids## field you've chosen and make sure it's enabled!



Workflow: Code Tables

In both Code tables “**Advanced Index Fields**” and “**Basic Index Fields**,” select the next available local search field (**Isr###**) not yet in use and customize it.

Make sure you use the same Isr### for both.

We usually choose to name these the same as the Display Code (previous slide).

Code Table Rows

Enabled	Field Code ▲▼	Field Name ▲▼	Language ▲▼
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	en_US ▼
<input checked="" type="checkbox"/>	Isr18	ScholarWorks at WMU	en_US
<input checked="" type="checkbox"/>	Isr05	Call Number	en_US



Workflow: Code Tables

In Code table “**Advanced Media Type**” add an enabled line with:

Code: **default.search-advanced.mediaType.[resource type]**

Description: **[Resource type]**

Language: en_US

Code Table Rows

Enabled	Code ▲▼	Description ▲▼	Language ▲▼
<input type="checkbox"/>			en_US ▼
<input checked="" type="checkbox"/>	default.search-simple.mediaType.option.libguides	Research Guides	en_US
<input type="checkbox"/>			en_US

In Code table “**Basic Media Type**,” add an enabled line with:

Code: **default.search-simple.mediaType.option.[resource type]**

Description: **[Resource type]**

Language: en_US



Workflow: Code Tables

In Code table “**Facets Code Fields**” select the next available local facet field (**facet_local##**) not yet in use and customize.

We usually choose to name these the same as the Display Code and Index Fields (previous two slides).

Code Table Rows

Enabled	Field Names ▲▼	Field Codes ▲▼	Language ▲▼
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	en_US ▼
<input checked="" type="checkbox"/>	facet_local18	ScholarWorks at WMU	en_US
<input checked="" type="checkbox"/>	facet_local3	Course Instructors	en_US



Workflow: Code Tables

In Code table “**Facet Labels**” create two new code table lines.

Add or customize lines with the following codes:

default.facets.facet.facet_local[same number as previous slide]

default.facets.search-box.facet_local[same number as above]

Description: We usually choose to name these the same as the Display Code, Index Fields, and Local Facet Field (previous three slides).

Language: **en_US**

Code Table Rows

Enabled	Code ▲▼	Description ▲▼	Language ▲
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	en_US ▼
<input checked="" type="checkbox"/>	default.facets.facet.facet_local18	ScholarWorks at WMU	en_US
<input checked="" type="checkbox"/>	default.facets.search-box.facet_local18	ScholarWorks at WMU	en_US



Workflow: Code Tables

In Code table “Facet Resource Type”

Add an enabled line with:

Code: **default.facets.facet.facet_rtype.[resource type]**

Description: **[resource type]**

Language: **en_US**

Code Table Rows

Enabled	Code ▲▼	Description ▲▼	Language ▲▼
<input type="checkbox"/>			en_US ▼
<input checked="" type="checkbox"/>	default.facets.facet.facet_rtype.libguides	LibGuides	en_US
<input checked="" type="checkbox"/>	default.facets.facet.facet_rtype.Audio Visual	audio video	en_US



Workflow: Normalization Rules

Normalization Rules are easily one of the most daunting and frustrating steps of the process!
Take your time.

Tips:

If you get really turned around in the Primo Back Office, log out completely and log back in.

If you've done all the previous steps, take a break and come back to this part another day.



Workflow: Normalization Rules

Primo Home > Advanced Configuration > **Full Normalization Rule Configuration**

...or go to Local Data > **Normalization Sets**

Primo DC04 PMTD-NA01 Product

[Primo Home](#) > [Advanced Configuration](#)

[Home](#) [Deploy & Utilities](#) [General](#) [Local Data](#)

> **Advanced Configuration**

> **All Code Tables**

Manage all Code Tables

> **All Mapping Tables**

Manage all Mapping Tables

> **Full Normalization Rule Configuration**

Manage and configure Normalization Rules

> **Tags Management**

Manage and configure Tags

> **Resource Recommender**

Manage Recommended Resources

> **Search Engine Configurations**

Manage the search engine configurations



Workflow: Normalization Rules

Edit the Normalization Set you created in an earlier step

Owner	Normalization Rules Set Name	Version	Description	Normalization Rules Format	
Western Michigan University (Alma)	01WMU_LUNA	8		dublin_core	Edit
Western Michigan University (Alma)	01WMU_ALMA	21		marc	Edit
Western Michigan University (Alma)	01WMU_CONTENTDM	7		dublin_core	Edit
Western Michigan University (Alma)	WMU_LibGuides	9		dublin_core	Edit
Western Michigan University (Alma)	01WMU_SCHOLARWORKS	9		dublin_core	Edit



Workflow: Normalization Rules

Check the box to show empty PNX fields!

Remember the `Ids##`, `Isr##`, and `facet_local##` you used earlier? You will need to know them now!

