



Alma Integrations with External Systems

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Introduction

Alma integrates with external systems, such as vendor systems, Enterprise Resource Planning (ERP) systems, metadata management systems, and remote storage systems, via standard protocols, such as S/FTP.

Configuring integrations with external systems includes the following steps:

- 1 Handling the data transition between Alma and the external system, including mapping the exported invoices' fields to the external system fields. For details, see <https://developers.exlibrisgroup.com/alma/integrations>
- 2 Defining an external integration profile in Alma, explained in this guide.

This guide describes how to configure integrations between Alma and external systems, and is organized according to the following areas: Acquisitions, Resource Management, Fulfillment, User Management, and Administration.

NOTES:

- In many cases, this guide refers to instructions that are located in other sections of the core Alma documentation. If you are working with the online version, references to other sections are direct links. If you are working with the PDF version, you will need to open these references independently.
 - If you are working with Alma in conjunction with bX, see **bX** on page 181.
 - If you are working with Alma in conjunction with MetaLib, you must configure your link resolver in MetaLib. For instructions, refer to the *MetaLib System Configuration and Administration Guide*.
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Acquisitions

This section includes:

- [Financial Systems](#) on page 7
- [Electronic Data Interchange \(EDI\)](#) on page 16
- [Embedded Order Data \(EOD\) Import](#) on page 26
- [Real-Time Integration](#) on page 27

Financial Systems

PERMISSIONS:

To configure integration with financial systems (such as ERP systems), you must have the following role:

- General System Administrator

The Alma acquisitions process includes ordering and receiving materials from vendors, which involves the handling of both orders and invoices by vendors. This can be managed in the institution's financial system. For details on the integration between Alma and financial systems (including XSD and XML samples), see <https://developers.exlibrisgroup.com/alma/integrations/finance>.

To configure the export and import of invoices:

- 1 Configure an S/FTP connection to be used by Alma and the financial system, as described in [Configuring S/FTP Definitions](#) in the *Alma Administration Guide*. (If you are working in a sandbox environment or pre-“Go Live” production environment, ensure that the S/FTP connection you configured is defined as an allowed S/FTP connection for your institution, as described in [Configuring Allowed S/FTP Connections](#) in the *Alma Administration Guide*.)

- 2 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 3 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 4 Perform the following actions on this page:
 - a Enter a code and name for the profile you are defining.
 - b From the **Integration type** drop-down list, select **Finance**.
 - c From the **S/FTP connection type** drop-down list, select the name of the FTP connection that you defined in Step 1.
 - d Indicate the type of financial system with which you are integrating (for Ex Libris' informational purposes). Note that this is mandatory.
 - e Optionally, enter a description of the integration you are configuring.

The screenshot shows the 'Add Integration Profile' wizard, Step 1: Define External System. The form has the following fields:

- Code**: pay_invoices_ERP
- Name**: Pay Invoices
- Integration Type**: Finance
- S/FTP Connection Type**: ftp1
- System (for Ex Libris' informational purposes)**: Homegrown
- Description**: (empty text area)
- Default**: (checkbox)

Figure 1: Finance Integration Profile Definition – Page 1

- 5 Click **Next**. The second page of the wizard opens.

The screenshot displays the 'External System' configuration page for a 'Finance' integration. The 'Actions' tab is selected. The 'Import' section contains fields for 'Active' (radio button selected), 'Plugin' (dropdown empty), 'Input File Path' (text input: Alma/invoices_import), and 'Schedule' (dropdown: Not scheduled). The 'Export' section contains fields for 'Active' (radio button selected), 'Plugin' (dropdown empty), 'Output File Path' (text input: Alma/Invoices_export), 'Schedule' (dropdown: Every day at 11:00), and 'Use xsd format' (checkbox checked).

Figure 2: Finance Integration Profile Definition – Page 2

- 6 Perform the following actions in the Import and Export sections on this page:
 - a Select whether you want the integration you are configuring to be active or non-active. Note that **Active** must be selected in order for the import/export job to be run. (By default, the **Non-active** option is selected.)
 - b From the **Plugin** drop-down list, select the out-of-the-box plug-in that is used to run the invoice import/export (not currently in use).
 - c In the **Input file path/Output file path** fields, enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified **Alma** in the **Sub-directory** field during S/FTP connection configuration and you enter **payments** in the **Output file path** field, the invoices are exported to the **Alma/payments** directory.

NOTE:

The value of the **Input file path** field cannot be identical to any of the other **Input file path** or **Output file path** values.

- d From the **Schedule** drop-down list, select a scheduling option, predefined by an Ex Libris administrator. If you select **Not scheduled**, the invoice import/export job will run only when you manually run it (by clicking **Run**). For details, see **To manually run and monitor the invoice import/export job:** on page 10.

- e In the **Export** section, select **Use xsd format** to export invoices using a new format that includes a well-documented XSD file and an XML example (see <https://developers.exlibrisgroup.com/alma/integrations/finance>). It is strongly recommended that you select this option.

Selecting the **Use xsd format** check box enables exporting an invoice's explicit ratio to the financial system (see [Creating an Invoice From a PO or Manually](#) in the *Alma Acquisitions Guide*).

If no explicit ratio was configured, the implicit ratio is imported to the financial system.

If this check box is not selected, no ratio is exported to the financial system.

- 7 Click **Save**. The integration profile you configured appears in the Integration Profile List.

To manually run and monitor the invoice import/export job:

NOTE:

To run the export job, you must first activate the **InvoicePaymentLetter** letter, with the channel **SUBMISSION** ([Administration > General Configuration > Configuration Menu > General Configuration > Letter Activity](#)).

- 1 On the Integration Profile List page, locate the appropriate profile and select **Actions > Edit**. The General Information tab opens.
- 2 Click the **Actions** tab. The import/export details you defined are displayed, together with a **Run** button in each section.

The screenshot shows the 'Actions' tab of a configuration interface. It has three main sections: Import, Export, and Run. In the Import section, there are fields for 'Active' (radio buttons for Active or Non Active), 'Plugin' (dropdown menu), and 'Input File Path' (text input field set to 'Alma/invoices_import'). In the Export section, there are similar fields for 'Active', 'Plugin', and 'Output File Path' (set to 'Alma/Invoices_export'). The Run section contains a 'Run' button, a 'Schedule' dropdown (set to 'Not scheduled'), and a checked checkbox for 'Use xsd format'. The entire form is contained within a light gray border.

Figure 3: Actions Tab with Run Button

- Click **Run** in the **Import** or **Export** section. The import/export job is run and the import/export file is sent to the configured FTP location. If email notifications are enabled in Alma, you receive notification via email.

The screenshot shows a message box at the top stating 'External system job submitted job id 8648248330001041'. Below it is a table with columns 'Name', 'Size', and 'Last Modified'. A single file named '8648248330001041-1331796636801.xml' is listed, with a size of '66 KB' and a modified date of '3/15/2012 9:22:00 AM'. The 'Name' column is highlighted with a red border.

Figure 4: Examples of Message When Running Job and File on FTP Server

You can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate profile on the Integration Profile List page. For example, the following figure shows a job that completed successfully, processing one file.

The screenshot shows a table titled 'Job History' with columns: Job ID, Status, User, Time Started, Time Ended, Files Processed, and Files Failed. One row is visible: Job ID 34953450000121, Status Completed Successfully, User admin1, Time Started 2012-07-12 00:55:20, Time Ended 2012-07-12 00:55:20, Files Processed 1, and Files Failed -. The 'Action' column contains a small blue square icon.

Figure 5: Import/Export Job History

NOTE:

The status **Completed Successfully** does not mean that invoices were imported/exported successfully. Rather, it means that the job completed without error.

You can use the **Actions** button on this page to access a more detailed job report, including statistics on the number of invoice records and invoice records with exceptions processed (**Actions > View**), events that occurred during the job processing (**Actions > Events**), and a report of errors (**Actions > Error reporting**).

To configure and manually run the Fund Allocation Loader:

- 1 On the Integration Profile List page, select **Finance** in the Integration Type filter to display the finance integration profiles.
- 2 Select **Actions > Edit** for an integration profile, and click the **Actions** tab. The integration profile Actions tab page displays.

The screenshot shows the 'Actions' tab of an 'External System' profile named 'paypal'. The 'Integration Type' is 'Finance'. The page contains three main configuration sections:

- Import Payment Confirmation:** Active status is set to 'Non Active'. It includes fields for 'Plugin' and 'Input File Path'. A 'Run' button is present.
- Export Invoice For Payment:** Active status is set to 'Non Active'. It includes fields for 'Plugin' and 'Output File Path'. A 'Run' button is present.
- Funds Allocation Loader:** Active status is set to 'Non Active'. It includes fields for 'Plugin', 'Input File Path', 'File Extensions' (set to 'Csv'), and 'Schedule' (set to 'Every day at 01:00'). A 'Run' button is present.

Figure 6: Integration Profile Actions Tab Page

- 3 Configure the fields in the Funds Allocation Loader section, as described in Step 6 of [To configure the export and import of invoices](#): on page 7. In the **File Extensions** field, select the type of file that is being imported for the fund allocation, **.csv** or **Excel** (.xls).
- 4 To manually run the Fund Allocation Loader, click **Run**. The Fund Allocation Loader job is run and a confirmation message appears at the top of the page.

You can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate profile on the Integration

Profile List page. For example, the following figure shows jobs that completed successfully.

The screenshot shows a web-based application interface titled 'Job History'. At the top, there's a header with 'external system details' showing 'Name: paypal' and 'Integration Type: Payment'. Below this is a 'Job History List' section with a table. The table has columns: Job ID, Status, User, Time Started, Time Ended, Files Processed, Files Failed, and Actions. There are six rows of data, each representing a completed job by user 'exl_support' on different dates between August 8, 2013, and July 25, 2013. All jobs show a status of 'Completed Successfully'. The last two columns, 'Actions', contain a single link labeled 'Actions' for each row.

Job ID	Status	User	Time Started	Time Ended	Files Processed	Files Failed	Actions
51810363	Completed Successfully	exl_support	2013-08-08 14:55:09	2013-08-08 14:55:10	-	-	Actions
51810304	Completed Successfully	exl_support	2013-08-08 16:02:49	2013-08-08 16:02:50	-	-	Actions
51810284	Completed Successfully	exl_support	2013-08-08 16:04:11	2013-08-08 16:04:11	-	-	Actions
51810279	Completed Successfully	exl_support	2013-08-08 16:04:39	2013-08-08 16:04:40	-	-	Actions
51739715	Completed Successfully	exl_support	2013-07-25 14:52:12	2013-07-25 14:52:14	-	-	Actions
51739706	Completed Successfully	exl_support	2013-07-25 14:53:14	2013-07-25 14:53:15	0	0	Actions

Figure 7: Fund Allocation Loader Job History

To configure and manually run an export of POs:

NOTE:

To run the export job, you must first activate the InvoicePaymentLetter letter, with the channel SUBMISSION (**Administration > General Configuration > Configuration Menu > General Configuration > Letter Activity**).

- 1 On the Integration Profile List page, select **Finance** in the Integration Type filter to display the finance integration profiles.
- 2 Select **Actions > Edit** for an integration profile, and click the **Actions** tab. The integration profile Actions tab page displays.

External System

Code pay	Name paypal	Integration Type Finance
General Information		Actions
Contact Info		

Actions

Import Payment Confirmation

Active * Active Non Active

Plugin

Input File Path import

Run

Schedule Not scheduled

Export Invoices For Payment

Active * Active Non Active

Plugin

Output File Path Export

Run

Schedule Not scheduled

Use xsd format

Funds Allocation Loader

Active * Active Non Active

Plugin

Input File Path Allocation

File Extensions * Csv Excel

Schedule Every day at 01:00

Run

Export Order (PO)

Active * Active Non Active

Plugin

Output File Path * Order

Rerun failed orders

Figure 8: Integration Profile Actions Tab Page

- 3 Configure the fields in the Export Order (PO) section, as described in Step 6 of **To configure the export and import of invoices:** on page 7.

- 4 To manually run the export, click **Rerun Failed Orders**. All previously failed orders are sent for export, and a confirmation message appears at the top of the page.

You can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate profile on the Integration Profile List page. For example, the following figure shows jobs that completed successfully.

The screenshot shows a table titled "Job History" with the following data:

Job ID	Status	User	Time Started	Time Ended	Files Processed	Files Failed	Actions
51810363	Completed Successfully	exl_support	2013-08-08 14:55:09	2013-08-08 14:55:10	-	-	Actions
51810304	Completed Successfully	exl_support	2013-08-08 16:02:49	2013-08-08 16:02:50	-	-	Actions
51810284	Completed Successfully	exl_support	2013-08-08 16:04:11	2013-08-08 16:04:11	-	-	Actions
51810279	Completed Successfully	exl_support	2013-08-08 16:04:39	2013-08-08 16:04:40	-	-	Actions
51739715	Completed Successfully	exl_support	2013-07-25 14:52:12	2013-07-25 14:52:14	-	-	Actions
51739706	Completed Successfully	exl_support	2013-07-25 14:53:14	2013-07-25 14:53:15	0	0	Actions

Figure 9: Job History Page

Electronic Data Interchange (EDI)

PERMISSIONS:

To configure EDI communication with vendors, you must have the following role:

- **Vendor Manager**
-

The following acquisition activities can support EDI-enabled vendors:

- **Purchase orders** – When purchase orders (POs) are ready to be sent to an EDI-enabled vendor, they can automatically be exported to a specified FTP location where they are fetched via a vendor system number.
- **Invoices** – When invoices are placed at an FTP location by an EDI-enabled vendor, Alma can automatically load and parse the invoices.

