Linking ArchivesSpace Hierarchy to DSpace Digital Objects

Terry Brady and Suzanne Chase
Georgetown University Library

http://bit.ly/as2dspace

Background

DigitalGeorgetown is our repository that hosts both institutional scholarship and digitized special collections materials; currently runs on DSpace version 6.3

We migrated to ArchivesSpace from Archivist's Toolkit and adopted the PUI in 2016; we updated to ArchivesSpace version 2.x in August 2017

We developed a workflow in Fall 2018 that harvests EAD metadata from ArchivesSpace and converts it to item-level Dublin Core metadata for digitized archival materials hosted in DSpace. We then create digital object records in ArchivesSpace that link back to the digital surrogates of items in DSpace.

Patron needs

ArchivesSpace presents a hierarchical navigation and view of archival collections

DSpace presents digital images of individual items within an archival collection

Patrons need to be able to browse the hierarchy of an archival collection in ArchivesSpace and be provided with links to view individual digital objects and their associated item-level metadata (when available) in our DSpace repository.

This workflow enables that process and creates bidirectional links between the ArchivesSpace public user interface and the DSpace repository interface.

Workflow tools

File Analyzer (open source program developed by Georgetown's Library IT Department) for converting ArchivesSpace EAD XML metadata into Dublin Core

Excel and Google sheets for editing and adding to item-level Dublin Core metadata

DSpace ingest tools for batch uploading digital objects and their metadata

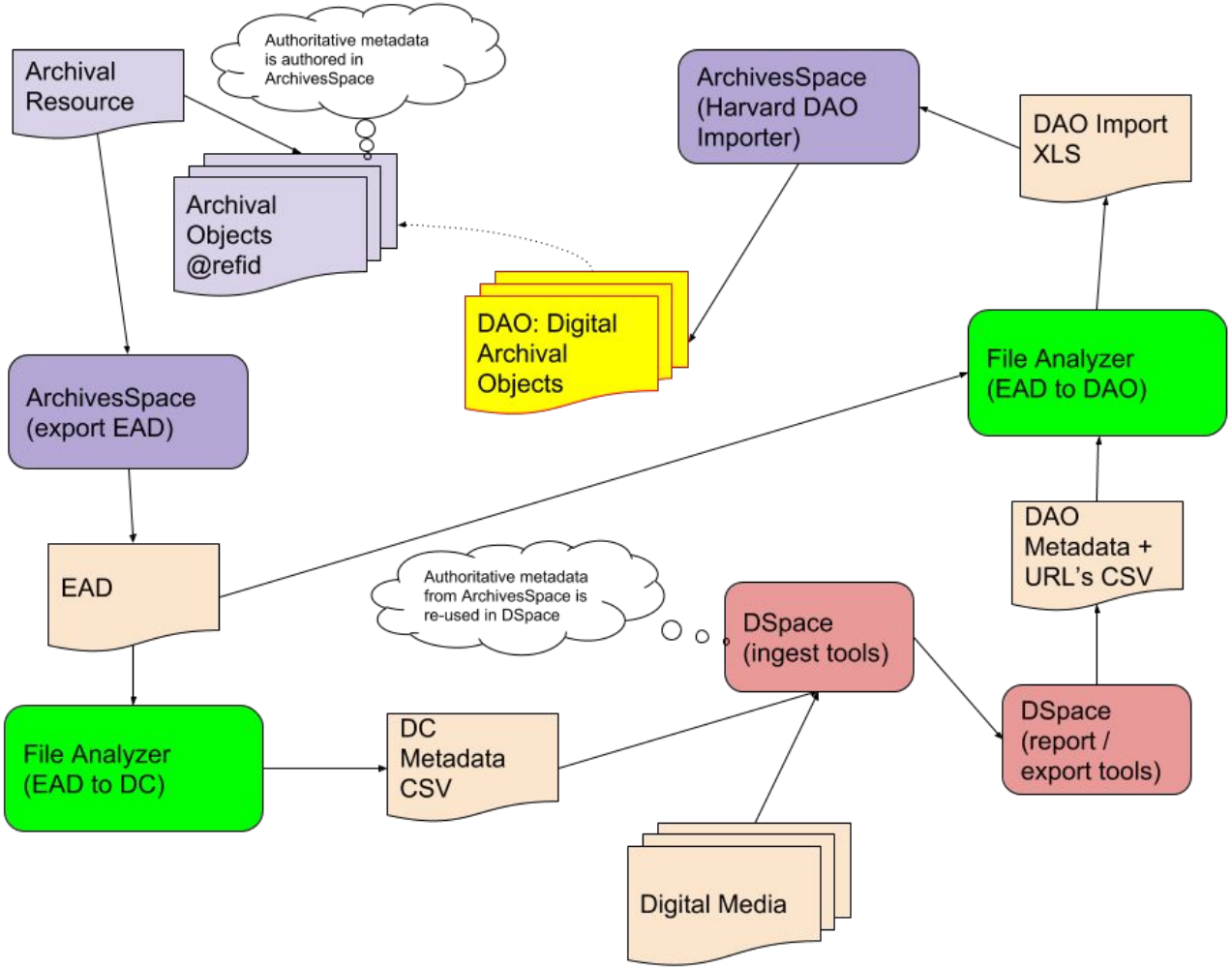
DSpace report tools for exporting digital object and thumbnail URLs

Harvard's Excel Import Plugin for creating digital object records in ArchivesSpace

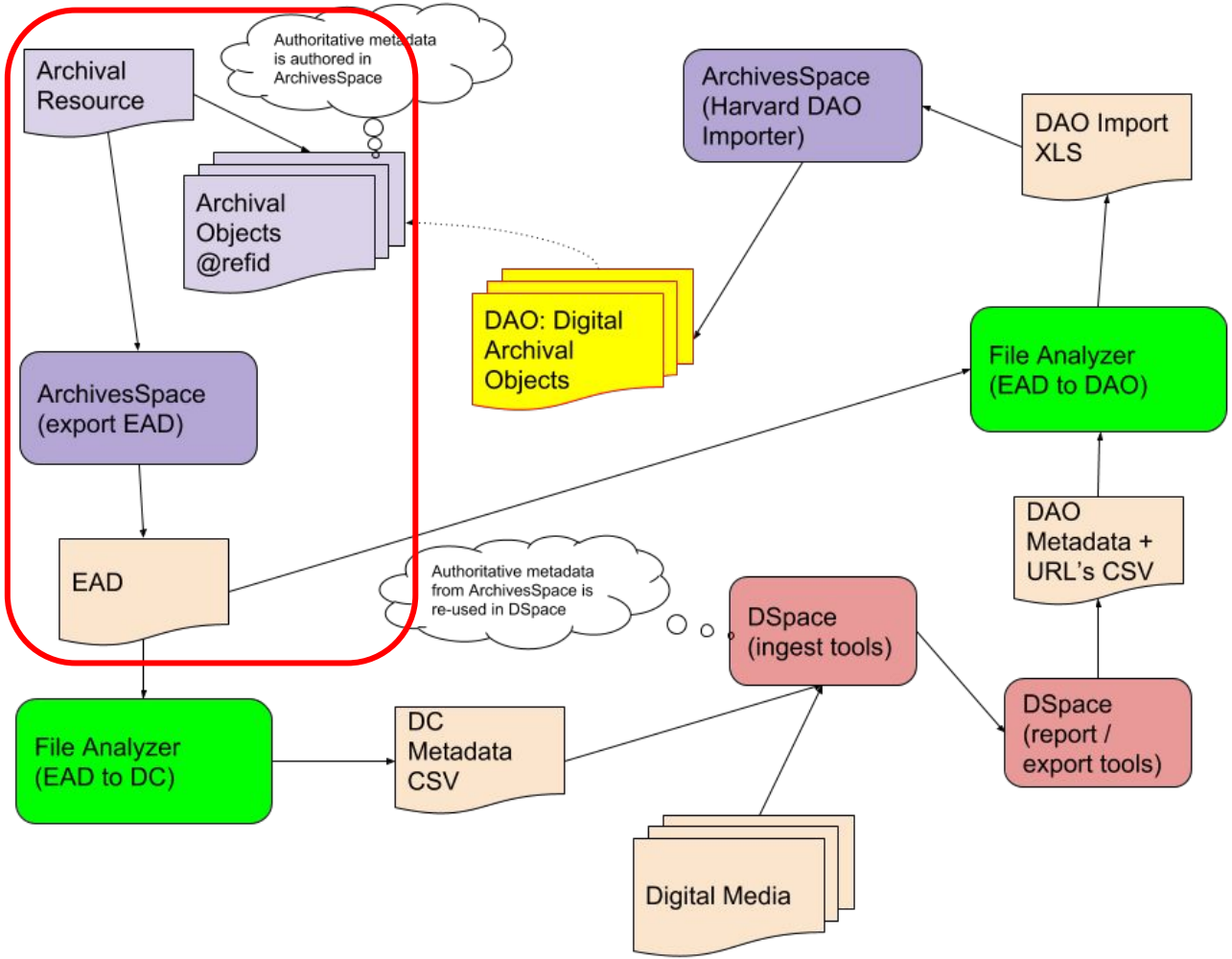
*All links and documentation for this workflow are available at http://bit.ly/as2dspace

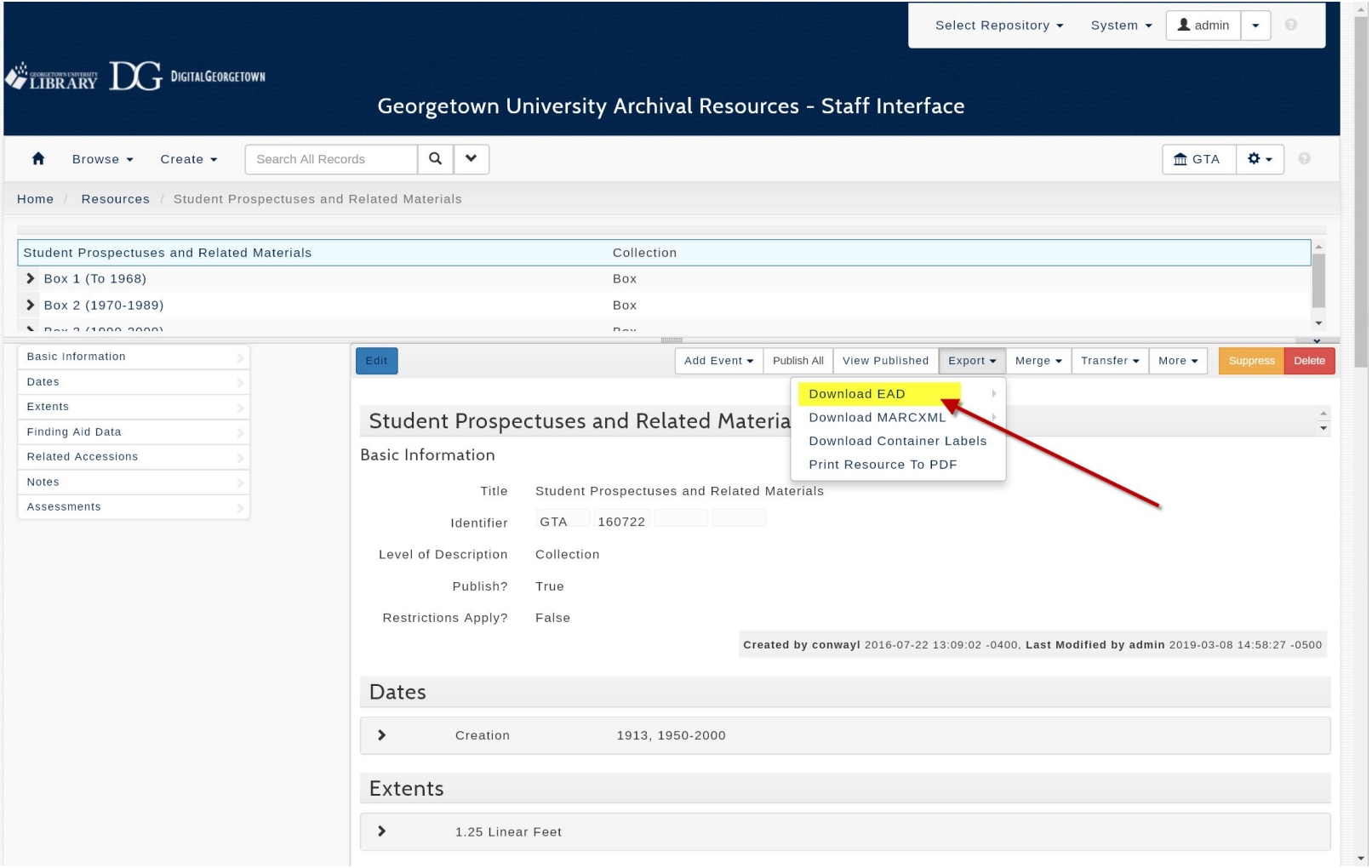
Workflow Demo

In the following slides, we will quickly go through each step of the following workflow diagram


