



Welcome!

Office Hours will start at 2pm and run until 3pm

Please mute your microphone

As time permits, we will respond to questions typed in the chat box, and offline afterwards, as needed

This session will be recorded and made available on the CARLI website both as PDF slides and as a recording, with live links to all referenced resources

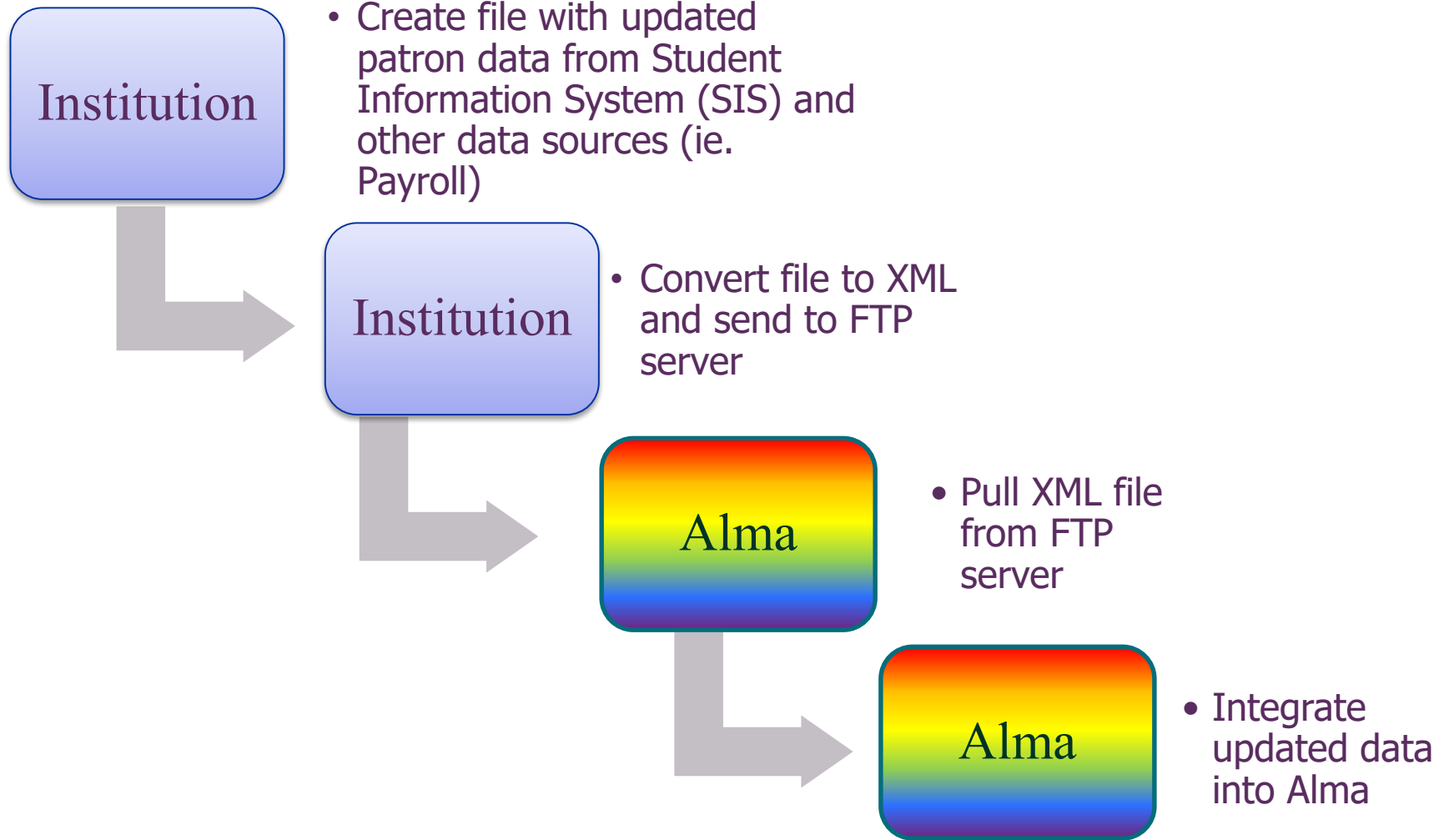


Today's Agenda

- SIS (Student Information System) Recap/Overview
- Account Types and Data Requirements
- S/FTP Definitions and Integration Profile Options
- Managing Patron Expiration and Purge Dates
- Importance of Designating a Preferred Address
- Implications of Processing Full vs. Partial Extracts of Patrons
- Troubleshooting a SIS Synchronization Job
- Tips for Automating the Creation and SFTP of the XML File