Display > **Ids##**

Description: **[Data source name]** set name

Action: **ADD**

Comments: **Display [Data Source name] set name: Build custom display field as "[Data source name]"**

Click Create to create a new rule

Type: **PNX**

XPath: **control/sourcerecordid**

Transformations:

"Take until first occurrence" ; Parameter: -

"Use mapping table" ; Parameter: **[Mapping table name]** (ex.: 01WMU_Scholarworks_Set_Names)



Workflow: Normalization Rules

Search > **Isr##**

Description: [**Data Source name**]

Comments: **Searchable collection flag**

Action: **ADD**

Click Create to create a new rule

Type: **Constant**

Value: [**Data Source name**]

Transformation:

"Copy As Is" ; Parameter: **<blank>**



Workflow: Normalization Rules

Facet > **Ifc##**

Description: ScholarWorks set name

Comments: ScholarWorks set name: Build custom facet field

Action: **ADD**

Type: **PNX**

XPath: **control/sourcerecordid**

Transformations:

"Take until first occurrence" ; Parameter: /

"Use mapping table" ; Parameter: [**Mapping table name**]



Workflow: Normalization Rules

Facet > **Topic**

Action: **ADD**

Source: **XML dc:subject**

Transformation:

"Split Field" ; Parameter: ; (semi-colon)



Workflow: Normalization Rules

Search > **Searchscope**

Verify a rule is present, which uses PNX control/sourceid (you might not need to add anything!)

Action: **ADD**

Transformations:

“Copy As Is”



Workflow: Normalization Rules

Delivery and Scoping > **Institution**

Verify a rule is present, which says:

Action: **ADD**

Type: **Constant**

Value: [**Your Institution code**]

Transformations:

“Copy As Is”

This rule should allow "Browse > Institution" rules to pick up PNX delivery/institution to populate correctly.



Workflow: Normalization Rules

Display > **Type**

Action: **ADD**

Source: **Constant** ; Value: [**whatever resource type you have**] (example: digital_object)

Transformation:

“Copy As Is”

*****FYI Make sure that there is only ONE type. Disable or remove other rules.*****



Workflow: Normalization Rules

Links > **Link to Resource**

Source: **XML**

Path: **dc:url**

Conditions: **True**

Condition 1 – Logic: **True**

Condition 1 – Source: **XML**

Path: **dc:url**

Success if: **match current**

Routine: **starts with string**

Parameter: **http://**

Transformations

Copy as is

Add to beginning of string: \$\$U

Add to end of string: \$\$Elinktorsrc

Actions: **ADD**



Workflow: Normalization Rules

Links > **Link to Resource**

Source: **XML**

Path: **dc:identifier**

Conditions: **True**

Condition 1 – Logic: **True**

Condition 1 – Source: **XML**

Path: **dc:identifier**

Success if: **match current**

Routine: **starts with string**

Parameter: **https://**

Condition 2 – Logic: **True**

Condition 2 – Source: **XML**

Path: **dc:identifier**

Success if: **match current**

Routine: **starts with string**

Parameter: **http://**

Transformations

Copy as is

Add to beginning of string: \$\$U

Add to end of string: \$\$Elinktorsrc

Actions: **ADD**



DEPLOY



Don't forget to deploy your:

Normalization Rules

Code Tables & Mapping Tables

...before moving on to the next steps!



Workflow: Views

Primo Home > Ongoing Configuration Wizards > Views Wizard > [Primo Institution Code]

In the view "**Search Scope List**" for *all relevant search scopes*, check or select search scope value "[Data Source name]"

In "Full Display > **Full Results**" - Add field name of your Ids## to the Detail display

Add Ids## field.

Remember this?

Code Table Rows

Enabled	Field Code ▲▼	Field Name ▲▼	Language ▲
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	en_US ▼
<input checked="" type="checkbox"/>	lds18	ScholarWorks at WMU	en_US
<input checked="" type="checkbox"/>	lds04	LUNA Insight Collection	en_US



DEPLOY



Don't forget to deploy your:

Views



Workflow: Run the Pipe

RUN YOUR HARVEST PIPE!

Give Primo time to finish harvesting and re-indexing. It may take a day or even a couple days for your resources to appear!



Workflow: Moving to Production

Recreate all your steps in Production

Tread carefully; sometimes it seems like you've done everything exactly the same as the Sandbox and it still doesn't work

Don't feel guilty about walking away and coming back later to try again

Don't be afraid to ask for help; pipes are notoriously difficult!



Workflow: Production Testing

Everything you tested in Sandbox should be tested in Production!

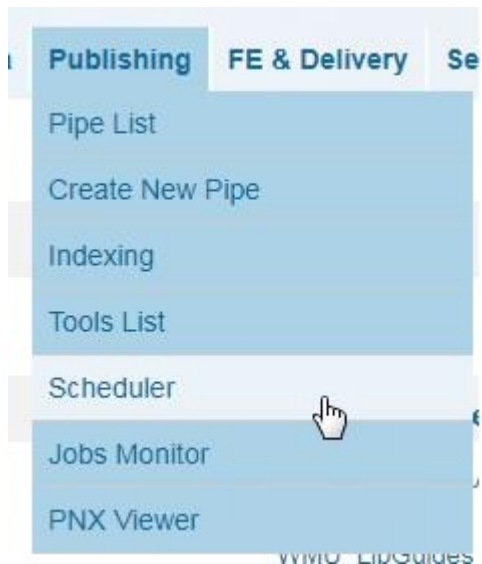
Sometimes other Sandbox settings are different from Production (when was the last time you had a refresh?) that can interfere!



Workflow: Harvesting Schedule

Publishing > Scheduler

Schedule your harvest pipe to run as desired



Edit a Schedule

Process Process Type Process Name

Frequency Day

Timing

Status

Monthly
Yearly
Monthly
Weekly
Daily
Once
Repeat



Workflow: Harvesting Schedule

Things to consider when deciding your harvest schedule:

Frequency with which the resources are updated

Resource is harvested into other platforms requiring different configurations

Days/times would best suit harvest



Congratulations!

You've really done it!

73

WORLD
4-1

TIME
283



2000