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
File Analyzer (EAD to DC)
DC Metadata CSV
DSpace (report / export tools)
Digital Media

1. Export EAD for an ArchivesSpace Resource

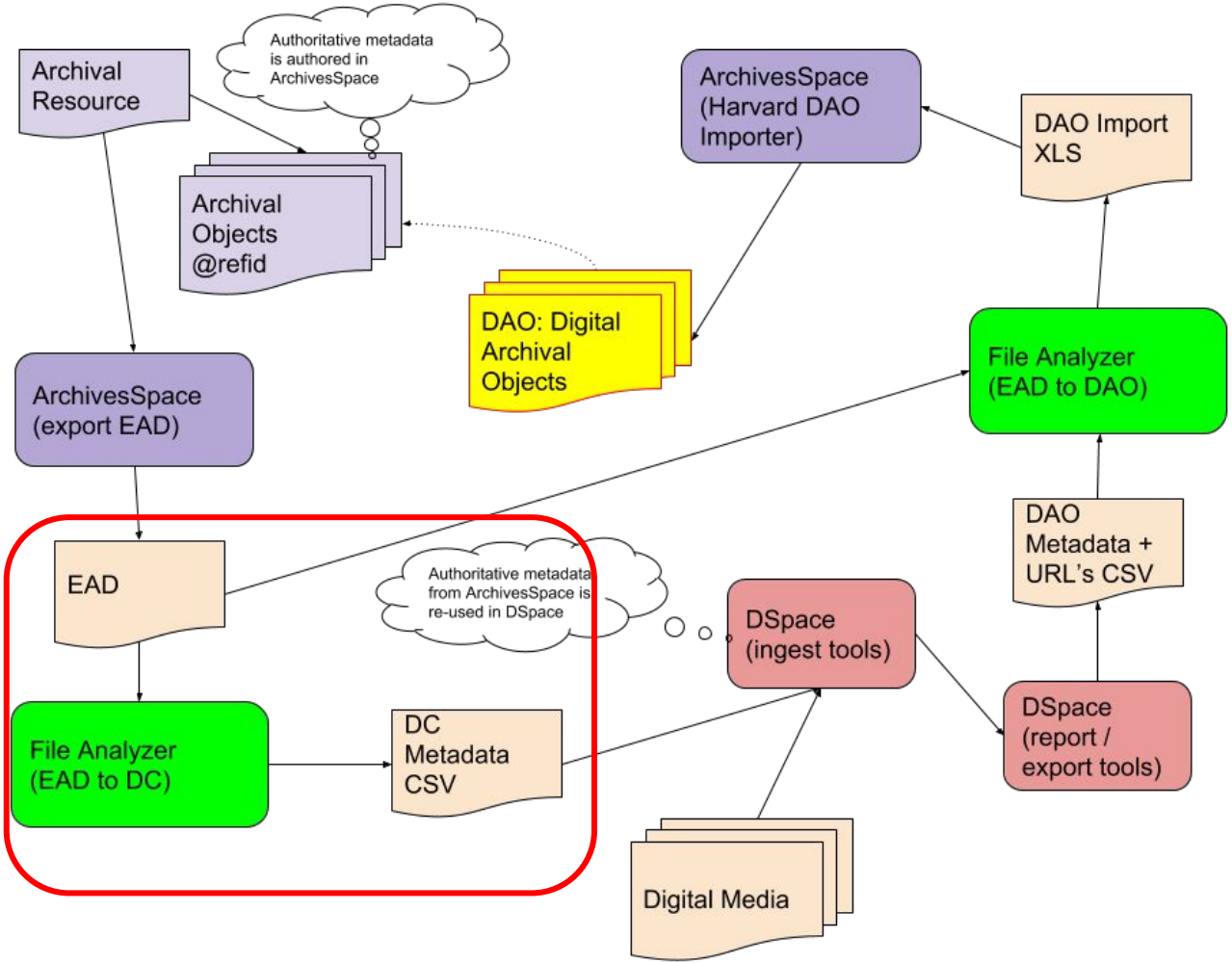

Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
DSpace (report / export tools)
File Analyzer (EAD to DC)
DC Metadata CSV
Digital Media

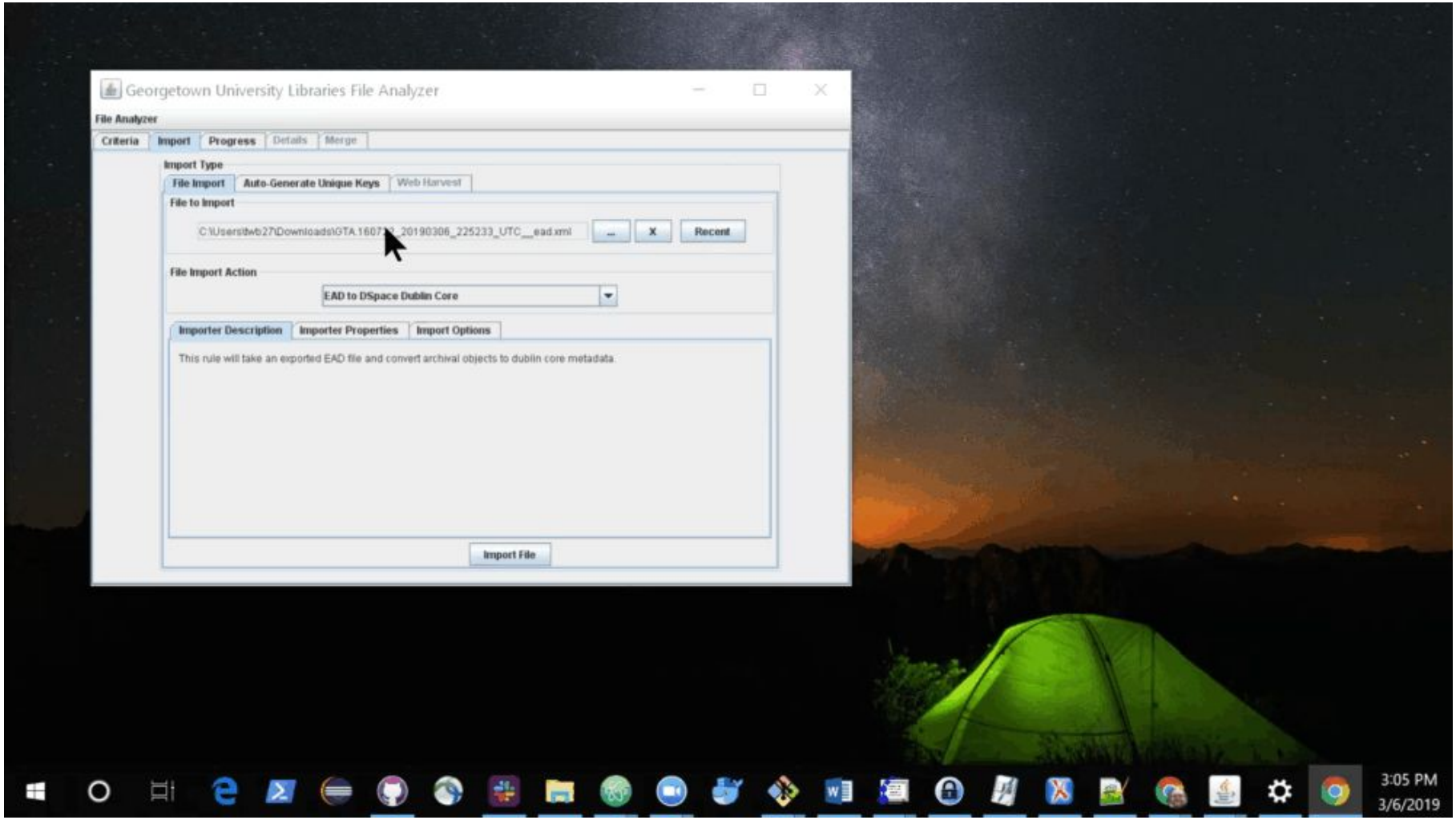

Select Repository
System
admin
LIBRARY
DIGITALGEORGETOWN
Georgetown University Archival Resources - Staff Interface
Browse
Create
Search All Records
GTA
Home / Resources / Student Prospectuses and Related Materials
Student Prospectuses and Related Materials
Collection
Box 1 (To 1968)
Box
Box 2 (1970-1989)
Box
Basic Information
Dates
Extents
Finding Aid Data
Related Accessions
Notes
Assessments
Edit
Add Event
Publish All
View Published
Export
Merge
Transfer
More
Suppress
Delete
Download EAD
Download MARCXML
Download Container Labels
Print Resource To PDF
Student Prospectuses and Related Materia
Basic Information
Title
Student Prospectuses and Related Materials
Identifier
GTA
160722
Level of Description
Collection
Publish?
True
Restrictions Apply?
False
Created by conwayl 2016-07-22 13:09:02 -0400, Last Modified by admin 2019-03-08 14:58:27 -0500
Dates
Creation
1913, 1950-2000
Extents
1.25 Linear Feet

This XML file does not appear to have any style information associated with it. The document tree is shown below.

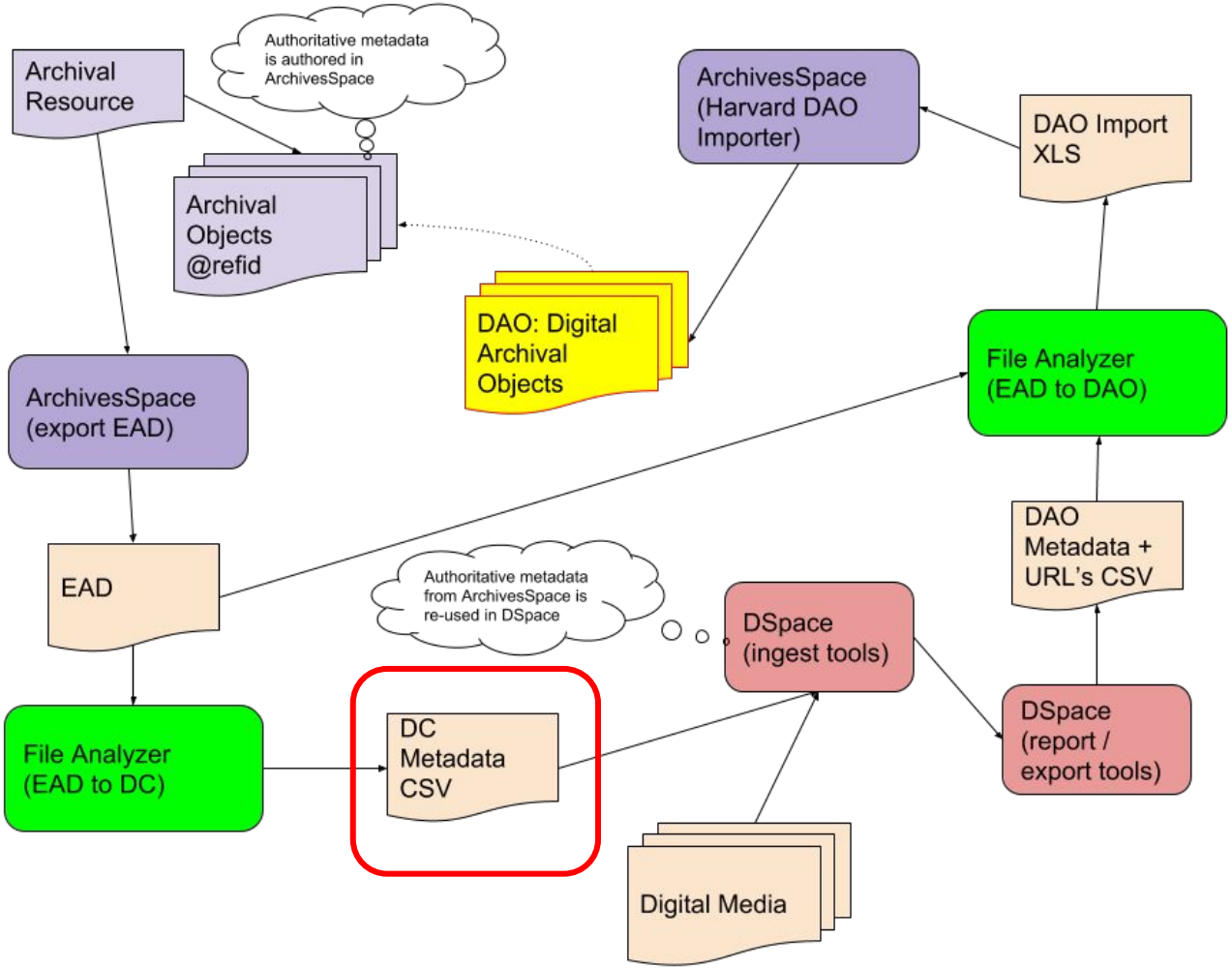

```
▼<ead xmlns="urn:isbn:1-931666-22-9" xmlns:xlink="http://www.w3.org/1999/xlink"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:isbn:1-931666-22-9
 http://www.loc.gov/ead/ead.xsd">
  ▼<eadheader countryencoding="iso3166-1" dateencoding="iso8601" langencoding="iso639-2b"
   repositoryencoding="iso15511">
     <eadid/>
    ▼<filedesc>
      ▼<titlestmt>
        ▼<titleproper>
           Student Prospectuses and Related Materials
           <num>GTA.160722</num>
         </titleproper>
       </titlestmt>
      ▼<publicationstmt>
         <publisher>Georgetown University Archives </publisher>
        ▼<p id="logostmt">
           <extref xlink:actuate="onLoad"
           xlink:href="https://www.library.georgetown.edu/sites/default/files/special-collections-logo.png"
           xlink:show="embed" xlink:type="simple"/>
         </p>
       </publicationstmt>
     </filedesc>
    ▼<profiledesc>
      ▼<creation>
         This finding aid was produced using ArchivesSpace on
         <date>2019-03-06 17:52:33 -0500</date>
         .
       </creation>
     </profiledesc>
   </eadheader>
  ▼<archdesc level="collection">
    ▼<did>
      ▼<repository>
         <corpname>Georgetown University Archives </corpname>
       </repository>
       <unittitle>Student Prospectuses and Related Materials</unittitle>
       <unitid>GTA.160722</unitid>
      ▼<physdesc altrender="whole">
         <extent altrender="materialtype spaceoccupied">1.25 Linear Feet</extent>
       </physdesc>
       <unitdate type="inclusive">1913, 1950-2000</unitdate>
```

