

Axaem Overview

August 13, 2013

Abstract: AXAEM, or APPX-based Archives Enterprise Manager, is an open source application created by the State of Utah to manage the workflow of the State Archives. It automates both archival and records management processes, describing records of all types, records creators and other entities, training opportunities available for records officers, patron requests, volunteers, projects, and microfilm and digitization work orders. It also facilitates the accessioning of physical records, and can manage holdings and space allocation, or integrate with third-party software for that purpose. It can ingest and extract metadata from electronic records and run many tools useful in the format validation and transformation process. It also integrates with Gmail and the Google calendar API, supporting the batch downloading of email from that source per labels/folders applied, as well as sending email from a Gmail account or posting an event to the calendar. The database is integrated with the Solr search engine for ease of public access, which offers faceted searching based upon AXAEM metadata and downloading of ingested electronic records. AXAEM also supports the creation of record indexes that are web-searchable (such as by a person's name or relevant date). Other website integration includes the ability to print retention schedules or submit new ones, as well as provide online tests for the certification of records officers. The application has one required software dependency, which is the APPX utility (proprietary and fully vendor-supported). AXAEM's GPL open-source license has an exception for this utility. Other software dependencies used in the electronic records process are optional, generally open-source, and have their own licensing requirements. In Utah, the box inventory system integrated with AXAEM is another proprietary product: Versatile from Zasio. All software dependencies are the responsibility of the user.

Automating the Archives

The Utah State Archives' local system is written with software called APPX, a proprietary Rapid Application Development tool, and the resulting application has been named APPX-based Archives Enterprise Manager (Axaem). This software allows us to develop applications that reflect our business needs, and change and expand as we see fit. The features used in Axaem are directly related to APPX Software's capabilities, and they change and grow as we implement upgrades. We can add new processes, menus, and data fields easily when needed, often taking only minutes, so feedback about new business requirements is always welcome. Axaem code has been made open-source by the State of Utah.

That said, our local system was designed many years ago by a group of archivists, who sat in many meetings discussing archival theory and how it applied to archives practices, records management, and automated systems. They came up with foundational principles and table structures that have served us well for over 20 years.

One foundational principle is that records have a lifecycle. They are created and used actively by an entity, stored for a while off-site, and then destroyed or transferred to an archives for permanent access. Once in an archives, other things happen to those records. The process is a continuum, but with many procedural branches. Since the Utah State Archives and Records Service functions as both a records management and archival institution, our local system is smart to do so as well. To that end, Axaem begins with a simple core idea that gets added upon. Records first obtain retention schedules, and are given basic descriptive data. They also have classifications, or access restrictions reflecting state law. And they have an approval process that they must go through, and those meetings where approval is granted have to be managed. Then other important things start to emerge, all of which get saved to the system. For instance, records are sometimes microfilmed. The film contains certain data ranges, belongs to specific record series, and is filmed by individual cameras all of which need to be managed. The records, if permanent, are arranged and described at the box, file, and reel level. Electronic records can also be described at the individual object level, or in groups such as at different levels within a folder tree. Records have finding aids created, and may also be indexed. They have relationships to other records, which must be recorded. They may have a history of being produced by another agency before being managed by their current one, which also needs to be recorded. Those agencies have their own history, functions, and prior names, and may be current or defunct. There are people at the agencies that we need to keep in contact with and train, and those training sessions need to be managed. And on, and on.

Each piece adds context and meaning to the information we are trying to preserve, understanding of the government process that existed at any moment in time, and greater efficiency to the administrative tasks of the Archives. Context, content, provenance, and original order are the cornerstones of archival management. Instead of starting the descriptive process over each time the records pass through another point in their lifecycle, the information is added continually to that single entry point. Then the data is presented to the public as a retention schedule, a catalog record, a finding aid, a searchable index, and the metadata for born-digital or scanned individual items.

In addition to recording information about records and their creators, Axaem has automated many workflows for the Archives. This has served to streamline our work and given us the ability to adapt to changing recordkeeping requirements. Those workflows include the creation of digitization workorders, patron registration, project management, volunteer management, records officer training, and direct interface with Gmail and Google Calendar, to name a few.

This tutorial is intended to clarify what the features are, how they were intended to be used, and why they support best practices. It will also delineate the procedural steps for navigating through the software, adding data, and saving changes.

System Architecture

APPX has three components: the client, server, and database. The client is what's known as "thin client." It is written in Java. All that the client does is create a communication link with the server and provide a runtime environment so that you can interact with the data using a graphical interface. You may download the client from APPX's website, www.appx.com. After the client is installed, you can access Axaem from anywhere, as long as you have an Internet connection and login rights. If you are trying to access it outside the state firewall, there may be some restrictions.

The APPX engine and the applications we've written for our business processes are stored on the server, not the client. In Utah, our main (production) applications run on a Linux server. The name of this server is used when you are at the APPX login screen. We also have another instance of the software installed on a Windows server. The Windows server provides access to a database of record locations in our permanent records room, which has an Automated Storage Retrieval System from HK Systems. And we have a separate Linux VM for testing.

The database we use is Oracle (in the case of the Linux applications), and SQL Server in the case of Windows. The Linux server also stores data in APPX's native database, known as APPX/IO, to provide faster response to some tables. Oracle is located on a separate Linux server. The reason we use Oracle is so that data can be shared with another third-party system, which is used to manage records at our Records Center.

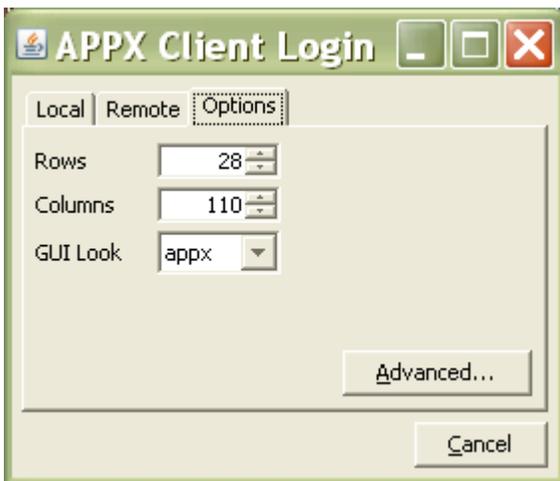
Also on the Linux server, we have a web server running, which provides public access to Axaem data, such as series indexes and retention schedules. This is where we store our CGI scripts. The forms on our website reference these scripts, which temporarily log the web user directly into Axaem, allowing people to interact with the system just as any other user (e.g. to run searches, submit new series, or generate PDF reports), then quickly log the user out again when the browser request has been fulfilled.

Login

To login to APPX, use the login ID and password assigned to you by the APPX administrator. APPX will remember everything except the password the next time you try to get in:



Prior to logging in, you can set options by going to the Options tab.



This is where you set the screen rows and columns to be 28 x 110 instead of the default 21 x 80, or change the font size. The default screen size does need to be changed to use Axaem. For additional options, click Advanced. Double click in the left-hand value fields to edit. After you make your change, when you click outside of the field, the background changes to yellow. When you are done making changes, exit by clicking the X on the upper right-hand of the window. Then click the Remote tab and log in as normal to save your changes.

Option	Value	Default Value	Description
[Options]			
guiInterface	true	true	Turn the GUI Interface On or Off
showOptionNumbers	false	false	Show numeric option numbers of buttons
autoTabOut	true	true	Tab to next field after current field is filled
autoSelect	true	true	Select text as a field gains focus
dockingScrollbar	true	true	Hide scrollbar unless the mouse is near the scrollbar lo...
showScrollbar	true	true	Should the scrollbar be visible at all?
showGridlines	false	false	Show gridlines in the Image Editor
toolbarIconSize	Medium	Medium	Toolbar Icon Size
toolbarStyle	Both	Icons	Toolbar Button Style
editorForceSize	false	false	Force design widgets to not truncate content
hideStaticClientMenus	false	false	Hide the client autoGui static pulldown menus
characterEncoding	windows-1252	windows-1252	Character Set Encoding
showButtonFocus	true	true	Show focus border when button has focus
textReverseEnterKey	false	false	Pressing ENTER in a Text Field performs a Newline onl...
arrowScrollEditor	true	true	arrow keys will scroll if code if at top or bottom of region
endMappedToCtrlE	false	false	Should the Ctrl-E sequence map to an Appx END key a...
hidePrefsMenuItem	false	false	Hide the menu option to edit the preferences.ini file
appxDoubleClick	false	false	Enable Appx DoubleClick = EnterKey logic
allowAquaButtons	false	false	Allow native Aqua buttons on OSX?
arrowScrollRegion	true	false	arrow keys will scroll and scrolling area if at top or bott...
alwaysOnTop	false	false	Window always on top?
windowOpacity	100	100	Window opacity (0=transparent, 100=fully opaque)
borderlessMode	false	false	Remove main window border decorations
useMainTitlebar	false	false	Use the main window titlebar instead of a MDI type titl...
useScrollNavBar	false	false	Use a NavBar for scrollers instead of a ScrollBar
presentationMode	false	false	Hide frame, stretch to fill screen, and center
presentationFg	#FFFFFF	#FFFFFF	Background color to fill around client window
presentationBg	#000000	#000000	Background color to fill around client window
presentationFooterSize	14	14	Font size of footer message in Presentation Mode
newScanButton	true	false	Activate new code for smaller scan button
displayNumber	1	1	Which workstation display to use for a multi-head PC
drawBlockCursor	true	true	Draw the block cursor
drawScrollActive	true	true	Draw the scrolling region record selected
presentationRemote	false	false	Presentation Remote Mode
swipeScrollMode	false	false	Swipe to Scroll Mode

Main Menu

After you login, you will be presented with the Main Menu:

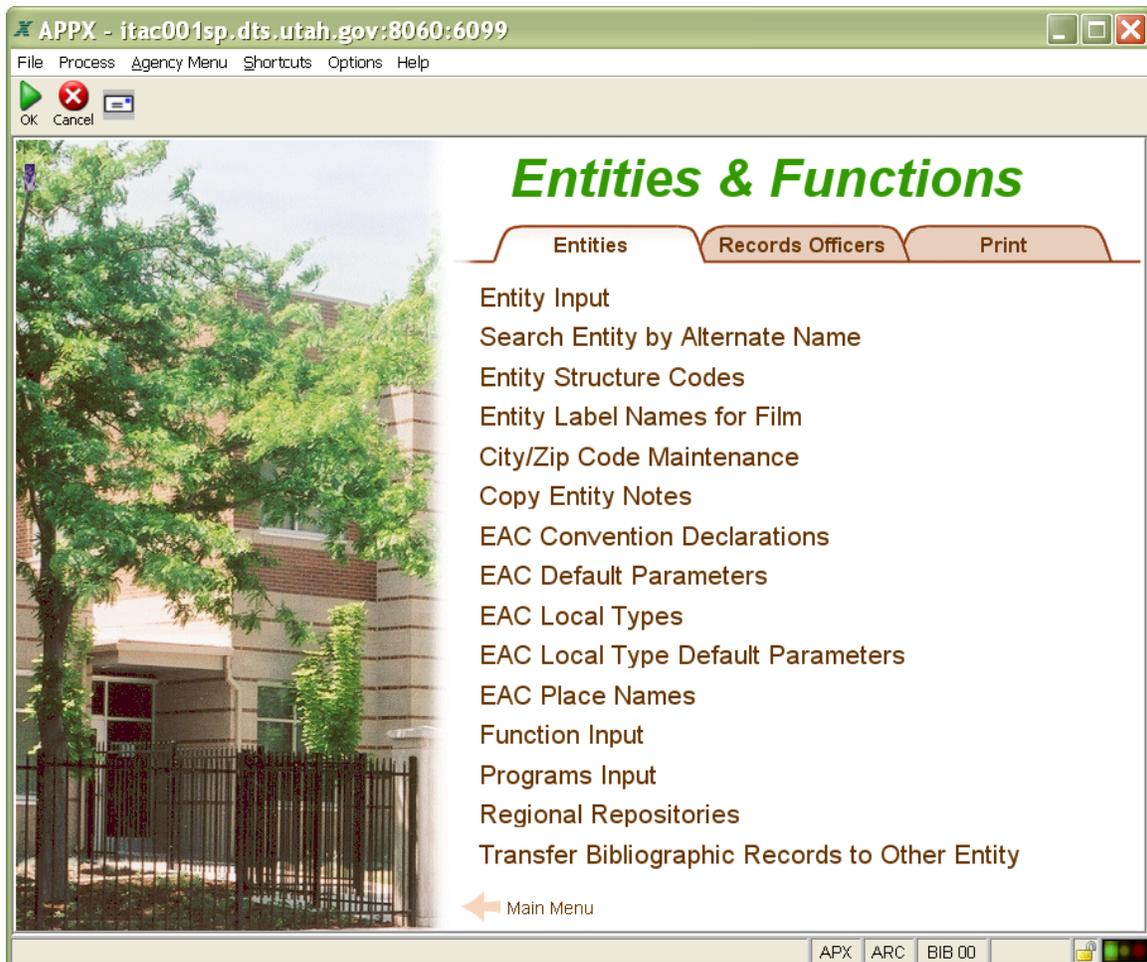


Some menu items are going to be used far more than others. Typically, you will spend most of your time in Bibliographic Records; Entities & Functions; and Microfilm & Digitization—not necessarily in that order.

Entities and Functions

The Entities & Functions Menu is used to record information about state and local government agencies in Utah, and the people we interact with in those agencies. It also records all of the context of record creation, as defined by the Encoded Archival Context (EAC) standard, and the functions of record creators. Axaem calls these units “entities.” In Utah, we only work with governmental entities, also known as agencies, so the descriptions below will refer to entities as agencies. An “agency” is a unit of government that operates relatively independently. It may be part of a larger department or have smaller divisions under it. Program units are not considered separate agencies, but they can be recorded in the database when they exist. Programs are usually small workgroups, but are unique in that they may span several agencies, such as federal grant programs. The way the line is drawn between something being an agency versus a program is its size and purpose, the level of independence, an official name, the existence of a director, and a separate budget from other agency units. If it has all those things, it’s an agency.

Recording agency information provides provenance and context to the records that are created by those agencies. It also acts as an authority file, so that agency names only need to be established once but can be used multiple times by different processes.



Every agency is given a number, called the agency key. This is a sequence number that grows as each agency is added to the system. The agency key is independent of all other numbers. Agencies also have another unique key called hierarchy codes. These 4-character codes, when used as a set, are equivalent to the agency key.

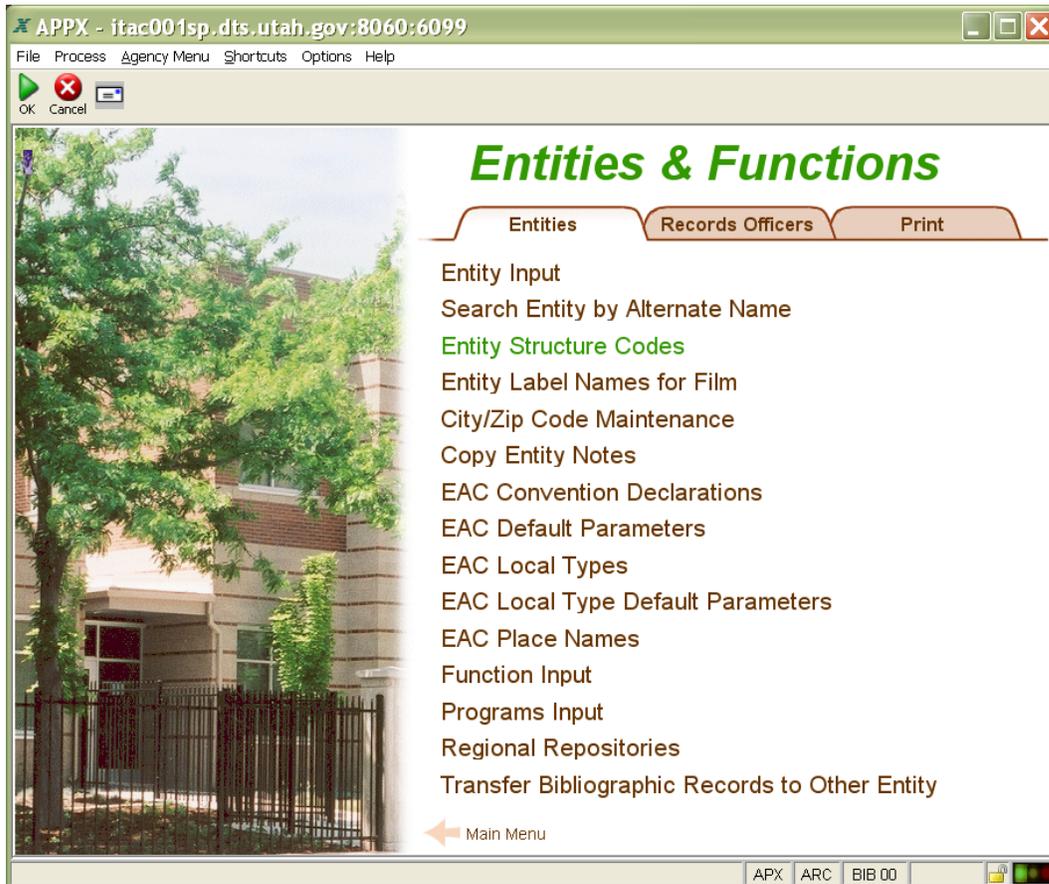
```

Higher Agency:      388  Finance
1  AS  AS  Administrative Services
2  FI  FI  Finance
3      ACO Accounting Operations
4
5

```

In this example, the hierarchy code set is AS FI ACO, for the Accounting Operations section of the Division of Finance. Its agency key is 22. The agency key of the division

above it (Finance) is 388. What the codes do is provide a linking relationship between agencies, so that all agencies belonging to the same department use the department's code as part of its set. Each hierarchy level has its own code, and together they describe the specific agency. Before an agency can be created, these hierarchy codes must first be added through the Entity Structure Codes function:

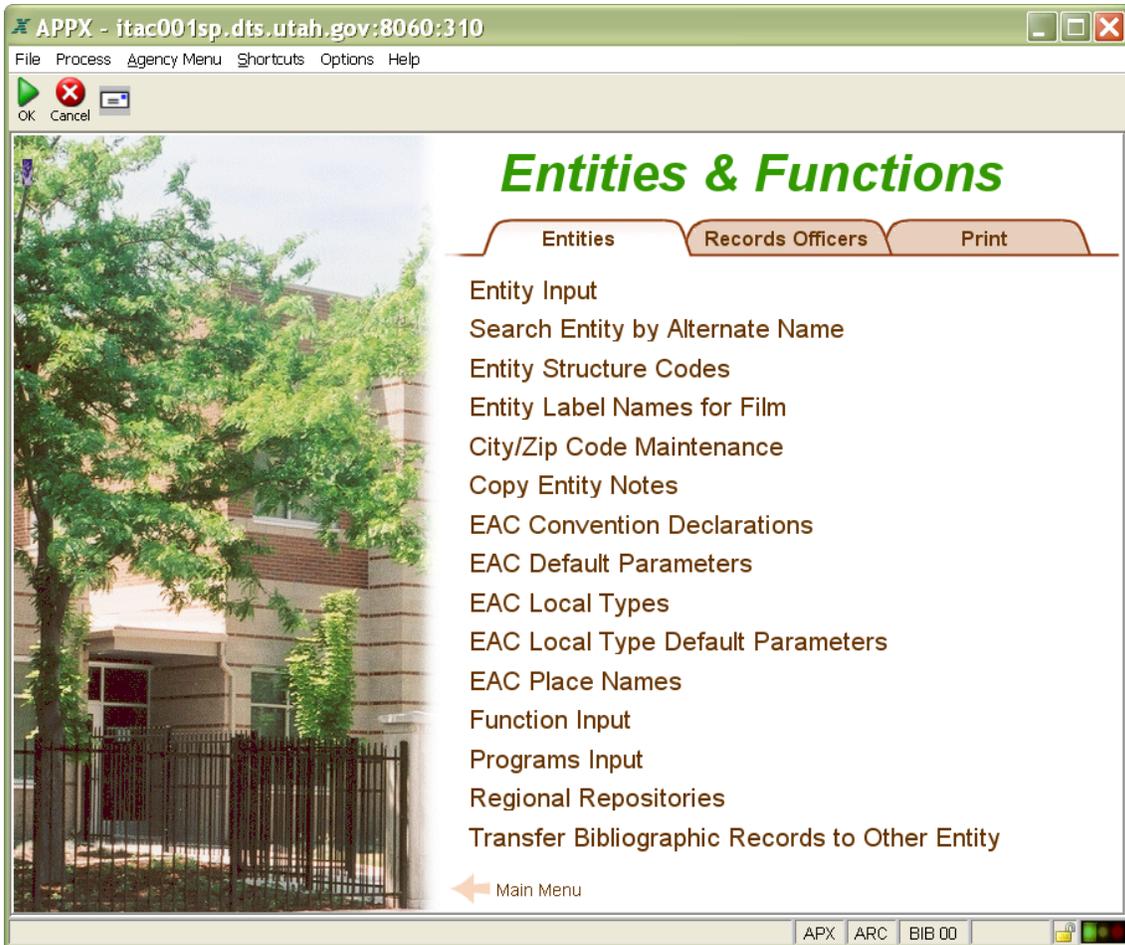


The individual codes are intended to be generic. They may appear at any level of the hierarchy, and are re-used for agencies that have similar units (e.g. “AS” for Administrative Services could be part of the code set for the Dept. of Administrative Services, as well as the Dept. of Human Services’ Division of Administrative Services, which is why it has been added several times—once for each level).

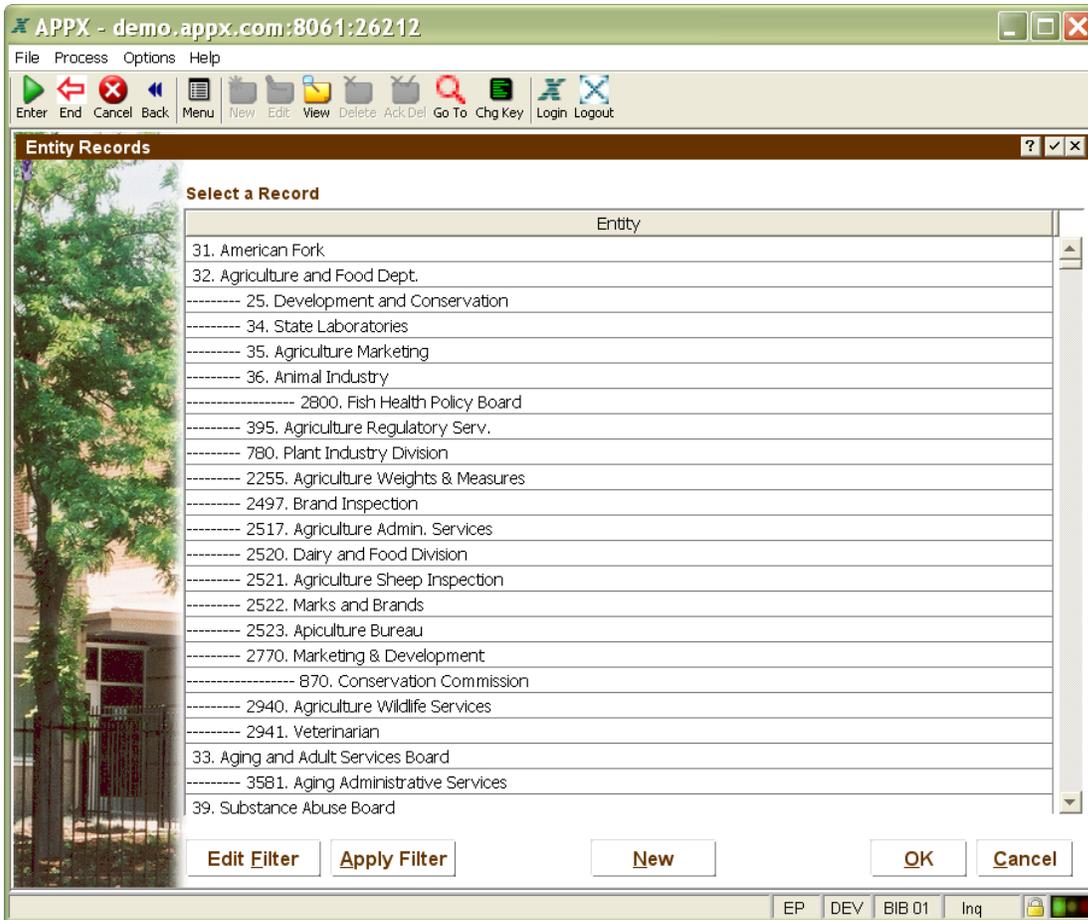
Code	Description	Hierarchical Level (1-5)
AC	Archives	2
AC	Archives	3
ANC	Animal Control	2
AS	Administrative Services	1
AS	Administrative Services	2
AS	Administrative Services	3
AS	Administrative Services	4
AS	Administrative Services	5
BC	Brigham City	1
COM	Commission	2
CRD	Corrections Department	1
CRD	Operations Administration	2
DAC	Davis County Commission	1
DC3	District Court (3rd)	1
DLS	Driver Licence Division	2
DTS	Dept. of Technology Services	1
GV	Governor	1
HD	Health Department	1

So if you pull a report that lists hierarchy codes, don't be surprised if the name tied to the code doesn't perfectly reflect the official name of the agency. It's not supposed to. The most useful part about hierarchy codes is the ability to pull reports for a whole department and its subunits with a single query. For instance, if you want every retention schedule that the Dept. of Transportation has, use the department code TR in the space provided in the query, and the system will happily print all 1,000 pages from every division for you. If you just want the report for a single division of UDOT, use the agency key instead to specify which one.