The EDI files that are created for orders and/or invoices are based on the international standards for EDI transmission and should be agreed upon with each vendor prior to entering information in Alma. For a description of the EDI standards with which Alma operates, refer to the *EDI Standard Supported in Alma* document, located under **Alma > Product Documentation > Integrations** in the Documentation Center.

IMPORTANT:

For the purposes of EDI communication, the PO and PO line numbers are case-sensitive.

NOTE:

EDI communication has successfully been tested with the following vendors: Baker & Taylor, Coutts (ingramcontent), Dawson, Harrassowitz, Swets, YBP, and Ebsco.

When configuring EDI communication with a vendor, in addition to the vendor EDI code and EDI type, you must enter an EDI code and EDI type that the vendor uses for your institution. Optionally, you can also define an EDI code and type for each library served by the institution. When an EOD is received after an EDI has been loaded, you can reload the EDI.

To configure EDI communication with a vendor:

- 1 On the Search Vendors page (**Acquisitions > Acquisitions Infrastructure > Vendors**) select a vendor. The Vendor Details page opens.
- 2 Click the **EDI Information** tab.

The screenshot shows the 'Vendor Details' page in Alma. The top navigation bar includes tabs for Summary, Contact Information, Contact People, EDI Information, Invoices, PO Lines, Communications, Attachments, and Notes. The 'EDI Information' tab is selected. The main content area is divided into several sections: 'Vendor EDI Attributes' (with EDI code SWTESDI, EDI type 091 - ID assigned by, EDI naming convention Standard, and EDI vendor format Harrassowitz), 'Scheduling' (Status Active, Upload EDI, Schedule Not scheduled, Run Now), 'S/FTP connection' (Description 'FTP information for EDI of current Vendor', with fields for Max. Number of Files (1), Server (il-perfum01), Port (21), Input directory (SISSubmission/invoiceEdi/SWETS), Max. file size (GB), Ftp Server Secured (unchecked), Send command (Append), Max. file size (1), UserName (urm), Password (redacted), Output directory (SISSubmission/orderEdi), Allow Navigation (checked), FTP mode (ASCII), and FTP Passive Mode (unchecked)), 'Test FTP' (button), 'Per Organization Unit EDI' (with a table for Organisation Unit, EDI code, and EDI type), and 'EAH per Account code' (with a table for Account code, EAN Code, and EAN Code). The EDI code table shows rows for Main Campus (1147404, 014 - EAN-13) and SwetAcc (INU040A, asdsad, 40020841940).

Figure 10: Vendor Details Page – EDI Information Tab

- 3 Enter the EDI information as required. A description of the fields is provided in the following table.

Table 1. EDI Information Tab Fields

Section	Field	Description
Vendor EDI Attributes	EDI code	A unique code for the vendor, per institution. NOTE: When an EDI code is entered, the mandatory fields in this tab are indicated with a red asterisk and must be completed before saving this page.
	EDI type	Select from a list predefined by Ex Libris. You can choose from: <ul style="list-style-type: none">■ 014 – EAN-13■ 091 – ID assigned by supplier■ 092 – ID assigned by customer■ 31B – US-SAN
	EDI naming convention	Select from a list predefined by Ex Libris. You can choose Alma's standard file naming convention (Standard , which is the default), or one of the following vendor naming conventions: Blackwell , Ebsco , Ingram , Harrassowitz , Brodart .

Table 1. EDI Information Tab Fields

Section	Field	Description
Vendor EDI Attributes (continued)	EDI vendor format	<p>Select the relevant option:</p> <ul style="list-style-type: none"> ■ Harrassowitz – Removes line feeds so that all information is provided on a single line. Can also be selected for Harrassowitz-like vendors. ■ Baker & Taylor enriched – Includes enriched data that is customized for Baker & Taylor. The GIR segment includes library and location information in two separate fields, even though the PO line may not include this data. <p>If you are not working with one of these vendors, select Other.</p> <hr/> <p>NOTE: The other options displayed on this list are for future use.</p>
	Invoices	Select to indicate that the vendor submits invoices via EDI files.
	POs	Select to send POs to the vendor via EDI files.
	Additional order number	Select if you want the additional PO number (a unique vendor order number entered in the PO line) to be included in the EDI file sent to the vendor.
	Include fund code	Select if you want the fund code included in the EDI files sent to the vendor and received from the vendor.

Table 1. EDI Information Tab Fields

Section	Field	Description
Invoice Job Parameters	Status	Select whether you want the EDI communication you are configuring to be active or non-active. By default, the Active option is selected.
	Schedule	Select the time at which the EDI job runs from a list predefined by Ex Libris. NOTE: This is relevant only for invoices and not for POs.
	Upload EDI	To run the EDI job immediately (as soon as the Alma system can accommodate it), click the Run Now button to the right of the Schedule box.
	Do not prorate	Select to indicate that when an invoice is loaded from an EDI file, overhead and discount amounts are charged to their own invoice lines instead of being prorated among all invoice lines.
	Fund	Select the fund from which overhead and discount amounts are charged. This field displays only when Do not prorate is selected.

Table 1. EDI Information Tab Fields

Section	Field	Description
S/FTP Connection	Description	Enter an optional description of the EDI submission details.
	Max. number of files	Not in use. Accept the default value.
	Max. file size	Not in use. Accept the default value.
	Server	Specify the IP address of the FTP server receiving the EDI files.
	User name	Specify the user name for logging on to the FTP server.
	Port	Specify the port to be used on the FTP server, if the connection is not secure. This is generally port 21.
	Password	Specify the password for the FTP server.
Input directory		Specify the name of the subdirectory in which the incoming invoice EDI files are to be stored. By default, Alma displays invoices in this field. If you leave this field empty, Alma searches for incoming files in the root directory.
		<p>NOTE: The vendor must define one input directory per institution.</p>

Table 1. EDI Information Tab Fields

Section	Field	Description
S/FTP Connection (continued)	Output directory	<p>Specify the name of the subdirectory in which the outgoing PO EDI files are to be stored. By default, Alma displays orders in this field. If you leave this field empty, Alma places the PO EDI files in the root directory.</p> <hr/> <p>NOTE: The input directory must be different than the output directory. (Note that Alma does not validate this.)</p>
	Max. file size (unit)	Not in use. Accept the default value.
	Allow navigation	Select to enable access to other areas of the FTP site. The default is to allow navigation (check box selected).
	FTP server secured	Select if the FTP server is secured.
	FTP mode	<p>Select a mode used for sending the outgoing EDI files, from a list predefined by Ex Libris. You can select from:</p> <ul style="list-style-type: none"> ■ ASCII – Each EDI file includes many lines, one for each segment (default). ■ Binary – Each EDI file includes one long line.
	Send command	<p>The send commands are predefined by Ex Libris and can be selected from the Send command drop-down list. You can select from:</p> <ul style="list-style-type: none"> ■ Append – Does not overwrite a file on the FTP server if the existing file has the same name as the new file (default). ■ Put – Overwrites a file on the FTP server if the existing file has the same name as the new file.
	FTP passive mode	Not in use.
	Test FTP	Click to verify that the S/FTP parameters entered are valid. In the event of invalid data, an error message displays at the top of the page.

Table 1. EDI Information Tab Fields

Section	Field	Description
Per Organization Unit EDI		In this section, you must select your institution and define the EDI code and type used by the vendor for the institution. Optionally, you can also select libraries served by the institution and define the EDI code and type used by the vendor for the library. After completing the details in this section, click Add to add the EDI file details for the institution/library.
	Organization unit	Select an institution/library from a list predefined by an administrator.
	EDI code	Specify the code used by the vendor for the organization unit.
	EDI type	Specify an EDI type from a list predefined by Ex Libris. You can choose from: <ul style="list-style-type: none"> ■ 014 – EAN-13 ■ 091 – ID assigned by supplier ■ 092 – ID assigned by customer ■ 31B – US-SAN
EAN per Account		This section maps the EAN (Envelope Address Node) code to the vendor account.
	Account code	Select a vendor accounts code from a list predefined by an administrator.
	EAN code	Specify the EAN code to be mapped to the previously selected account code. Click Add EAN to add the code.

4 Click **Save** to store the information you entered.

NOTE:

For Alma to use the S/FTP connection that you defined, you must allow the FTP server access to Alma. For details, see [Configuring Allowed S/FTP Connections](#) in the *Alma Administration Guide*.

To monitor EDI jobs:

On the Search Vendors page, locate the vendor whose EDI jobs you want to monitor and select **Actions > View history** (available only for EDI-enabled vendors).

Name	Job Details	Creator	Start Date	End Date	Status	Report
EDI Invoice Loading	Checks all active EDI Vendor Profiles and harvests and processes the EDI Invoice files	BackOfficeUser	02/02/2012 04:57:11 IST	29/02/2012 03:13:14 IST	Completed with Errors	Report
EDI Invoice Loading	Checks all active EDI Vendor Profiles and harvests and processes the EDI Invoice files	BackOfficeUser	19/02/2012 14:26:18 IST	19/02/2012 14:26:28 IST	Completed Successfully	Report
EDI Invoice Loading	Checks all active EDI Vendor Profiles and harvests and processes the EDI Invoice files	BackOfficeUser	19/02/2012 14:21:57 IST	19/02/2012 14:22:08 IST	Completed Successfully	Report
EDI Invoice Loading	Checks all active EDI Vendor Profiles and harvests and processes the EDI Invoice files	BackOfficeUser	19/02/2012 04:40:24 IST	29/02/2012 03:13:14 IST	Completed with Errors	Report
EDI Invoice Loading	Checks all active EDI Vendor Profiles and harvests and processes the EDI Invoice files	BackOfficeUser	19/02/2012 02:02:17 IST	19/02/2012 02:02:27 IST	Completed Successfully	Report

Figure 11: EDI Jobs - Monitor Jobs

By default, both jobs that completed successfully and jobs that completed with errors are displayed. You can use the filter at the top of the page to display only jobs that completed with errors. For each job, you can click the **Report** button to display the Job Report. Note that the reports for outgoing POs are short, containing information on the success or failure of the job. Reports for incoming invoices are much more detailed, containing statistics on the number of invoices and invoice lines processed with errors, the number of related PO lines for these invoices, and details of each of the processing errors.

Figure 12: Example of EDI Job Report

To work with EDI files:

- On the Search Vendors page, locate the vendor whose EDI invoice files you want to edit, delete, download, or reload, or for which you want to view a report, and select **Actions > View EDI files** (available only for EDI-enabled vendors).

Vendor name		Automation EDI Vendor						
		Vendor code						
		Automation_ESI_Vendor						
1 - 8 of 8 Records								
File name	Type	Size	Attached By	Attached On	URL	Notes	Upload Status	Actions
121.Automation_ESI... 121.Automation_ESI... 121.Automation_ESI...	Invoice/edi Invoice/edi Invoice/edi	2.5kb 0.7kb 1.1kb	EXLIBRIS EXLIBRIS EXLIBRIS	24/06/2012 24/06/2012 24/06/2012	- - -	The invoice edi file InvoiceNumber :864103 InvoiceNumber :874303 InvoiceNumber :884724 The invoice edi file InvoiceNumber :864103 InvoiceNumber :874303 InvoiceNumber :884724 InvoiceNumber :893814 The invoice edi file InvoiceNumber :864103 InvoiceNumber :874303 InvoiceNumber :884724 InvoiceNumber :893814 InvoiceNumber :904738	Uploaded Uploaded Uploaded	Actions Actions Actions

Figure 13: EDI Files

- 2 On the Attachments page, select one of the following options from the **Actions** drop-down list:
 - **Edit** – Enables you to add a file with a URL as an attachment to the EDI file.
 - **Delete** – Deletes the EDI file from the list of files.
 - **Download** – Enables you to download the EDI file.
 - **Reload** – Enables you to reload the EDI file after confirming that the EOD was loaded. You must also ensure that the EDI file was received before the EOD was processed and the EDI file did not find any invoice matches.
 - **Report** – Enables you to view a report for the EDI file.

Embedded Order Data (EOD) Import

PERMISSIONS:

To create an import profile for EOD files, you must have the following role:

- Acquisitions Administrator

To run an import profile and import EOD files, you must have one of the following roles:

- Purchasing Operator
 - Purchasing Manager
-

EOD files that contain bibliographic titles, inventory (electronic or physical), or purchase order information from a vendor can be loaded into Alma from a local network or an FTP location.

To process EOD files, you must first set up an import profile of the type **New Order**. The import profile defines the way in which the information contained in the EOD files is imported into Alma, including the way in which each record in an EOD file is mapped to the corresponding record in Alma.

VIDEO:

See *Importing Bibliographic Records with Embedded Order Data* for a detailed training Webex session on this functionality. Note that you must be logged on to the Ex Libris Learning Center to access this session.

You can set up an import profile by clicking the **Add New Profile** button on the Run Import page (**Acquisitions > Acquisitions Configuration > Configuration Menu > Purchase Orders > Import Profiles or Resource**)

Management > Resource Configuration > Configuration Menu > Record Import > Import Profiles).

For information on creating a New Order import profile, see **Configuring New Import Profiles** in the *Alma Resource Management Guide*.

NOTE:

To schedule automatic imports, set the **Load file source** field to **FTP** in the Profile Details section, select a predefined interval from the **Scheduler** drop-down list in the Imported File Processing section, set the **Scheduler status** to **Active**, and configure the FTP-related parameters in the FTP Information section (as described in **Configuring S/FTP Definitions** in the *Alma Administration Guide*). You can choose to schedule an import for all EOD files or only the new files (that is, files with a different name, size, or modification date).