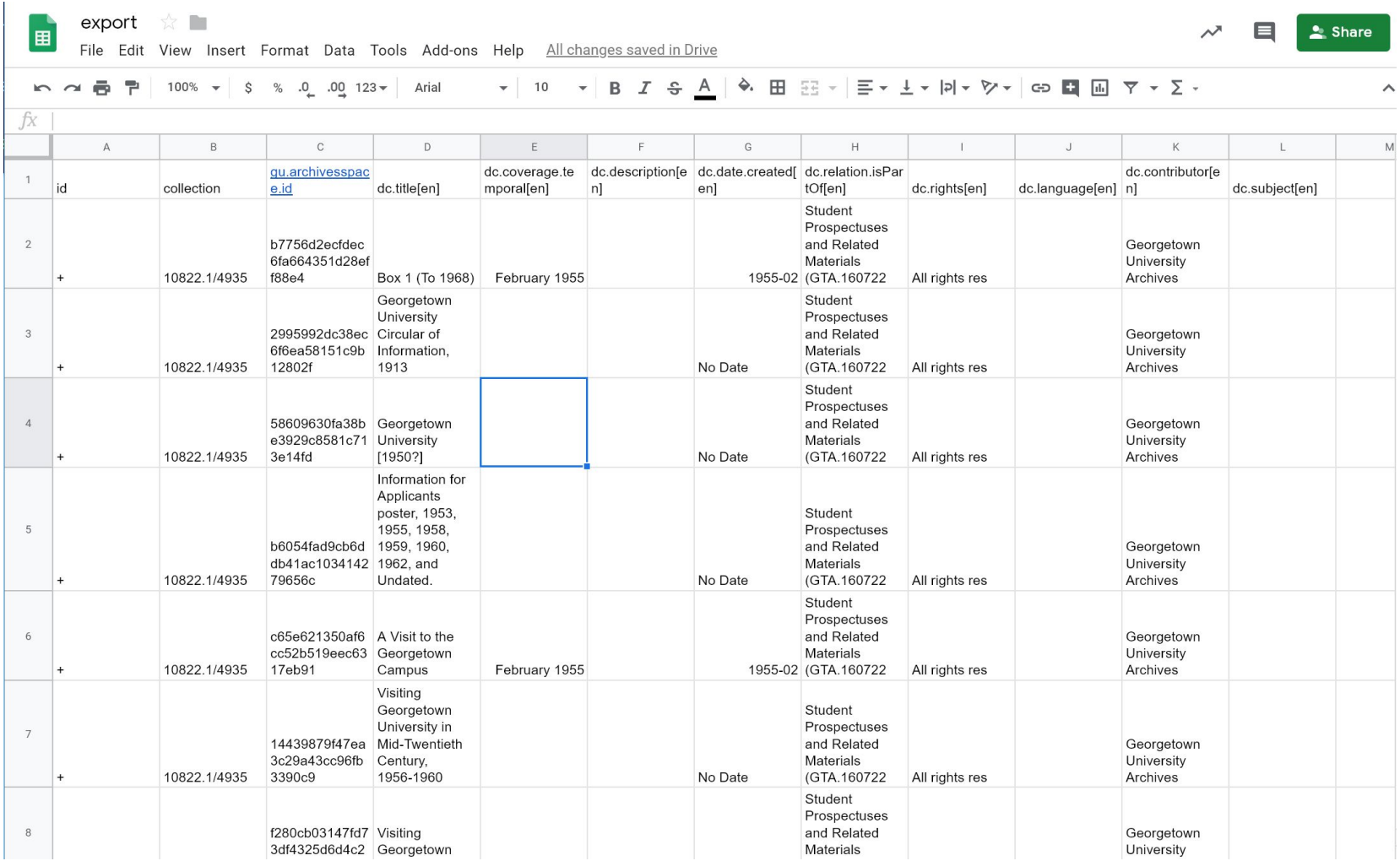
2. Convert EAD to Dublin Core


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
File Analyzer (EAD to DC)
DC Metadata CSV
DSpace (report / export tools)
Digital Media


Georgetown University Libraries File Analyzer
File Analyzer
Criteria
Import
Progress
Details
Merge
Import Type
File Import
Auto-Generate Unique Keys
Web Harvest
File to Import
C:\Users\tlwb27\Downloads\GTA.160713_20190306_225233_UTC__ead.xml
...
X
Recent
File Import Action
EAD to DSpace Dublin Core
Importer Description
Importer Properties
Import Options
This rule will take an exported EAD file and convert archival objects to dublin core metadata.
Import File
3:05 PM
3/6/2019

3. Edit Dublin Core to Contextualize for the Digital Collection


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
File Analyzer (EAD to DC)
DC Metadata CSV
DSpace (report / export tools)
Digital Media