Click Exit to go back to the Entities & Functions Menu, then Click Entity Input:



To look at an agency record, click Entity Input, which will bring up a list that you can filter.



Choose a row, then click OK or press Enter to bring up the first record:

Agencies have official names. The way that these names are recorded in the database reflects standard library cataloging rules. If you would like to know why an agency is named the way it is, see *Anglo-American Cataloging Rules II (AACR2)* or its replacement, *Resource Description and Access (RDA)*, and *Describing ARCHIVES: a Content Standard (DACs)*. Generally, the names are closely tied to what the agency calls itself, as recorded in its own literature, but the form is standardized to an extent. Official names have been known to change over the years, and we keep track of each change, called the prior name. Records created and then closed during the years of a prior name will display the prior name in the system as the creating entity instead of its current one. That's how we keep track of all the different governor's records, even though the governor as an agency has kept the same agency key (446) throughout the years.

The alternate agency name is a list of names the agency may go by, including its official one as well as nicknames and shorthand names. This field is used when searching, both when logged into the system and on our website.

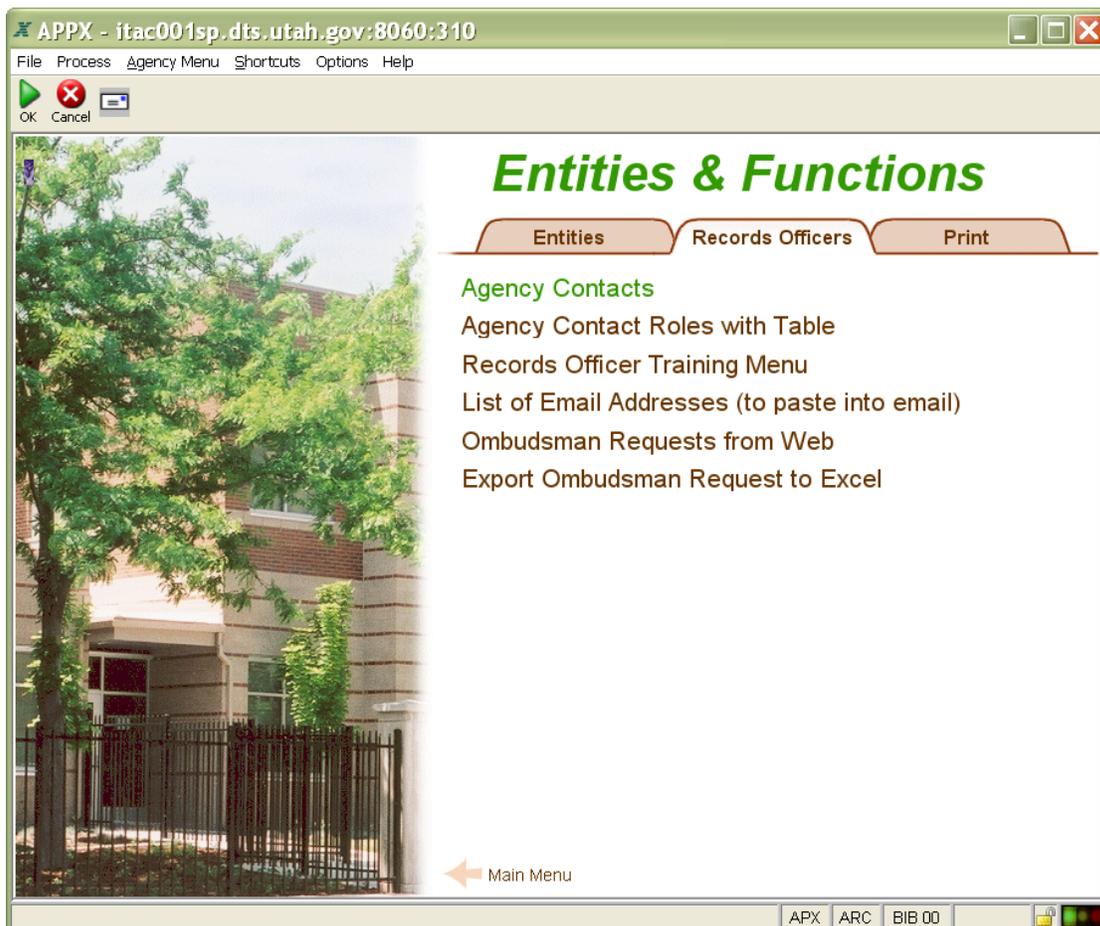
Agencies also have date spans, histories, functions, and other notes. All of these details are part of the history record. Each agency record is automatically mapped to MARC codes when data entry is done, and becomes part of the catalog.

The buttons below the name and hierarchy information on this screen represent other files (children of the agency record), each of which has its own descriptive information. The shading on the button indicates that data exists in that category.

Click Exit or press F8 to go back to the Creators & Functions Menu.

To view the people we interact with at the agencies, click the Records Officers tab.

Records officers and their contact information (address, phone, email, etc.) are recorded in the database and tied to the agencies they represent as well as the roles they fill. Some people wear more than one hat, so contact types are given codes, such as ARO for Agency Records Officer, CRC for County Recorder, and MIC for Micrographics Contact. You may add as many codes as the person has hats.



Click Agency Contacts, then press Enter to bring up the first record:

APPX - itac001sp.dts.utah.gov:8060:310

File Process Options Help

OK Cancel New Edit View Delete Ack/Del Menu

Mailing List

Key	Prefix	Last Name	First Name	Middle Name	Suffix
1175		Ahlstrom	Erika	J	

Title: City Recorder **Familiar Name:** Erika

Address:
Street: 1600 E South Weber Dr
City: South Weber UT 84405

Phone: 801 479 - 3177 **Ext:**
Fax: 801 479 - 0066
Email: eahlstrom@southwebercity.com [Send Email](#)

Notification Method: E-mail
Building Mail:
Agency to Appear on Label if Building Mail is Used: 0

Original Certification: 09/13/2012 **Last Certification:** 09/13/2012 **Certification Expires:** 09/13/2013

Box Inventory ID: If user ID is filled in, box inventory system will use address info from APPX.

Comments:

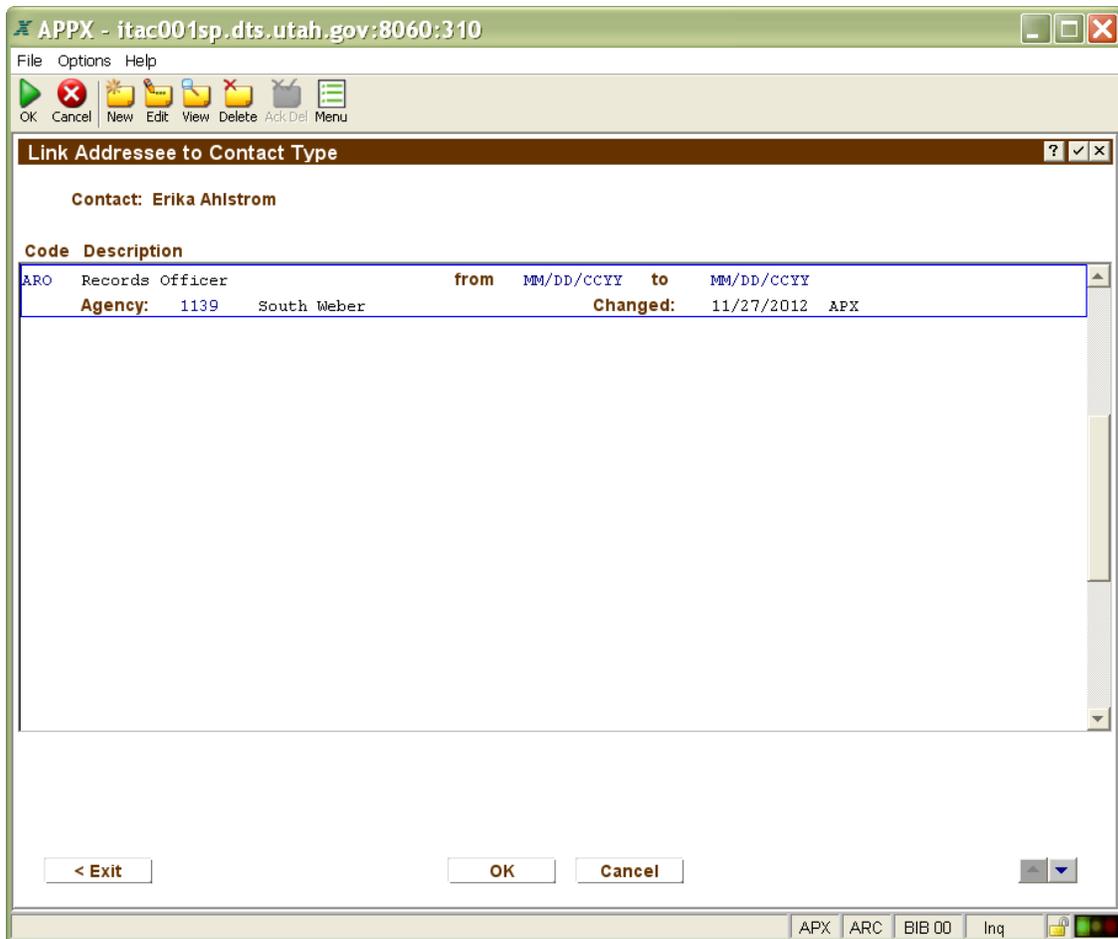
Role Description: City records management [Edit](#)

Track the training sessions this individual has attended.
[Training](#)

[< Exit](#) [Go To](#) [OK](#) [Cancel](#) [Contact Type](#) [Next >](#)

APX ARC BIB 00 Inq

Click Contact Type to see this person's role(s):



For further information about how Entities may be added to Axaem, see system documentation called [Entities and EAC](#).

Exit to Main Menu.

Bibliographic Records

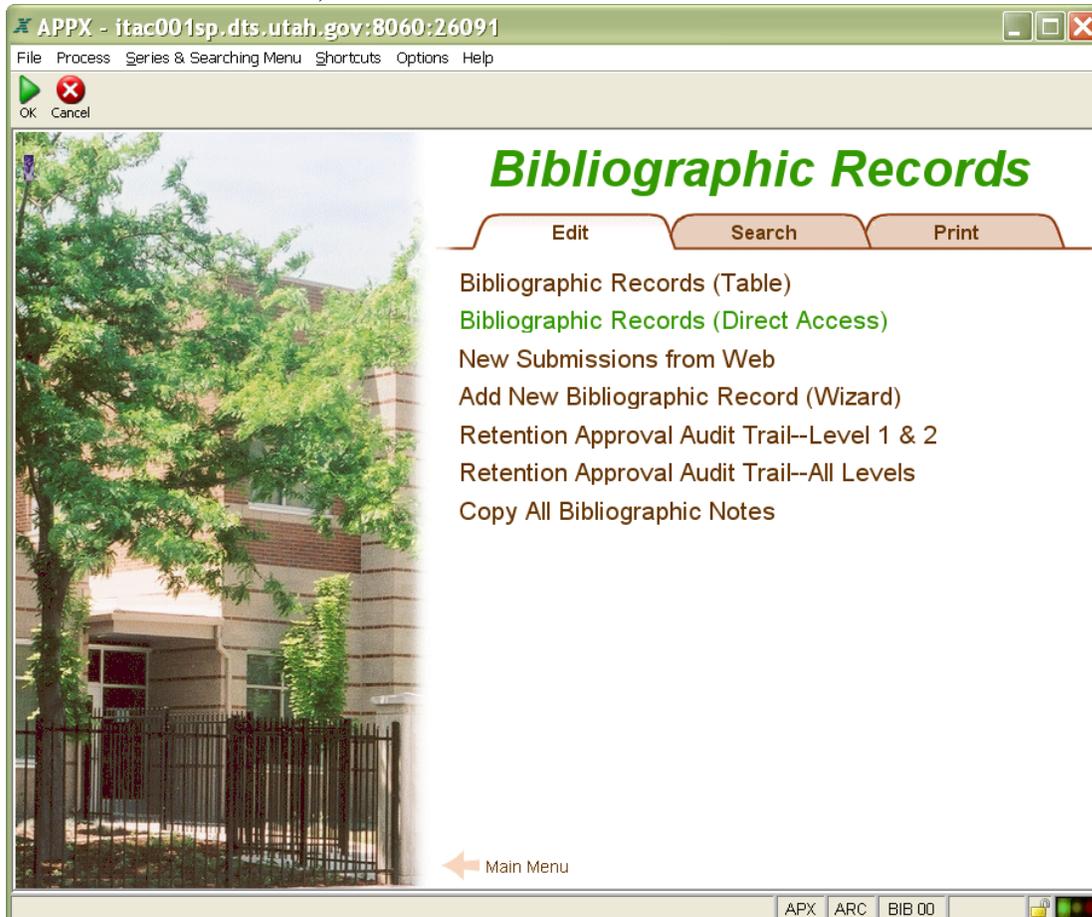
The Bibliographic Records Menu is the heart of Axaem. All other functions revolve around data contained here. Record series by definition are groups of records housed together that are created for a single purpose, and share a common retention and arrangement. This definition comes into play when trying to determine series boundaries. Axaem uses the term “series” since that is the bibliographic level used at the Utah State Archives. The database table name used, however, is BIBLGRPC, for Bibliographic file. Any record at any bibliographic level can be entered here, and relationships between collections, series, sub-series, and items are stored within the bibliographic file.

When determining series boundaries, some archivists like to lump records together into one series and others prefer to split them into several. The former is more convenient, but the latter is more precise. Axaem was designed to be flexible in this regard (series can be merged), but it supports descriptive precision especially well. Instead of combining the

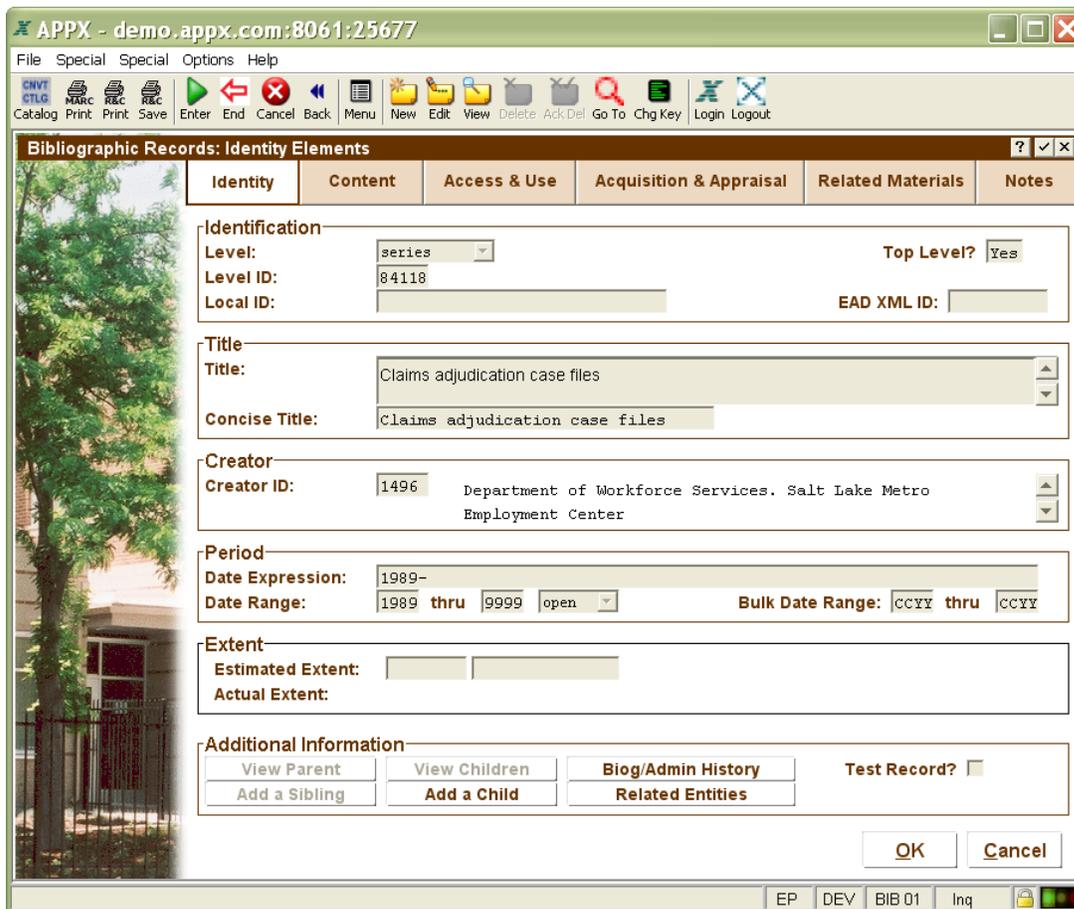
records together it allows the creation of relationship links to other series through the Related Materials file (MARC code 544) so that the full context of these records can be recorded. This allows for records whose purpose, title, or arrangement have morphed over the years to be described separately and yet still be linked together. Records created by separate offices should always be a separate series, and linked to their correct agency through the agency key (the agency authority file), not the series title.

Sometimes the decision to split a series or not is a little bit fuzzy. We do have a field for “prior arrangement,” MARC code 351, which can either be used to expand the understanding of one series (and the filing habits of a rotating door of secretaries) or be used as a clue that maybe the series is different enough in purpose now that it should be divided in two. Sometimes the rules are quite clear. For instance, cataloging rules state that a change in title (MARC code 245) must be followed by a new catalog entry (meaning you have to create a new series). So series boundary decisions are affected by professional standards as well as a certain amount of intuition. In the end, these rules help keep and maintain a clean system with good consistent data entry.

Click on the Bibliographic Records menu, then click Bibliographic Records (either via the table or direct access):



Click Enter to bring up a record:



All of the buttons and options on the Bibliographic Input screen are designed to reflect DACS rules, so that standard can be used as a primer for knowing what kind of data to enter into the various fields in Axaem. Record series have a creator (an agency), a title, date span, arrangement, description, retention, appraisal, and physical extent at a minimum. Other data may also be recorded. Record series are cataloged as a unit, similar to a book in a library. Each field is automatically mapped to its corresponding MARC code. The way you word the data in these fields matters. Cataloging rules are very precise when it comes to things like capitalization.

Record series have an identifier. For each bibliographic level, a unique number is assigned. Bibliographic records may also use a local identifier, which is an alphanumeric field for recording call numbers or other collection identifiers. These “series numbers” make our local system work. Almost every process in the system references back to the bibliographic record. Changes made to the bibliographic record are independent of any change to agency hierarchy or original creator, which comes in very handy when series are moved about from agency to agency

Here’s another example of a series:

APPX - demo.appx.com:8061:25677

File Special Special Options Help

CNVY CTLG Mac Print Print Save Enter End Cancel Back Menu New Edit View Delete AckDel Go To Chg Key Login Logout

Bibliographic Records: Identity Elements ? ✓ ✕

Identity	Content	Access & Use	Acquisition & Appraisal	Related Materials	Notes
Identification					
Level:	series	Top Level? <input checked="" type="checkbox"/> Yes			
Level ID:	240	EAD XML ID: <input type="text"/>			
Local ID:	<input type="text"/>				
Title					
Title:	Public documents serial set				
Concise Title:	Public documents serial set				
Creator					
Creator ID:	603	Secretary of State			
Period					
Date Expression:	i 1896-1956.				
Date Range:	1896	thru	1956	closed	Bulk Date Range: CCYY thru CCYY
Extent					
Estimated Extent:	<input type="text"/>				
Actual Extent:	15.00 cubic feet & 92 microfilm reels				
Additional Information					
<input type="button" value="View Parent"/>	<input type="button" value="View Children"/>	<input type="button" value="Biog/Admin History"/>	Test Record? <input type="checkbox"/>		
<input type="button" value="Add a Sibling"/>	<input type="button" value="Add a Child"/>	<input type="button" value="Related Entities"/>			
					<input type="button" value="OK"/> <input type="button" value="Cancel"/>

ARCHIVAL CUSTODY (Microfilm) EP DEV BIB 01 Inq

In this example, note that these records were created years ago and are no longer being created. The agency that created them no longer exists. We have the records on microfilm and hard copy.

Clicking on the different tabs at the top of this screen shows what kind of data is available for this series:

APPX - itac001sp.dts.utah.gov:8060:1769

File Process Security Options Help

Print Print Save OK Cancel New Edit View Delete Ack/Del Menu

Series Input: Content and Structure Elements ? ✓ ✕

Identity	Content	Access & Use	Acquisition & Appraisal	Related Materials	Notes
Series ID:	240	Public documents serial set			
Creator ID:	603	Secretary of State			

Scope & Content

Abstract	Simple summary of creator and records.
Access Point List	View subject headings and form/genre.
Access Point Wizard	Add new access points
Browsing Subjects	Set local browsing subject terms for finding aid.
Catalog Description	General summary of records. Maps to MARC 520\$a in catalog.
Extended Description	Text appends to Catalog Description in Finding Aid.
Gaps in Series	Identify any gaps in series holdings.
Schedule Description	Description used within retention schedule.