To run a manual import once you have configured an import profile, see **Importing Embedded Order Data (EOD)** in the *Alma Acquisitions Guide*.

You can monitor both automatic and manual imports using the Monitor and View Imports page (**Acquisitions > Import Processing > Monitor Imports**). For information on monitoring imports, see **Monitoring Imports** in the *Alma Acquisitions Guide*.

Real-Time Integration

An additional acquisitions method, real-time acquisitions, combines APIs with configurations in the Alma user interface to quickly synchronize records from a vendor's database to a purchasing or licensing library's offerings.

For more information, see **Real-Time Acquisitions** in the *Alma Acquisitions Guide*. For extended information including instructions, see the following links on the Developers' Network:

- Real-time overview: <https://developers.exlibrisgroup.com/blog/Real-time-Acquisitions>
- PO line API, how the bib record is determined: <https://developers.exlibrisgroup.com/blog/Create-PO-line-API-how-the-bibliographic-record-is-determined>
- Create PO line API: <https://developers.exlibrisgroup.com/alma/apis/acq/POST/gwPcGly021rXklgBNjmJH6pSL6v0plPz/d5b14609-b590-470e-baba-9944682f8c7e>

3

Resource Management

This section includes:

- [Metadata Import](#) on page 29
- [Metadata Export](#) on page 30
- [Integrating Remote Digital Asset Management Systems](#) on page 31
- [Importing Records from OCLC Connexion](#) on page 31
- [Setting Up OAI Integration](#) on page 39
- [External System Search](#) on page 45
- [Publishing and Inventory Enrichment](#) on page 50
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- [Resolver Proxies](#) on page 121

Metadata Import

You import bibliographic or authority metadata into the Alma repository using import profiles. For information on the types of import profiles available, see [Profile Types](#) in the *Alma Resource Management Guide*.

Profile definitions include source format, mapping definitions, and normalization routines to be executed during the import process. For detailed

information on configuring import profiles, see [Creating the Profile Using the Wizard](#) in the *Alma Resource Management Guide*.

For information on running the configured import profiles in order to import metadata, see [Running a New Import Job](#) in the *Alma Resource Management Guide*.

Metadata Export

Alma allows you to export repository metadata to external systems. The files containing exported metadata (bibliographic records for example) are made available to the external systems in the following ways:

- placed at an FTP location
- sent via email to a requester
- downloadable from a dedicated Alma page

No prerequisite configurations are required to make use of this integration option. The export process uses the following standard set management and process automation procedures:

- 1 The Manage Sets page ([Resource Management > Search and Sets > Manage Sets](#)) is used to create a set of records.
- 2 The Create Job - Select Job to Run page ([Administration > Manage Jobs > Run a Job](#)) is used to run an export task on the set. The task is configured with the following:
 - enrichments to run on the set
 - location of the output files

Refer to [Table 2](#) for a list of the types of sets that can be exported.

Table 2. Export - Types of Sets

Export Job Type	Content Type	Set Content Type
Export Bibliographic Records	Bibliographic title	All titles, physical titles, electronic titles, digital titles
Export Physical Items	Physical item	Physical titles, physical items
Export Physical Item Labels (for printing)	Physical item	Physical titles, physical items
Export Electronic Portfolios	Portfolio	All titles, electronic portfolios, electronic titles
Export Inventory Entities	Digital title	Digital titles

You can view the exported files by clicking **View Files** for the appropriate process on the Exported Processes page (**Resource Management > Search and Sets > Manage Exports**).

Integrating Remote Digital Asset Management Systems

The remote digital repository uses a configuration that controls how the Alma digital import process interacts with the external digital system.

Integrating a remote digital system requires the following steps:

1 Setting up the repository

For detailed information on working with remote digital repositories, see **Remote Digital Repositories** of the *Resource Management Guide*.

2 Configuring a profile for importing remote digital material

For information on how to set up a remote digital profile, see **Configuring New Import Profiles** of the *Resource Management Guide*.

If you are uploading files from OAI, see also **Setting Up OAI Integration** on page 39 of this guide and in the *Resource Management Guide*, **File upload method, OAI Details section:**, and **Testing OAI Flow for a Remote Digital Repository**.

3 Running the import job

For instructions, see **Running a New Import Job** of the *Resource Management Guide*.

4 Managing remote digital resources and inventory

For information, see **Managing Digital Resources** of the *Resource Management Guide*.

Importing Records from OCLC Connexion

PERMISSIONS:

To configure an OCLC Connexion import profile, you must have the following role:

- General System Administrator
-

Metadata records from OCLC Connexion are uploaded to the Alma server on the port designated and opened by Ex Libris for this purpose (port 5500 as of November 2013; ensure that this port is open for your institution as well). As

part of the upload process, Alma applies the import settings (normalization, validation, and merge routines) defined in the import profile that you configure for this purpose.

IMPORTANT:

Communication via ports other than 5500 will be supported until February 2014. Following this grace period, OCLC communication with Alma will be supported via port 5500 only.

To import records from OCLC Connexion to Alma, you must perform the following actions:

- 1 Configure an OCLC Connexion import profile in Alma (see below). Note that only one profile should be configured.
- 2 Configure OCLC Connexion (see below).
- 3 Export the OCLC records to Alma and ensure that they are properly imported into Alma (see below).

To configure the import profile for OCLC Connexion:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add External System** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a Enter a code and name for the profile you are defining.
 - b From the **Integration type** drop-down list, select **OCLC Connexion**.

The screenshot shows the 'External System' configuration page. At the top, there are three columns: 'Code -' (with a dropdown menu), 'Name -' (with a dropdown menu), and 'Integration Type -' (with a dropdown menu). Below these, a table row is displayed with the following fields:

- Code:** *OCLC Connx (highlighted in red)
- Name:** *OCLC Connexion (highlighted in red)
- Integration Type:** OCLC Connexion (selected option, highlighted in blue)
- Default:**
- Description:** (empty text area)

At the bottom of the page, there are two status messages: 'Created By Ex Libris (17/10/2012)' and 'Updated By Ex Libris (17/10/2012)', each with an envelope icon.

Figure 14: OCLC Connexion Integration Profile Definition – Page 1

- 4 Click **Next**. The second page of the wizard opens.

5 Under **Actions**, configure the following parameters:

Table 3. OCLC Connexion Profile Fields

Section	Field	Description
Normalization	Correct the data using	Select the appropriate normalization rules file to be used from a list of predefined files. For more information, see Working with Normalization Processes in the <i>Alma Resource Management Guide</i> .
Validation	Check the data using	Select the method used to handle invalid data as it is being imported. For more information, see Working with Validation Exception Profiles in the <i>Alma Resource Management Guide</i> . For import profiles, Ex Libris recommends using the MarcXML Bib Import validation exception profile.
Merge	Serial match method	Select from one of the serial match methods predefined by Ex Libris. For a detailed description and examples of some of these methods, see Match Methods – Explanations and Examples in the <i>Alma Resource Management Guide</i> .
	Non-serial match method	Select from one of the non-serial match methods predefined by Ex Libris. For a detailed description and examples of some of these methods, see Match Methods – Explanations and Examples in the <i>Alma Resource Management Guide</i> .

Table 3. OCLC Connexion Profile Fields

Section	Field	Description
	Merge method	<p>Select from one of the following merge methods predefined by Ex Libris:</p> <ul style="list-style-type: none">■ Replace 245 and 035 OCLC if exist – Adds the MARC 245 and 035 fields from the preferred to the non-preferred records, then replaces all MARC field values in the non-preferred records, except for those in the 001, 245, and 035 fields (whose “a” subfields contain OCoLC or where the first indicator is 9 and the second indicator is #).■ Overlay all fields but local – Replaces all MARC field values in the non-preferred records, except for those in the 001 and 9XX fields. Also replaces values in the 035 fields unless the first indicator is 9 and the second indicator is #.■ Keep only old value – Keeps all MARC field values in the non-preferred records.■ Conditional subject headings – Replaces all MARC field values in the non-preferred records, except for those in the 001, 035, 9XX, 65X, and 7XX fields, then adds the MARC 65X and 7XX field values from the preferred records to the non-preferred records. <p>Alternatively, if you defined merge rules in the MD Editor, you can select these rules from the Merge method drop-down list. The descriptions that were entered for the rules are displayed as the method names.</p> <hr/> <p>NOTE: For the OCLC Connexion import, the merge works as with import profiles. See Working with Merge Rules in the <i>Alma Resource Management Guide</i> for detailed information on merge rules.</p>

Table 3. OCLC Connexion Profile Fields

Section	Field	Description
Management Tags	Synchronize with External Catalog	Select one of the following publishing options for the imported records: <ul style="list-style-type: none"> ■ Publish holdings only ■ Publish bibliographic records ■ Don't publishCC
Authorization	Password	Enter a password with which you want OCLC Connexion to communicate with Alma. This is the same password that you configure in OCLC Connexion (see below). (Note that it is not the password with which you connect to OCLC Connexion.)

The screenshot shows the 'Actions' tab of the integration profile configuration interface. It includes sections for:

- Normalization:** Set to 'Marc21 Bib Initial Normalization'.
- Validation:** Set to 'MarcXML Bib Import'.
- Merge:** Contains three dropdowns: 'Serial match method' (Fuzzy Serial Match Method), 'Non Serial match method' (Fuzzy Non-Serial Match Method), and 'Merge method' (Overlay all fields but local).
- Management Tags:** Shows 'Synchronize with External Catalog?' with the option 'Publish Bibliographic records' selected.
- Authorization:** Shows a password field containing '*****'.

Figure 15: OCLC Connexion Integration Profile Definition – Page 2

- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

To configure OCLC Connexion to communicate with Alma:

- 1** Access OCLC Connexion and enter the user name and password that you received with your OCLC subscription.
 - In the OCLC Connexion client (any version), select **Tools > Options > Authorizations** and enter your authorization number and password.
 - In the OCLC Connexion Web application (<http://connexion.oclc.org/>), enter this information on the login page.
- 2** Access the OCLC Connexion export options (under **Tools > Options > Export > Create** in the Client, or under **General > Admin > Export Options** in the Web application).
- 3** In the **Host Name** box, enter your Alma host name, such as `alma.exlibrisgroup.com`.
- 4** In the **Port or Port Number** box, enter `5500`.
- 5** Select the **Send Local System Logon ID and Password** (Client) or **Send Logon ID** (Web application) check box.
- 6** In the **Logon ID** box, enter your Alma institution code, such as `0100_INST`.
- 7** In the **Password** box, enter the same password you entered for the OCLC Connexion profile in Alma.

IMPORTANT:

Ensure that the **Send User ID** and **Permanent Connection** check boxes are not selected.

For example:

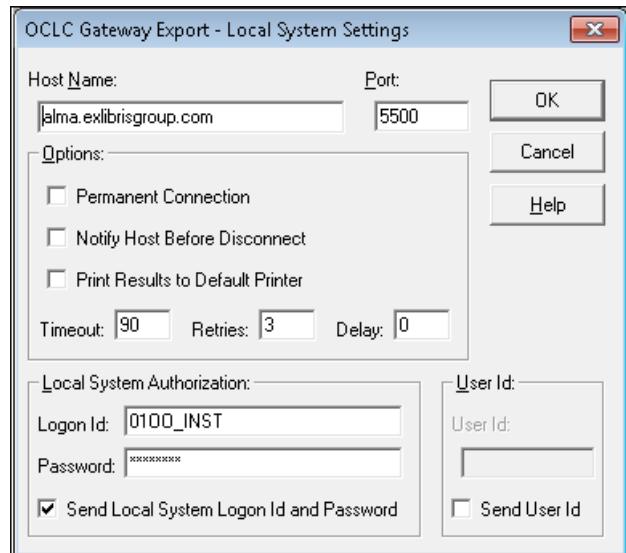


Figure 16: OCLC Client Export Options

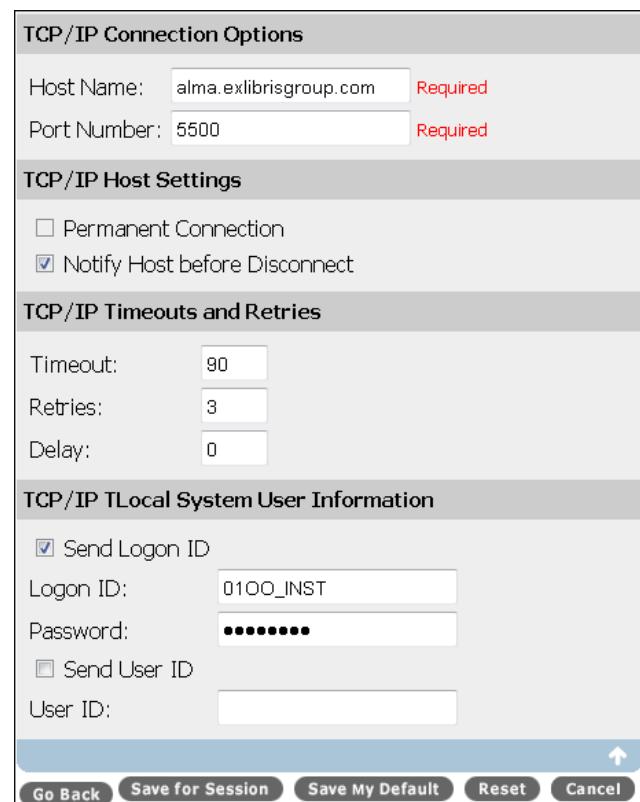


Figure 17: OCLC Web Application Export Options

- 8 Click **OK** (Client) or **Save My Default** (Web application).