SIS Synchronization Recap/Overview



Account Types and Data Requirements

Account Types:

- **Internal Users** - Details are managed in Alma. They are created manually by library staff and updated only within Alma.
- **External Users** - Stored and managed outside the library's scope, usually in another system maintained by the institution (for example, in a [Student Information System](#)). These users' information is loaded into Alma and is synchronized on a regular basis. It is possible to update an external user's information manually in Alma, but these updates are overwritten by the next synchronization with the user information system.

Account Types and Data Requirements

Data Requirements:

1) I-Share Mandatory Fields for User Records

https://www.carli.illinois.edu/products-services/i-share/alma/user_mandatory_fields

2) Ex Libris User Record Data Dictionary

https://developers.exlibrisgroup.com/alma/apis/docs/xsd/rest_user.xsd

S/FTP Definitions

CARLI has pre-configured 2 S/FTP definitions:

- 1) CARLI FTP Server (unscoped)
- 2) CARLI FTP Server (key authentication)

There is a new option that Ex Libris made available in December:

- 3) Ex Libris Secure FTP Service
[Developer Network - Ex Libris S/FTP Service](#)

Alma -> Configuration -> General -> External Systems -> S/FTP Definitions



Configuring: CARLI Meta-Materials Collection (MMC)



Alma Sandbox

Back

List of S/FTP connections

Ex Libris Secure FTP Service

Server **custdata-** User **alma_01carli_mmc@customers.na** Sub-directory **sandbox**

dc04.hosted.exlibrisgroup.com:10022

Regenerate private key

optional

parameters

1 - 2 of 2

Name



+ Add S/FTP connection



	Name	Description	Managed in Network	
1	CARLI Secure FTP Server (key authentication)	Basic connection details for the CARLI secure FTP server (files.carli.illinois.edu).		...
2	CARLI Secure FTP Server (unscoped)	Basic connection details for the CARLI secure FTP server (files.carli.illinois.edu). Each institution will need to complete this profile by adding their user name and password.	✓	...

User Management



SIS Statuses - Small x | Alma Technical Det x | Update S/FTP conr x | encryption - Conve x | Introducing Ex Libr x | Import and synchr x | +

i-share-mmc-psb.alma.exlibrisgroup.com/ng/page;u=%2Fmng%2Faction%2FpageAction.page_xml.submission_format_summary.xml...

Apps | Bookmarks | Mail | Udemy | IR | IR History | IDEALS | Alma Status | AWS | Uofl AWS | Website Edit | Sandboxes | Other bookmarks

ExLibris | Configuring: CARLI Meta-Materials Collection (MMC) | Alma Sandbox | Update S/FTP connection | Test FTP | Cancel | Save

CARLI Secure FTP Server (key authentication)

Name *

Description

Server * Port *

Sub-directory Is full path

Max. Number of Files Min. Number of Files

Max. file size Size type

Allow Navigation Ftp Server Type

FTP Passive Mode

Ftp Server Secured

Authentication method
 Username/password authentication
 Key authentication

UserName *

Public key ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCywkMo1WVInw3CRtASS9WV5b9Xi8E31tYmQgswNsOXAl/ccojh0jT7/RbRrRURIdJ4Cb8Hol+a15cqAk1K23h393MrUsiH6iikUeKjQ8GvE9IyKOkyu6vjTbCkKwczdg7DYXkheFt0J6ivahLqHPcDpAL6ooechFT6Yste1LAyOX9QCCPuOowHcXcWd3stLQhsku7CMzgh8L/U9qaMqHgu4elvPy+PmX460S1x+RiiuxxNpXkpe6fk4hhc0y/kcActoJKbh80EG86Egn1/5BquEswkmtxwSHRE87I5tU8qIh4jlp6DgWN/kAHluGOi7v2qaWw1qKhE4hh5neFg3/ 01CARLI_MMC