Arrangement

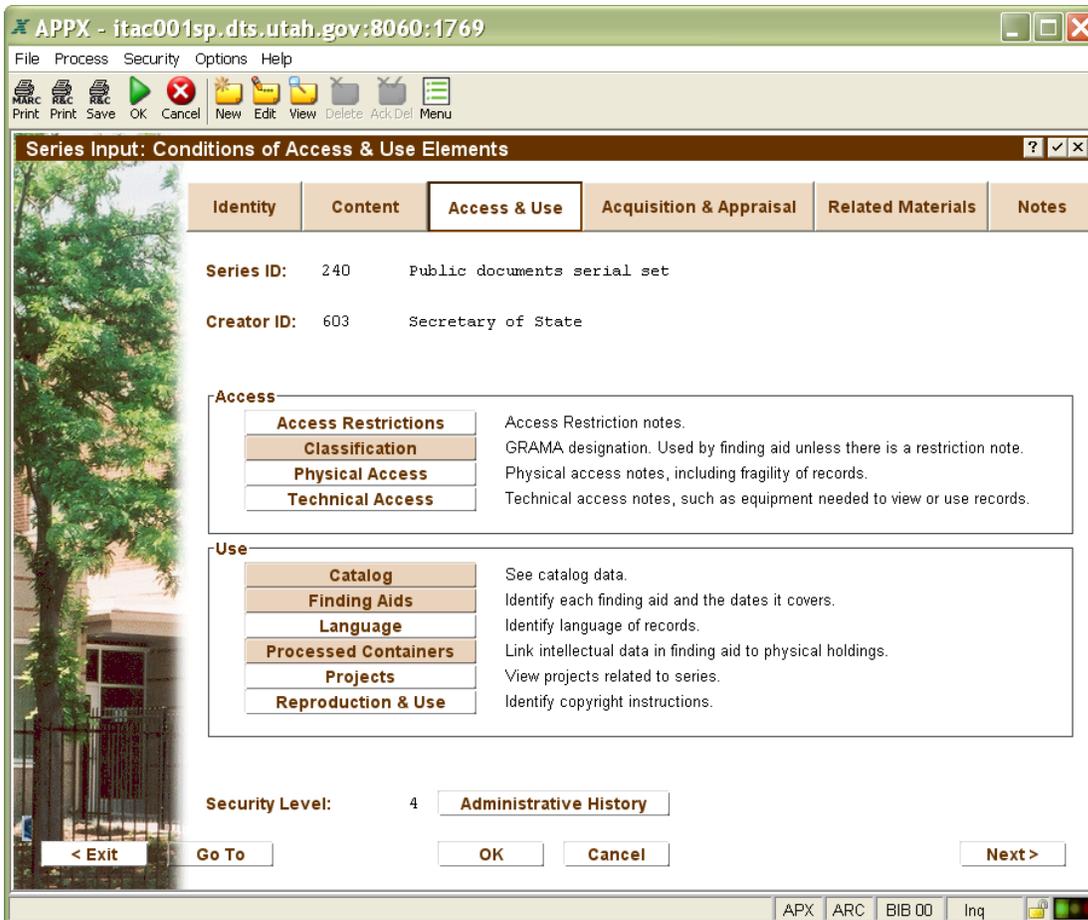
Current arrangement as used within retention schedule:
[Chronological.](#)

Prior Arrangement Finding aid will use current arrangement unless prior exists.

Security Level: 4 **Administrative History**

< Exit Go To OK Cancel Next >

APX ARC BIB 00 Inq



Note that in the Processed Containers option, this is where you can identify rows of containers that are to be published as part of the finding aid. You may also export EAD from this location. For a full description of how the processed containers function works, see system documentation titled [How to Process Containers](#).

APPX - itac001sp.dts.utah.gov:8060:1769

File Process Security Options Help

Print Print Save OK Cancel New Edit View Delete Ack/Del Menu

Series Input: Acquisition & Appraisal ? ✓ ✕

Identity	Content	Access & Use	Acquisition & Appraisal	Related Materials	Notes
Series ID:	240	Public documents serial set			
Creator ID:	603	Secretary of State			
Acquisition					
Box Request		Order boxes & files from the Archives' permanent collection.			
Custody History		Indicate custody history information.			
Electronic Data Sets		Itemize electronic data sets in custody for series by type.			
Prior Creators		Indicate prior creators of these records.			
Records Center Boxes		View boxes in the Records Center and Archives.			
Boxes Table		Sort boxes in scrolling list			
Records Center Files		View files in the Records Center and Archives.			
Files Table		Sort files in scrolling list			
Appraisal, Destruction, & Scheduling					
Appraisal		Indicate rationale for destruction and other disposition decisions.			
General Schedule		Tie series to a general retention schedule.			
Retention & Format		Identify unique retention schedules and accruals by format.			
Retention Approval		View SRC and other approval status.			
Total Retention:	Retain permanently.				
Security Level:	4	Administrative History			
OK for Inventory:	<input checked="" type="checkbox"/>				
< Exit	Go To	OK	Cancel	Next >	

APX ARC BIB 00 Inq

APPX - itac001sp.dts.utah.gov:8060:1769

File Process Security Options Help

Print Print Save OK Cancel New Edit View Delete Ack/Del Menu

Series Input: Related Materials Elements

Identity	Content	Access & Use	Acquisition & Appraisal	Related Materials	Notes
Series ID: 240	Public documents serial set				
Creator ID: 603	Secretary of State				

Related Records

Related Records Identify records related to this series.

Existence and Location of Copies

- Digitization Details** Digitization specifications and location for this series.
- Digitization Orders** Orders for these records to be digitized.
- Microfilm Copies** View reference copy film.
- Microfilm Master** View master copy film.
- Regional Film** Film held by Regional Repositories.
- Other Copies** Other copies located at another institution.
- Work Order** Create work order for microfilm.

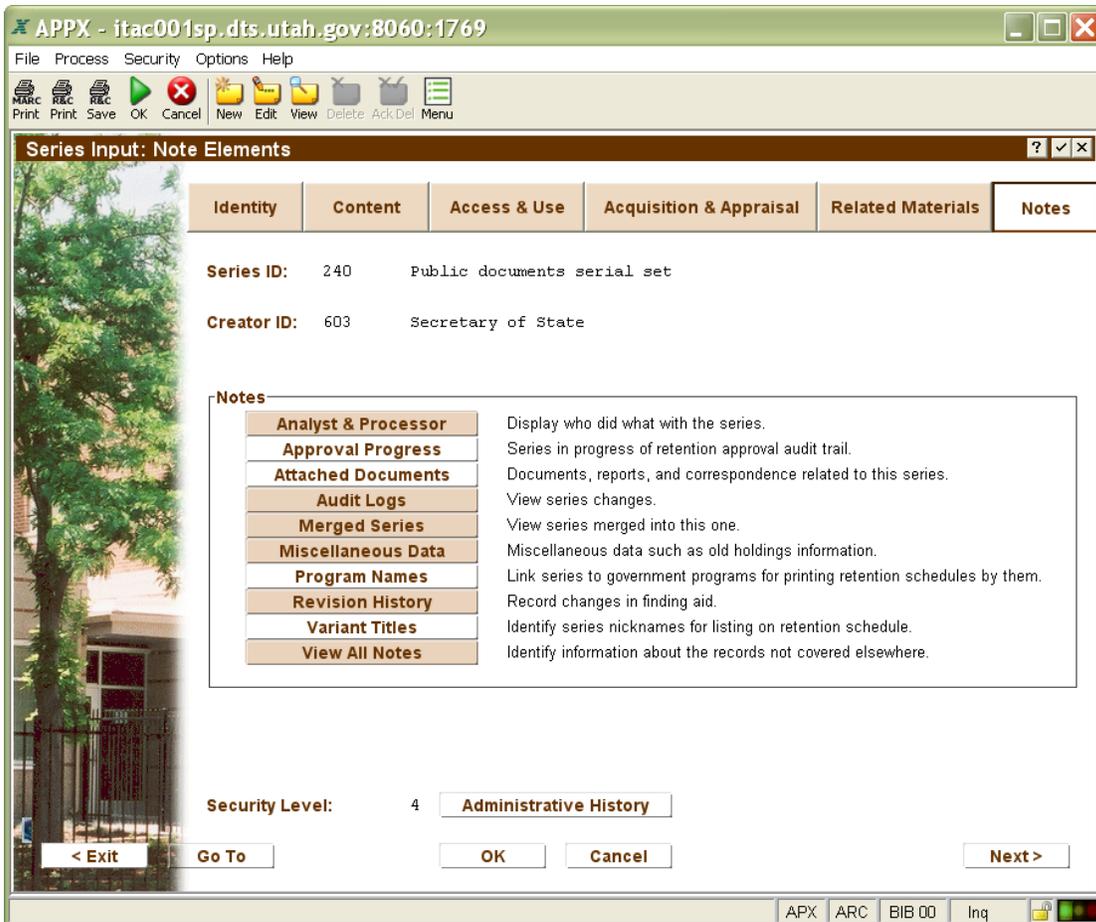
Existence and Location of Originals

- Originals** If someone besides Archives has the originals, indicate which repository.
- Regional Repositories** Edit Regional Repositories.

Security Level: 4 **Administrative History**

< Exit Go To OK Cancel Next >

APX ARC BIB 00 Inq



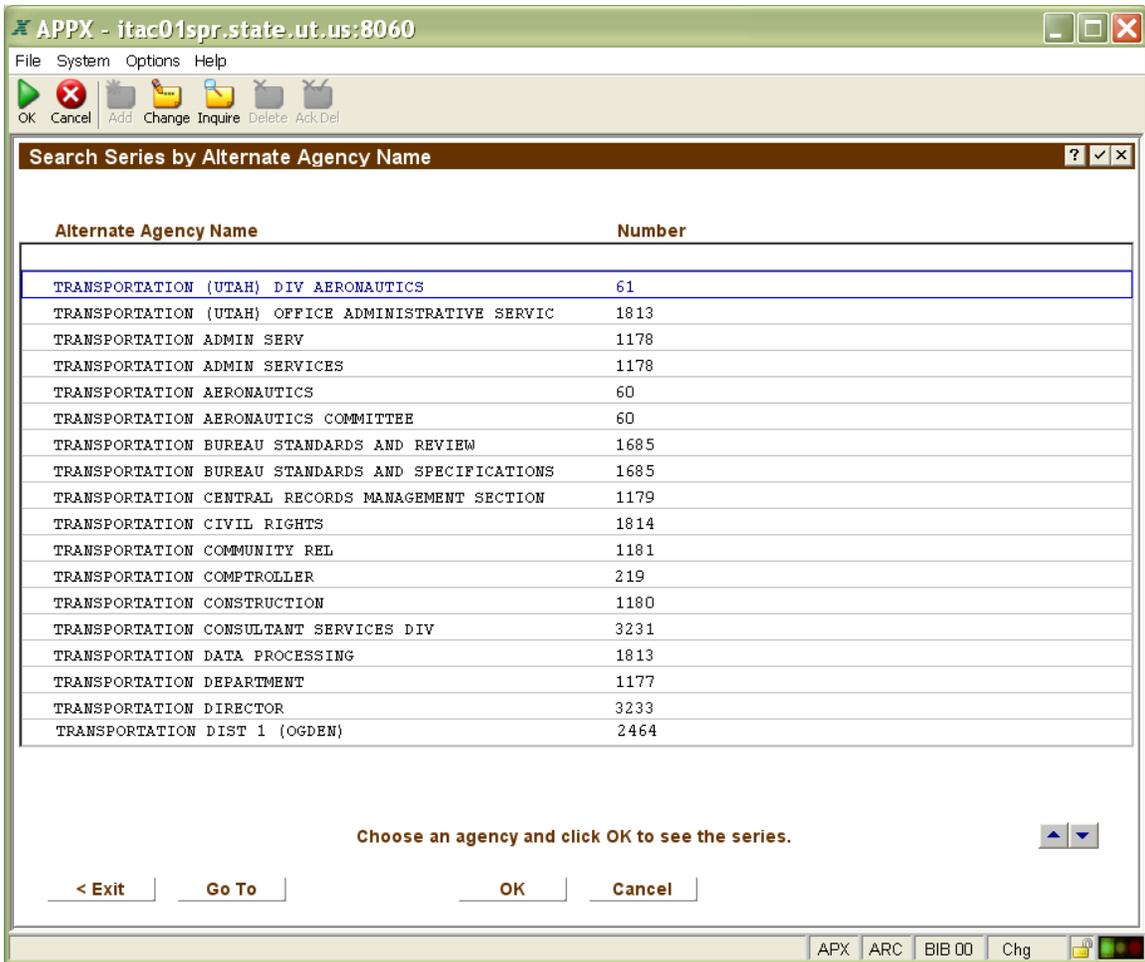
Click Exit or press F8 to go back to the Series & Searching Menu.

You may also search for series by the other fields, such as agency name or title. To do that, go to the Search tab. Here you may search by the field of your choice. Note that some of these fields, such as title, are case sensitive. Your search results will be a scrolling list of hits. Choose one and it will take you into Bibliographic Input. Exiting back out will take you to the scrolling list again where you may choose another series to view.

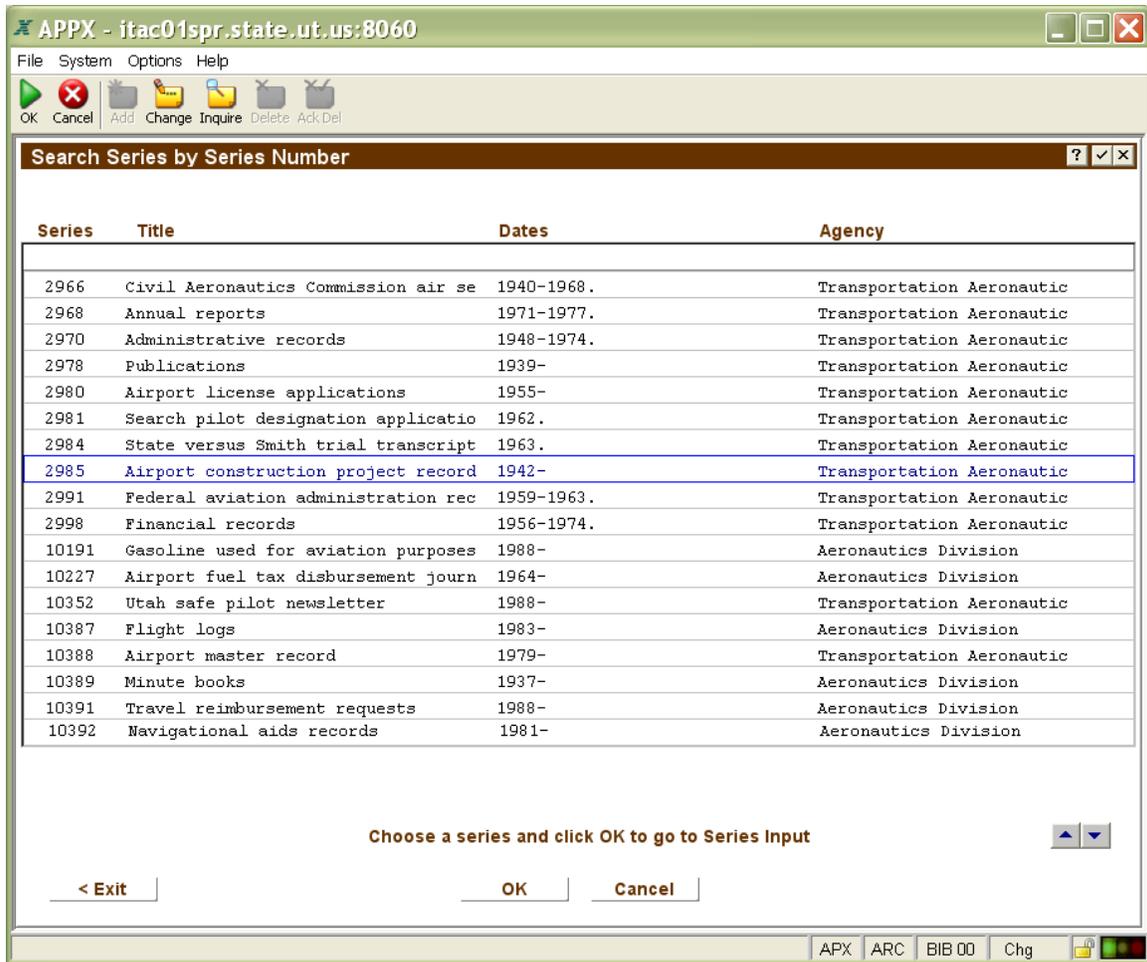
Click Alternate Agency Name:



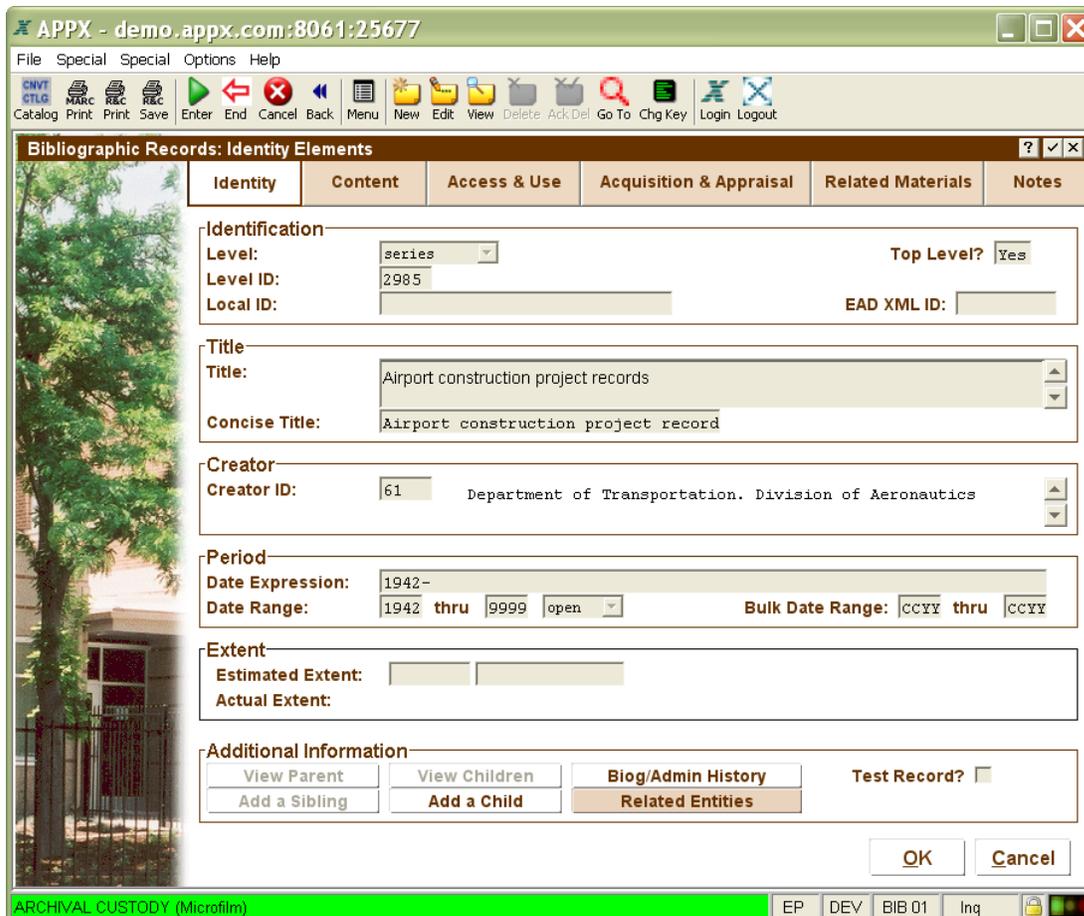
Type an agency name and bring up the list (all forms of the name will be shown):



You may continue to scroll through lists such as this by using the down arrow or Page Down/Page Up keys on your keyboard. Click on the name and then click OK to get the list of series:



To view a series, choose one from the list, then click OK to go into Bibliographic Input:



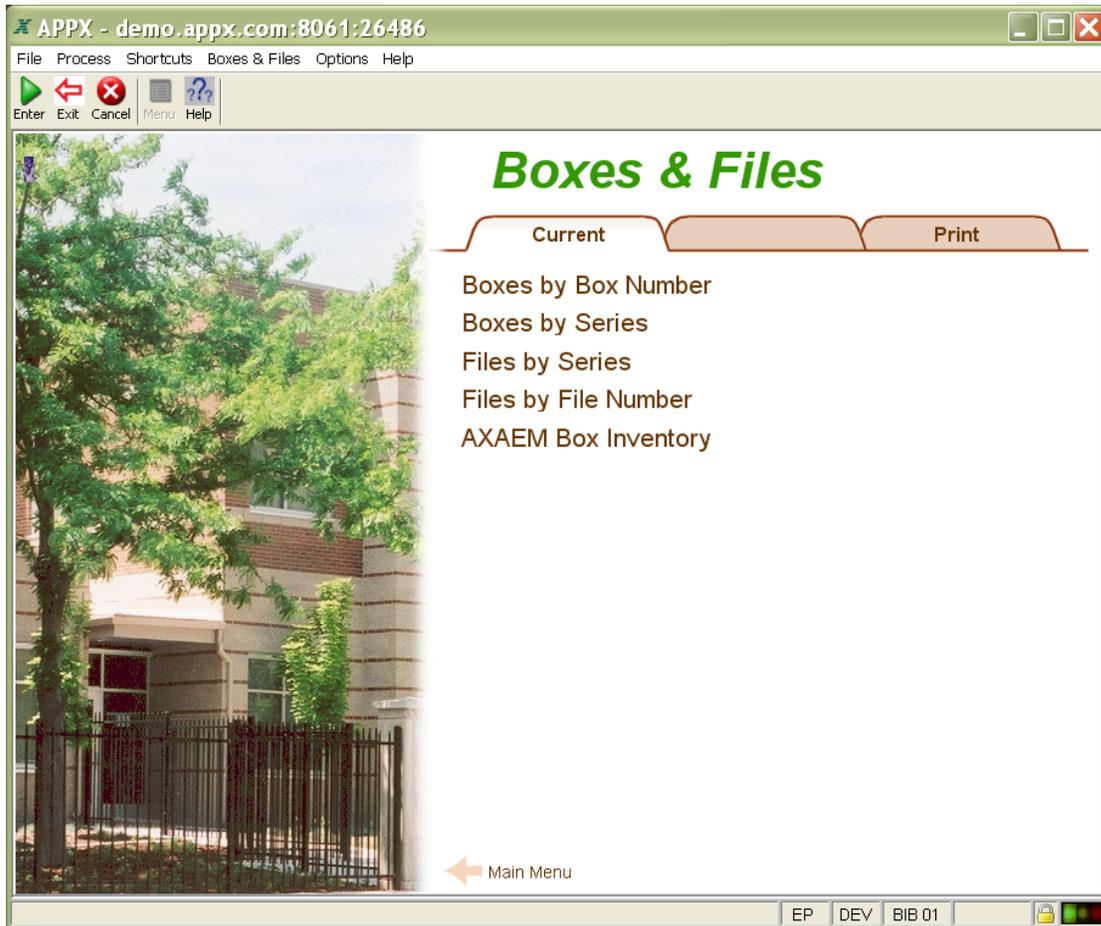
Exit to Main Menu

Inventory Management

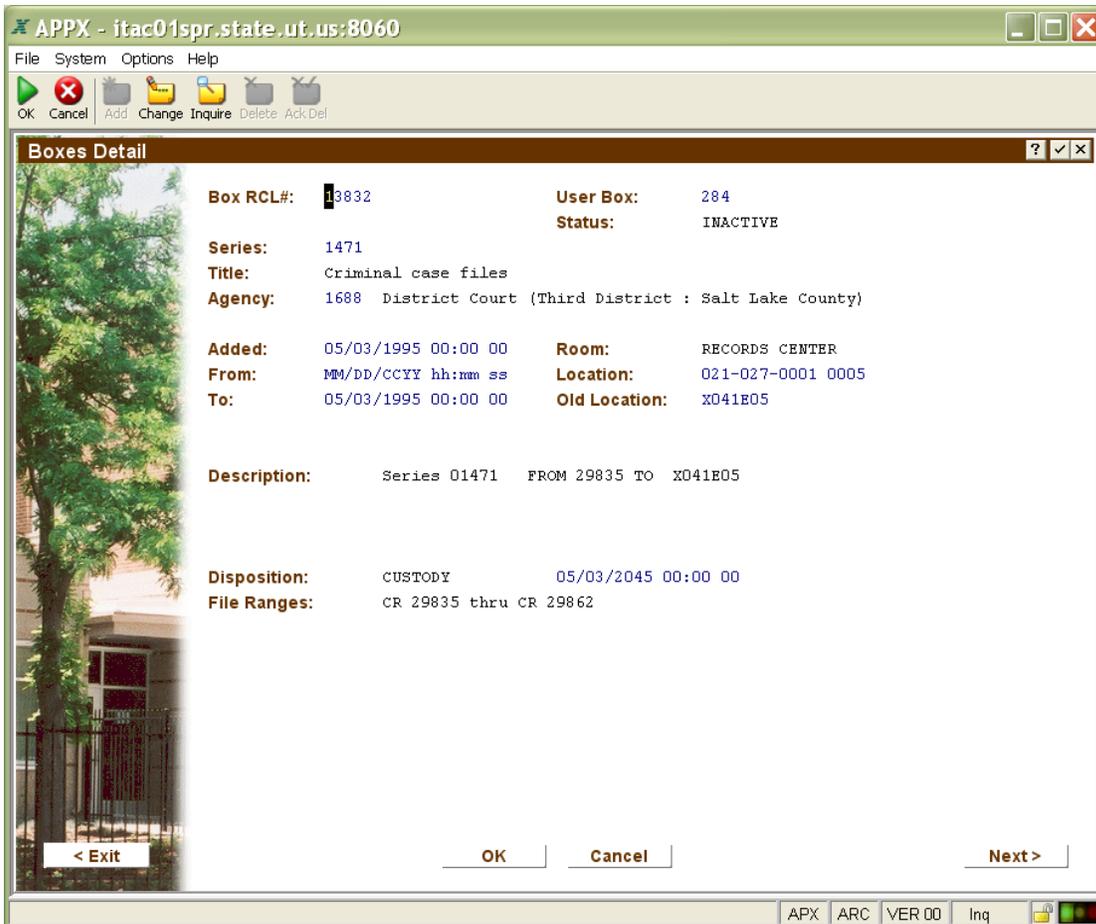
The Inventory Management Menu (aka Boxes & Files) is used to view the physical holdings of the Archives. This data is created in the box inventory system used by the Records Center, which is a third-party system. Records here are not edited through Axaem. If you think a change needs to be made to a box or file, log into the box inventory system. Viewing boxes by series is much easier to do in Axaem, however. Axaem does have its own internal box inventory system that was added recently for open-source users of the software who did not have their own box inventory system already in place. This native system will be discussed below at the end of this section.