To export an OCLC record to Alma:

- 1 Locate the record you want to export and open it. For example:

Record	Title	Name or 245	Publisher	Date	L
197 3221 :		Wheeler, Carolee Gilligan.	J. Hinchliff C. Gilligan Wheeler,	2009	
198	Bob the Alien discovers the Dewey decimal system /	Donovan, Sandra, 1967-	Picture Window Books,	2010	D
199	Ddc 23, the four-volume unabridged edition of the dewey...		Oclc,	2011	
200	The Dewey Decimal System (Akashic Urban Surreal)	Larson, Nathan.	Akashic Books	2011	
201	The Dewey system :	Larson, Pete.	Akashic Books,	2011	
202	The Dewey Decimal system.	Larson, Nathan, 1970-	Akashic Books	2011	

Figure 18: Example of Record to Be Exported

- 2 Click the **ActionExport** button (in the OCLC Connexion Client).

The screenshot shows the OCLC Connexion Client software interface. At the top, there's a menu bar with File, Cataloging, Authorities, Edit, Action, Batch, View, Tools, Window, and Help. Below the menu is a toolbar with various icons. A red arrow points to the 'ActionExport' button in the toolbar. The main window displays a record for OCLC 778049850. The record details include fields like Type (a), ELvl (M), Srce (d), Audn (ctrl), Lang (eng), BLvl (m), Form (Conf 0), MRec (Ctry nyu), Cont (GPub), LitF (1), Indx (0), Desc (a), Ills (Fest 0), DtSt (s), Dates (2011), and Replaced (20120224033513.6). Below the details, the bibliographic record is shown with fields such as 040, 020, 050, 082, 090, 049, 100, 245, and 260. The 245 field contains the title 'The Dewey Decimal system : #b a novel / #c by Nathan Larson.' and the 260 field contains the publisher information 'New York : #b Akashic Books, #c c2011.'

Figure 19: Example of Record to Be Exported

If the record is exported successfully, you receive a message similar to the following:

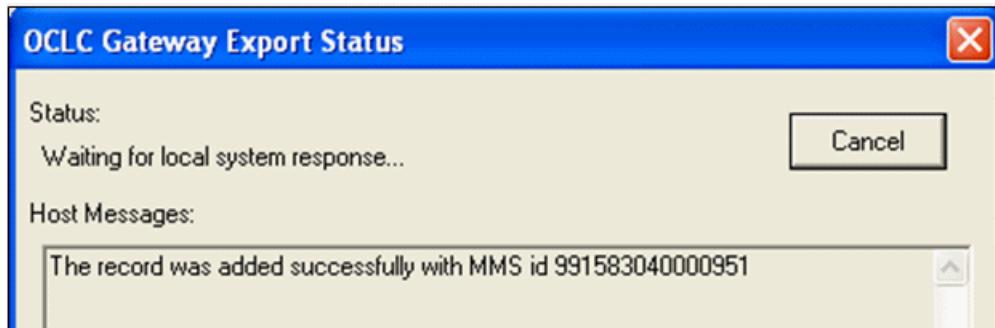


Figure 20: Example of Export Message

You can then use the Repository Search in Alma to search for and view the imported record.

A screenshot of the Alma Repository Search interface. The search query is "All Titles where All titles (MMS ID equals "991583040000951")". The results list one item: "1 The Dewey Decimal system : a novel / Book By Larson, Pete. (Akashic Books, New York : c2011.) ISBN: 1617750107 (pbk.) and others Subject: Dystopias. gsafd -- New York (N.Y) Fiction. -- Public libraries Fiction. Edit | Order | Request | Add to reading list | More info".

Figure 21: Imported Record in Alma

Setting Up OAI Integration

The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) is a low-barrier mechanism for developing and promoting interoperability standards that aim to facilitate the efficient dissemination of content across repositories. Data Providers are repositories that expose structured metadata through OAI-PMH. Service Providers then make OAI-PMH service requests to harvest that metadata. OAI-PMH uses six request types ("verbs") that are invoked within HTTP. Using this functionality, Alma can publish metadata (as a Data Provider) which can then be harvested by external tools/repositories (Data Harvesters).

Configuring the OAI integration is the first step toward publishing through OAI. Once you have finished this task, you can set up a publishing profile through Resource Management configuration. When that is complete, your OAI setup should be complete and your database ready to load.

This section shows you how to configure OAI as an integration point for Alma. This allows Alma to expose the records as OAI types and harvest them accordingly. For information on setting up a publishing OAI profile, see [Publishing and Inventory Enrichment](#) on page 50.

NOTE:

If your institution already has an OAI integration profile, you cannot add a second one (though you can edit the existing one).

To set up an OAI integration profile:

- 1 Access the General Administration Configuration page (**Administration > General Configuration > Configuration Menu**) and select **Integration Profiles** from the **External Systems** section.

The Integration Profile List page opens.

Name	Code	Description	Integration Type	Updated By	Status Date	Actions
9 Automation Payment	Automation Payment	-	Finance	exl_support	11/05/2014	Actions
10 BURSAR	BURSAR	-	Bursar	admin1	16/01/2013	Actions
11 bursar	bursar	-	Bursar	exl_support	26/11/2012	Actions
12 bursar(user-name)	bursar(user-na	-	Bursar	exl_support	28/07/2013	Actions
13 CC Resolver Proxy	PROXY_DEF	CC Resolver Pro	Resolver Proxy	exl_impl	10/01/2014	Actions
14 CC SAML System	CC_SAML	CC SAML Syste	SAML	exl_impl	05/02/2013	Actions
15 Discovery Interface	DiscoveryInte	-	Discovery	Ex Libris	06/02/2012	Actions

Figure 22: Integration Profile List Page

- 2 To configure the integration profile for OAI, click the **Add Integration Profile** button above the list.

The first step of the two-step integration wizard opens.

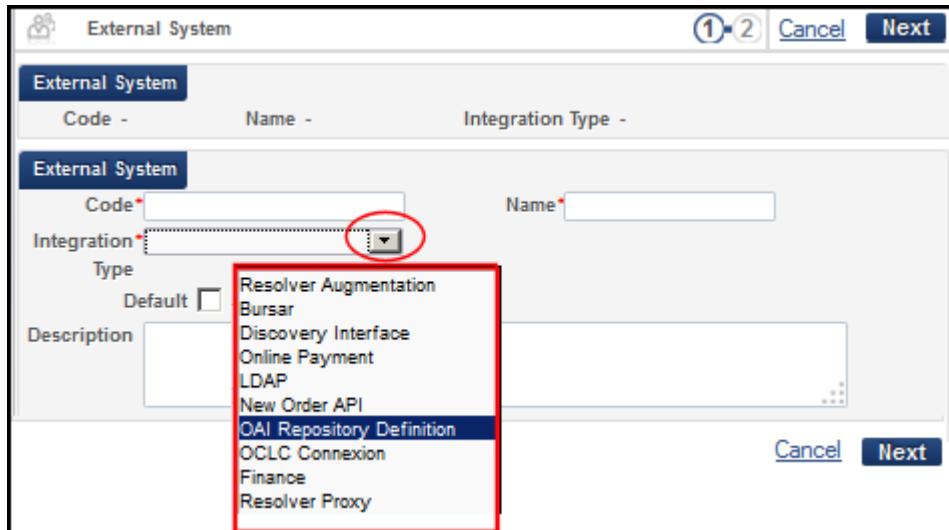


Figure 23: External Integration Profile Wizard, Step 1a

- 3 From the Integration Type drop-down menu, select **OAI Repository Definition**.
- 4 The page refreshes with relevant fields for the profile (**Figure 24**).

The screenshot shows the same software interface after the integration type has been selected. The 'Integration Type' dropdown now shows 'OAI Repository Definition'. The 'Default' checkbox is empty. The 'Description' field is empty. At the bottom, there are status messages indicating creation and update details ('Created By Ex Libris (13/05/2014)' and 'Updated By Ex Libris (13/05/2014)').

Figure 24: Refreshed Page One of the Integration Profile for OAI

- 5 Click the **Default** check box to make this integration type the default for your institution.
- 6 Enter an optional **Description** of the integration profile.
- 7 Click the **Next** button.
Step 2 of the integration profile wizard opens.

NOTE:

If you have already entered an OAI integration profile in the system, you will be returned to this External System page with the values entered from your first OAI integration profile. You will then be prompted to enter the profile in edit mode, which is the only way you can update the profile if one has already been created.

The screenshot shows a web-based configuration interface for an 'External System'. The top navigation bar includes icons for users, a search function, and links for 'Back', 'Cancel', and 'Save'. The main title is 'External System' under the 'Actions' tab. Below the title, the 'Code' is set to 'OAI_DEFINITION' and the 'Name' is 'OAI_DEFINITION'. The 'Integration Type' is 'OAI Repository Definition'. The 'Actions' tab is selected. The configuration section is titled 'OAI Repository Definitions'. It contains fields for 'Active' (radio buttons for 'Active' and 'Non Active'), 'Repository Name' (input field), 'Repository Base URL' (input field containing 'http://il-urm08.corp.exlibrisgroup.com:1801/view/oai/EXLDEV1_INST/request'), 'Protocol Version' (input field containing '2.0'), 'Admin Email' (input field), 'Earliest Datestamp' (input field), 'Deleted Record' (input field containing 'transient'), 'Granularity' (input field containing 'YYYY-MM-DDThh:mm:ssZ'), 'Metadata Prefixes' (link), 'Allowed IPs' (link), 'OAI Schema' (input field containing 'oai'), 'Delimiter' (input field), 'Repository Identifier' (input field containing 'urm_publish'), 'Max bulk size for ListIdentifiers request' (input field containing '100'), 'Up to 900 Identifiers' (text), 'Max bulk size for ListRecords request' (input field containing '100'), and 'Up to 900 Records' (text). At the bottom right are 'Back', 'Cancel', and 'Save' buttons.

Figure 25: Integration Profile Wizard Page 2 (Parameters)

8 Enter OAI Repository Definitions as needed:

- Active/ Non Active (required) - In order to be used, the repository must be set to **Active**. Leave it as the default value, **Non Active**, to save your settings without activating the repository.
- Repository Name - Used to identify the repository when calling the OAI API.
- Repository Base URL - The fixed, auto-generated base URL for all OAI links, not editable.

- Admin Email - The email address where you want communications related to the integration profile to be sent.
- Earliest Datestamp - The first date stamp of the repository records (which can be used, for example, when querying the repository by date).
- Metadata Prefixes - Currently, only Marc21 is supported.

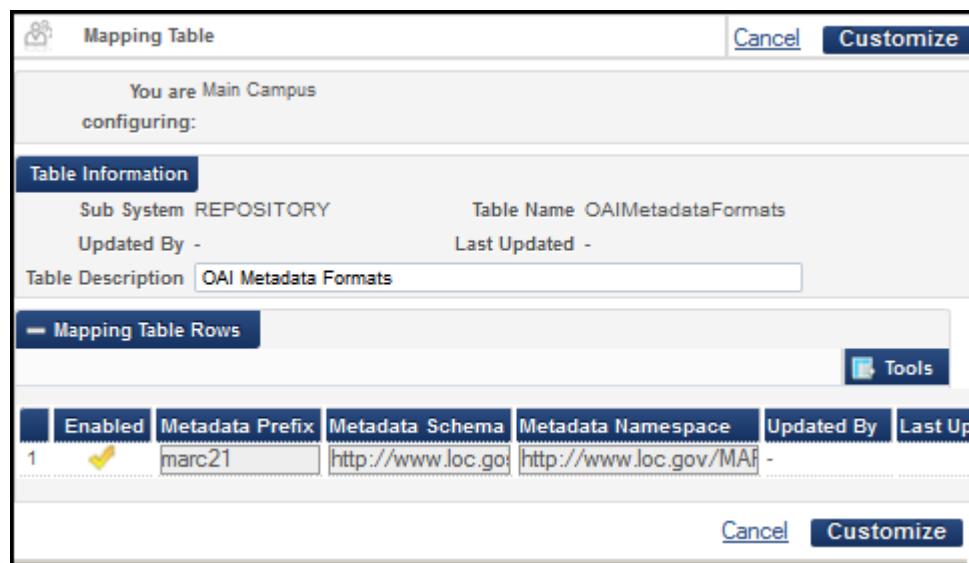


Figure 26: Configuring Metadata Prefixes

- Allowed IPs - Enter IP information for users/locations who can access the repository (see [Figure 27](#)), click the **Add Row** button, and click **Customize** when you have finished adding rows. For an IP range, use a hyphen with no spaces (-) between strings. (Syntax corrections will be noted in error messages.)