Becomes /home/mmcfp/upload/ALMA



SIS Integration Profile Options

- S/FTP Connection Type
- Input File Path
- Match ID
- Schedule (to Automate Run)
- Email Notifications (One-Time or Scheduled Run)



Alma -> Configuration -> General -> External Systems -> Integration Profiles

SIS Statuses - Sn x | Alma Technical E x | Login x | Integration Profil x | encryption - Cor x | Introducing Ex L x | Import and sync x | + - [] x

← → ↻ i-share-mmcs-psb.alma.exlibrisgroup.com/ng/page;u=%2Frep%2Faction%2FpageAction.external_system.external_system_wizard_new_step_1.xml.do%3... 🔍 ☆ [] [] []

Apps Bookmarks Mail Udemy IR IR History IDEALS Alma Status AWS Uofi AWS Website Edit Sandboxes Zoom >> Other bookmarks



Configuring: **CARLI Meta-Materials Collection (MMC)** ▾



Alma Sandbox

Integration Profile

C Cancel **S** Save

Student Information System ⓘ >

- 1 2 3
- General Information
 - Actions
 - Contact Info

Code *

Name *

S/FTP Connection Type *

System (for Ex Libris' informational purposes) *

Default

System Description

Description

- Acquisitions
- Resources
- Discovery
- Fulfillment
- User Management

Alma -> Configuration -> General -> External Systems -> Integration Profiles -> Actions Tab

SYNCHRONIZE

Active * Active Inactive

Record Type * Public

Match ID Type * Primary Identifier

Synchronization Type Swap All

Unmatched Record Add Reject

Input File Path * SIS */home/mmcftp/upload/ALMA + SIS = / home/mmcftp/upload/ALMA/SIS*

Schedule

- Not scheduled
- Every 6 hours, starting at 03:00
- Every Monday at 01:00
- Every day at 01:00
- EXPORT USER BY COND Every day at 02:00
- Every day at 04:00
- Active * Every day at 06:00
- User ID Type Every day at 10:00
- User Groups Every day at 15:00
- Block Types Select from a list

Integration Profile

Cancel Save

Student Information System



- 1 General Information
- 2 Actions
- 3 Contact Info

Addresses



Phone Numbers



Email Addresses

1 - 1 of 1

+ Add Email Address



Preferred	Email Address	Created By	Creation Date	Type	
	csaundrs@uillinois.edu	Saunders (CARLI Account), Chris	01/26/2021 15:48:16 CST	Error reporting, General	...



System Job Notification

01/28/2021

Chris Saunders
100 Trade Centre Drive
Suite 303
Champaign, IL 61820-7233

CARLI Resource Management Collection (RMC)

Hello,

Job Report

Name	Users SYNCHRONIZE using profile Student Information System	Created by	carli_csaundrs
Process ID	361551450005879	Total run time	10 Seconds
Started on	01/28/2021 11:47:20 CST	Finished on	01/28/2021 11:47:30 CST

Job Results Summary

Total records processed	1
Total users processed	6
Total users rejected	4
Total users updated successfully	0
Total users created successfully	2
Total users unchanged	0

Job Parameters

Parameter	Value
Schedule	NOT_SCHEDULED
Input File Path	SIS
User XSD Version	V2
External system type	USER

Managing Patron Expiration and Purge Dates

Alma -> Admin -> Manage Users -> User Details -> General Information Tab

Example XML File

ExLibris Users All

User Details

Says, Simon

General Information Contact Information Identifiers Notes Blocks Fines/Fees Statistics Attachments Proxy For History