The box and file numbers are generated by the Records Center system. In turn, this system uses Axaem series numbers to identify sets of records, so the two systems work together. You may search for items by either number. Boxes and files display even if the item in question has been destroyed.

Box records include user box numbers, physical shelf location, date spans of contents, and file spans of contents. The description usually just duplicates this information, but may provide more context on occasion. File records contain similar data. Note that file descriptions (when the file is a piece of microfilm) contain the film accession number (discussed further below).

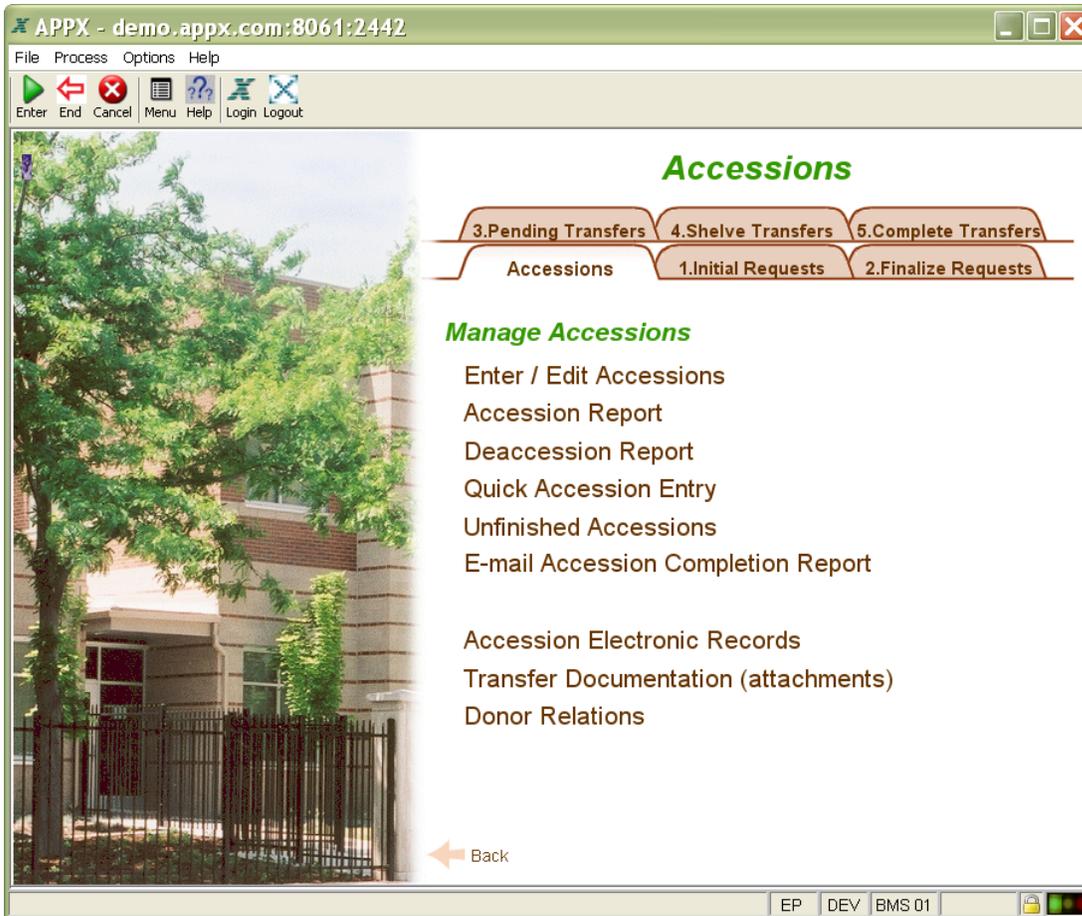


Here's an example of a box detail record:



Exit to Main Menu

Axaem's native box inventory system is used to record the accession and transfer of records as well as box locations and disposition tracking.



Containers are identified individually, and also in context of other containers, since one container can hold other containers and items.

APPX - demo.appx.com:8061:6152

File Process Options Help

Enter End Cancel New Edit View Delete Ack/Del Menu Help

Top Level Container Information

Container Type	MAPS	State	RECEIVED
Media Type	Maps	Status	COMPLETED
Media Type Count	0	Checked Out By	
Barcode		Location	MIA XX1 MAP Locations
Source ID		Storage System	Map Cabinet A
Local ID		Cabinet	MAP1
		Drawer	D001
Source Entity	Go 2 Aging and Adult Services		
Bibl. Level	Go collection Test Adding new BIBLIographic Record		
Bibl. Level ID	1900		
Accession ID	Go A00001122	Retain Until	MM/DD/CCYY
Date Received	MM/DD/CCYY	Disposition	
Receipt No	22	Hold Until	MM/DD/CCYY
Starts With		Date Deaccessioned	MM/DD/CCYY
Ends With		From Date	2000 - MM - DD
Record Order		To Date	2001 - MM - DD
Electronic Link		Date Type	
Custody of Arch.		Custody Date	MM/DD/CCYY
Concise Desc			
Contents Desc			

< Exit Hierarchy Add a Child History Processing Label OK Cancel

EP DEV BMS 01 Inq

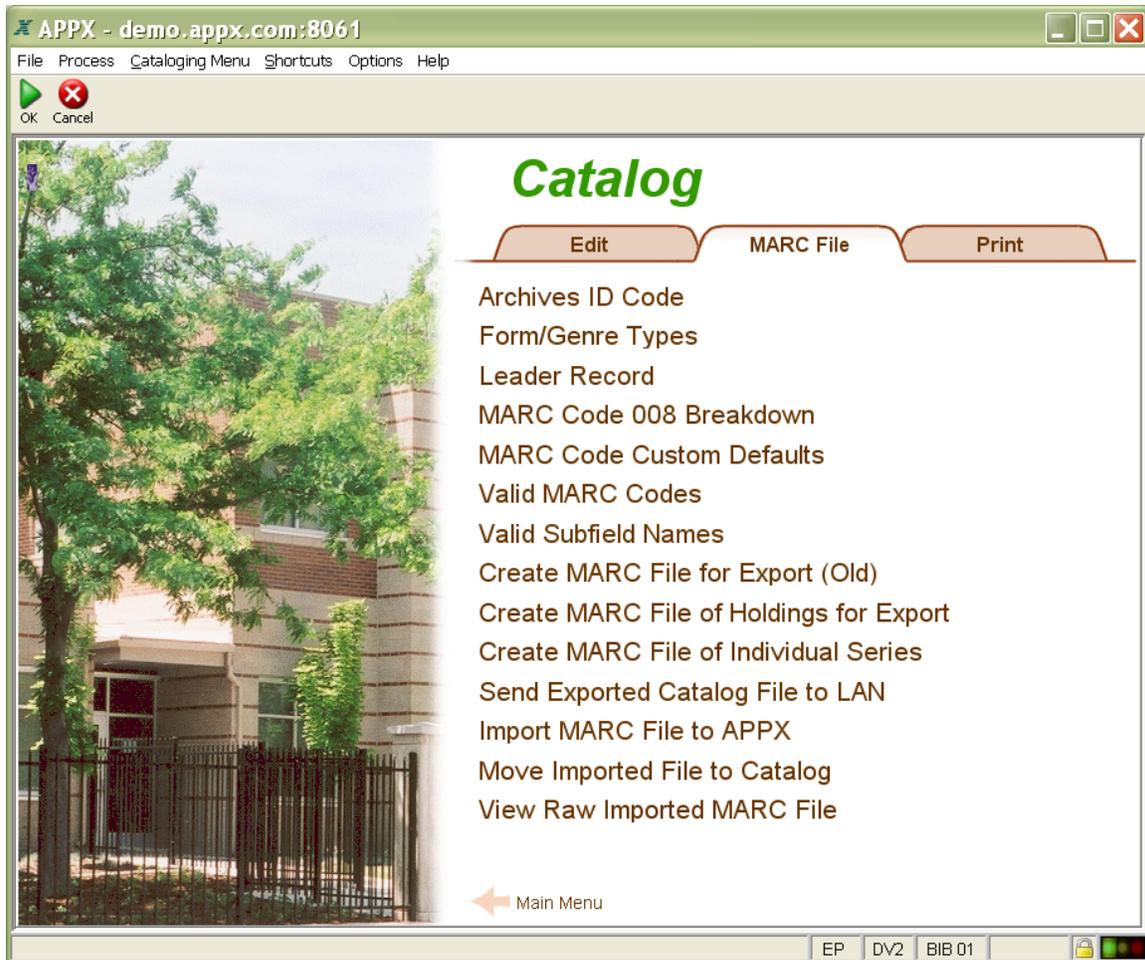
Cataloging

The Cataloging Menu manages all cataloging functions, including how the exportable catalog file and online catalog are generated, and the paths used for specific URLs within the catalog record (such as a link to an index).



The primary role of the Cataloging Menu is to produce the MARC 21 record and manage features related to cataloging efforts. All record series recorded in Axaem are automatically assigned MARC cataloging codes. All the user has to do is run a process called Convert to Catalog, which can be done as a batch (converting many series at once), or individually while within a series. Record series that go through the SRC approval process have this task done automatically. Records changed after SRC approval need to use the Convert to Catalog function. After records have been converted, the MARC record can be exported from Axaem, imported into any MARC-compatible library cataloging software, and changes that were made in the series will be visible to the public.

To export catalog records, click the MARC File tab:



The menu options called Create MARC File use various queries to export the data. In Utah, records are either exported as a whole batch file based on whether or not we have holdings in our custody, or individually one series at a time as needed. The resulting CATALOG.txt file will automatically land either as a file on your desktop or on the Archives' LAN server, depending on system settings. This menu also provides input processes to keep Axaem's knowledge of valid MARC values current.

Click back to the Edit tab in the Catalog Menu.

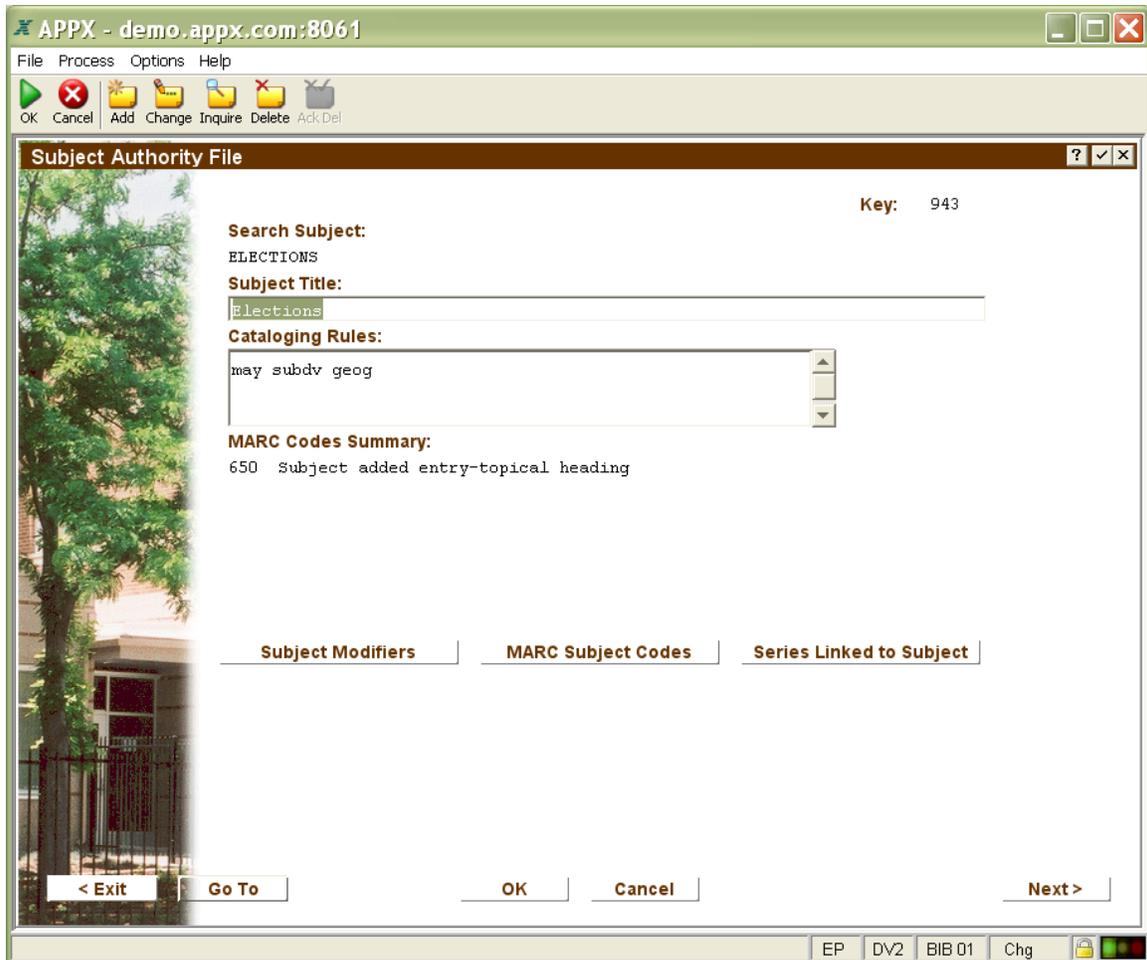
An important function of this menu is the subject authority file, which keeps track of all subject headings and their MARC codes. These subjects are then used to create access points in series. Subjects are not valid unless they follow the pattern of the Library of Congress subject headings, so our subject authority file is a subset of the Library of Congress's authority file. If we need to use a subject heading that isn't in our authority file, we add it, following the Library of Congress's entry. To access the Library of Congress headings, we have to subscribe to their service, since the data changes frequently. The philosophy behind a subject authority file (as opposed to keyword searching) is to standardize search terms so that a single search can pull up as many

related records as possible. Keyword searching does not handle synonyms very well, and Google doesn't always have access to a catalog database.

Click Subject Authority File:

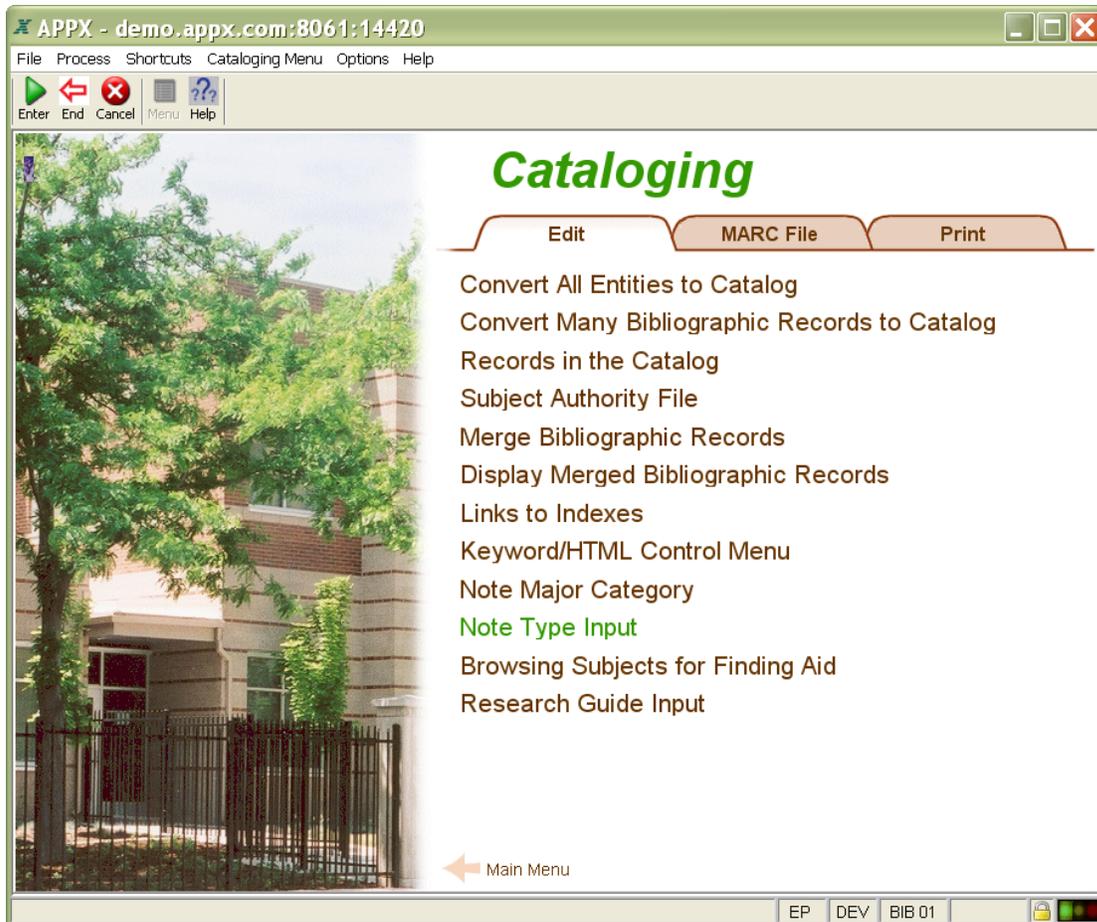


Press the Go To button, type ELECTIONS and press Enter:

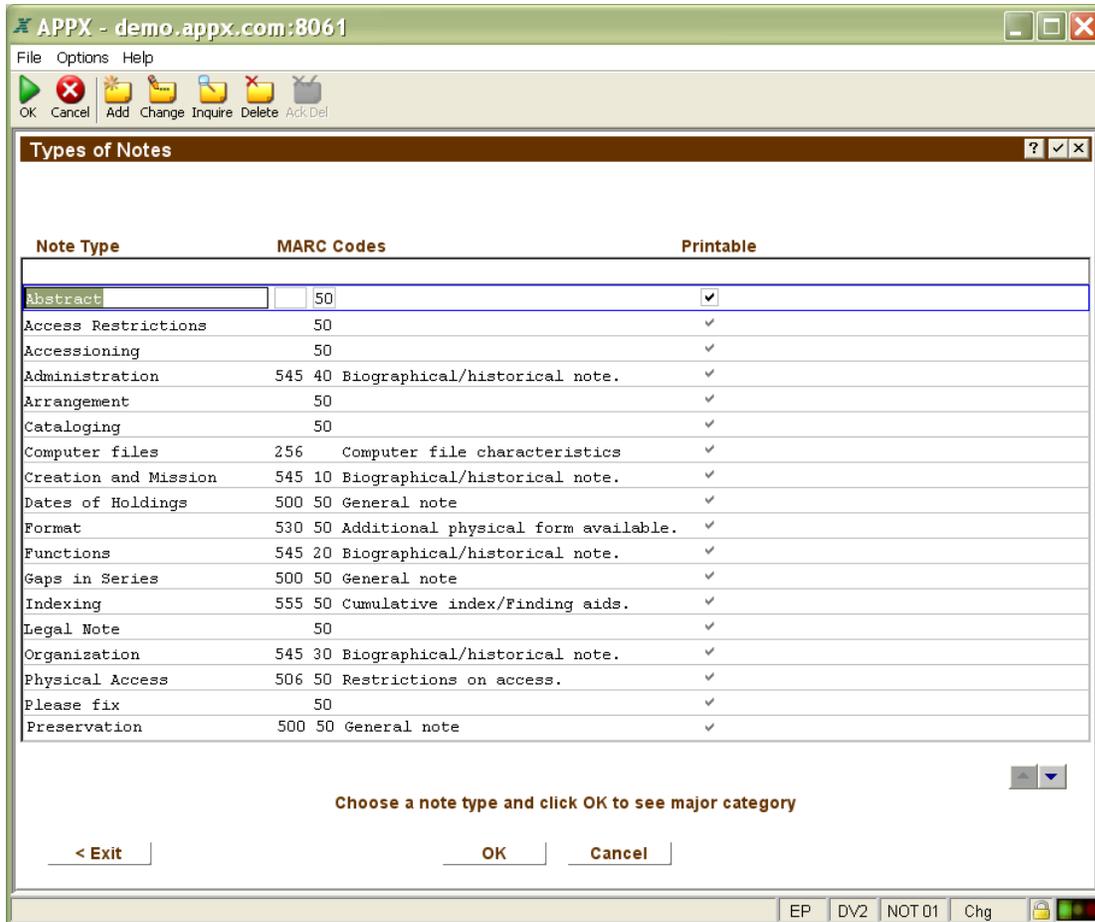


Exit back to Catalog Menu.