Mapping Table

You are Main Campus configuring:

Table Information

Sub System	REPOSITORY	Table Name	OAIips
Updated By	-	Last Updated	-
Table Description	Allowed OAI IP values for ExLibris internal API's authentication		

Mapping Table Rows

Enabled	IP description	IP Version	IP Match Criteria	Updated By	Last Updated	Tools
1	On campus	IPv4	1.1.1.5 - 1.1.3.0	Ex Libris	13/05/2014	Delete

Create a New Mapping Row

Quick Add

IP description
IP Version
IP Match Criteria

Add Row

Cancel Customize

The screenshot shows the 'Mapping Table' interface. At the top, there's a message: 'You are Main Campus configuring:'. Below it, 'Table Information' includes fields for Sub System (REPOSITORY), Table Name (OAIips), Updated By (-), and Last Updated (-). The Table Description is 'Allowed OAI IP values for ExLibris internal API's authentication'. Under 'Mapping Table Rows', there's a table with one row: Enabled (checkbox checked), IP description (On campus), IP Version (IPv4), IP Match Criteria (1.1.1.5 - 1.1.3.0), Updated By (Ex Libris), Last Updated (13/05/2014), and Tools (Delete button). Below the table is a 'Create a New Mapping Row' section with a 'Quick Add' form containing fields for IP description, IP Version (set to IPv4), and IP Match Criteria, along with an 'Add Row' button.

Figure 27: Creating Mapping Rows for IP Addresses with Access

- Enter information for Repository Identifier.
- 9 Click **Save** to complete the profile.
- The Integration Profile List page opens with the new OAI definition listed ([Figure 28](#)).

Name	Code	Description	Integration Type	Updated By	Status Date	Action
1 OAI DEFINITION	OAI_DEF	OAI IA&C	OAI Repository Definition	admin1	13/05/2014	Actions
2 Student Information System	SIS	Student Information System	Users	Ex Libris	13/07/2011	Actions
3 SMS	SMS	Testing this feature nice day.	SMS Communication	exl_impl	13/05/2014	Actions

Figure 28: Integration Profile List Page with OAI Integration Profile Added

Because Alma allows for only one OAI setting, if you want to change anything in the integration profile, you must select **Edit** from the **Actions** menu and edit the existing profile.

External System Search

PERMISSIONS:

To configure an external system search profile, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

Alma allows you to trigger an online search in any external resource. The records that are displayed in the search results can be imported, merged, or overlaid into existing Alma records.

To enable an online search in an external resource, you must first:

- 1 Define the external resources you want to search.
- 2 Create a search profile that defines the order in which the external resources are searched, as well as the search conditions.

To define the external resources to be searched:

- 1 On the Resource Management Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), select the relevant institution or library from the **You are configuring** drop-down list at the top of the page, and then click **External Search Resources** under **Search Configuration**. The Search External Resource Setup page opens.
- 2 Click the **Add External Resource** button.
- 3 Under **Find Resources**, enter one or more search criteria to be used in locating a resource.
 - **Name** – Enter the name or part of the name of the resource.
 - **Name search type** – Select the way in which you want the search word or string to be matched against the resource names: **Contains**, **Exact**, or **Starts with**.
 - **Resource type** – Select a type of resource to locate — for example, an e-journal or e-book.
 - **Publisher** – Enter the name of a specific publisher from which you want to locate a resource.
- 4 Click **Find Resources** to display the resources that meet your criteria.

A list of resources that meet the criteria opens on a new page. If the search returns no results, edit your criteria and try again.

Resource Name	Resource Selected	Actions	Show Info
WorldCat (OCLC)	No		
WorldCat for Demo purposes (OCLC)	Yes		

Figure 29: Search External Resource Setup - Results

- 5 Locate the resource that you want to make available to your institution and select **Actions > Select resource**.

NOTE:

It is possible to have multiple connections to the same resource if the credentials to the resource are different for each connection.

- 6 Under **Institution Details**, modify, enter, or select the following:

- **Resource name** – Modify the resource name to the name by which the institution refers to the resource.
- **Normalization process** – Select the appropriate normalization rules file to be used from a list of previously defined files. (Normalization processes can be added from the Resource Management Configuration page, in the General section. For more information, see [Working with Normalization Processes](#) in the *Alma Resource Management Guide*.)
- **Merge method** – Select from one of the following merge methods predefined by Ex Libris:
 - **Replace 245 and 035 OCLC if exist** – Adds the MARC 245 and 035 fields from the preferred to the non-preferred records, then replaces all MARC field values in the non-preferred records, except for those in the 001, 245, and 035 fields (whose “a” subfields contain OCoLC or where the first indicator is 9 and the second indicator is #).
 - **Overlay all fields but local** – Replaces all MARC field values in the non-preferred records, except for those in the 001 and 9XX fields. Also replaces values in the 035 fields unless the first indicator is 9 and the second indicator is #.
 - **Keep only old value** – Keeps all MARC field values in the non-preferred records.
 - **Conditional subject headings** – Replaces all MARC field values in the non-preferred records, except for those in the 001, 035, 9XX, 65X, and 7XX fields, then adds the MARC 65X and 7XX field values from the preferred records to the non-preferred records.
- Alternatively, if you defined merge rules in the MD Editor (see [Working with Merge Rules](#) in the *Alma Resource Management Guide* for the way in which these rules work), you can select these rules from the **Merge method** drop-down list. Note that the descriptions that were entered for the rules are displayed as the method names.
- **Credentials** – The <username>/<password> (using this syntax, with no spaces) to be used for the external resource.

The screenshot shows a software interface titled 'Search External Resource Setup'. At the top right are 'Cancel' and 'Save' buttons. Below the title is a section titled 'External Resource Details' containing fields for Resource ID (XXX00073), Authorized Resource (WorldCat (OCLC)), Name (OCLC), Creator (OCLC / FirstSearch), Publisher (OCLC), Resource Type (Index), and Description (OCLC WorldCat database is the OCLC online catalog. It contains over 43 million records describing library holdings). There are also 'Search Hints' and a 'URL Site' field with a link to the OCLC documentation.

Below this is another section titled 'Institution Details' with fields for Resource Name (WorldCat (OCLC)), Normalization Process (Marc21 Bib Initial Normalization), Merge Method (Overlay all fields but loca), and Credentials (*****).

Figure 30: Search External Resource Setup - Institution Details

- 7 Click **Save**. The resource is added to the list of available external resources.

To create a search profile for the defined external resources:

- 1 On the Resource Management Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), select the relevant institution or library from the **You are configuring** drop-down list at the top of the page, and then click **External Search Profile** under **Search Configuration**. The External Search Profile List opens.
- 2 Click the **Add External Search Profile** button. The first page of the External Search Profile Details wizard opens.
- 3 Enter a name and description (required) for the search profile you are defining and click **Next**. The second page of the wizard opens.
- 4 Under **Internal Resources Pool**, select **Community Catalog** and click the **Add to Selection** button if you want Alma to search internally (using the MetaLib search engine) before performing a search of external resources.
- 5 Under **External Resources Pool**, select the external resource you want to add to the profile and click the **Add to Selection** button.
- 6 Use the **Move Up** and **Move Down** arrows to set the search order for the resources. (To delete a resource, select **Actions > Delete**. To view details of a resource, select **Actions > View**).

The screenshot shows the 'External Search Profile Details' interface. At the top, there are tabs for 'Circula...', 'Back', 'Cancel', and 'Save'. Below the tabs, the profile name is 'Worldcat' and the description is 'OCLC search profile'. A section titled 'External Resources Selected' lists two records: 'Community Catalog' and 'WorldCat for Demo purposes (OCLC)'. Below this is an 'Internal Resources Pool' section which displays a list of resources with 'View' buttons next to them. The resources listed include 'ALEPH migration server', 'ALEPH Z39 TEMPLATE', 'British Library Public Catalog', 'Ex Libris University', 'Internal Aleph Configuration for Hosted Services Monitoring', 'Library of Congress (United States Library of Congress (LOC))', and 'Wiley Interscience Journals (John Wiley & Sons, Inc.)'. At the bottom, there is an 'Add to Selection' button and a 'Save' button.

Figure 31: External Search Profile Details – Page 2

- Click **Save**. The profile is added to the list of external search profiles. It can now be selected from the **Search cataloging profile** drop-down list (**Resource Management > Cataloging > Search External Resources**).

The screenshot shows the 'Search External Resources' dialog box. On the left, there is a 'Search Cataloging Profile' dropdown menu with options: British Library, Worldcat, OCLC, and Library of Congress. Below this is a 'Find:' dropdown set to 'Any Field' and a series of search criteria fields for 'Title', 'Creator', 'Subjects', 'ISBN', 'ISSN', and 'Year of Publication', each with dropdown menus for search operators like 'Contains Phrase' or 'Equals'. At the bottom are 'Cancel' and 'Search' buttons.

Figure 32: Search External Resources

Publishing and Inventory Enrichment

PERMISSIONS:

To create a publishing profile, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

Ex Libris maintains an increasingly versatile, generic publishing model to be used for integrating Alma with third-party systems. This model provides:

- The ability to incrementally publish data through files or OAI-PMH.
- Optional enrichment of inventory-related data. Specifically, the enrichment adds a holdings representation field (852), including the following subfields:
 - Library (b)
 - Location (c)
 - Call number (h)
- The ability to perform normalization (reformatting) of the published data.

In addition to this, a deletion indication appears in the leader position 5, so that when a record is deleted from Alma or removed from the set, the third-party system receives this indication.

To create a general profile for publishing to an external target:

- 1 On the Resource Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), select **Publishing Profiles** under Record Export.

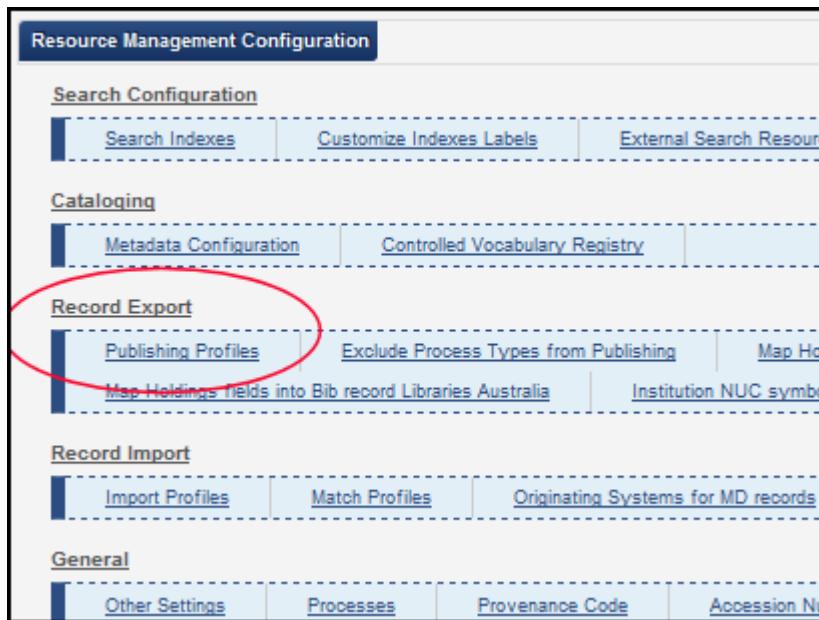
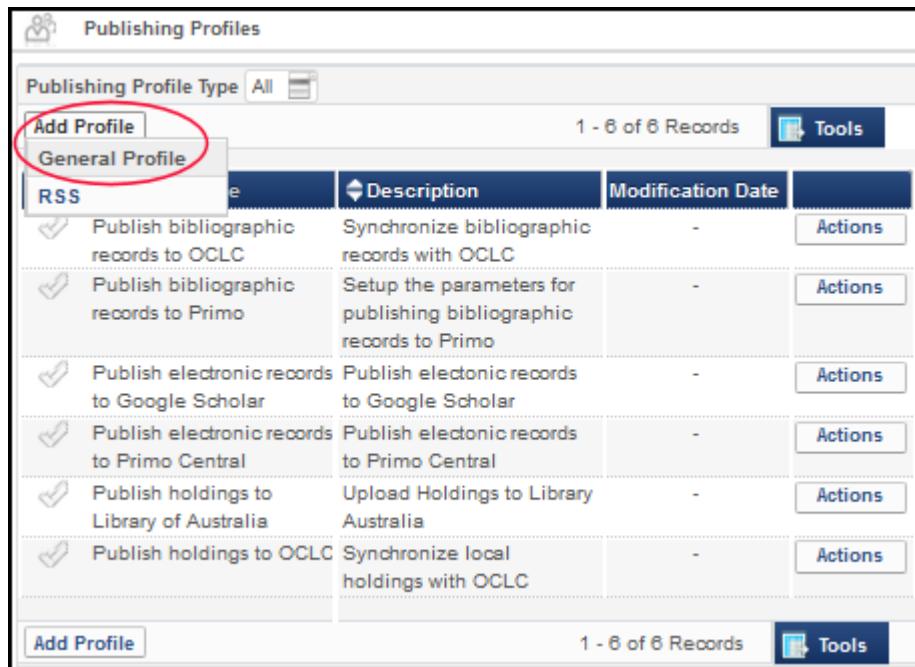


Figure 33: Publishing Profiles on the Configuration Menu

The Publishing Profiles page opens with a list of available publishing profiles.



The screenshot shows a software interface titled "Publishing Profiles". At the top left is a user icon. Below it, a navigation bar includes "Publishing Profile Type All" and a search icon. A red circle highlights the "Add Profile" button, which is located next to the "General Profile" label. To the right of the "Add Profile" button is a status message "1 - 6 of 6 Records" and a "Tools" button. The main area displays a table with six rows, each representing a publishing profile. The columns are labeled "Profile Name", "Description", "Modification Date", and "Actions". The profiles listed are:

Profile Name	Description	Modification Date	Actions
Publish bibliographic records to OCLC	Synchronize bibliographic records with OCLC	-	Actions
Publish bibliographic records to Primo	Setup the parameters for publishing bibliographic records to Primo	-	Actions
Publish electronic records to Google Scholar	Publish electronic records to Google Scholar	-	Actions
Publish electronic records to Primo Central	Publish electronic records to Primo Central	-	Actions
Publish holdings to Library of Australia	Upload Holdings to Library Australia	-	Actions
Publish holdings to OCLC	Synchronize local holdings with OCLC	-	Actions

At the bottom left is another "Add Profile" button. The bottom right corner shows the same "1 - 6 of 6 Records" and "Tools" buttons as the top right.