User Information

First name	Simon	Middle name	
Last name *	Says	Preferred first name	
Preferred middle name		Preferred last name	
Primary identifier *	10819913	Title	
PIN number	<input type="text"/> Generate	Job category	Please select a value
Job description		Gender	
User group *	UNDERGRADUATE	Campus	
Website URL		Preferred language	English
Status	Active	Status date	01/27/2021
Birth date	<input type="text"/>	Expiration date *	09/30/2022
Purge date *	09/30/2023	Last patron activity date	-

```
IShare_Mandatory_User_Fields_1 - Notepad
File Edit Format View Help
<users>
  <user>
    <primary_id>10819913</primary_id>
    <first_name>Simon</first_name>
    <last_name>Says</last_name>
    <user_group>UG</user_group>
    <expiry_date>2022-09-30Z</expiry_date>
    <purge_date>2023-09-30Z</purge_date>
    <contact_info>
      <addresses>
        <address preferred="true">
          <line1>105 High Roller Drive</line1>
          <city>Las Vegas</city>
          <state_province>NV</state_province>
          <postal_code>78276</postal_code>
          <address_types>
            <address_type>home</address_type>
          </address_types>
        </address>
      </addresses>
    </contact_info>
    <emails>
      <email preferred="true">
        <email_address>simonsays@mylib.org</email_address>
        <email_types>
          <email_type>personal</email_type>
        </email_types>
      </email>
    </emails>
    </contact_info>
  </user_identifiers>
  <user_identifier>
    <id_type>BARCODE</id_type>
    <value>21234128981777</value>
    <status>ACTIVE</status>
  </user_identifier>
</user_identifiers>
</user>
</users>
```



Managing Patron Expiration and Purge Dates

Expiration Date: The date after which library staff users can no longer log into Alma, and/or, users with the Patron role assigned are prevented from further circulation activity (without the intervention of library staff).

Purge Date: Date used in Alma as criteria for when not-in-use user records can be batch-deleted.

Considerations for selecting dates:

- Frequency of SIS loads to update records
- Type of institution/nature of patron population
- Length of maximum renewal periods/loan periods



Importance of Designating a Preferred Address

Alma -> Admin -> Manage Users -> User Details -> Contact Info Tab

Example XML File

User Details: Says, Simon

General Information | **Contact Information** | Identifiers | Notes | Blocks | Fines/Fees | Statistics | Attachments | Proxy For | History

Addresses

Preferred	Address	Created By	Creation Date	Type	External Data
<input checked="" type="checkbox"/>	105 High Roller Drive Las Vegas NV 78276	System	01/27/2021 12:24:14 CST	Home	<input checked="" type="checkbox"/>

Phone Numbers

Email Addresses

Preferred	Email Address	Created By	Creation Date	Type	External Data
<input checked="" type="checkbox"/>	simonsays@mylib.org	System	01/27/2021 12:24:14 CST	Personal	<input checked="" type="checkbox"/>

```
IShare_Mandatory_User_Fields_1 - Notepad
File Edit Format View Help
<users>
<user>
<primary_id>10819913</primary_id>
<first_name>Simon</first_name>
<last_name>Says</last_name>
<user_group>UG</user_group>
<expiry_date>2022-09-30Z</expiry_date>
<purge_date>2023-09-30Z</purge_date>
<contact_info>
  <addresses>
    <address preferred="true">
      <line1>105 High Roller Drive</line1>
      <city>Las Vegas</city>
      <state_province>NV</state_province>
      <postal_code>78276</postal_code>
      <address_types>
        <address_type>home</address_type>
      </address_types>
    </address>
  </addresses>
  <emails>
    <email preferred="true">
      <email_address>simonsays@mylib.org</email_address>
      <email_types>
        <email_type>personal</email_type>
      </email_types>
    </email>
  </emails>
</contact_info>
<user_identifiers>
  <user_identifier>
    <id_type>BARCODE</id_type>
    <value>21234128981777</value>
    <status>ACTIVE</status>
  </user_identifier>
</user_identifiers>
</user>
</users>
```


Implications of Processing Full vs. Partial Extracts of Patrons

METHOD	Ease of Creation	Logging / Troubleshooting	Processing Time	Functional Flexibility	Ability to Skip
Full	✓		✓		✓
Partial		✓	✓	✓	





Troubleshooting a SIS Synchronization Job

File Related Problems:

1. File encoding (UTF8) ->Error= "invalid byte 1 of 1-byte UTF-8 sequence."
2. Zipping methods ->Error~"invalid END header (bad central directory offset)
3. SFTP modes (binary vs. ASCII)
4. No file present or No file with .zip extension

Common Error Messages Due to XML Content:

1. Invalid value
2. Case sensitivity
3. Record with 2 occurrences in same run (based on Match ID)
4. Account type is Internal (Will not process)
5. Mandatory field missing
6. Primary ID already taken by other user
7. XML parsing problems
8. Problematic characters



Q and A



Contact

Chris Saunders – CARLI Contact for SIS Synchronization
support@carli.Illinois.edu

Thank you!

The next Open Office Hours will be on February 11th.