Another important option in the Catalog Menu is the management of note types. There are several different major note categories: those tied to agencies, series, general schedules, electronic records, functions, and accessions. The note types under each of these categories are user controlled. Click Note Type Input:

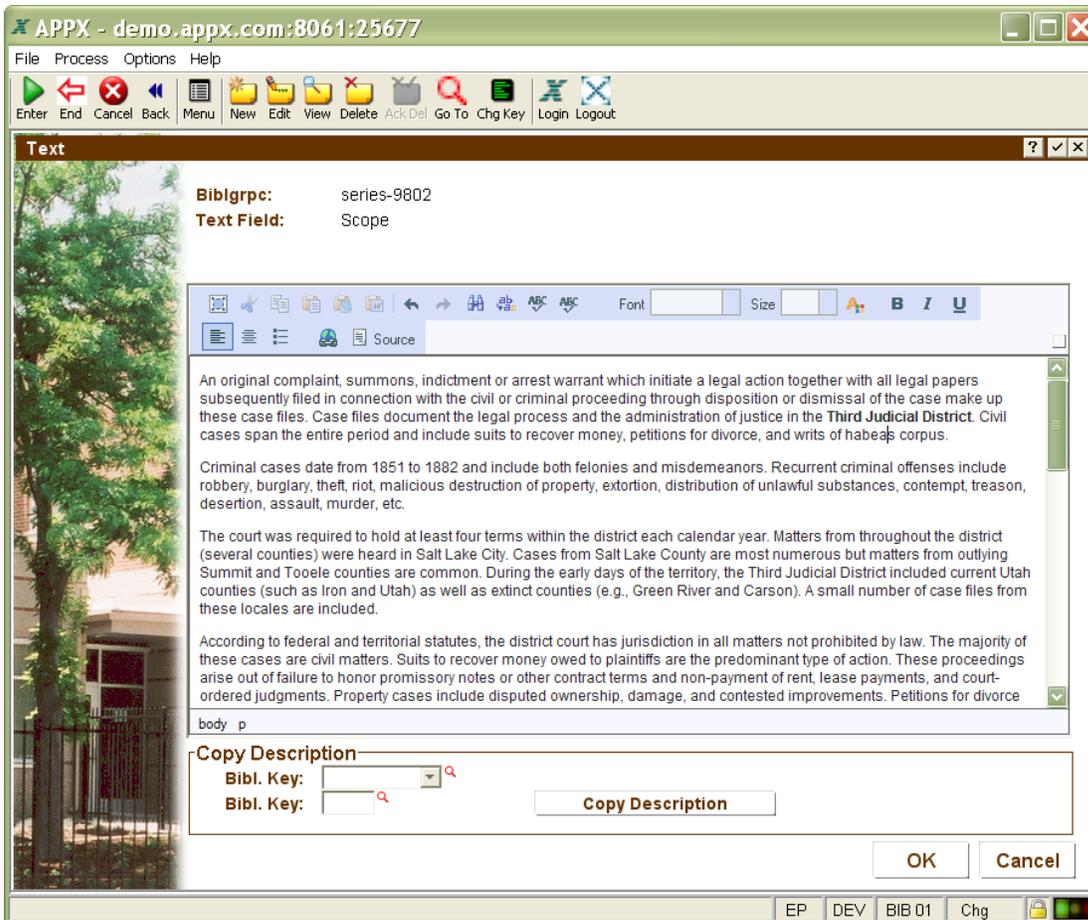


You may add any type of note type to any major category you wish, which will then show up as a place to add that type of note in Bibliographic Input:



The name of the note is listed, followed by the MARC code, followed by a priority ranking, in case the notes need to be output in a particular order in the MARC record while sharing the same MARC code (see all the 545 entries).

When editing notes, generally the note interface is an HTML editor that will apply bold and italic fonts as needed, or you can create bulleted or chronological lists. These attributes will be automatically converted to XML when exporting to EAD, or stripped out when exporting to MARC. Reports printed as a PDF document will display the attributes as you designed them.



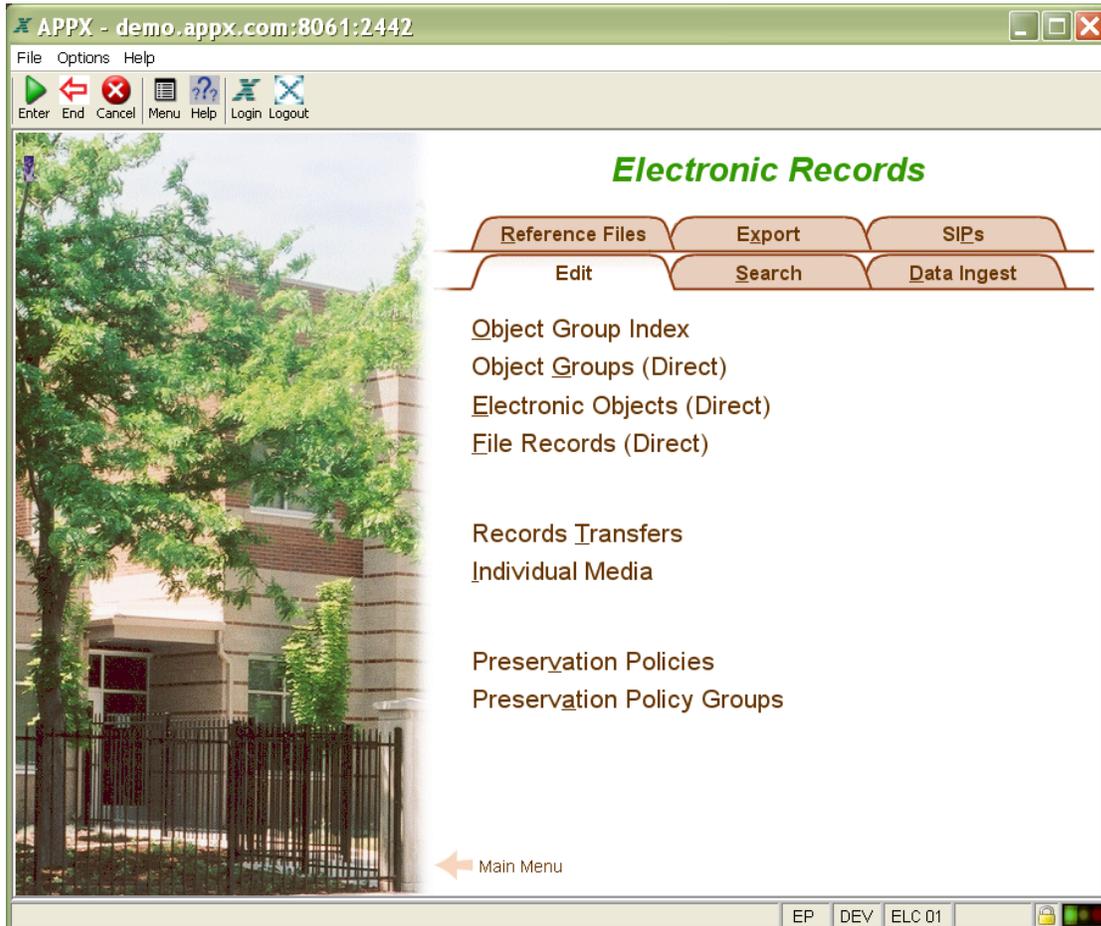
Exit to Main Menu

Electronic Records

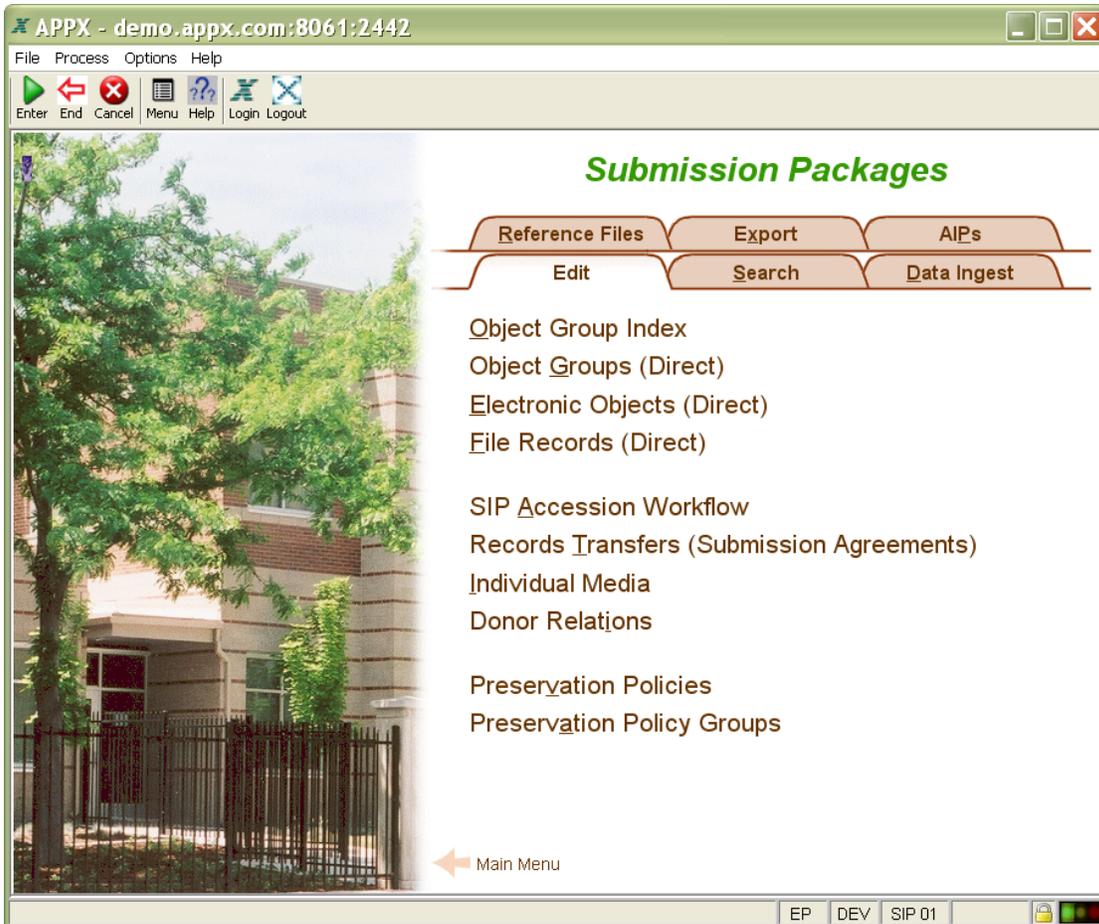
A significant amount of effort has been made to make Axaem compatible with the many technical requirements for preserving electronic records. Electronic records can be ingested and stored in a location connected to the Axaem server, or the records may be sent to hosted locations or stored offline with only the metadata recorded in Axaem. The system separates SIPs from AIPs as two different ingest processes. Users may choose to record SIP information in the database but not actually ingest the records until they are ready as AIPs, or ingest both SIP and AIP.

Folder structures are identified as one or more Object Groups. Each object group may be described as a unit and have its own metadata. Sets of files within a folder may also be identified together as a sub-group. Individual electronic records identify single intellectual items, even if those items are comprised of multiple physical files. An electronic record could have multiple representations, one or more of which could be the DIP. Some tools have been integrated to automatically do format transformations and add additional representations. The primary one in use at the moment is ImageMagick.

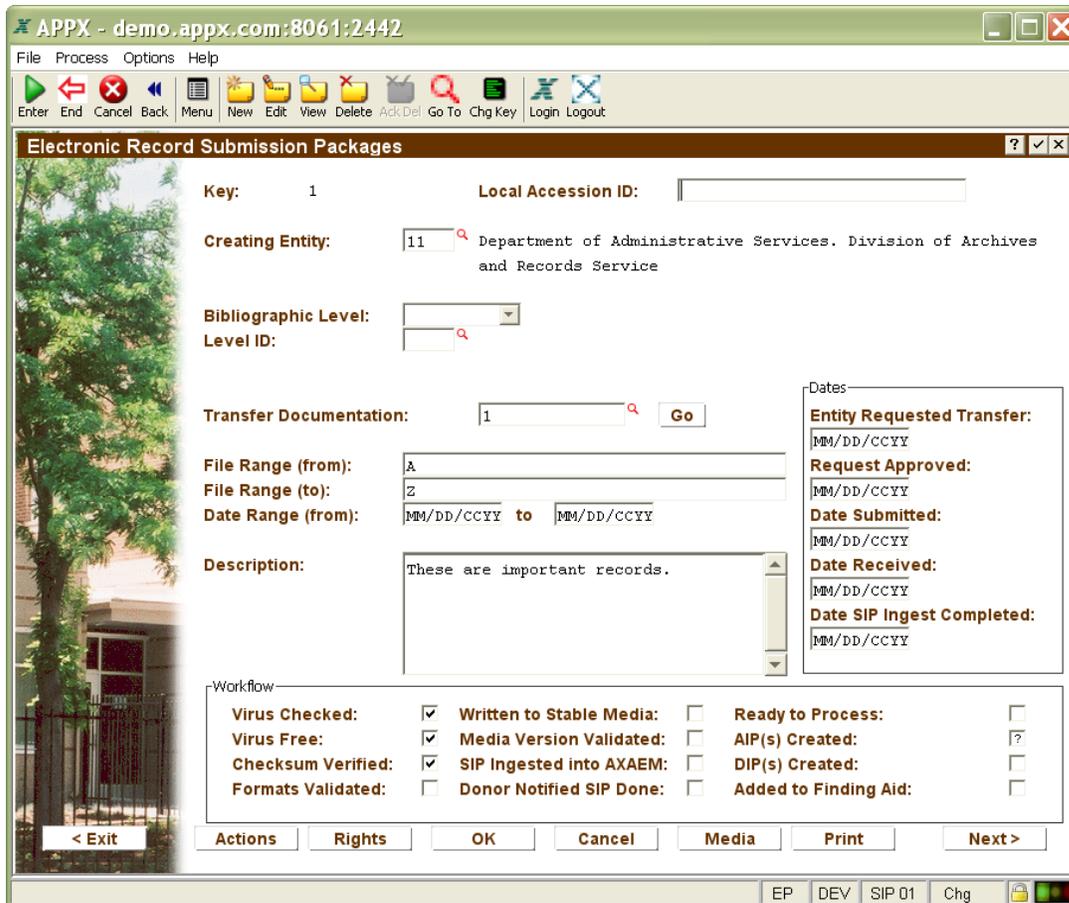
Electronic records and their metadata may be made accessible to the public through the Solr search engine. Access restrictions may also be applied. Electronic records inherit the access classifications of their record series. If that classification indicates that some but not all of the records are public, then individual electronic records must be classified at the item level. Unless an electronic record is declared public, the metadata and a link to download the record is not made available to the search engine.



The SIP menu is similar, and provides a way to identify new accessions:



Here's the SIP Accession Workflow screen, which is a simple way to identify an accession prior to ingest, plus keep track of what has been done for a set of records and what still needs doing, in the event that multiple people work on the SIP, or the process gets interrupted for a space of time:



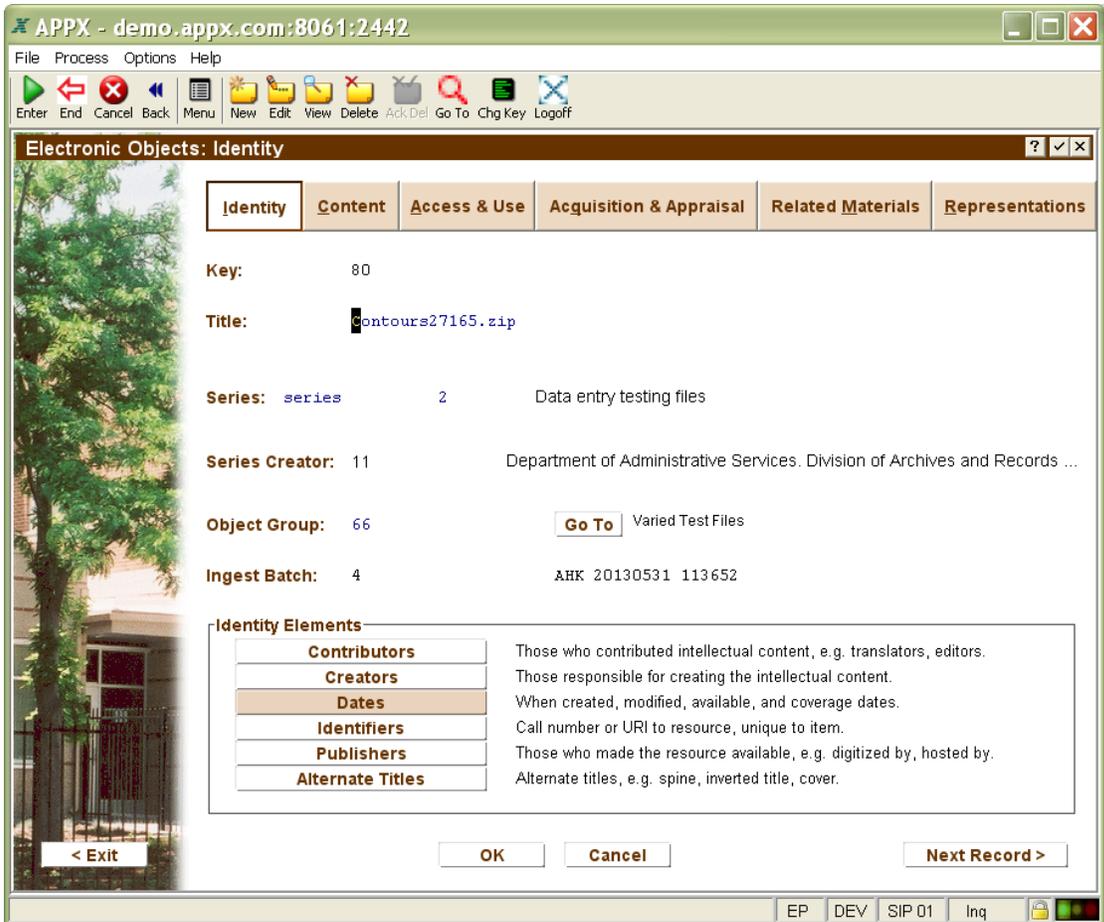
When ingesting electronic records, Axaem offers several metadata extractors and file validators to run as part of the ingest process:

- Droid
- Jhove2
- FITS
- MediaInfo
- FGDC data extraction (for geospatial records)

Information obtained by these tools are then recorded in Axaem fields as well as attached to the record as the original XML document that the tools produced.

The ingest process also allows the user to run a virus check, validate a BagIt bag, determine the disposition of container files such as .zip, and generate a checksum in MD5 and SHA-2. After ingest, a checksum audit can be run at any interval chosen by the user. The audit will produce a log and a report that will display discrepancies.

After the records have been ingested, you may edit the metadata to enhance searchability. Metadata categories attempt to first follow DACS, then Dublin Core, then more specific metadata needed by certain types of records.



The Electronic Records menu provides you with functions to be able to manage formats and migration rules, preservation policies and actions taken, identification of media types and individual instances of media, transfer paperwork (part of the submission agreement that started with the retention schedule), and export metadata for other workflow processes.

Here is part of format identification:

APPX - demo.appx.com:8061:2442

File Process Options Help

Enter End Cancel Back Menu New Edit View Delete Ack Del Go To Chg Key Login Logout

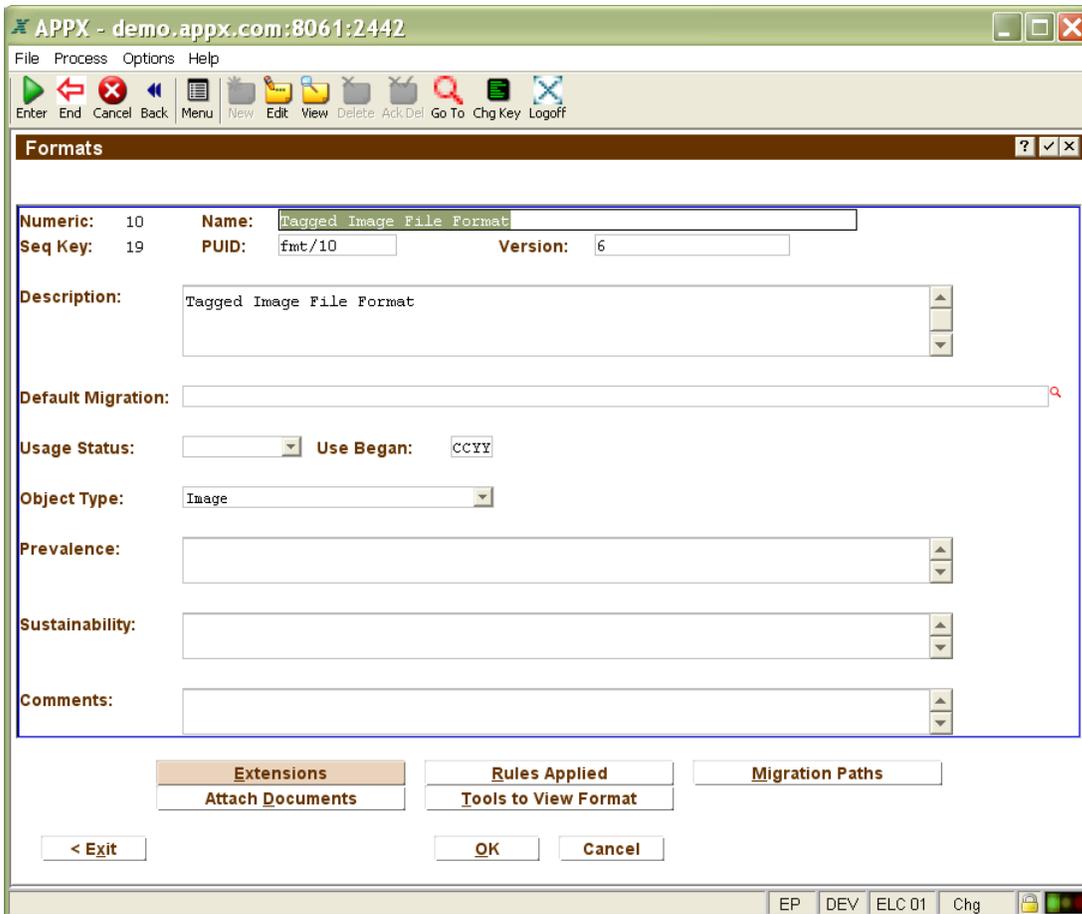
Formats

PUID	Format Name	Format Extension(s)	Num	Key
fmt/1	Broadcast WAVE	.wav	1	1
x-fmt/1	Microsoft Word for Macintosh Document	Unknown	1	2
fmt/2	Broadcast WAVE	.wav	2	3
x-fmt/2	Microsoft Word for Macintosh Document	.doc	2	4
fmt/3	Graphics Interchange Format	.gif	3	5
x-fmt/3	Online Description Tool Format	.odt	3	6
fmt/4	Graphics Interchange Format	.gif	4	7
x-fmt/4	Write For Windows Document	.wri	4	8
fmt/5	Audio/Video Interleaved Format	.avi	5	9
x-fmt/5	Works for Macintosh Document	Unknown	5	10
fmt/6	Waveform Audio	.wav	6	11
x-fmt/6	FoxPro Database	.dbf	6	12
fmt/7	Tagged Image File Format	.tif, .tiff	7	13
x-fmt/7	FoxPro Database	.dbf	7	14
fmt/8	Tagged Image File Format	.tif, .tiff	8	15
x-fmt/8	dBASE Database	.dbf	8	16
fmt/9	Tagged Image File Format	.tif, .tiff	9	17
x-fmt/9	dBASE Database	.dbf	9	18
fmt/10	Tagged Image File Format	.tif, .tiff	10	19
x-fmt/10	dBASE Database	.dbf	10	20
fmt/11	Portable Network Graphics	.png	11	21
x-fmt/11	Revisable-Form-Text Document Content Architecture	Unknown	11	22
fmt/12	Portable Network Graphics	.png	12	23
x-fmt/12	Write For Windows Document	.wri	12	24
fmt/13	Portable Network Graphics	.png	13	25
x-fmt/13	Tab-separated values	.tsv	13	26
fmt/14	Acrobat PDF 1.0 - Portable Document Format	.pdf	14	27
x-fmt/14	Macintosh Text File		14	28

< Exit Detail Add New

EP DEV ELC 01 Inq

It leads to more detail:



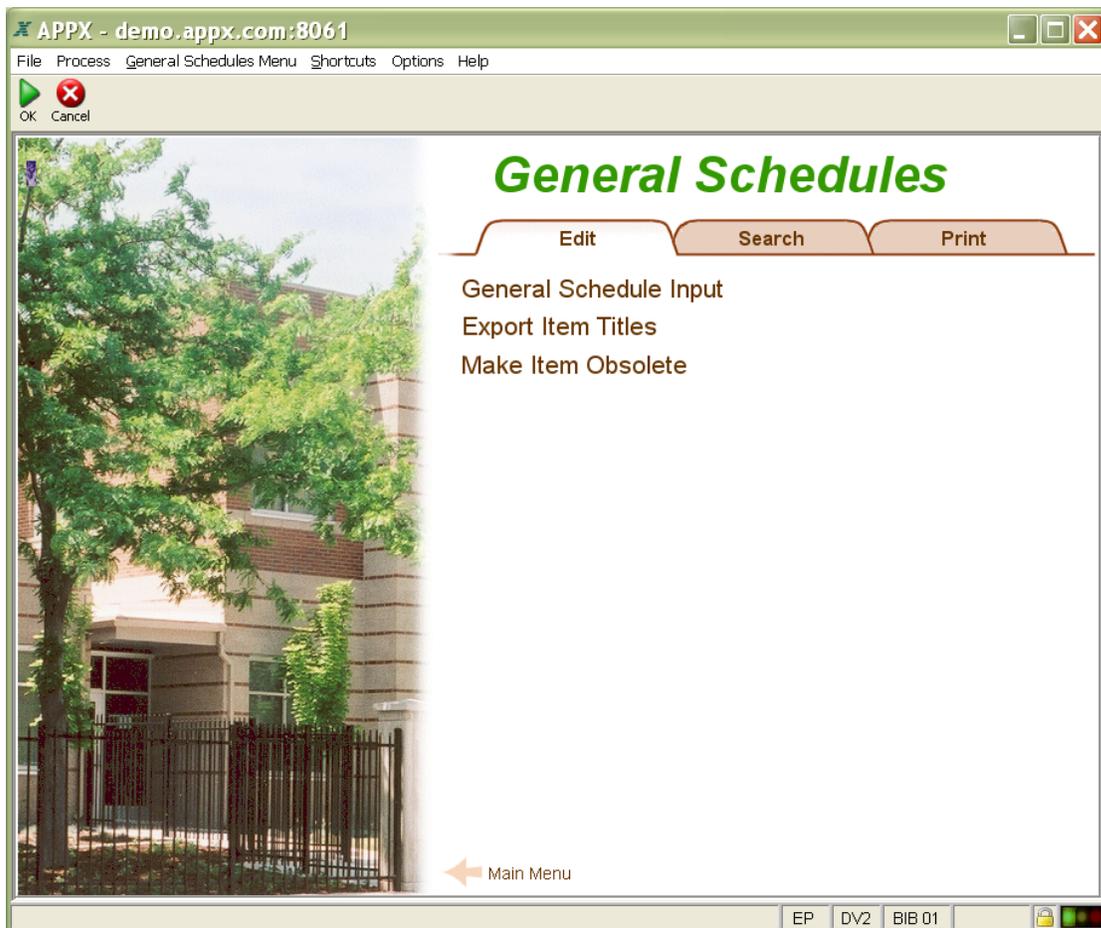
Below is the menu for exporting metadata from from the database. Note that the last option allows you to connect to any Gmail account and download its contents as .eml files. They will download to your local desktop or file server, and be named sequentially as they appear under their labels. The download retains the original data structure used in Gmail by the account holder:



General Schedules

The General Schedules Menu is used to manage retention schedules that are applicable to groups of agencies, such as state or municipal government. Sometimes these schedules are used for only one department if it has many identical regional offices. General schedules include record series that are usually common to many agencies: administrative records, financial records, and human resource records. Creating general schedules saves us time because once a schedule is approved, agencies can use it without needing to go through us further. They do need to interact with us if they want to house their records at the Records Center or do microfilming, however. In that case, a series is created in Axaem but it uses the descriptive information from the general schedule item, again saving us time.