export

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

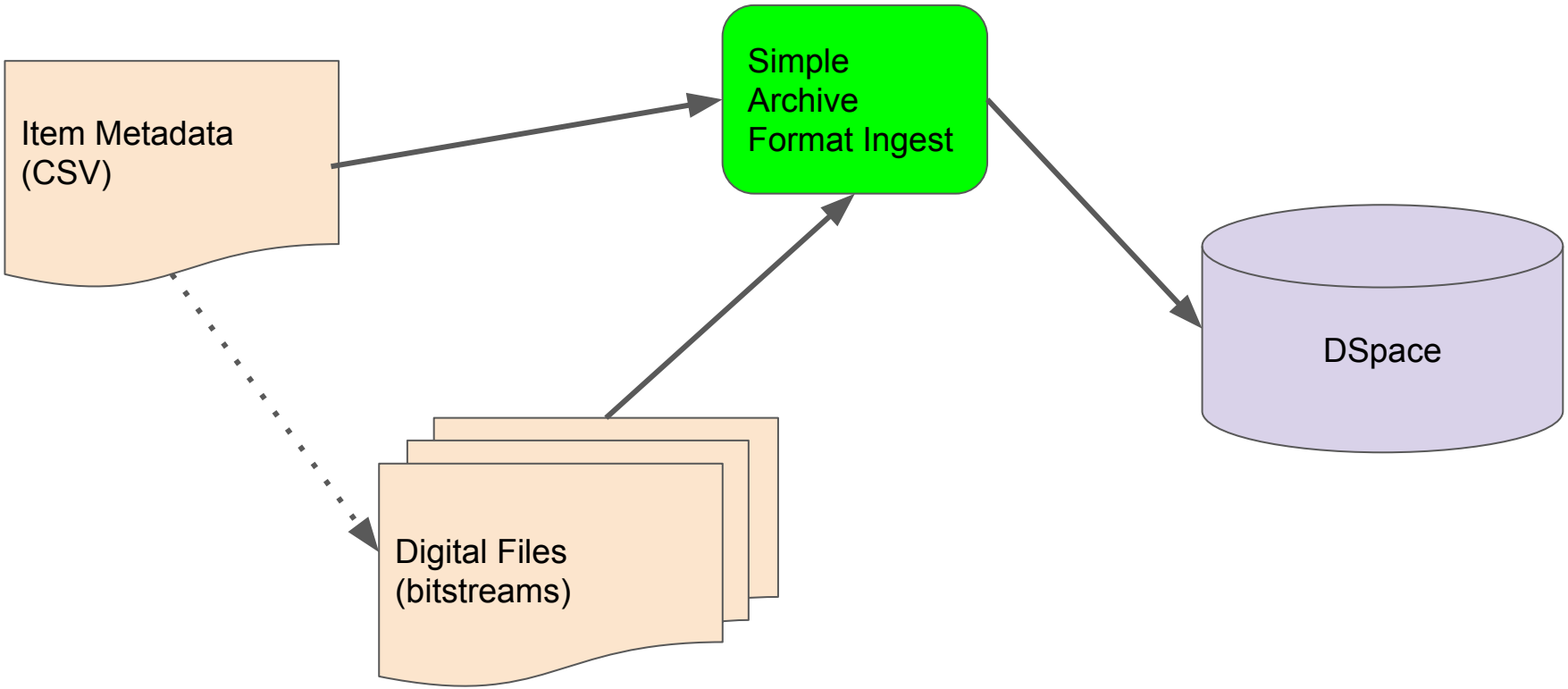
Share

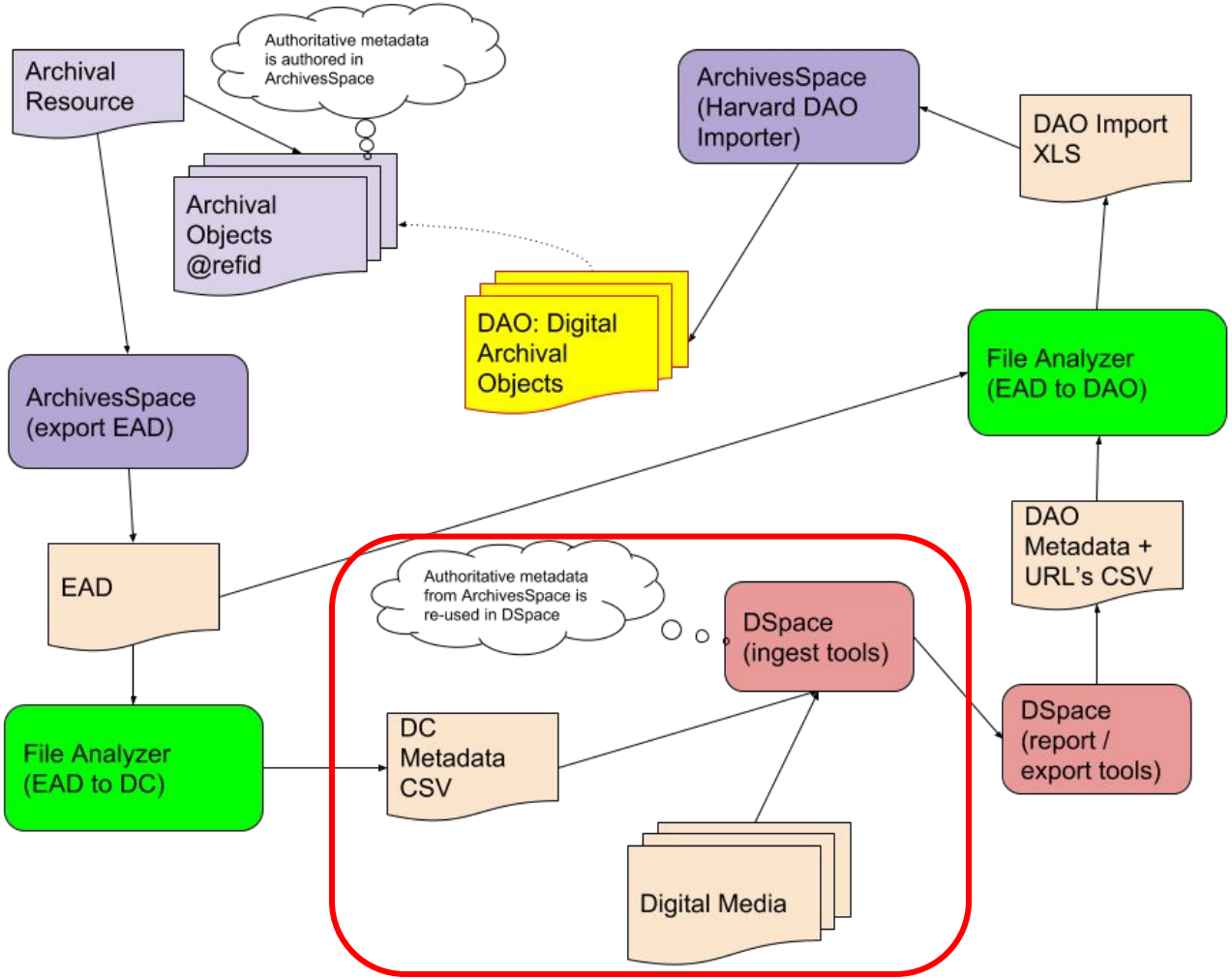
100% $ % .0 .00 123 Arial 10

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	id	collection	gu.archivesspace.id	dc.title[en]	dc.coverage.temporal[en]	dc.description[en]	dc.date.created[en]	dc.relation.isPartOf[en]	dc.rights[en]	dc.language[en]	dc.contributor[en]	dc.subject[en]	
2	+	10822.1/4935	b7756d2ecfdec6fa664351d28eff88e4	Box 1 (To 1968)	February 1955		1955-02	Student Prospectuses and Related Materials (GTA.160722	All rights res		Georgetown University Archives		
3	+	10822.1/4935	2995992dc38ec6f6ea58151c9b12802f	Georgetown University Circular of Information, 1913			No Date	Student Prospectuses and Related Materials (GTA.160722	All rights res		Georgetown University Archives		
4	+	10822.1/4935	58609630fa38be3929c8581c713e14fd	Georgetown University [1950?]			No Date	Student Prospectuses and Related Materials (GTA.160722	All rights res		Georgetown University Archives		
5	+	10822.1/4935	b6054fad9cb6ddb41ac103414279656c	Information for Applicants poster, 1953, 1955, 1958, 1959, 1960, 1962, and Undated.			No Date	Student Prospectuses and Related Materials (GTA.160722	All rights res		Georgetown University Archives		
6	+	10822.1/4935	c65e621350af6cc52b519eec6317eb91	A Visit to the Georgetown Campus	February 1955		1955-02	Student Prospectuses and Related Materials (GTA.160722	All rights res		Georgetown University Archives		
7	+	10822.1/4935	14439879f47ea3c29a43cc96fb3390c9	Visiting Georgetown University in Mid-Twentieth Century, 1956-1960			No Date	Student Prospectuses and Related Materials (GTA.160722	All rights res		Georgetown University Archives		
8			f280cb03147fd73df4325d6d4c2	Visiting Georgetown				Student Prospectuses and Related Materials			Georgetown University		

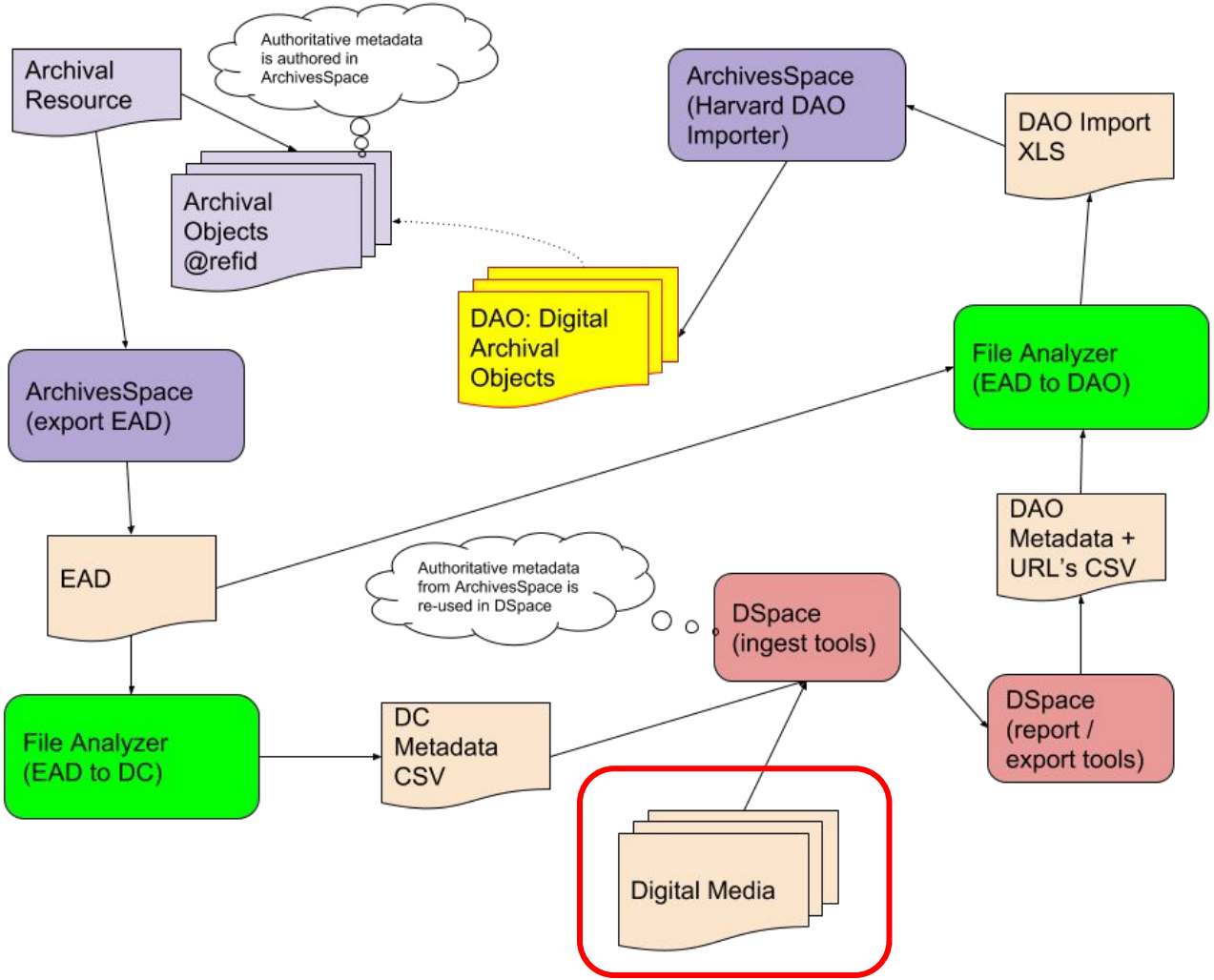
4. Prepare Ingest Folders for DSpace

Bitstream files are associated with metadata and are imported into DSpace


Item Metadata
(CSV)
Simple
Archive
Format Ingest
DSpace
Digital Files
(bitstreams)

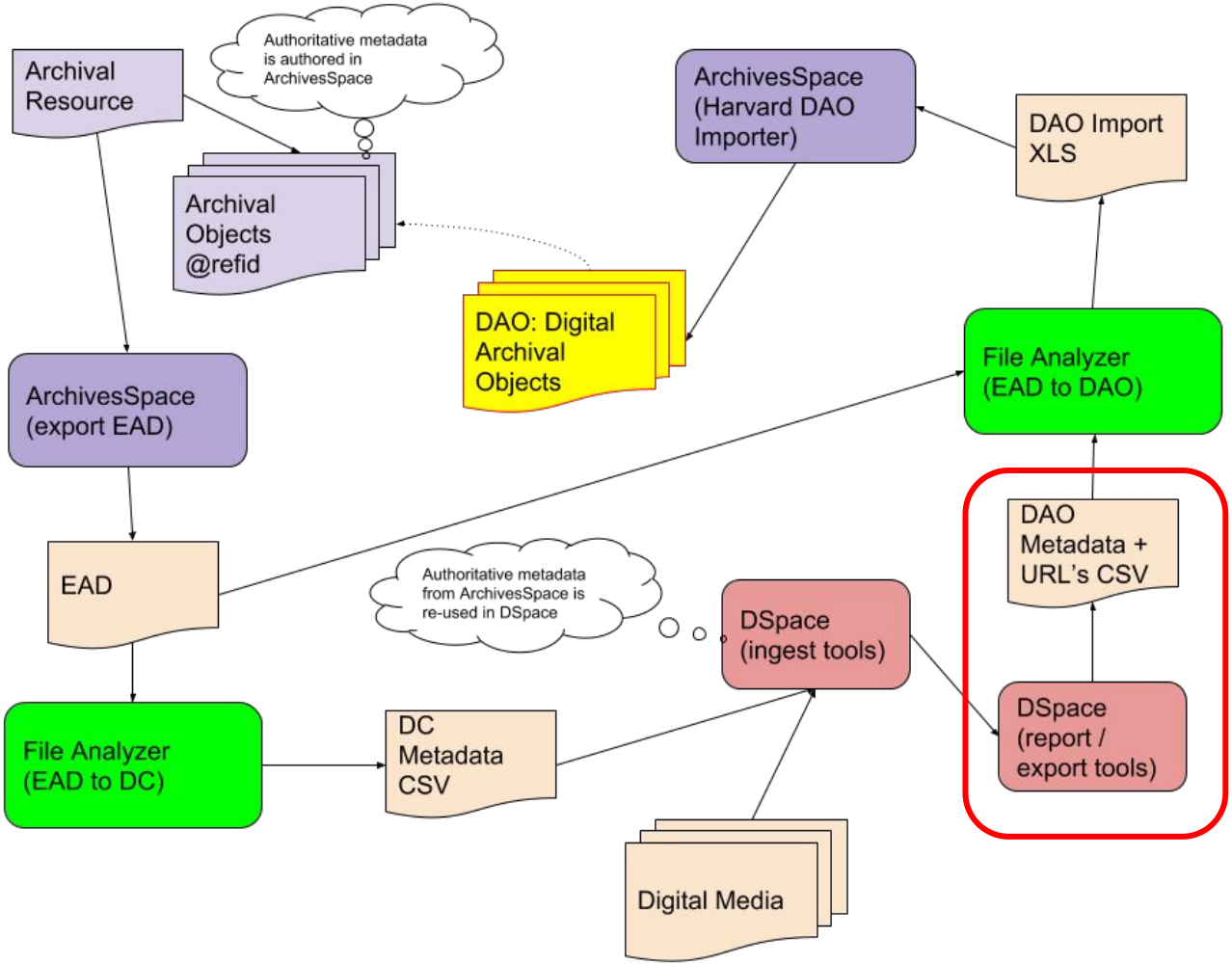

Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
DAO Metadata + URL's CSV
Authoritative metadata from ArchivesSpace is re-used in DSpace
DSpace (ingest tools)
File Analyzer (EAD to DC)
DC Metadata CSV
DSpace (report / export tools)
Digital Media

5. View Bitstreams (Digital Objects) in DSpace


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
DSpace (report / export tools)
File Analyzer (EAD to DC)
DC Metadata CSV
Digital Media

GEORGETOWN UNIVERSITY
LIBRARY
DG DIGITALGEORGETOWN
Login
DigitalGeorgetown Home / Digital and Special Collections @ Georgetown University / University Archives / Student Catalogs, Prospectuses, and Related Materials
Student Catalogs, Prospectuses, and Related Materials
BROWSE BY
Creators
Titles
By Creation Date
Search within this collection:
Search
Search
Search DigitalGeorgetown
This Collection
BROWSE
All of DigitalGeorgetown
Communities & Collections
Creators
Titles

6. Export Item Metadata with Bitstream URL’s


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DSpace (ingest tools)
DAO Metadata + URL's CSV
DSpace (report / export tools)
File Analyzer (EAD to DC)
DC Metadata CSV
Digital Media

DigitalGeorgetown Web Tools **Current User:** You are not logged in. Some items may be excluded from reports.