Figure 34: Publishing Profiles List Page

- 2 Click the **Add Profile** button and select **General Profile**. The first page of the add profile wizard opens.

The screenshot shows the 'Publishing Profile Details' page of a three-step wizard. The top right corner features a navigation bar with icons for step 1 (highlighted), step 2, step 3, 'Cancel', and 'Next'. The main form area contains several sections:

- Profile Id** and **Profile Name** fields.
- Profile Name** field with a red asterisk indicating it is required.
- Profile Description** text area.
- Status** section with radio buttons for **Active** (selected) and **Inactive**.
- Scheduling** dropdown set to **Not scheduled**, with a link to **Email Notifications**.
- Content** section with a **Set name** field and a search icon.
- Publishing Protocol** section with a dropdown for **FTP configuration** and a **Sub-directory** field.
- Files Configuration** section:
 - Single File Configuration**: **MARC output format** dropdown set to **MARC21 Binary**.
 - Compressed File Configuration**: **Compressed file name prefix** field and **Compressed file tar.gz extension** field.

Figure 35: Publishing Profile Details Page, Wizard Step 1

- 3 Complete the configuration options on page 1 of the wizard using the table below that describes each option.

Table 4. Publishing Profile Details Page - Wizard Step 1

Parameter	Description
Profile name	A name for the profile that distinguishes it from other profiles on the Publishing Profiles List page.
Profile description	A free text description of the profile that shows on the Publishing Profiles List page in the Profile Description field. Enter salient details that allow you and others to identify the profile's optimal use.
Status	Select Active or Inactive . Active makes the profile available to users. Inactive makes it unavailable but visible in the list of profiles (with a clear check mark rather than a yellow one).
Scheduling	From the drop-down list, select one of the scheduling options provided by the system (dependent on your time zone and data center). If you select Not scheduled , the export job for this publishing profile will not run until you select a different scheduling option from the drop-down list for this profile.
Email Notifications	Opens the Email Notifications for Scheduled Jobs page, which allows you to specify which users and email addresses will receive email notifications when the publishing profile has completed. You will have the option to choose whether to send the notifications for successful jobs and/or jobs that contain errors.
Content section	
Set name	Click the search icon to view the available sets for publishing. (Sets of the following type are shown: All Titles, Physical Titles, Electronic Titles, or Digital Titles.)
Publish on item/portfolio level	Select this option to publish on the item or portfolio level. When this option is selected, one bibliographic record is published for each unique item/portfolio associated with the bibliographic record. If one bibliographic record is associated with multiple portfolios/items, the bibliographic record is published multiple times. Alma displays a message to alert you to this method of output processing (refer to Figure 36). If this option is not selected, one bibliographic record is published containing all portfolio/item information. This functionality may be useful for integration with external sources such as the Hathi Trust and Aurora (State Library of Queensland).

Table 4. Publishing Profile Details Page - Wizard Step 1

Parameter	Description
Publishing Protocol section	
FTP configuration and Sub-directory	FTP configuration field values come from your institution's setup of the protocol (Administration > General Configuration > Configuration Menu > External Systems > S/FTP Definitions)
Files Configuration section - Single File Configuration	
MARC output format	Select MARC XML or MARC binary.
Number of records in the file	<p>Select the maximum number of records per file published.</p> <p>Your options are to choose a maximum of 1,000, 5,000, or 10,000 records per file or to select a single file option with no maximum records specified. The default is 1,000 records per file.</p> <p>This capability enables you to determine how many records are included in each file in order to align with external source requirements regarding file structure.</p>
Files Configuration section - Compressed File Configuration	
Use default file name	Select Yes or No.
Compressed file name prefix	<p>Enter a short prefix for identification purposes on your compressed output. This is required when you select Yes for Use default file name. The system appends the process ID and a date/time to the prefix you specify for the file name that is created.</p> <p>NOTE: A compressed tar.gz file is not created (as indicated in the UI). Rather, individual MARC files are created.</p>
File name	Enter a single file name to be used for the publishing output that is created. This parameter dynamically displays and is required when you select No for Use default file name .

Content

Set name *

Publish on item/portfolio level

Please note that a bibliographic record will be published per item/portfolio

Figure 36: Publish On Item/Portfolio Level Message

- 4 Click **Next**. The second wizard pages opens.

Publishing Profile Details 1 2 3 Back Cancel Next

Profile Id - Profile Name CC General Profile 1

Bibliographic Normalization

Correct the data using normalization rules

Physical Inventory Enrichement

Add Holdings information

Add Items Information

Electronic Inventory Enrichement

Add Electronic Portfolio Information

Figure 37: Adding a Publishing Profile - Normalization and Inventory Enrichment

- 5 Complete the parameters for step 2 of the wizard using the table below that describes these parameters.

Table 5. Fields on the Publishing Profile Details Page - Wizard Step 2

Parameter	Description
Bibliographic Normalization section	
Correct the data using normalization rules	Select a normalization rule (if needed) from the drop-down list of rules (that you previously created and saved).

Table 5. Fields on the Publishing Profile Details Page - Wizard Step 2

Parameter	Description
Physical Inventory Enrichment section	
Add Holdings Information	<p>Select this check box if you want to map the holdings field/subfield information from the Alma database into the bibliographic field/subfield for the record(s) being built for publishing. The system dynamically opens a Quick Add dialog box for entering your mapping specifications. Click Add. Repeat mapping holdings fields/subfields to match your requirements for this publishing profile.</p> <p>VIDEO: For more details about adding holdings information, refer to the <i>General Publishing Profile: Add Holdings and Item Info</i> video (8:16 mins).</p>

Table 5. Fields on the Publishing Profile Details Page - Wizard Step 2

Parameter	Description
Add Items Information	<p>Select this check box to include item information in the bibliographic record(s) being built for publishing.</p> <p>Specify the field/subfields to which the related item record information should be mapped in the bibliographic record that will be created for publishing.</p> <p>The following item information can be mapped: item ID, barcode, copy ID, material type, item policy/status, provenance, magnetic indication, enumeration A/B, chronology I/J, description, process type, permanent library/location, current library/location, call number type/call number, alternative call number type/alternative call number, temporary call number type/temporary call number, inventory number, storage location, pages, pieces, notes (Public, Fulfillment, Internal 1-3, and Statistics 1-3), PO line number, and due back date.</p> <p>For every physical item that is related to the published bibliographic record, Alma will create a field/subfield combination in the bibliographic record to publish using the mapping that you identify in the Physical Inventory Enrichment section of this page.</p> <p>For item information such as library, location, and material type that may have both a code and description, only the code is published, not the description.</p> <p>Specific to mapping library/location information, you can use either the permanent library/location or the current library/location options. When you use the current library/location mapping option, the system will publish either the permanent library/location or the temporary library/location information depending on the item's library/location at the time of publishing.</p> <p>VIDEO: For more details about adding item information, refer to the <i>General Publishing Profile: Add Holdings and Item Info</i> video (8:16 mins).</p>
Electronic Inventory Enrichment section	
Add Electronic Portfolio Information	Select this check box if you want to enrich publishing records with electronic inventory information for the purpose of integrating with third-party platforms. Once selected, the following fields appear.
Repeatable field	Specify the MARC field that will hold the enrichment information in the published record.

Table 5. Fields on the Publishing Profile Details Page - Wizard Step 2

Parameter	Description
Access URL subfield	<p>Specify the subfield that will contain the access URL for the electronic resource.</p> <p>NOTE: If you specify this field, you must enter the Link Resolver Base Resolver field.</p>
Link Resolver Base URL	<p>Enter the base URL for your link resolver. For Alma Link Resolver, use the following format and insert your institution's information where indicated:</p> <pre>http://<primo server host:port>/openurl/<primo institution_code>/<primo view_code>?</pre>
Collection Name subfield	Specify the subfield that will contain the name of the collection for the electronic resource.
Library subfield	Specify the subfield that will contain the name of the library for the electronic resource.
Interface Name subfield	Specify the subfield that will contain the name of the interface for the electronic resource.
Public Note subfield	Specify the subfield that will contain public notes for the electronic resource.
Coverage Statement subfield	Specify the subfield that will contain the coverage statement for the electronic resource.

- 6 Click **Next** to open the third step of the publishing profile wizard.

The screenshot shows a web-based form titled "Publishing Profile Details". At the top right are navigation buttons labeled 1, 2, 3, Back, Cancel, and Save. The "Save" button is highlighted in blue. The main form area has two input fields: "Profile Id -" containing "Profile Name COPAC" and "Provider" which is currently set to "OAI Publishing". Below these fields is a checkbox labeled "Enable Publishing to OAI" which is checked. The entire form is contained within a light gray box.

Figure 38: Adding a Publishing Profile, Enable OAI Provider

- 7 To enable publishing to an OAI provider, select the check box.
8 Click **Save** to enter the profile in the database and return to the Publishing Profiles list page.

To work with existing general publishing profiles:

- 1 On the Resource Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), select **Publishing Profiles** under Record Export.
- 2 From the Publishing Profile Type filter, select **General Profiles**.
- 3 Select one of the following row actions:
 - Edit
 - Delete
 - Run
 - History

The screenshot shows a web-based application interface titled "Publishing Profiles". At the top, there is a "Back" link. Below it, a "Publishing Profile Type" dropdown is set to "General Profiles". There are "Add Profile" and "Tools" buttons. A status message says "1 - 1 of 1 Records". The main area displays a table with one row. The columns are "Active", "Name", "Description", and "Modification Date". The first row has an active status (yellow checkmark), the name "CC General Profile 1 -", a blank description, and a modification date of "23/08/2014". To the right of the table is a vertical "Actions" menu with options: "Edit", "Delete", "Run", and "History".

Active	Name	Description	Modification Date	Actions
1 ✓	CC General Profile 1 -		23/08/2014	Edit Delete Run History

Figure 39: General Publishing Profile Row Action Options

Publishing to PubMed

PERMISSIONS:

To configure publishing to PubMed, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

Alma allows you to automatically export records to PubMed by using a publishing profile that enables you to share with PubMed your electronic journal inventory that is relevant to PubMed. By sharing this information with PubMed, PubMed will be able to provide a visual indication for the PubMed

titles to which the library has full-text access and provide access to them using the Alma Link Resolver.

You can identify/customize the following PubMed details in the PubMed publishing profile:

- Your PubMed ID
- URL that identifies the icon/graphic file that displays in the PubMed search results
- Text for the link label that displays in the PubMed search results
- Primo base URL/Alma Link Resolver base URL for accessing the resource from the PubMed search results.

The XML file generated from Alma for publishing to PubMed includes:

- PubMed ISSNs (or EISSNs) available in the Alma inventory
- Coverage information (from year/to year) as available
- Embargo/rolling year information as available

To configure a PubMed Publishing Profile:

- 1 Access the Publishing Profiles page (**Resource Management > Resource Configuration > Configuration Menu > Record Export > Publishing Profiles**).
- 2 Select **Actions > Edit** for the **Publish electronic record to PubMed** publishing profile. The Publishing Profile Details page opens for the PubMed publishing profile.

The screenshot shows the 'Publishing Profile Details' page for a profile named 'Publish electronic record to PubMed'. The page is divided into sections: 'Profile Details' (containing fields for name and description), 'Submission Format' (containing fields for FTP configuration, sub-directory, and file name prefix), 'Status' (radio buttons for Active or Inactive), 'Scheduling' (dropdown menu set to 'Not scheduled'), and 'Email Notifications' (button). Below these is the 'PubMed Details' section with fields for Provider ID, Location of Alma icon, Link label, and Link Resolver Base URL. At the bottom are 'Cancel' and 'Save' buttons.

Figure 40: PubMed Publishing Profile Details Page

- 3 Complete the PubMed publishing profile configuration using the information provided in the table below.

Table 6. PubMed Publishing Profile Configuration Options

Parameter	Description
Submission Format section:	
FTP configuration	Select the FTP configuration to be used from the drop-down list of available FTP configurations. That is, select the FTP configuration that contains the appropriate server, port, user name, and password for the connection (refer to Configuring S/FTP Definitions on page 219 in the <i>Alma Administration Guide</i> .)

Table 6. PubMed Publishing Profile Configuration Options

Parameter	Description
Subdirectory	Specify the subdirectory in which the files should be placed for the FTP upload. For example, if you specified Alma in the subdirectory field for the S/FTP connection configuration, and you enter PubMed in this subdirectory field, the data is exported to the Alma/PubMed directory.
File name prefix	Enter the alphanumeric characters that you want to use as the prefix for the file name that is created. To this prefix, the system adds a sequence number (starting with 1) and a date suffix in the date/time format of YYYYMMDDhhmm and an extension of .xml. When there are more than 50,000 records, the system creates a new file and the sequence number is incremented.
Status	Specify whether this is an active or inactive profile. In order for a publishing job to run using this profile, you need to indicate that this is an active profile.
Scheduling	Select the publishing schedule you prefer from the drop-down list of options.
Email Notifications	Opens the Email Notifications for Scheduled Jobs page, which allows you to specify which users and email addresses will receive email notifications when the publishing profile has completed. You will have the option to choose whether to send the notifications for successful jobs and/or jobs that contain errors.
Provider ID	Enter the ID provided to you by PubMed.