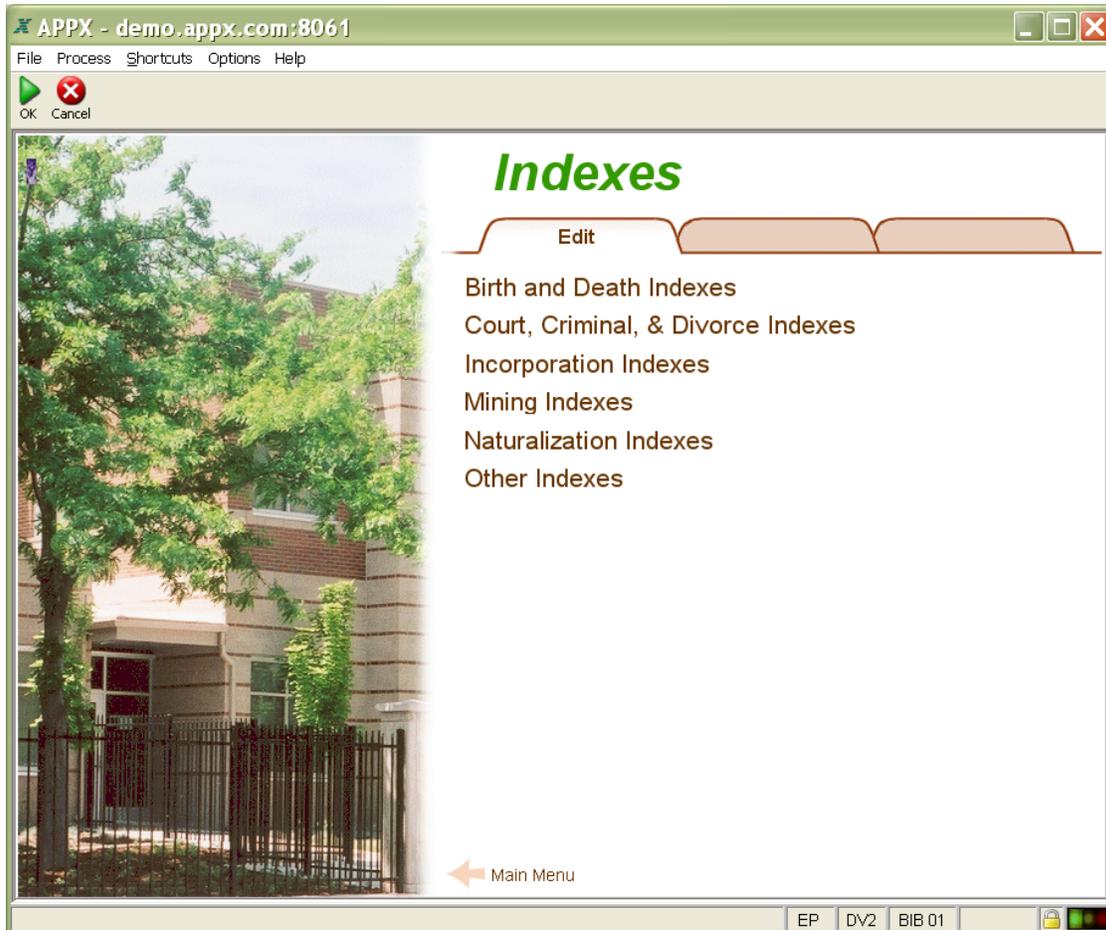
General schedules have a three-part key, which consists of an agency number (if applicable), schedule type (e.g. SG for State Government) and a schedule number. The schedule is first described as a unit, and is given a title. Then individual items are added and linked (as a child) to this schedule, with the key consisting of the schedule type, schedule number, and item number. Item numbers do not exist independently. They are repeated between schedules. The items do have another key (called the general schedule key) which is actually like a series number (it is generated from the same table as a series) and is unique from item to item but isn't used as a series in the traditional sense. The items are organized this way in order to use the same State Records Committee approval process that a regular series does. For further information about how the General Schedules option works, see system documentation titled [General Schedules](#).



Exit to Main Menu.

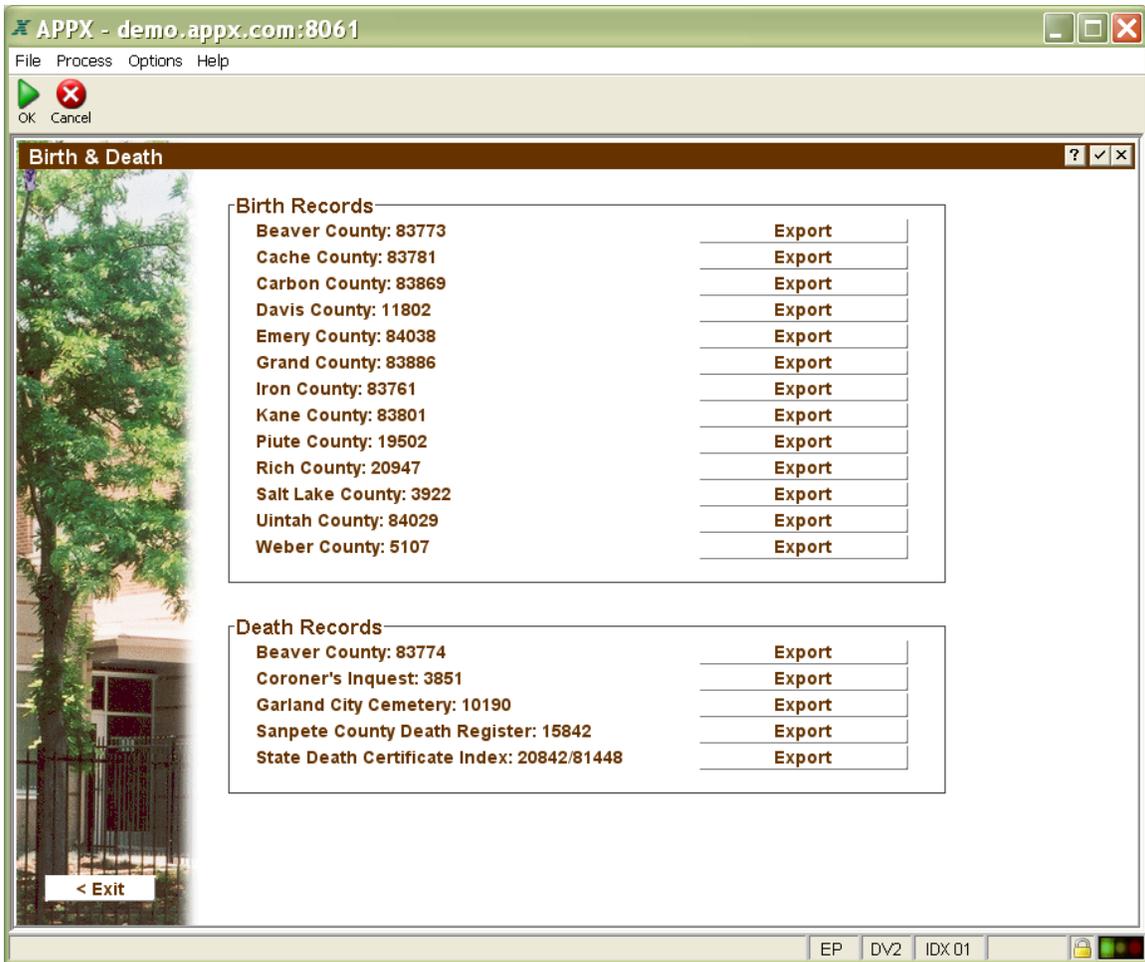
Indexes

The Indexes Menu provides direct access to series indexes, which index everything from birth records to mining claims. Indexes have been created by staff, volunteers, or the originating agency to make individual records more visible to the general public. Usually the items of interest are names of people or corporations. Series that are indexed are searchable through our website by these fields.

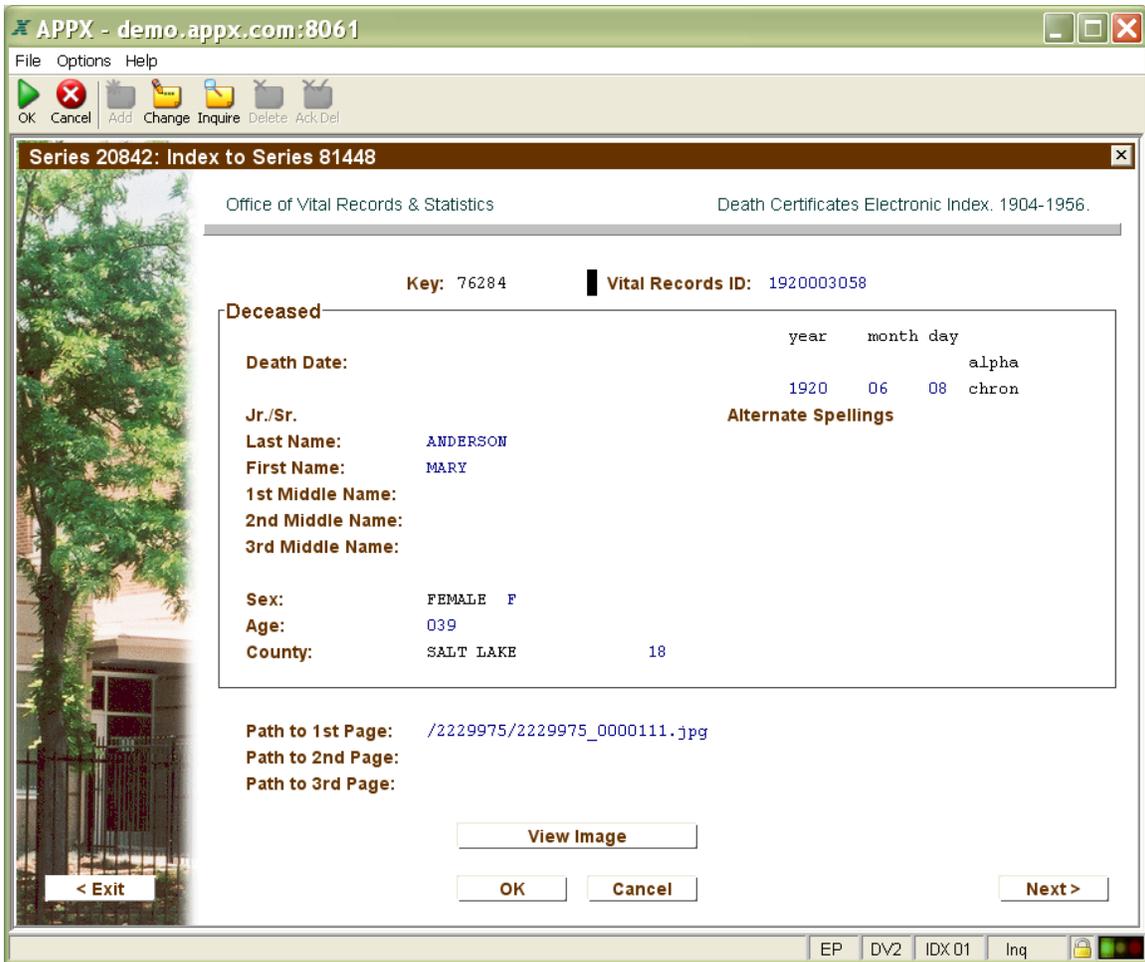


The menu lists indexes first by general category, and then by agency and title. The website will search all indexes simultaneously. Going to individual indexes here will search just that particular index. Or you may edit index entries through these screens.

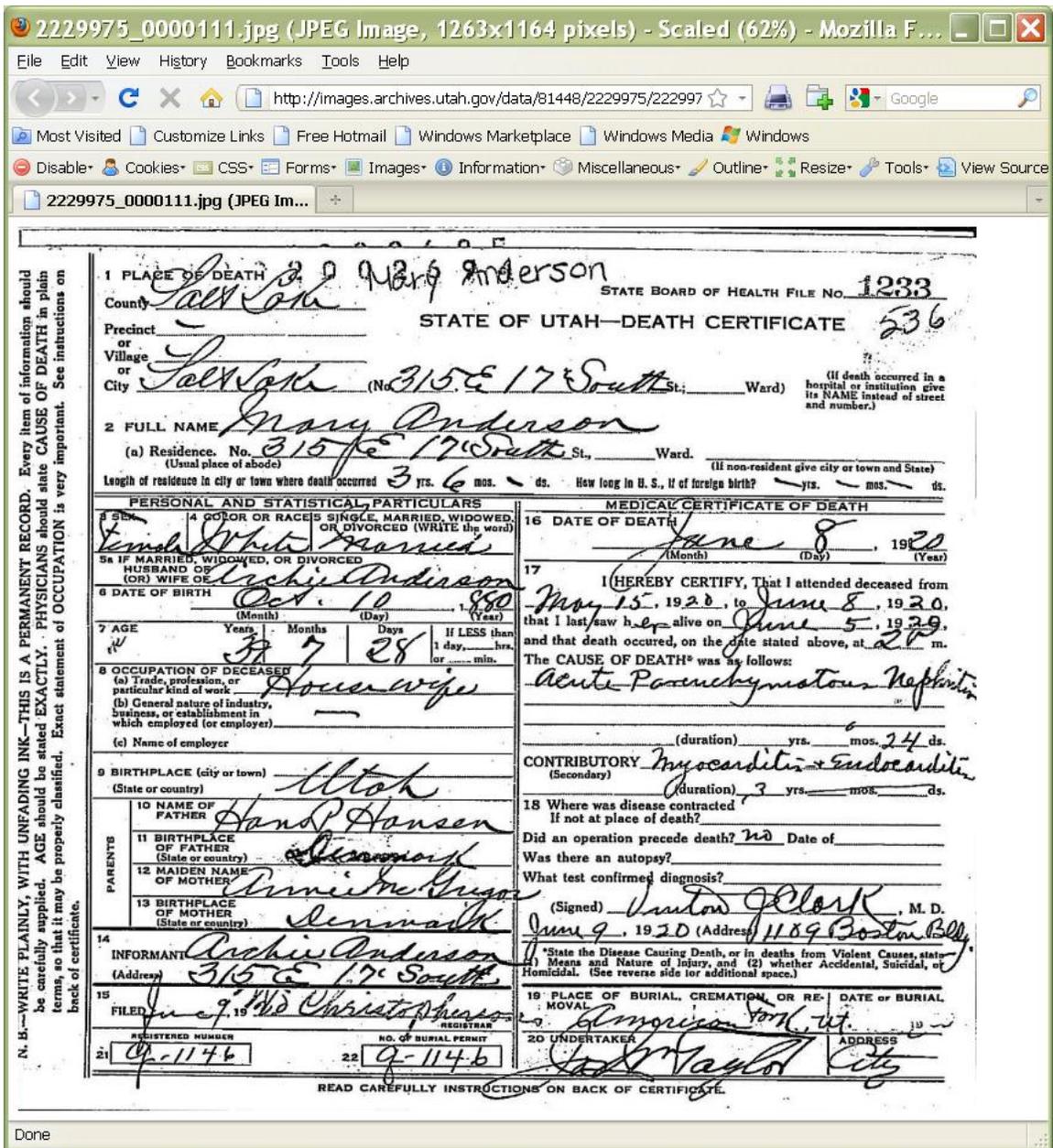
Data from individual indexes can be exported to an Excel spreadsheet to be used as metadata for digital collections, or to share with requesting entities:



Click the State Death Certificate Index (at the bottom of the list above) to view a record and its image:

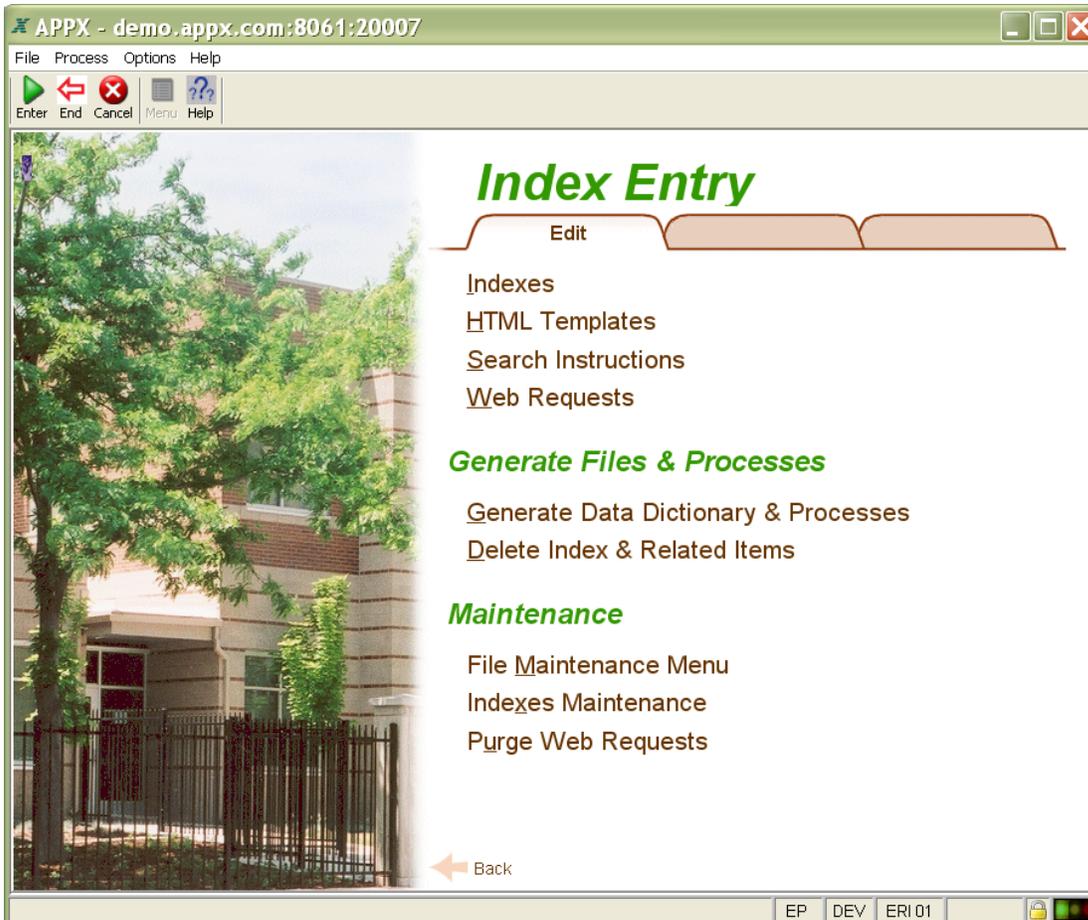


Click View Image to see the linked death certificate:

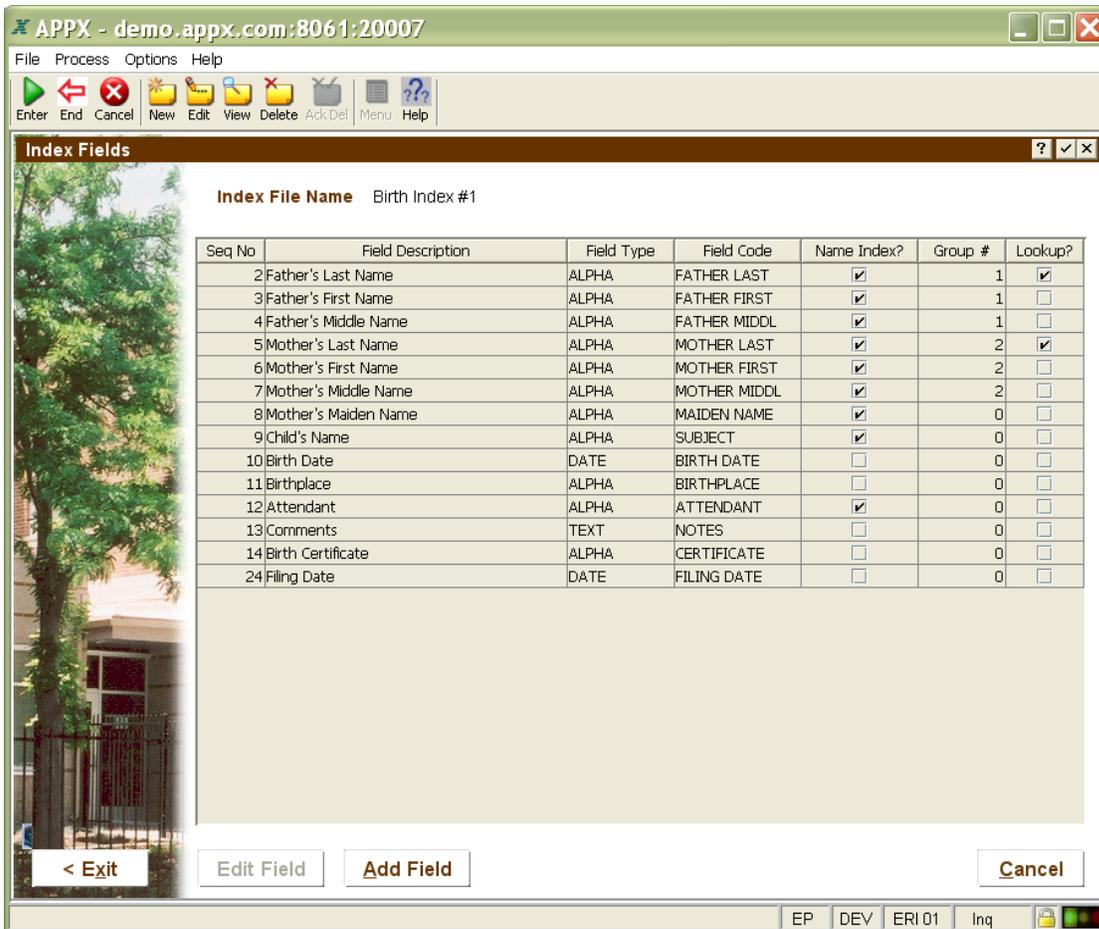


Close browser, then exit to Main Menu

To add new indexes, an interface has been created which will automatically add new tables and code behind the scenes, giving users direct control over what becomes searchable online without requiring additional programming.