DSpace REST Query Client

Collection Selector

----Georgetown University Football Collection
----Institute for the Study of Diplomacy Lectures
----Photograph Selections from University Archives
----Selections from University Archives
----Special Events Tapes
----Student Catalogs, Prospectuses, and Related Materials
----The Philodemic Society Archives
----University Archives Collections Finding Aids
----University Publications
------Georgetown College Journal
------Georgetown University Alumni Magazine
------Georgetown University Yearbooks
------The Hoya Archives

Metadata Field Queries

Limit/Paginate Queries

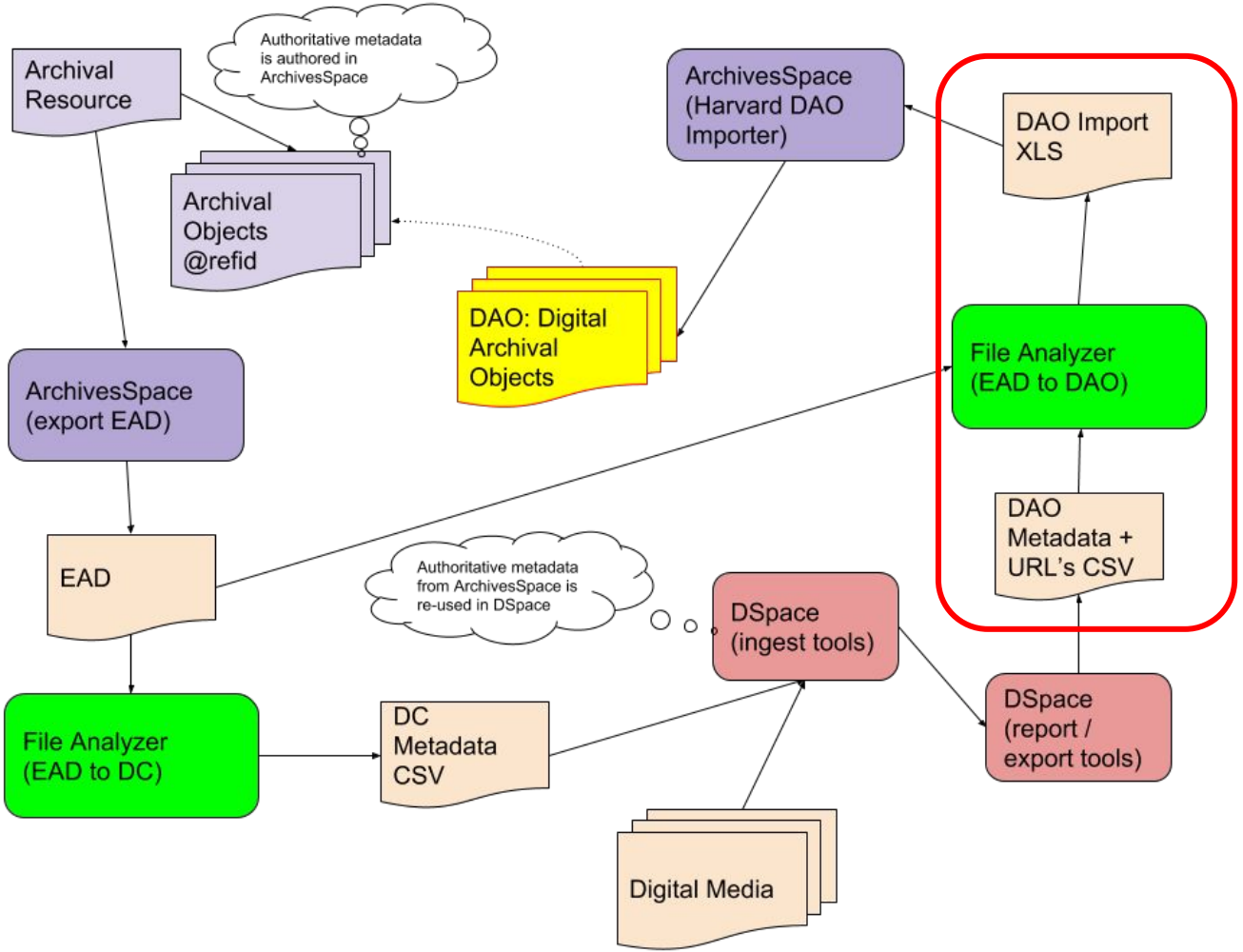
Filters

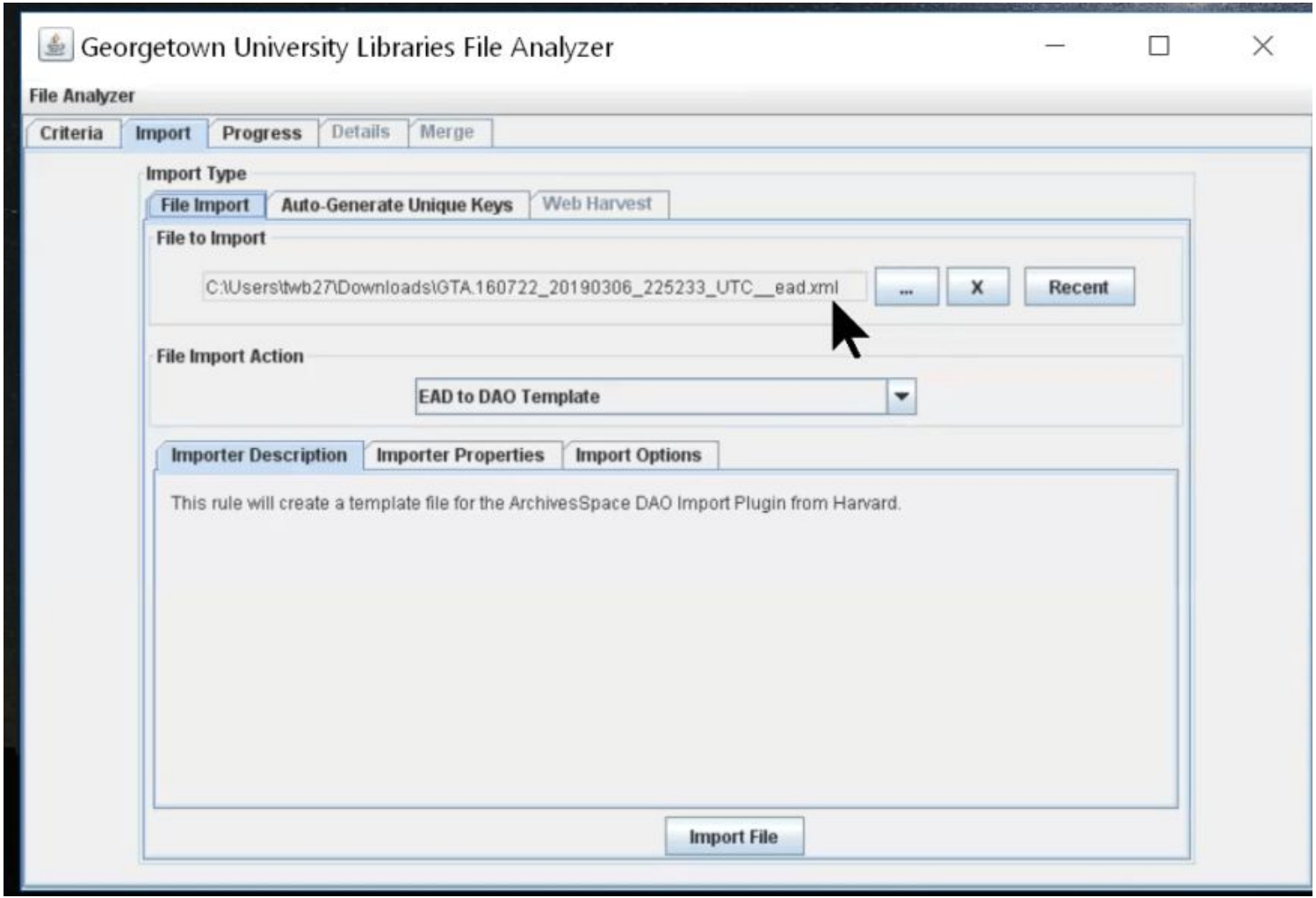
Additional data to return

Highlight click Alt+K

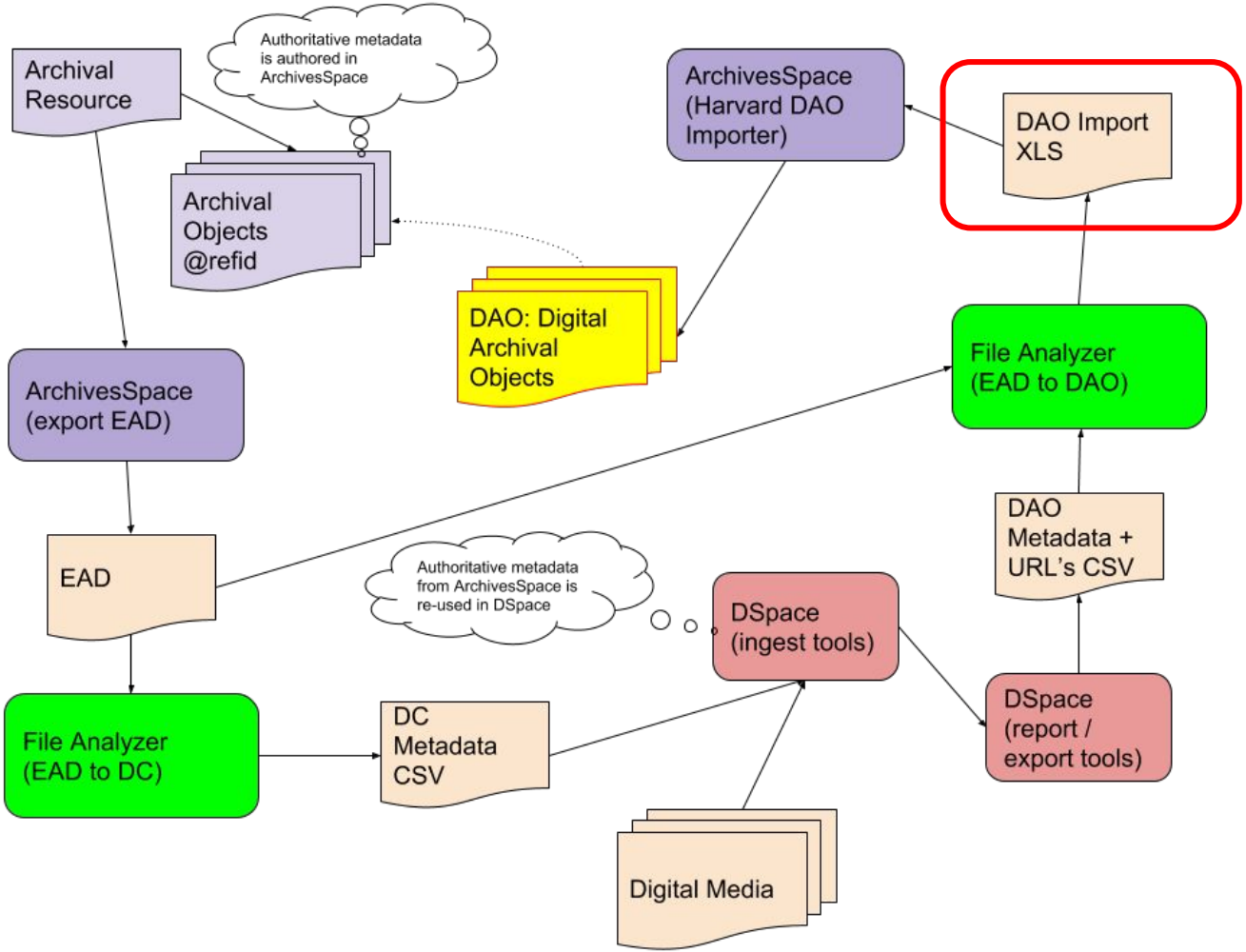
7. Merge report data with EAD file to generate an Excel Import File