Table 6. PubMed Publishing Profile Configuration Options

Parameter	Description
Location of Alma icon	<p>Enter the URL address for displaying an Alma Link Resolver icon (or other icon/graphic file of your choice) in the PubMed search results. The following is provided:</p> <p><u>North America</u></p> <p><code>http://alma.exlibrisgroup.com/view/link_resolver.gif</code></p> <p>or</p> <p><code>http://na01.alma.exlibrisgroup.com/view/link_resolver.gif</code></p> <p><u>Europe</u></p> <p><code>http://eu.alma.exlibrisgroup.com/view/link_resolver.gif</code></p> <p><u>APAC</u></p> <p><code>http://ap01.alma.exlibrisgroup.com/view/link_resolver.gif</code></p> <p>This parameter is optional and will be published only when something is specified.</p>
Link label	Enter the text that you want used to identify the link's title in the PubMed results (such as Link to Alma).
Link Resolver Base URL	<p>Enter the base URL for the Alma Link Resolver using the following format and inserting your institution's information where indicated:</p> <p><code>http://<primo server host:port>/openurl/<primo institution_code>/<primo view_code>?</code></p> <p>If you are unfamiliar with your base URL for the Alma Link Resolver, contact Ex Libris Support for assistance.</p>

- 4 Click Save.**
- 5 To publish the records manually, select **Actions > Run** for the **Publish electronic record to PubMed** publishing profile.**

Publishing to Primo

PERMISSIONS:

To configure publishing to Primo, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

Alma allows you to automatically export records to Primo via a publishing profile, which defines the inventory types that are included in the export. For details on configuring this publishing profile, see [Exporting Alma Records to Primo](#) in the *Alma-Primo Integration Guide*.

Publishing to OCLC

PERMISSIONS:

To configure publishing to OCLC, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

IMPORTANT:

If you are transitioning to Alma production from an environment where you have been synchronizing your records with OCLC WorldCat, refer to [Transitioning to Alma Production from a Previous System that was used to Syncronize with OCLC WorldCat](#) on page 71 for important instructions.

Alma allows you to automatically synchronize either bibliographic records with embedded holdings information, or holdings information only, with the information available for your institution/library in the OCLC WorldCat catalog.

The publishing to OCLC job exports records to a predefined FTP location from which OCLC retrieves them and synchronizes them with the WorldCat records. A record is exported in the following cases:

- The record has been changed or added since the last export job ran, or a staff user has manually selected the record to be exported, which is also known as forced export. (Select **Force export to WorldCat** from the MD Editor's **Tools > Set Management Tags** menu).
- The record is set to **Publish bib/Publish holdings only** in the MD Editor (**Tools > Set Management Tags > Export to WorldCat**).
- The appropriate publishing profile has been properly defined and enabled (see Step 5 below).

NOTE:

Bibliographic records whose associated holdings records have been deleted are published as deleted records.

To configure publishing to OCLC, you must perform the following actions:

- 1 Contact OCLC and obtain an institution code symbol. If you want a specific library to have its own separate code symbol, overriding the institution symbol, you must coordinate this with OCLC and map the library code to the assigned symbol in the **INSTITUTION_EXTERNAL_SYMBOL** mapping table (**Resource Management > Resource Configuration > Configuration Menu > Institution OCLC Symbol**).
- 2 Open a synchronization project with OCLC. Each such project has a project ID, which is used for data transfer activities between the institution/library and OCLC.
- 3 Configure an S/FTP connection to be used by Alma and OCLC (see **Configuring S/FTP Definitions** in the *Alma Administration Guide*).
- 4 If you want to synchronize bibliographic records with embedded holdings information with the information available for your institution/library in the OCLC WorldCat catalog, you must define the field in the bibliographic record that will be used to contain holdings information and how the fields of the holdings records are to be mapped to this bibliographic field and subfields. These mappings are defined in the **Map Bib Record** mapping table (**Resource Management > Resource Configuration > Configuration Menu > Map Holdings Fields to Bib Records OCLC**).

For example, if you want to replace the 900 b field/subfield in the OCLC bibliographic records with the 852 b field/subfield in your holdings records, you would define the following mapping in the **holdingsInBib** mapping table:

targetCode	holdingTag	Holding Subfield	bibTag	bibSubfield
901	852	b	900	b

Figure 41: Map Holdings Fields to Bibliographic Records in OCLC

NOTE:

You can enter any number as the targetCode.

This information is provided to OCLC when the synchronization project is opened and is used by Alma to enrich the bibliographic records with holdings information in a way that OCLC is able to interpret.

- 5 Customize one of the following types of publishing profiles that exist in Alma:
 - **Publish bibliographic records (batch load) to OCLC** – Use this profile to synchronize bibliographic records with embedded holdings information with the information available for your institution/library in the OCLC WorldCat catalog. For more information, see <https://oclc.org/batchload.en.html>.
 - **Publish your local holdings records (LHRs) to OCLC** – Use this profile to synchronize holdings information only with the holdings information available for your institution/library in the OCLC WorldCat catalog. For more information, see <http://oclc.org/support/services/local-holdings.en.html>.

To configure the OCLC publishing profile:

- 1 On the Resource Management Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), click **Publishing Profiles** under **Record Export**. The Publishing Profiles page opens.
- 2 Choose either **Publish bibliographic records to OCLC** or **Publish holdings to OCLC** (described above) and select **Actions > Edit**. The Publishing Profile Details page opens.

Publishing Profile Details

Profile name * Publish your Local Holdings Records (LHRs) to OCLC

Profile description Make your library's Local Holdings Records (LHRs) accessible through WorldCat (see <http://oclc.org/support/services/local->)

OCLC institution symbol ALM

Project ID * 777

Run full publishing

Submission Format

FTP ftp1 Sub-directory OCLC

Status Active

Scheduling Every day at 04:00 Email Notifications

Cancel Save

Figure 42: Publishing Profile Details Page

- 3 Complete the parameters on the Publishing Profile Details page. Use the table below for a description of these parameters.

Table 7. Publishing Profile Details Page Parameters (OCLC)

Parameter	Description
Profile Details section:	
Profile name	Modify the name to meet your requirements.
Profile description	Modify the description to further identify this profile.
OCLC institution symbol	Enter the institution/library code symbol previously agreed upon with OCLC (see Step 1 in the configuration process outline above).
Project ID	Enter the synchronization project ID previously agreed upon with OCLC (see Step 2 in the configuration process outline above).
Run full publishing	Select this option to publish all records. Otherwise, the system does an incremental publishing of only the records that have changed since the previous publishing.

Table 7. Publishing Profile Details Page Parameters (OCLC)

Parameter	Description
Submission Format section:	
FTP configuration	From the drop-down list, select the name of the S/FTP connection that you previously defined.
Subdirectory	Enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified Alma in the Sub-directory field during S/FTP connection configuration and you enter OCLC in this field, the data is exported to the Alma/OCLC directory.
Status	Select Active .
Scheduling	From the drop-down list, select one of the scheduling options that are predefined by an Ex Libris administrator. If you select Not scheduled , the export job for this publishing profile will not run until you select a different scheduling option from the drop-down list for this profile

NOTE:

OCLC retrieves the data from the FTP directory every night at about 2:00 AM (Eastern Standard Time). The publishing process should be scheduled so that it does not interfere with OCLC's data collecting process.

- 4 Click **Email Notifications** to specify which users and email addresses will receive email notifications when the publishing profile has completed.

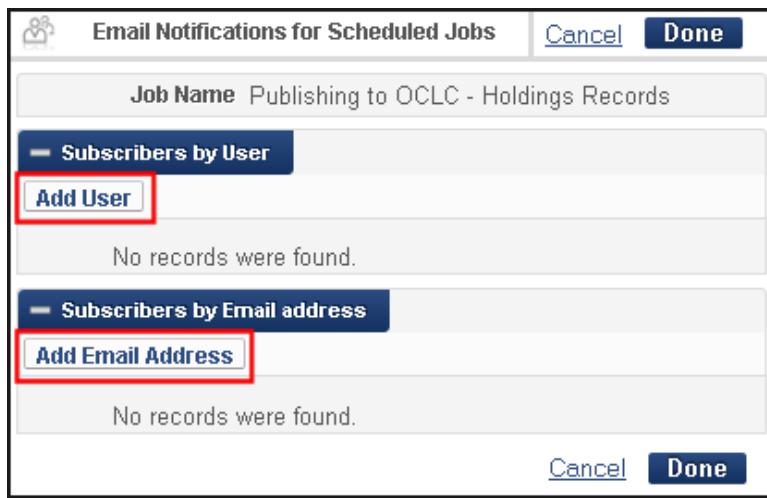


Figure 43: Email Notifications for Scheduled Jobs Page

- 5 Select the users that you want to receive email notifications.

a Click Add User.

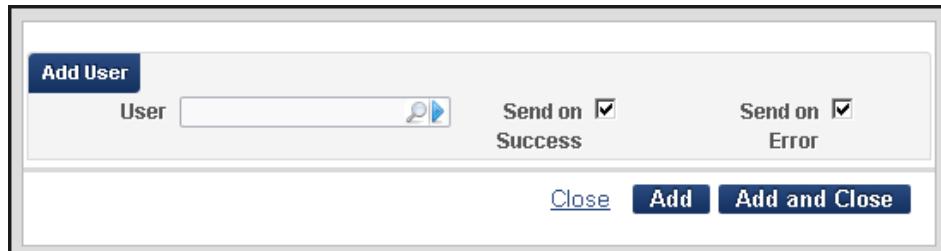


Figure 44: Add User Dialog Box

- b** In the **User** field, search for and select a user name.
- c** Select the following options to specify when the email notification will be sent to the user: **Send on Success** and **Send on Error**.
- d** Click **Add** to include additional users, click **Add and Close** to add the user and also close the dialog box, or click **Close** to exit the dialog box.
- 6** Select the email addresses that you want to receive email notifications.

a Click Add Email Address.

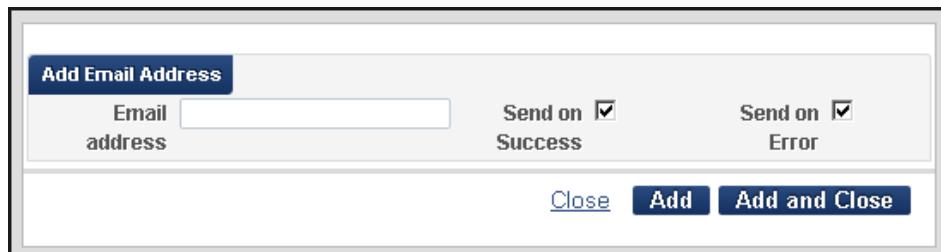


Figure 45: Add Email Address Dialog Box

- b** In the **Email address** field, enter an email address.
- c** Select the following options to specify when the email notification will be sent to the email address: **Send on Success** and **Send on Error**.
- d** Click **Add** to include additional email addresses, click **Add and Close** to add the email address and also close the dialog box, or click **Close** to exit the dialog box.
- e** Click **Done** to return to the Profile Details tab.
- 7** Click **Save**. The modified publishing profile appears activated on the Publishing Profiles page. Data that meets the defined criteria is exported to the specified FTP location when the profile is run. For information on monitoring a publishing export job, see **Monitoring Jobs** in the *Alma Administration Guide*.

Transitioning to Alma Production from a Previous System that was used to Synchronize with OCLC WorldCat

The purpose of this section is to provide instructions that will enable you to continue processing incremental changes to OCLC WorldCat (versus reloading your entire database) when you switch from a previous system to Alma production. To do this, you will need to:

- Create a one-time-use OCLC publishing profile
- Run the one-time-use OCLC publishing profile to create a starting point in your database from which Alma can continue with the incremental updates to OCLC

Refer to the procedure [To configure and run the OCLC publishing profile for the transition to Alma production](#): on page 71 for instructions regarding how to configure the one-time-use OCLC publishing profile for establishing the starting point from which Alma can continue with your incremental updates to OCLC WorldCat.

IMPORTANT:

It is key that you run the special one-time-use publishing profile/job on your first day or very close to your first day in Alma production.

To configure and run the OCLC publishing profile for the transition to Alma production:

- 1 Use the steps outlined in the procedure [To configure the OCLC publishing profile](#): on page 67 to create your one-time-use OCLC publishing profile except use the Publishing Profile Details page settings described in the table below instead of the settings provided in [Table 7](#).

Table 8. Publishing Profile Details Page Parameters (for Transition Profile)

Parameter	Description
Profile Details section:	
Profile name	Modify the name to meet your requirements.
Profile description	Modify the description to further identify this profile.
OCLC institution symbol	Enter the institution/library code symbol previously agreed upon with OCLC (see Step 1 in the configuration process outline above).
Project ID	Enter the synchronization project ID previously agreed upon with OCLC (see Step 2 in the configuration process outline above).