New indexes can be added, and fields of various types can be assigned to the index, and grouped for searching purposes. Personal names, for instance, should be searchable as a name group (last, first, and middle names) as well as individually (just last name).

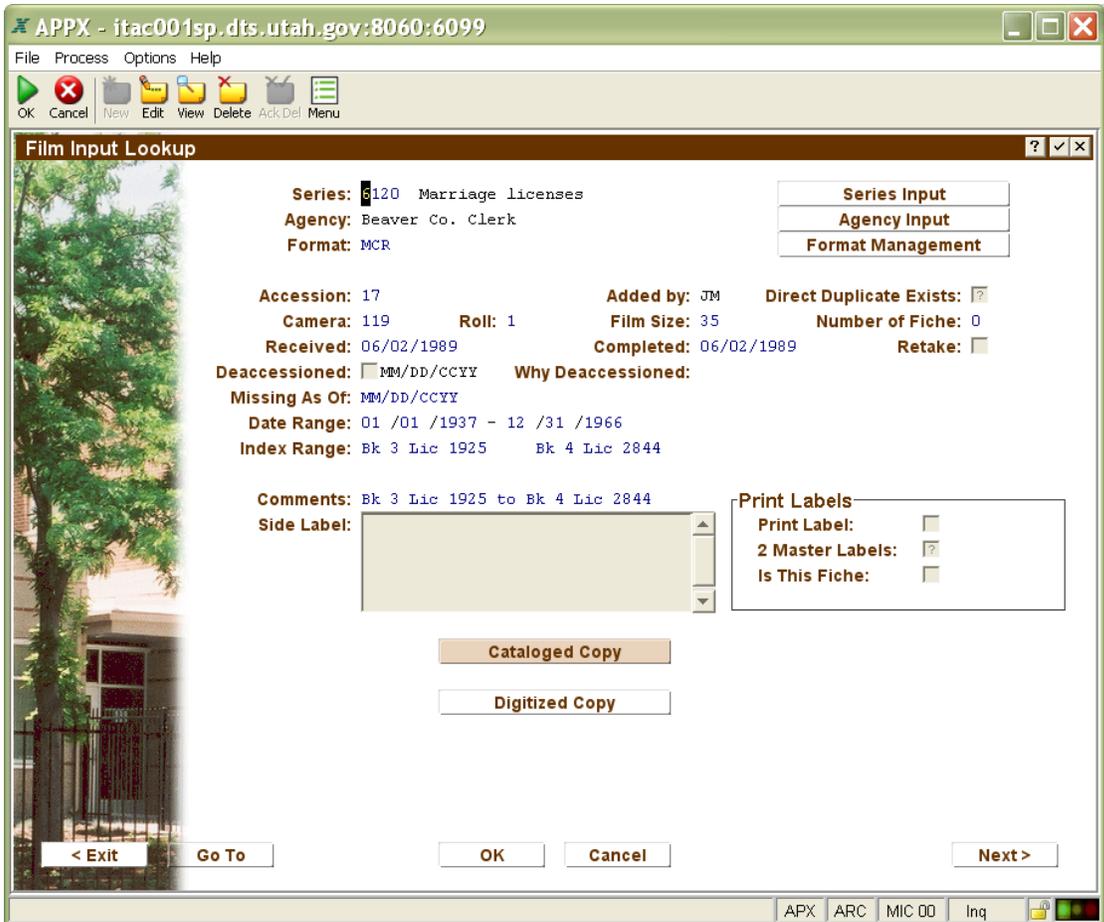


Microfilm

The Microfilm Menu is used to accession and track microfilm. Records may be filmed at the Archives, in the agency, or elsewhere, but the film is always processed (developed) by us. Usually the master copy is also retained by us. Agencies may request duplicate copies of film, also known as the diazo copy. Another diazo copy may be made for research use, as needed, or agencies may request that film be digitized and provided on an electronic medium. As each film comes in for processing, it gets added to the system. At that time it is tied to a series, and the date spans and content ranges are recorded. Each piece of film receives an accession number, which is automatically-generated and reflects the sequence count number of all the film processed by the Archives (so the number keeps going up, regardless of series or other demarcations). The unique key for film, however, consists of three parts: the series number, the format type (usually MCR or FCH for microfilm and microfiche, respectively), and the accession number. This is necessary to differentiate logical control from physical control. The intellectual separation of records is subject to change, but film can't always be snipped.



Click on Film Input Lookup and press Enter to view a microfilm record:

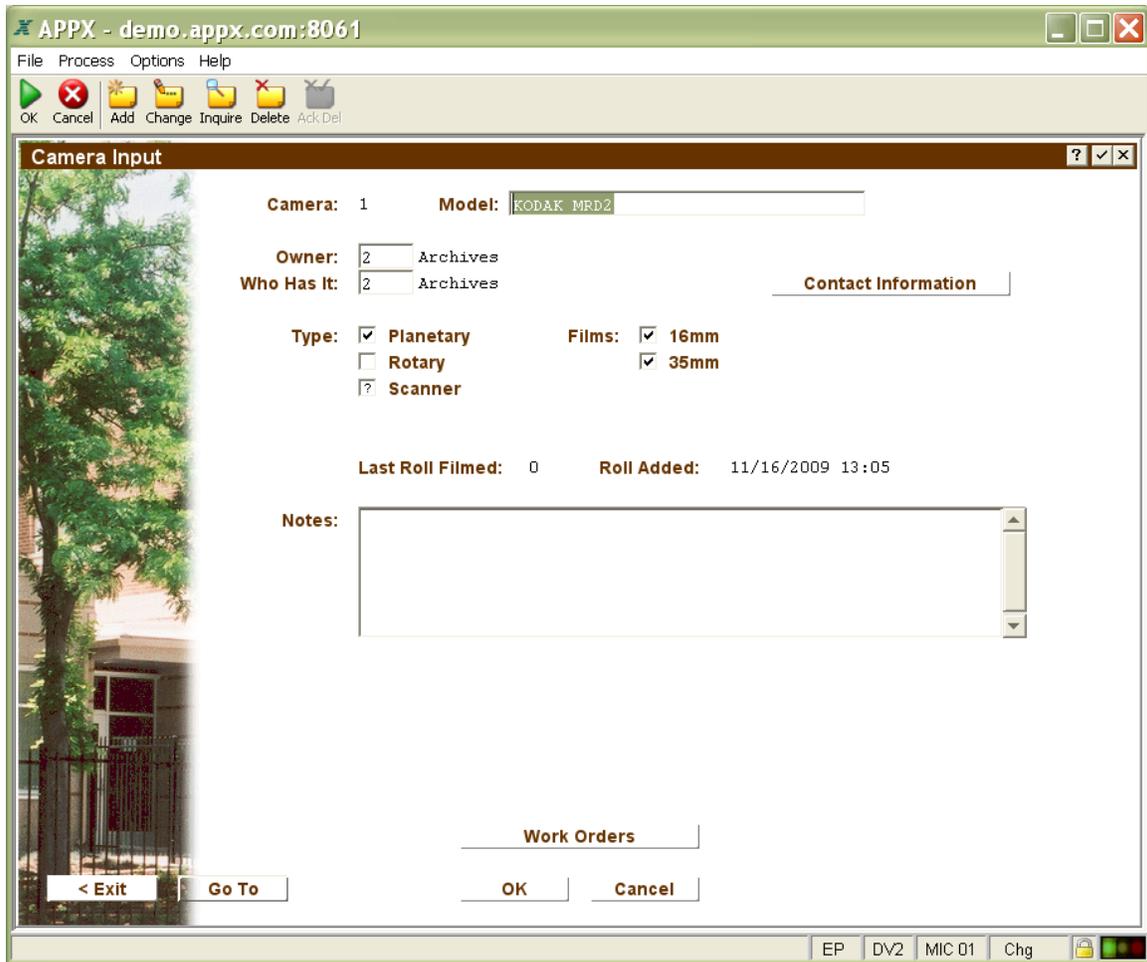


Exit back to the Microfilm menu.

We also record the camera that the records were filmed on, who has it, its make and model. Each camera keeps track of the number of rolls it has filmed, and the numbers are continuous regardless of what's being filmed.



Click on Camera Input, then press Enter to bring up the first camera record:



Exit back to Microfilm menu.

Different from the camera's roll number, the reel number is assigned to each piece of film in the permanent collection by staff while they are creating the finding aid. Reels are assigned in a particular order, depending on how the finding aid is arranged, starting at reel 1 and continuing until all the reels are described for that series. Reel numbers are unique within a series, but are re-used between series. Renumbering reels through the microfilm menu is available, but newer processes take care of this task in another way through our Processed Container functions.

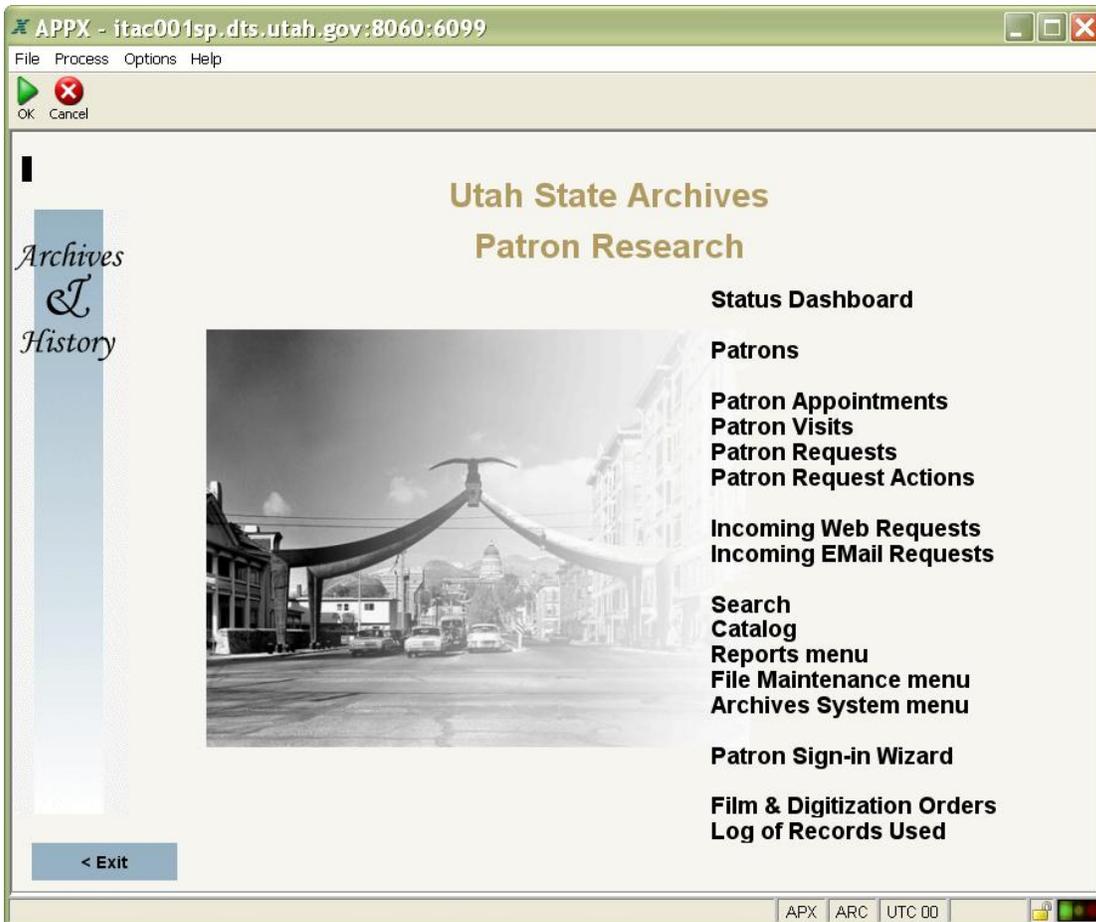
Exit to Main Menu

Patron Registration

The Patron Registration menu is used to identify patrons, their research questions, and the actions that staff members have taken (or need to take) regarding those questions. Specific records used (by box barcode number) may also be recorded. Click on Patron Registration:



This option brings up another menu, which has a different design motif since it is used by two different divisions with a shared Research Center (State Archives and State History):



Patrons and their requests are recorded here regardless of the method of contact (walk-in, email, phone, etc). Visitors sign in and agree to terms and conditions. Requests document all the actions taken by staff in response to the request.

APPX - itac001sp.dts.utah.gov:8060:6099

File Patron Options Help

OK Cancel New Edit View Delete Ark:Del Menu

Patron ? ✓ ✕

Archives & History

Patron Information

Last Name Barnett Prefix [v] Suffix [v]
 First Name Alan Middle Name [v]
 Patron Type Legal Researcher
 Title [v]
 Organization [v]
 Department [v]
 Email(1) [v]
 Email(2) [v]

Registration Information

PhotoID on File Patron Inactive
 Referred By State Agency [v]
 Repository [v]
 Loaned Materials Loaned Date (first) MM/DD/CCYY [v]
 Notes [v]
 Date Added 2013-07-12

Additional Information

Addresses (1) Appointments Visits (1) Requests
 Phone #s (1) Add Appointment Add Visit Add Request
 Forms (1)

OK Cancel

APX ARC PTR 00 Chg

This identifies the contact information of the patron. Click on the Requests button (bottom right):

APPX - itac001sp.dts.utah.gov:8060:6099

File Request Options Help

OK Cancel New Edit View Delete Ack/Del Menu

Patron Request ? [X]

Patron: Barnett, Alan / 801-359-5737

Archives & History

Request Details

Request Source: Email Status: Pending Active Waiting Privacy?
 Request Date: 07/12/2013 17:15 Due: MM/DD/CCYY hh:mm Started
 Completed Successful? Referred To

Request: I need to find out what the law said in 1920 about water rights.

Status Notes:

Staff Assigned: Heidi Stringham

Statistical Information

Urgency: Medium Why:
 Project:
 Category: Legislative historical records
 Subject: Water rights
 Topic:
 Date Range: 1920 to or Specific Date: MM/DD/CCYY
 County: Davis Municipality:

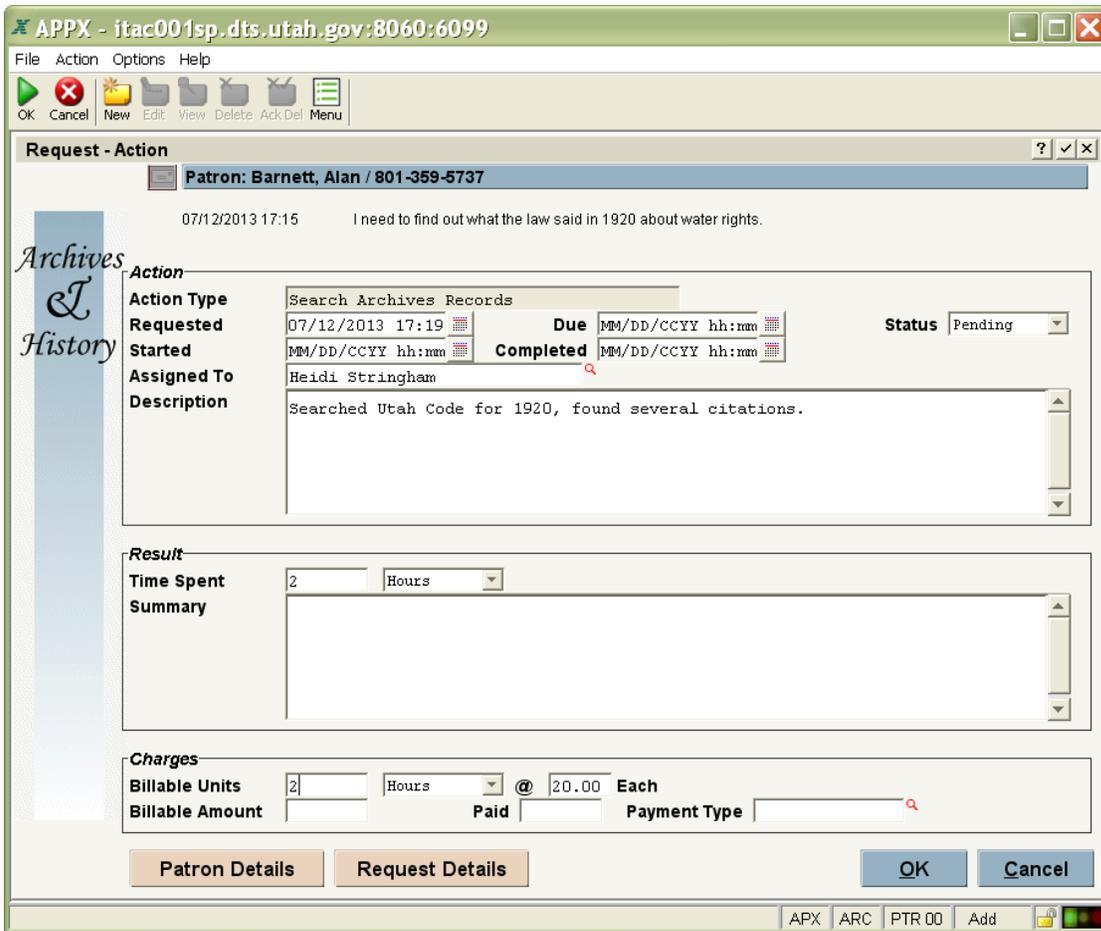
Additional Information

Patron Details Request Actions Related Biblio Recs
 Visit Details Add Request Action Related Entities
 Related Subjects

OK Cancel

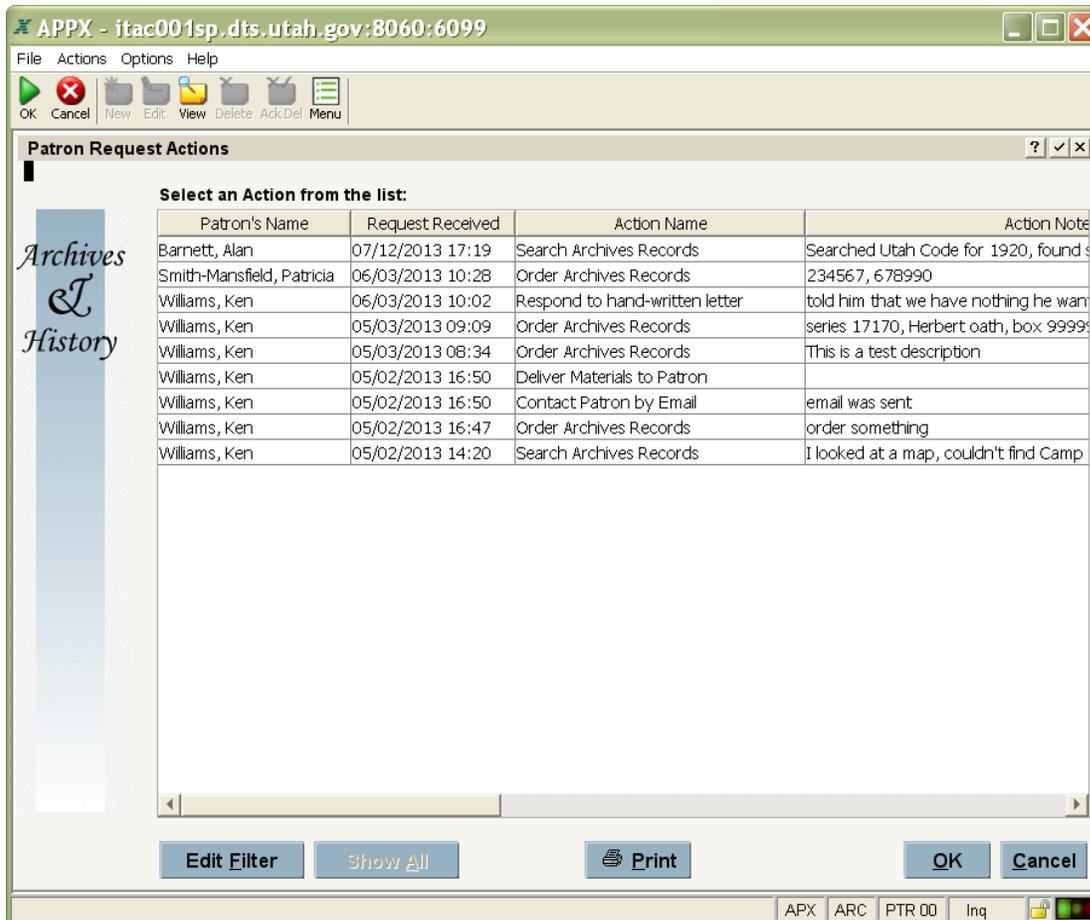
APX ARC PTR 00 Add

Each question the patron asks should be recorded. Data being recorded is designed to assist in gathering specific types of statistics. Values in the drop-down menus may be changed to reflect institution needs. Click the Request Actions button:



Each action that a staff member takes in regard to the research question is recorded. Different action types offer different fields on screen appropriate for the purpose. These actions communicate to others on staff the status of the question and what needs doing next.

Exit back to the Patron Registration main menu (called Utah History Research Center). Click the Pending List option:

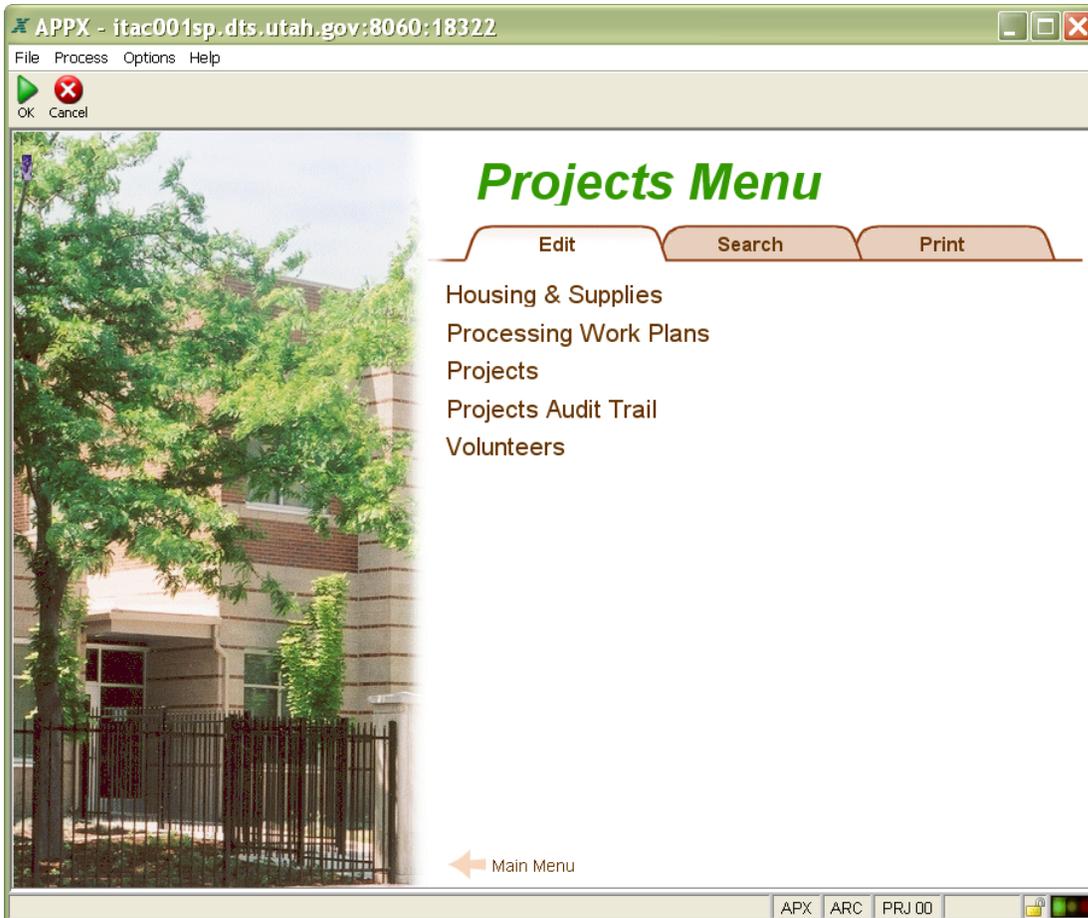


This screen identifies active questions. When a question is closed, it drops off this list.