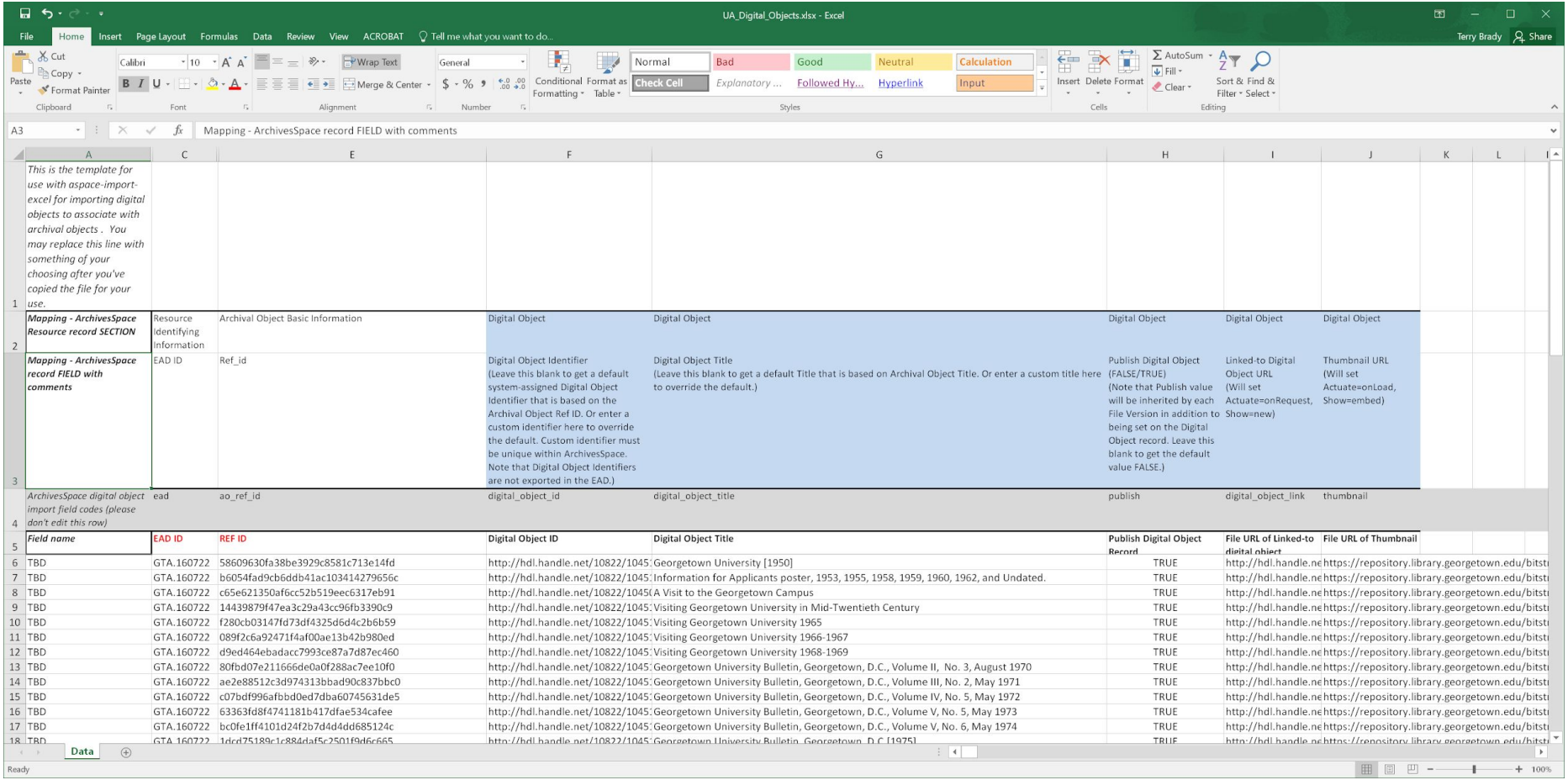
The merge can be performed on AS refid (if available) or on Title


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
File Analyzer (EAD to DAO)
ArchivesSpace (export EAD)
DAO Metadata + URL's CSV
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DSpace (ingest tools)
DSpace (report / export tools)
File Analyzer (EAD to DC)
DC Metadata CSV
Digital Media


Georgetown University Libraries File Analyzer
File Analyzer
Criteria
Import
Progress
Details
Merge
Import Type
File Import
Auto-Generate Unique Keys
Web Harvest
File to Import
C:\Users\twb27\Downloads\GTA.160722_20190306_225233_UTC__ead.xml
...
X
Recent
File Import Action
EAD to DAO Template
Importer Description
Importer Properties
Import Options
This rule will create a template file for the ArchivesSpace DAO Import Plugin from Harvard.
Import File

8. Review the generated Excel File


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
File Analyzer (EAD to DC)
DC Metadata CSV
DSpace (report / export tools)
Digital Media



UA_Digital_Objects.xlsx - Excel

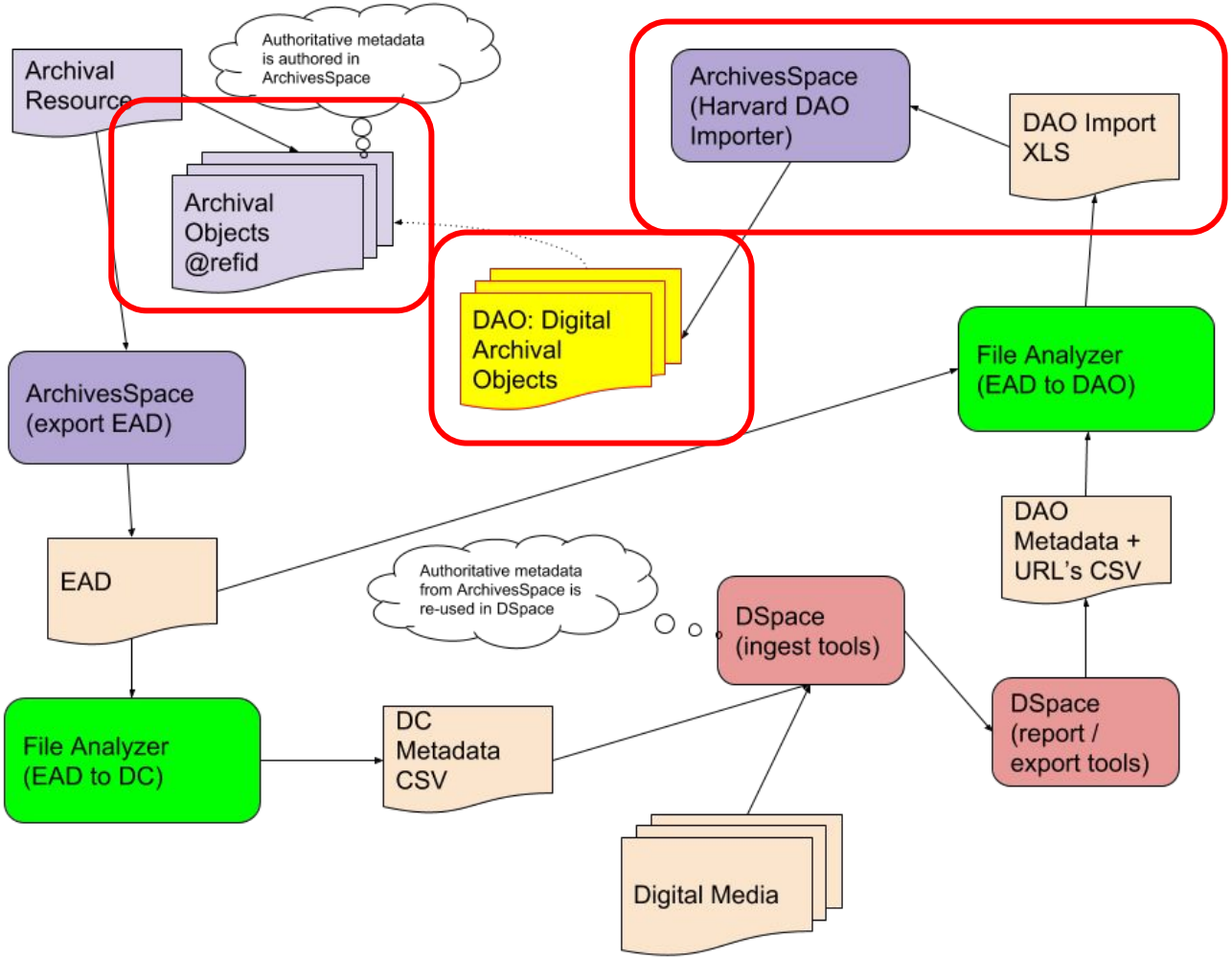
Mapping - ArchivesSpace record FIELD with comments