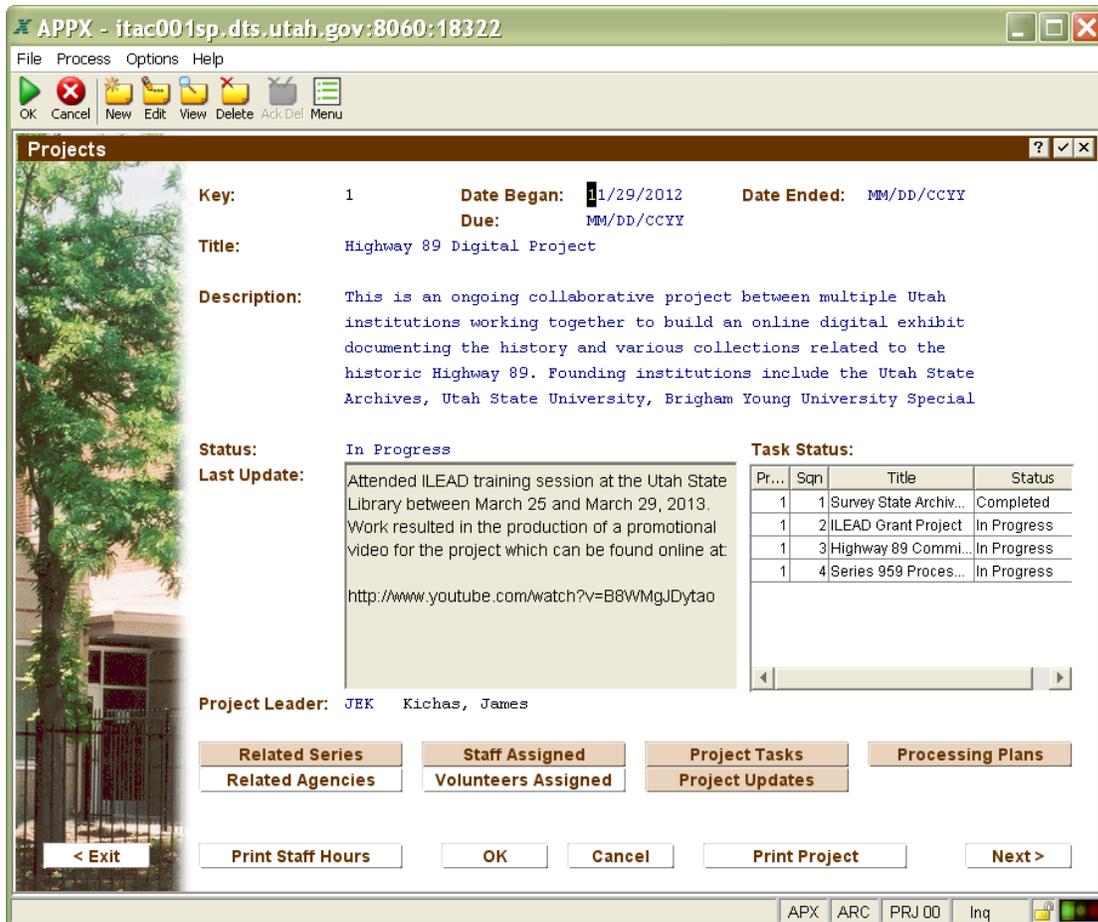
Other options in the Patron Registration system duplicate processes in the other areas of Axaem, but are designed specifically to display data needed by Research Center staff, rather than provide a function for data entry.

Project Management

Projects are tasks that generally take some time to accomplish and usually involve more than one staff member. Projects have people assigned to them and tasks assigned to them with individual completion dates. If a project is related to specific bibliographic records, then links are created in the project and available from within Bibliographic Input so you can drill down from a series and see who is working on what. In a collaborative environment, it's helpful to know who is working on a given set of records, especially if different projects overlap, or to know where someone left off if there is staff turnover.



The first option on the menu, Housing and Supplies, provides a way to identify supplies that will need to be ordered to support specific projects. Processing Work Plans identify why a set of records is ready to be processed and itemizes how the processor plans to move forward. These plans are then approved by the processing supervisor, and can then be attached to a specific project.



Volunteers are also tracked with their names, contact information, interests, hours available, and photo. This helps staff understand who might be available to work on a project so that assignments can be made. Volunteer hours may also be tracked per volunteer or by project, and reports add up those hours to provide annual totals.

Reports

The Reports Menu lists all reports that have been created. Many of these reports have been around for a long time. New reports can always be created or old ones updated. They may be printed as simple text files, or you can transform them into PDF reports. Some reports have been specifically designed for PDF use, especially the Retention and Classification Report. Reports designed with PDF in mind can have more graphical qualities than simple text reports. A PDF report is a little more flexible with its printing as well. You can choose which or how many pages to print. Data may also be exported as tab or comma delimited, although this option must be pre-programmed and is not something that can be set at runtime with an existing text report.



These reports are generally also available under the Print tab of the other menus.

Exit to Main Menu

State Records Committee

The State Records Committee Menu manages SRC functions. It is divided into three tabs: Before Meeting, After Meeting, and Members.

State Records Committee meetings are usually held monthly, at which retention schedules are approved and access appeal hearings are heard. The timelines associated with these meetings are tight and controlled by statute, so the system helps the process run more smoothly. Meeting dates are usually set a year in advance. When meetings are added, they are given a meeting number.



When series are submitted to the SRC, they go to a holding place and become associated with a particular SRC meeting number. At an appointed date prior to the meeting, all the series in the batch are mailed to the respective SRC members for review. Each mailing also has a number, and it becomes associated with a particular meeting number. If for some reason a meeting is canceled, the mailings can be edited to be linked with a different meeting number. This is done so that the correct approval date is associated with the series. After the meeting, those series in the batch which have been approved are printed, signed by the Executive Secretary, and updated with an approval date.

Exit to Main Menu

Training

We have a legislative mandate to train our records officers, both in-person and online, and publish the contact information and certification dates of those records officers. Axaem manages both sets of training.



In-person training sessions added in Axaem will display on the registration form automatically on our website. When a class is full or canceled, the form will also auto-update that information. You may connect a training session to the Google Calendar, in which case the person registering will receive an automatic confirmation and the event will be added to their calendar.

For online training, Axaem records the test questions and answers that you design, and also keeps track of how well individual records officers did when they took the test. If they passed the test, the database records when certification expires. The interface offers a way to automatically send messages to records officers and chief administrative officers, giving them a link to the test and reminding them when they are due to recertify. The system will also post online a report with records officer contact information by agency.

Unique Processes

The Unique Processes Menu is for miscellaneous menu items that don't really fit anywhere else. This is where records analysts are assigned to agencies, where you can add words to your personal dictionary, or go to fix retention problems in case Bibliographic Input stops you with an error. Most people will spend little time here. The

Web Development Menu does provide some processes used when repurposing Axaem data for the website, however, most integration between Axaem and the website is automatic and does not need to be manually edited.



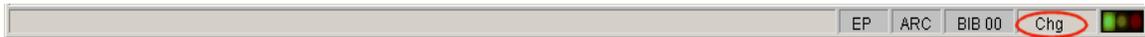
Exit to Main Menu

Navigation

Navigation through Axaem menus and processes follows standard rules and patterns, some of which are unique to the APPX environment, but all should be consistently applied from one place to another in the system.

Modes

APPX offers four modes of operation: Add, Delete, Inquire, and Change. Each process you work in has a default mode, which APPX will stay in until you change it to something else. Usually the default mode is either Inquire or Change. You can tell what mode you are in by looking at the status bar at the bottom of the Window:



Add Mode allows you to add new records. To access this mode, click on the Add button in the toolbar or press F9 on the keyboard. The Add button looks like this:



Delete Mode allows you to delete records. In some parts of the system Delete Mode is disabled, and you need to use other procedures to make mistakes go away. To access Delete Mode, click the Delete button on the toolbar or press F10 on the keyboard. The Delete button looks like this:



Before a deletion is recorded, the system will ask you to acknowledge the delete request. Click the Acknowledge Delete button or press Ctrl-F10 on the keyboard. The Acknowledge Delete button looks like this:



Inquire Mode allows you to view a record but not edit it. This is the safest mode to be in when exploring the system or looking something up. To access Inquire Mode, click on the Inquire button on the toolbar or press F11 on the keyboard. The Inquire button looks like this:



Change Mode allows you to edit a record and save the change. To access Change Mode, click on the Change button on the toolbar or press F12 on the keyboard. The Change button looks like this:



Key Entry

Input processes can be designed one of two ways: 1) you go into a process and the first record in that process automatically pops up, or 2) you go into a process and it asks you which record you want first. In the first instance, it's expecting you to want to scroll through all the records starting with the first one. In the second instance, it expects that you know exactly where you want to go and you just want the quickest way to get there.

No matter which behavior the system is displaying, you can cause it to do the other one. If it is displaying the first record, and you want to go to record number 1005, you tell Axaem to go into Key Entry (a blank screen), which means you click or press one of the mode buttons described above. If you choose the same mode that you are already in, it will immediately bring up the blank Key Entry screen. This is exactly the same thing that the Go To button does for you. If you choose a different mode (i.e. you move from Inquire Mode to Change Mode), you will need to click it twice. The first click will change the mode, and the second will give you the blank screen.

Once you have a blank screen, type the record key that you want and click OK or press Enter and it will go there. Do not click the Scan button:



The Scan function (available on the keyboard as F2) is for looking up values for a field when you are not sure what the correct value might be. If you already know which record you want, clicking Scan will only add a couple of unnecessary steps to getting you there.

If you are at a blank screen and just want to bring up the first record, just click OK or press Enter without first entering a record key.

When “Go To” Won’t Work

If you go into a process from a menu, the Go To button should always work. There are a couple of cases where the Go To button is not available. If you are in Bibliographic Input, in a series, and then click the Agency button to see contact information, the Go To button on Agency Input has been disabled because it's limited to viewing just the agency that the series was tied to. The agency key is being constrained to the specific series number. This same phenomenon is true when you are searching for a series by a field other than

the series number. You can't use the Go To button on the Bibliographic Input screen in that case, but you can navigate by going back to the scrolling list of records where you first entered your search criteria and use the Go To button there.

Sorting and Scrolling through Records

All processes sort in a default order that the application designer has chosen, such as by series number, but you can cause the records to be sorted in the order that you prefer instead. You may sort the records by a different key, or by a field that isn't a key. To choose a different key, while in Key Entry (a blank screen), use the Select function (F3) to choose the one you want. A little menu will come up showing you all the keys available. Double-click a key from the list, and type the record key where you want to start. Click OK or press Enter to go there.

To sort by a field that isn't a key, first go into a record, place the cursor on the field that you want to sort, press Select (F3) and then press or click the mode you are in, such as Change (F12). Type the starting point where you want the index to begin, and click OK or press Enter. APPX will warn you that you are about to create a dynamic index. That's ok, just continue and let it sort the records. If the file is large, this will take a few minutes.

Once you find the starting point you want and are in your record of choice, you may scroll down by using Next Record (F5), or Page Down. Using Next Record takes you to the records one by one. Using Page Down will display a page-full of records at a time. Scrolling records can take up a single line, a whole screen, or something in-between. Clicking OK or Enter works when scrolling, too, provided there is no automatic subfile the system is designed to access from a main record. Scrolling lists allow you to move forwards or backwards (using Page Up), back to the point where you started. It won't go above where you started. Selecting the Previous Activity function (F4), will take you back to the previous step you were doing.

End of the Road

If you are scrolling through a set of records, and keeping hitting OK, Enter, or Next Record (F5), eventually you will come to the end of the table, where there are no more records (table rows). APPX will then display this in the status bar at the bottom of your window:



No More Records

You may come across this message even if you weren't trying to scroll to the next record, just updating the current one (see below).

Saving Changes

To edit an existing field in Axaem, you must first be in a record, in Change Mode, and have security rights to allow editing. Type your change into the field as necessary, then click OK or press Enter to begin the save process. APPX will respond in one of four ways. It will

- 1) advance to the next record (if there is one) and save your change;
- 2) display the green bar with the No More Records message, meaning there's no next record to advance to, thus saving your change;
- 3) display lookup values onscreen related to your change, essentially asking, "Is this what you meant?" If this is the case, your change is not saved yet. You must click OK or press Enter again, and watch it advance to the next record. Then the change is saved.
- 4) display some error or warning message first that needs to be dealt with. Errors must be corrected but warnings can be ignored. To save the change, click OK or press Enter again.

Exiting or Canceling a Process

Every input process has a button called "Exit." This works similar to a "back" button on a browser, but it actually means End—to end the current process. Clicking Exit will take you out, but won't necessarily take you back to the prior screen. It may take you all the way out to a menu. The system is designed so that often it will just take you back to the prior screen, however. The End/Exit function can be accessed by clicking the Exit button or through the keyboard by pressing F8.

The Cancel button is used to get out of a process and not save your changes. This is especially useful if you accidentally wipe out something complicated like a series description or decide not to proceed with what you were doing. You may issue a cancel command by clicking the Cancel button or by pressing Ctrl-F8. If you've already saved the change, however, using Cancel won't reverse that. Instead, it will just exit you out of the process.

Printing

To print data from APPX, you first run a report. Reports have been pre-designed to reflect the most common needs in the system. Reports generally have three components: the query, the print disposition screen, and the data output. Depending on the report, sometimes the query will display first, and sometimes the print disposition screen will display first. Since the data output is the result of your query, it always comes last.

Queries

A query is like a question that you are asking the database. You want to know everything it has that fits certain search criteria. Your criteria limit the response to particular records. If you don't specify anything in the query, the database will return all records, which could take a long time to run and kill a few trees if you print it, so be careful. A query usually looks something like this, but it will be different from report to report:

Seq	Field Name	Occ	Field Name or Constant	Occ
1	When Series Was Added	GE	MM/DD/CCYY	
2	When Series Was Added	LE	MM/DD/CCYY	
3	Who Added Series	EQ		
4	Who Changed Series	EQ		
5	Series Number	GE		
6	Series Number	LE		
7	When Series Was Changed	GE	MM/DD/CCYY	
8	When Series Was Changed	LE	MM/DD/CCYY	
9	Series Processed When		MM/CCYY	
10	Series Processed By			
11	Series Cataloged Before		?	
12	SRC Date		MM/CCYY	
13	SRC Approved		?	
14	Classification			

(more) <-- If it says "more", hit Page Down

Selection Logic (AND, OR) | Make Value = "Blank" | Copy Field

< Exit | OK | Cancel

Sometimes fields are listed twice in the query to allow you to specify range spans, i.e., “greater than or equal to 1” through “less than or equal to 20,” meaning records 1-20. All the fields have an understood “and” between them. If you want to use Boolean logic (and, or, not), click the Selection Logic button. In the text field provided, you can say “1 or 9,” meaning that the first and ninth fields from the query screen will behave as if they have an “or” value between them instead of “and.”

To test for null values (when a field contains no data), put your cursor on the field value (under the “field name or constant” column), and click Make Value = “Blank.” If you need another instance of a field to do a range search, but one hasn't been provided, place your cursor on the field that you want to duplicate and click Copy Field.

When you are done, click OK or press Enter to move to the next step. Note that on queries, clicking Exit will not take you out of the report. If you want to stop the report job, click Cancel.

Sometimes reports are designed to have a special query process, usually one that looks and behaves a lot like an input process. This input/query process lets you add records to a memory file, and then the contents of the memory file are used to print the report.

Sometimes these processes are also used to ask you questions that will limit your query or change the look of the report even though there's no field value to specify. Answer all questions and tell the system which records you want, click OK to save the change, and then click Exit or press F8, to proceed to the next step.

Queries sometimes have sort order screens attached to them. They show up after you have entered your initial criteria. The sort order screen will list the fields you can sort by. Often there is a default order, but you can change that. Click Clear Sort Order, enter the order level number by the field name in the order you want them, then click OK or press Enter to proceed to the next step. You can ignore the subheading, subtotal, and + fields.

APPX - demo.appx.com:8061

File Process Options Help

OK Cancel Add Change Inquire Delete Ack/Del

Query Sort Order

Sort Level	Field Name	Occ	Subheading	Subtotal	Sort Order
1	Agency Name For Use On Labels	NO		NO	+
2	Agency Hierarchy Level 1	NO		NO	+
3	Agency Hierarchy Level 2	NO		NO	+
4	Agency Hierarchy Level 3	NO		NO	+
5	Agency Hierarchy Level 4	NO		NO	+
6	Agency Hierarchy Level 5	NO		NO	+
7	Agency Number	NO		NO	+
8	Agency RLIN History Date	NO		NO	+

Grand Totals: STANDARD

Clear Sort Order

OK Cancel

< Back

EP DV2 HOK AA Add

Print Disposition

The print disposition screen gives you the option of printing your results onscreen or on paper. You can also choose which printer to send it to, and if you want it to be a PDF report or not. To make it a PDF report, you will need to change some of the defaults. On the Format field, go to the dropdown list and choose PDF. Then on the Form ID field choose one of the three forms set up for PDF reports:

- PDF-6P10
- PDF-6P12
- PDF-8L16.5

The first two print portrait style. The PDF-6P10 has slightly smaller font size than PDF-6P12. The form PDF-8L16.5 is for printing landscape style and the font size is very small.

APPX - itac001sp.dts.utah.gov:8060:18322

File Process Options Help

OK Cancel New Edit View Delete Ack/Del Menu

Print Disposition

Report Options

Print on Screen? Print Hard Copy? Browsable?
Print Summary Only? Record Limit: Format: PDF

Report Subheading:

Printer/Queue Options

Printer Id: LOCAL Local default printer
Form Id: PDF-6P12 PDF Portrait, 12pt, 6lpi
Print Mode: SPOOL Print File Disposition: SCRATCH
Priority: Print Spool Date/Time: MM/DD/CCYY hh:mm ss.th
Number of Copies: 1 Notify User When Done? Print Banner?

User Defined Fields Select Disposition Save Disposition

< Exit OK Cancel Submit to Background

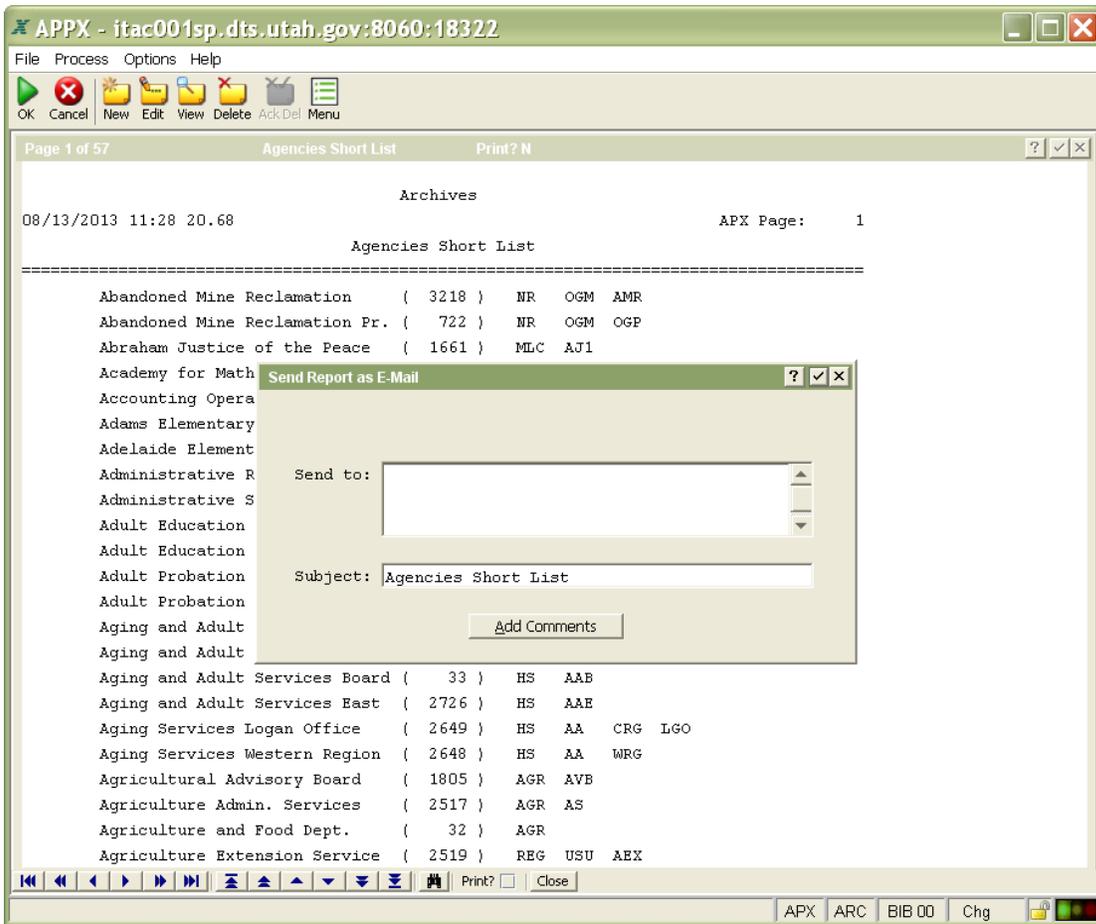
APX ARC HOK 00 Chg

Other options on this screen you typically won't use. Click OK to run the report or Exit or Cancel to stop the report job.

When the report comes up on screen as a text file, it will give you the option to search the results (note the button with the binoculars at the bottom), tell you how many pages there

are (upper left-hand corner) and give you the option to change your mind about printing them (checkbox at bottom of screen). If you decide to go ahead, click Close or press F8.

Alternately, you can email this report to yourself or someone else by clicking Option 7. The option key is the same one that has the ~ (tilde) and ` (backtick). Press that key once and then the number 7, and a field will pop up allowing you to enter an email address. Type the address and press Enter to save the change, and then exit the report. Be aware that the email is being sent from the APPX server, not your local email account. Someone you send it to may reply to that server address and you will never know it. The email option is most useful when you want a text copy of the data to manipulate, so you send it to yourself. Or you can send it to yourself, then forward it (using your local email account) on to someone else—with an explanation of how to understand the report.



PDF reports behave a little differently. After the query and print disposition processes have finished, APPX sends the PDF file to your PC. It will then open in Adobe Acrobat. At that point, you can print it or save it to a location on the LAN. Don't save it to the local temporary location on your hard drive where it came in. That will go away.