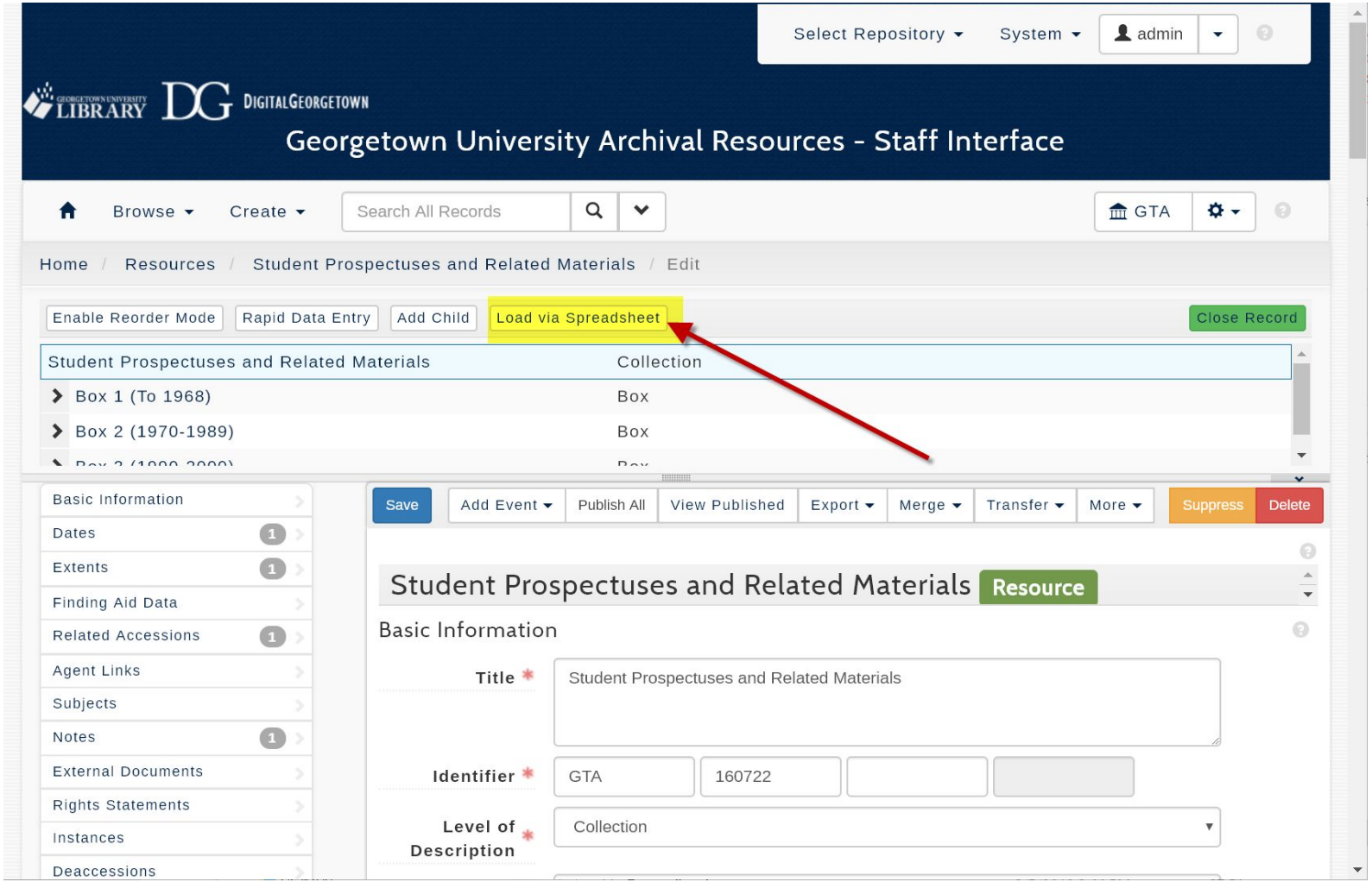
	A	C	E	F	G	H	I	J
1	*This is the template for use with aspace-import-excel for importing digital objects to associate with archival objects . You may replace this line with something of your choosing after you've copied the file for your use.*							
2	***Mapping - ArchivesSpace Resource record SECTION***	Resource Identifying Information	Archival Object Basic Information	Digital Object	Digital Object	Digital Object	Digital Object	Digital Object
3	***Mapping - ArchivesSpace record FIELD with comments***	EAD ID	Ref_id	Digital Object Identifier (Leave this blank to get a default system-assigned Digital Object Identifier that is based on the Archival Object Ref ID. Or enter a custom identifier here to override the default. Custom identifier must be unique within ArchivesSpace. Note that Digital Object Identifiers are not exported in the EAD.)	Digital Object Title (Leave this blank to get a default Title that is based on Archival Object Title. Or enter a custom title here to override the default.)	Publish Digital Object (FALSE/TRUE) (Note that Publish value will be inherited by each File Version in addition to being set on the Digital Object record. Leave this blank to get the default value FALSE.)	Linked-to Digital Object URL (Will set Actuate=onRequest, Show=new)	Thumbnail URL (Will set Actuate=onLoad, Show=embed)
4	*ArchivesSpace digital object import field codes (please don't edit this row)*	ead	ao_ref_id	digital_object_id	digital_object_title	publish	digital_object_link	thumbnail
5	***Field name***	**EAD ID**	**REF ID**	**Digital Object ID**	**Digital Object Title**	**Publish Digital Object Record**	**File URL of Linked-to digital object**	**File URL of Thumbnail**
6	TBD	GTA.160722	58609630fa38be3929c8581c713e14fd	http://hdl.handle.net/10822/1045	Georgetown University [1950]	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
7	TBD	GTA.160722	b6054fad9cb6ddb41ac103414279656c	http://hdl.handle.net/10822/1045	Information for Applicants poster, 1953, 1955, 1958, 1959, 1960, 1962, and Undated.	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
8	TBD	GTA.160722	c65e621350af6cc52b519eec6317eb91	http://hdl.handle.net/10822/1045	A Visit to the Georgetown Campus	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
9	TBD	GTA.160722	14439879f47ea3c29a43cc96fb3390c9	http://hdl.handle.net/10822/1045	Visiting Georgetown University in Mid-Twentieth Century	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
10	TBD	GTA.160722	f280cb03147fd73df4325d6d4c2b6b59	http://hdl.handle.net/10822/1045	Visiting Georgetown University 1965	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
11	TBD	GTA.160722	089f2c6a92471f4af00ae13b42b980ed	http://hdl.handle.net/10822/1045	Visiting Georgetown University 1966-1967	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
12	TBD	GTA.160722	d9ed464ebadacc7993ce87a7d87ec460	http://hdl.handle.net/10822/1045	Visiting Georgetown University 1968-1969	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
13	TBD	GTA.160722	80fbd07e211666de0a0f288ac7ee10f0	http://hdl.handle.net/10822/1045	Georgetown University Bulletin, Georgetown, D.C., Volume II, No. 3, August 1970	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
14	TBD	GTA.160722	ae2e88512c3d974313bbad90c837bbc0	http://hdl.handle.net/10822/1045	Georgetown University Bulletin, Georgetown, D.C., Volume III, No. 2, May 1971	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
15	TBD	GTA.160722	c07bdf996afbbd0ed7dba60745631de5	http://hdl.handle.net/10822/1045	Georgetown University Bulletin, Georgetown, D.C., Volume IV, No. 5, May 1972	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
16	TBD	GTA.160722	63363fd8f4741181b417dfae534cafee	http://hdl.handle.net/10822/1045	Georgetown University Bulletin, Georgetown, D.C., Volume V, No. 5, May 1973	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
17	TBD	GTA.160722	bc0fe1ff4101d24f2b7d4d4dd685124c	http://hdl.handle.net/10822/1045	Georgetown University Bulletin, Georgetown, D.C., Volume V, No. 6, May 1974	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst
18	TBD	GTA.160722	1dcd75189c1c884daf5c2501f9d6c665	http://hdl.handle.net/10822/1045	Georgetown University Bulletin, Georgetown, D.C. [1975]	TRUE	http://hdl.handle.ne	https://repository.library.georgetown.edu/bitst

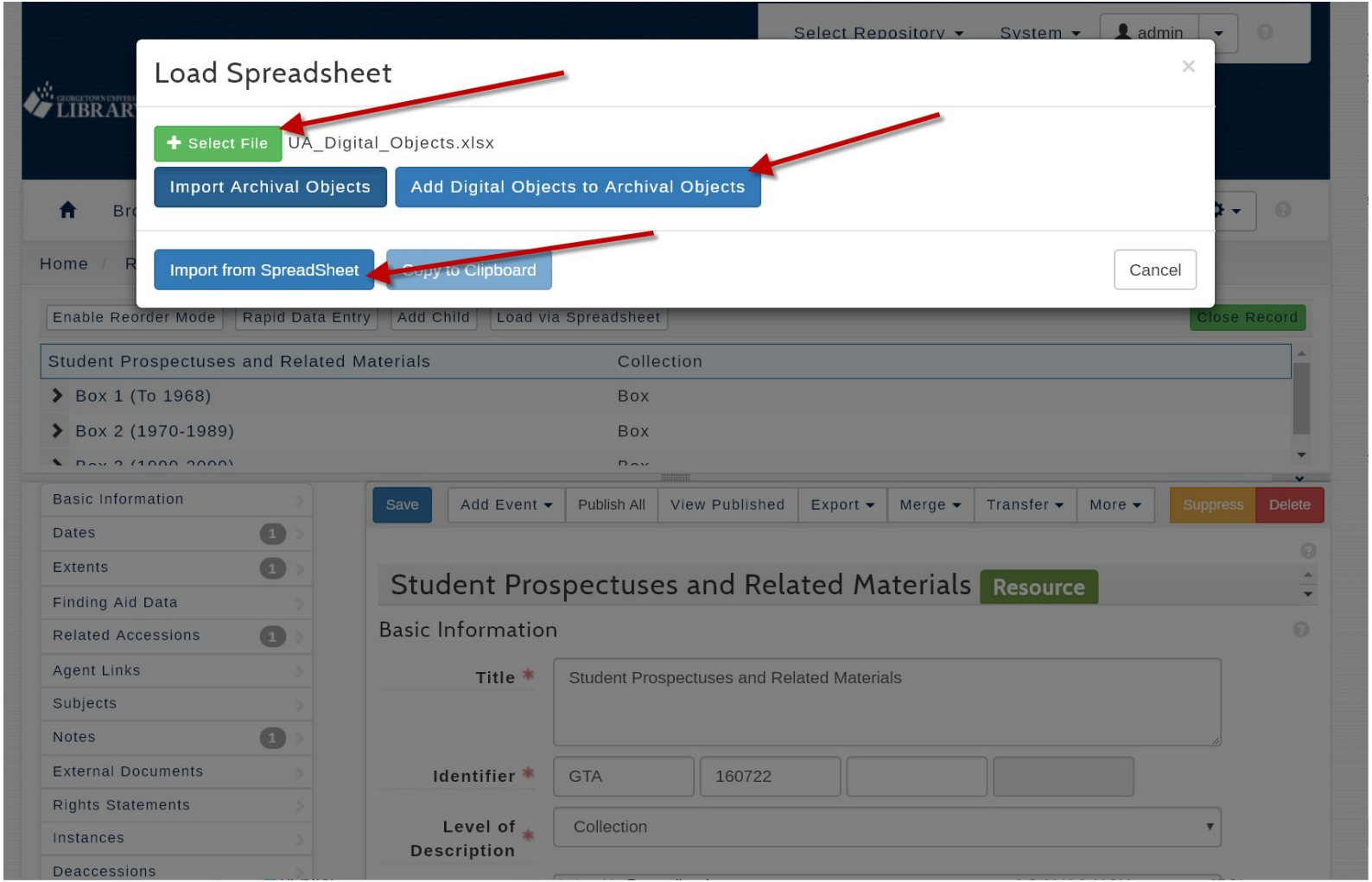
Data

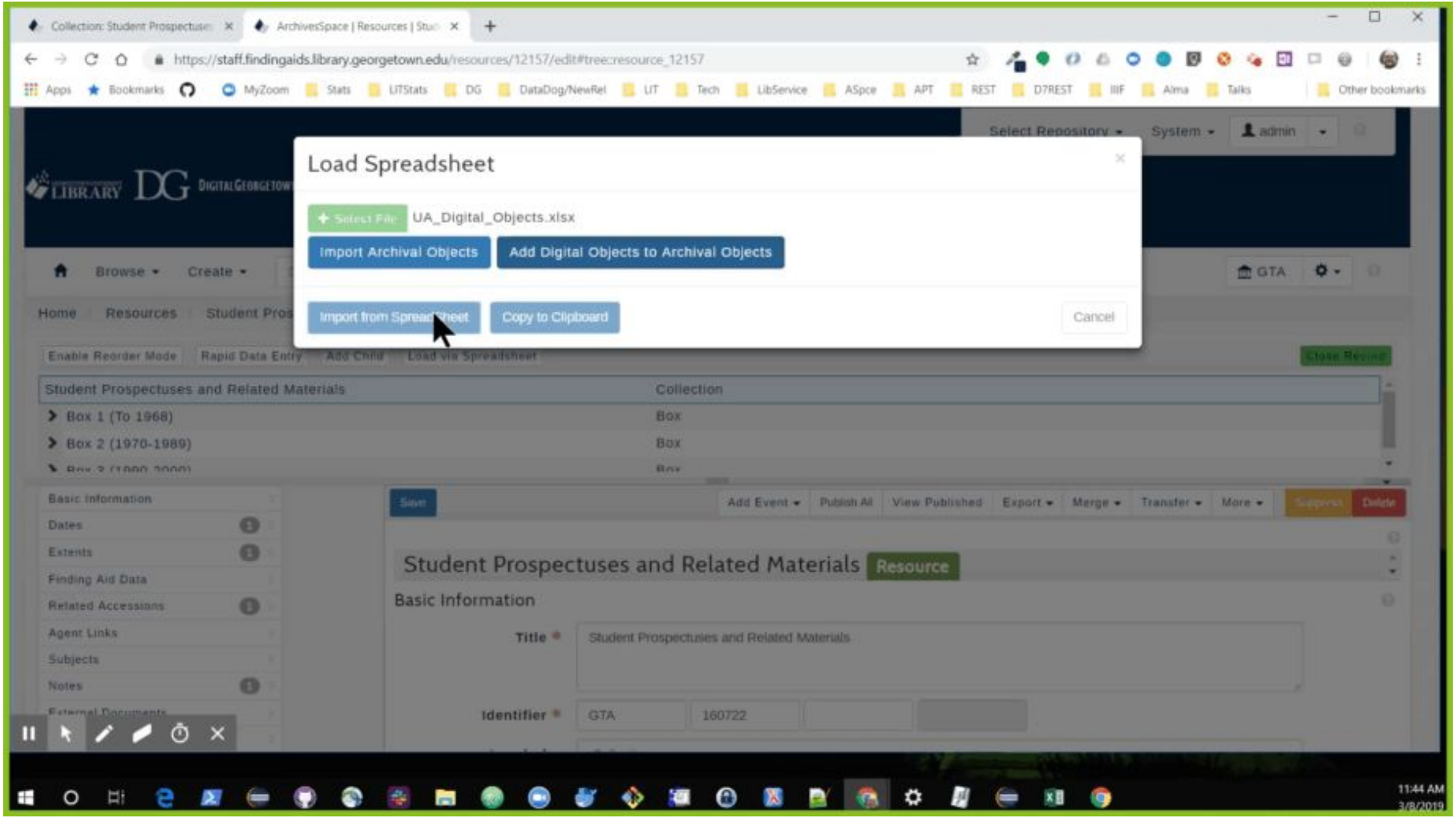
Ready

9. Import the Excel File with the Harvard Plugin

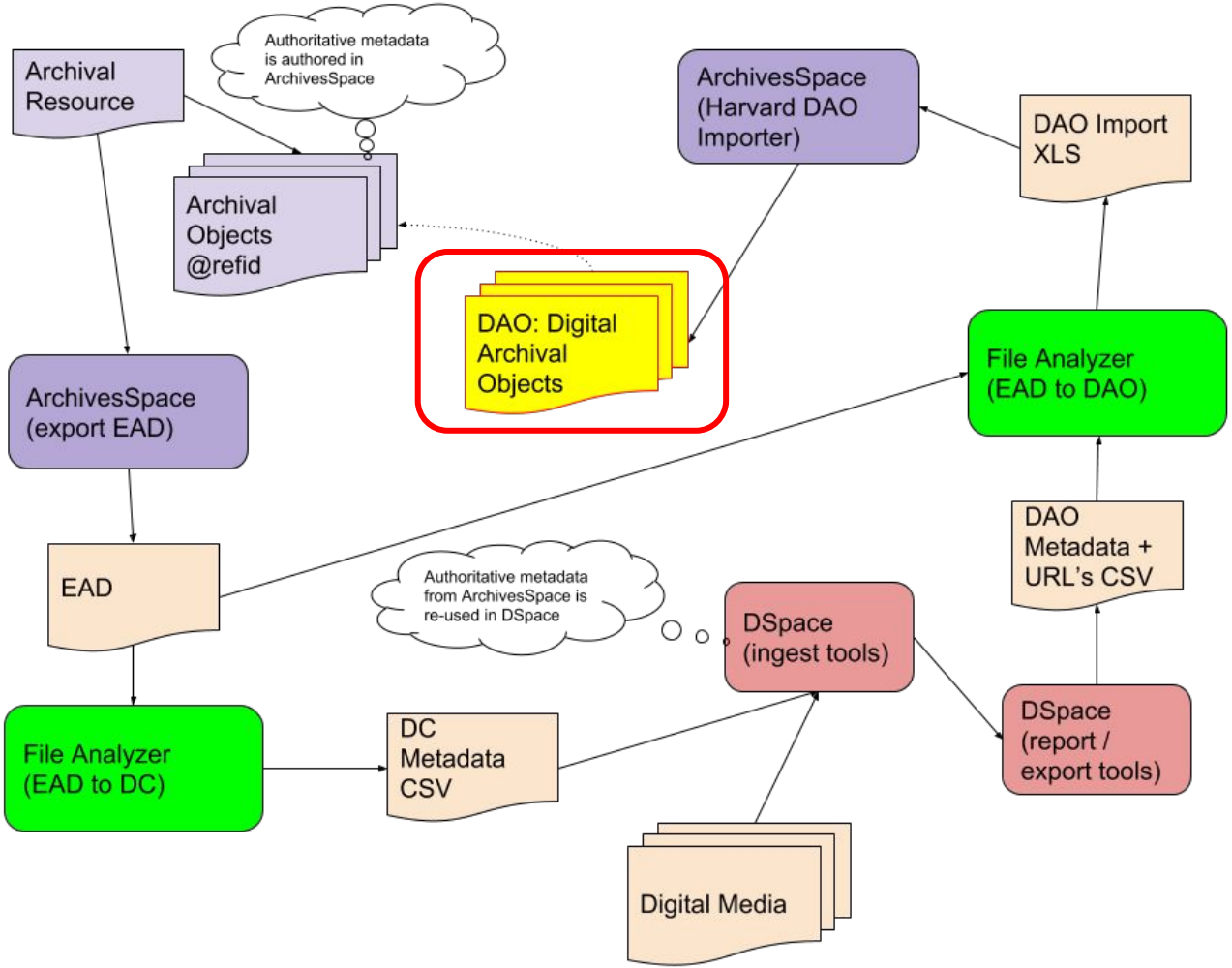

Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
DSpace (report / export tools)
File Analyzer (EAD to DC)
DC Metadata CSV
Digital Media

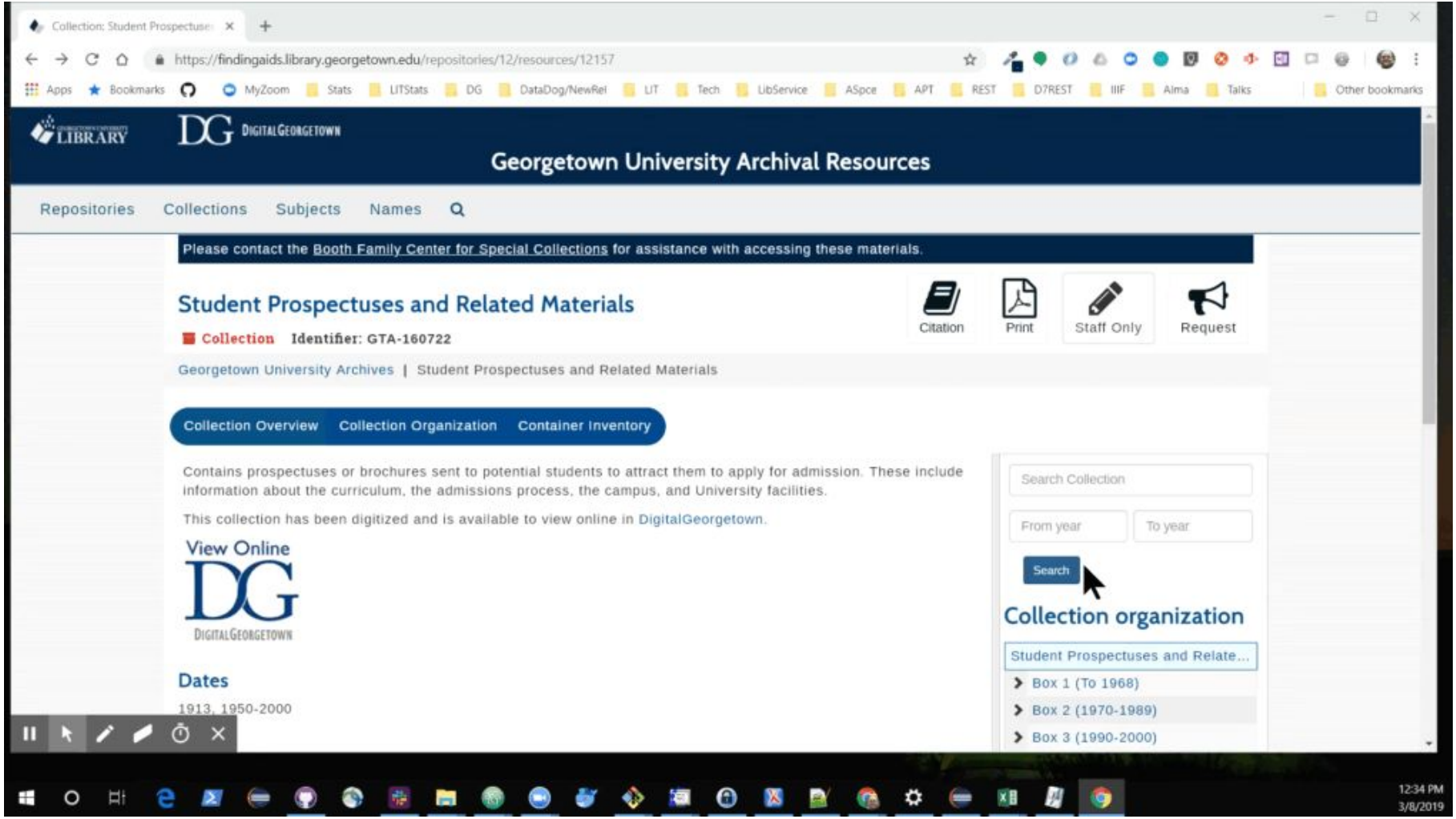

Select Repository
System
admin
DigitalGeorgetown
Georgetown University Archival Resources - Staff Interface
Browse
Create
Search All Records
GTA
Home / Resources / Student Prospectuses and Related Materials / Edit
Enable Reorder Mode
Rapid Data Entry
Add Child
Load via Spreadsheet
Close Record
Student Prospectuses and Related Materials
Collection
Box 1 (To 1968)
Box
Box 2 (1970-1989)
Box
Basic Information
Dates 1
Extents 1
Finding Aid Data
Related Accessions 1
Agent Links
Subjects
Notes 1
External Documents
Rights Statements
Instances
Deaccessions
Save
Add Event
Publish All
View Published
Export
Merge
Transfer
More
Suppress
Delete
Student Prospectuses and Related Materials
Resource
Basic Information
Title *
Student Prospectuses and Related Materials
Identifier *
GTA
160722
Level of Description *
Collection


Load Spreadsheet
Select File
UA_Digital_Objects.xlsx
Import Archival Objects
Add Digital Objects to Archival Objects
Import from SpreadSheet
Copy to Clipboard
Cancel
Select Repository
System
admin
Home
Enable Reorder Mode
Rapid Data Entry
Add Child
Load via Spreadsheet
Close Record
Student Prospectuses and Related Materials
Collection
Box 1 (To 1968)
Box
Box 2 (1970-1989)
Box
Basic Information
Dates
Extents
Finding Aid Data
Related Accessions
Agent Links
Subjects
Notes
External Documents
Rights Statements
Instances
Deaccessions
Save
Add Event
Publish All
View Published
Export
Merge
Transfer
More
Suppress
Delete
Student Prospectuses and Related Materials
Resource
Basic Information
Title
Student Prospectuses and Related Materials
Identifier
GTA
160722
Level of Description
Collection


Load Spreadsheet
Select File
UA_Digital_Objects.xlsx
Import Archival Objects
Add Digital Objects to Archival Objects
Import from Spreadsheet
Copy to Clipboard
Cancel
Student Prospectuses and Related Materials
Resource
Basic Information
Title
Identifier
GTA
160722

10. View the Digital Objects in ArchivesSpace PUI


Archival Resource
Authoritative metadata is authored in ArchivesSpace
Archival Objects @refid
ArchivesSpace (Harvard DAO Importer)
DAO Import XLS
DAO: Digital Archival Objects
ArchivesSpace (export EAD)
File Analyzer (EAD to DAO)
EAD
Authoritative metadata from ArchivesSpace is re-used in DSpace
DAO Metadata + URL's CSV
DSpace (ingest tools)
File Analyzer (EAD to DC)
DC Metadata CSV
DSpace (report / export tools)
Digital Media


Collection: Student Prospectuses
https://findingaids.library.georgetown.edu/repositories/12/resources/12157
Georgetown University Archival Resources
Repositories
Collections
Subjects
Names
Please contact the Booth Family Center for Special Collections for assistance with accessing these materials.
Student Prospectuses and Related Materials
Collection Identifier: GTA-160722
Citation
Print
Staff Only
Request
Georgetown University Archives | Student Prospectuses and Related Materials
Collection Overview
Collection Organization
Container Inventory
Contains prospectuses or brochures sent to potential students to attract them to apply for admission. These include information about the curriculum, the admissions process, the campus, and University facilities.
This collection has been digitized and is available to view online in DigitalGeorgetown.
View Online
Dates
1913, 1950-2000
Search Collection
From year
To year
Search
Collection organization
Student Prospectuses and Relate...
Box 1 (To 1968)
Box 2 (1970-1989)
Box 3 (1990-2000)
12:34 PM
3/8/2019

Student Prospectuses and Related Materials

Collection Identifier: GTA-160722

Citation Print Request

Collection Overview | Collection Organization | Container Inventory

Contains prospectuses or brochures sent to potential students to attract them to apply for admission. These include information about the curriculum, the admissions process, the campus, and University facilities.

This collection has been digitized and is available to view online in DigitalGeorgetown.

View Online DG DIGITALGEORGETOWN

Dates

1913, 1950-2000

Extent

1.25 Linear Feet

Expand All

Finding Aid & Administrative Information

Repository Details

Search Collection

From year To year

Search

Collection organization

Student Prospectuses and Relate...
- Box 1 (To 1968)
  - Georgetown University Circ...
  - Georgetown University [195...
  - Information for Applicants p...
  - A Visit to the Georgetown C...
  - Visiting Georgetown Univer...
  - Visiting Georgetown Univer...
  - Visiting Georgetown Univer...
  - Visiting Georgetown Univer...

More information

View this example archival collection in our ArchivesSpace user interface:
https://findingaids.library.georgetown.edu/repositories/12/resources/12157

View this example digital collection in our DSpace repository:
https://repository.library.georgetown.edu/handle/10822/1045094

GitHub documentation with links to the tools we have demonstrated:
http://bit.ly/as2dspace

Contact us!
digitalscholarship@georgetown.edu