Table 8. Publishing Profile Details Page Parameters (for Transition Profile)

Parameter	Description
Run full publishing	<p>Since there is no publishing index on the first day of production, the entire repository will be published when you run your transition publishing job (without selecting this parameter). As a result, you do not need to select this parameter for your OCLC transition publishing profile.</p> <p>Not selecting this setting is also consistent with how you will want this parameter set, later, when you modify this publishing profile for your ongoing incremental publishing to OCLC. As a result, later, no change will be needed for this parameter when you modify the publishing profile for ongoing incremental publishing.</p>
Submission Format section:	
FTP configuration*	<p>Set the FTP configuration option to a temporary FTP server location that you created especially for this purpose.</p> <p>IMPORTANT: This temporary FTP server location/configuration is different from the one that you have established with OCLC for coordinating the retrieval of records.</p> <p>Normally, the FTP location for the OCLC publishing profile is one that you have coordinated with OCLC from which OCLC can retrieve records to be synchronized with the WorldCat records.</p> <p>However, for this one-time-use publishing profile, the FTP location is one that is different and will be used to publish the records that you maintained on your previous system and have already synchronized with the OCLC WorldCat records. As a result of publishing to this temporary FTP location, Alma, subsequently, will have a starting point for identifying your subsequent changes for incremental publishing with OCLC WorldCat.</p>
Subdirectory	Enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified Alma in the Sub-directory field during S/FTP connection configuration and you enter OCLC in this field, the data is exported to the Alma/OCLC directory.

Table 8. Publishing Profile Details Page Parameters (for Transition Profile)

Parameter	Description
Status	Select Active .
Scheduling*	Select Not scheduled . You will manually initiate running this job.

NOTE:

The parameters that have been identified with an asterisk in **Table 8** are the profile parameters that will need to be changed after you have completed your transition publishing job.

- 2 After you have saved your profile settings, manually run the transition publishing job (**Actions > Run**) for **Publish bibliographic record (Batchload) to OCLC** or **Publish your Local Holdings Records (LHRs) to OCLC** (depending on which profile you chose to configure).
- 3 Once your transition job has completed running, reconfigure the parameters marked with an asterisk in **Table 8** to set up your OCLC publishing profile for ongoing incremental publishing with OCLC WorldCat records and discard the records published to the temporary FTP server location.

Publishing to COPAC

PERMISSIONS:

To configure publishing to COPAC, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

Alma provides publishing support for the Consortium of Online Public Access Catalogues (COPAC), a UK-based union catalog.



Figure 46: COPAC Catalog Example

Refer to the following sections for a detailed description of this support:

- **Initial Publishing to COPAC** on page 74
- **Ongoing Publishing to COPAC** on page 78

Initial Publishing to COPAC

Prior to running your ongoing automatic synchronization process with COPAC, you need to coordinate and process an initial publishing of the Alma records that you want exposed in COPAC.

To do an initial publishing with COPAC:

IMPORTANT:

Read this procedure in its entirety before you begin to insure that you have completed any necessary prerequisites for each of the steps.

- 1 Communicate with COPAC to let them know that you will be running an initial publishing of records from Alma and discuss any profile configurations that need to be coordinated between your institution and COPAC.
 - a Prepare for your communication with COPAC by familiarizing yourself with the Alma publishing profile details in the procedure **To create a general profile for publishing to an external target:** on page 51, and by reviewing any shared information in the Ex Libris Developer Network.

(For an example, refer to <https://developers.exlibrisgroup.com/blog/Publishing-to-Copac-Experience-of-the-University-of-York>.)

- b** Prepare a checklist of questions that should address the following Alma configuration requirements:

- FTP configuration details (refer to **Adding S/FTP Connections** on page 220 in the *Alma Administration Guide* for additional information.)
- MARC output format (MARC21 binary or MARC21 XML)
- File size preference (1,000, 5,000, or 10,000 records per file or one single file)
- File naming convention (prefix) for published files
- Publishing schedule

For your initial publishing job, you will want to run it manually from Alma. For ongoing publishing, you will probably want to set your publishing profile to publish automatically on a certain repeating frequency.

- 2** Create the logical set of records that you want to publish to COPAC. Refer to the procedure **To add a logical set:** on page 89 in the *Alma Resource Management Guide* for instructions.

If you need to normalize these records before publishing, refer to see **Working with Normalization Rules** on page 220 in the *Alma Resource Management Guide* for more information and/or use the normalization options provided on the **Data Enrichment** tab of the publishing profile (refer to the example below).

Publishing Profile Details [Cancel](#) [Save](#)

Profile Id 249791500000121 Profile Name CC COPAC

[Profile Details](#) [Data Enrichment](#) [OAI Publishing](#)

Bibliographic Normalization

Correct the data using normalization rules

Physical Inventory Enrichment

Add Holdings information

Quick Add

	Holding Tag	Holding Subfield	Bib Tag	Bib Subfield	
1	852	b	852	b	Delete
2	852	c	852	c	Delete
3	852	h	852	h	Delete
4	852	z	852	z	Delete
5	863	a	863	a	Delete
6	866	a	866	a	Delete
7	866	z	866	z	Delete

Figure 47: Data Enrichment Tab (Publishing Profile)

- 3 With the information that you have gathered, create the Alma publishing profile for publishing to COPAC using the procedure [To create a general profile for publishing to an external target](#): on page 51. For additional information about General Profiles for publishing, see [Publishing and Inventory Enrichment](#) on page 50. See below for an example of the **Profile Details** tab.

 Publishing Profile Details Cancel **Save**

Profile Id	249791500000121	Profile Name	CC COPAC
Profile Details		Data Enrichment	OAI Publishing
Profile Name*	CC COPAC		
Profile Description	CC Publish to COPAC		
Status	<input checked="" type="radio"/> Active	<input type="radio"/> Inactive	
Scheduling	Not scheduled	Email Notification	
Content			
Set name*	titles	  	
Publish on	<input type="checkbox"/> item/portfolio level		
Publishing Protocol			
FTP*	ExL FTP	Sub-directory	
configuration			
Files Configuration			
Single File Configuration			
MARC output format	MARC21 Binary		
Number of records in file	1000		
Compressed File Configuration			
Use default file name	<input type="radio"/> No	<input checked="" type="radio"/> Yes	
Compressed file name prefix	CCUNIV		
Compressed file extension	tar.gz		

Figure 48: Profile Details Tab (Publishing Profile)

- 4 Per your pre-arranged schedule with COPAC, run your initial load publishing job.
 - a Access the COPAC publishing profile that you have configured (**Resource Management > Resource Configuration > Configuration Menu > Record Export section > Publishing Profiles**).
 - b Select **Actions > Run**.
 - c Check the **History** tab on the Monitor Jobs page (**Administration > Manage Jobs > Monitor Jobs**) to determine the status of your COPAC publishing job.
- 5 Follow up with COPAC to confirm that your publishing job was successfully received and that your files have been loaded into the COPAC database.
- 6 Configure your COPAC publishing profile for the ongoing publishing of your records to COPAC. Refer to **Ongoing Publishing to COPAC** on page [78](#).

Ongoing Publishing to COPAC

Once you have completed your initial publishing job with COPAC and confirmed that your files have been loaded into the COPAC database, you are ready to begin the incremental/ongoing process of updating your records in COPAC. Alma general publishing is designed to do one initial full upload of records with the necessary logic incorporated to identify the incremental changes to each previous upload and only publish those records that have changed since the last publishing job was run. As a result, republishing a full load is not provided as an option.

For ongoing publishing, you may find it easier to set your publishing profile to run automatically on a repeating schedule.

To configure your COPAC publishing job for a repeating schedule:

- 1 Open the Publishing Profiles page (**Resource Management > Resource Configuration > Configuration Menu > Record Export section > Publishing Profiles**) and locate the publishing profile you created for your initial upload to COPAC.
- 2 Select **Actions > Edit**.
- 3 Modify the **Scheduling** parameter to match your preference.

The screenshot shows the 'Publishing Profile Details' page. At the top, there is a header with a user icon and the title. Below the header, there are three tabs: 'Profile Details' (selected), 'Data Enrichment', and 'OAI Publishing'. The 'Profile Details' section contains fields for 'Profile Name' (CC COPAC) and 'Profile Description' (CC Publish to COPAC). Below this, there is a 'Status' section with radio buttons for 'Active' (selected) and 'Inactive'. The main content area is titled 'Content' and includes a 'Scheduling' section. A dropdown menu for 'Set name' is open, showing five options: 'Not scheduled', 'Every Sunday at 06:00', 'Every day at 06:00', and 'On the 01 of every month'. The 'Not scheduled' option is selected. The entire 'Scheduling' section is highlighted with a red border.

Figure 49: Scheduling Parameter

4 Click **Save**.

Publishing to Libraries Australia

PERMISSIONS:

To configure publishing to Libraries Australia, you must have one of the following roles:

- Catalog Administrator
- Repository Administrator
- General System Administrator

NOTE:

To work with Libraries Australia, the **national_catalog** option in your Customer Parameters needs to be set to **Libraries Australia** by your Ex Libris Implementation contact. Contact Ex Libris Support if you require assistance.

Alma provides support for publishing records to Libraries Australia. This includes profiles that can be configured for initial and ongoing publishing, holdings mappings, and NUC definitions. Refer to the following sections for a detailed description of this support:

- [Overview of Publishing to Libraries Australia](#) on page **80**
- [Initial Publishing to Libraries Australia](#) on page **86**
- [Libraries Australia Publishing Profile](#) on page **88**
- [Holdings Mapping for Libraries Australia](#) on page **90**
- [Configuring a Library NUC](#) on page **92**

Overview of Publishing to Libraries Australia

Alma allows you to automatically synchronize bibliographic records with embedded holdings information with the Libraries Australia (LA). Alma supports the NUC (National Union Catalogue) symbols issued by the LA.

In Alma, each institution that synchronizes its bibliographic/holdings records with the LA must have a NUC code (symbol). Also, specific libraries may have a NUC symbol that overrides the institution's NUC code (refer to the procedure [To configure a library NUC symbol that is different from the institution's NUC symbol](#): below).

Limited information about the holdings is embedded in the bibliographic records. Holdings information is sent together with the bibliographic records when the bibliographic records are marked to be synchronized with the national catalog, Libraries Australia.

Field 984 in the bibliographic record is used to contain the holdings information. Specifically, the 984 \$a contains the NUC code; and the 984 \$c may be configured to contain a call number or a label such as HELD (to indicate that the library has holdings).

Bibliographic records are exported to the LA with embedded holdings information when the following conditions are met:

- The bibliographic record is set or marked to be published, which can be handled in the following manner:
 - The record is set to **Publish bib** in the MD Editor (**Tools > Set Management Tags > Export to Libraries Australia**) as shown in the figure below.

If the same record is subsequently set to **Don't publish** in the MD Editor, Alma supports publishing this record to the LA so that the LA is synchronized to know that this is a suppressed record.

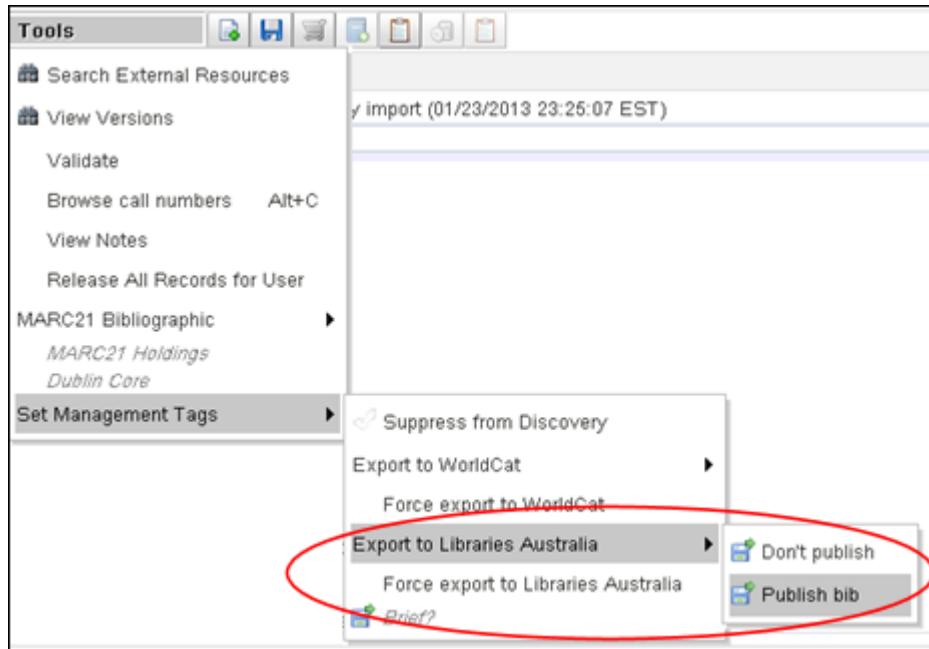


Figure 50: Manually Publish or Force Export

Additionally, holdings records can be marked for suppression (similar to Primo suppression/publishing) by:

■ Location configuration

Select the **Suppress from Discovery** option on the Edit Physical Location page that you access from the **Administration > General Configuration > Configuration Menu**, select a library for **You are configuring**, and click **Physical Locations** in the Locations section.

 Edit Physical Location

You are configuring: Engineering Library (ST)

Physical Location Details

Location Code *	stcirc
Location Name *	Engineering Library
External Location Name	
Location Type *	Open
Fulfillment Unit	

Physical Location Circulation Desks List

Attach New Circulation Desk

Code	Name
1 DEFAULT_CIRC_DESK	Default Circulation Desk

Existing Circulation Desk *

Services *

<input checked="" type="checkbox"/> Check In
<input checked="" type="checkbox"/> Check Out
<input checked="" type="checkbox"/> Reshelve

Attach Existing Circulation Desk

Holdings Configurations

Accession Placement	None
Suppress from Discovery	<input type="checkbox"/>

Figure 51: Location Configuration Suppress from Discovery Option

■ Using the MD Editor

You can mark an individual holdings record for suppression in the MD Editor by selecting **Tools > Set Management Tags > Suppress from Discovery** when the holdings record to be suppressed is the active record on the MD Editor page.

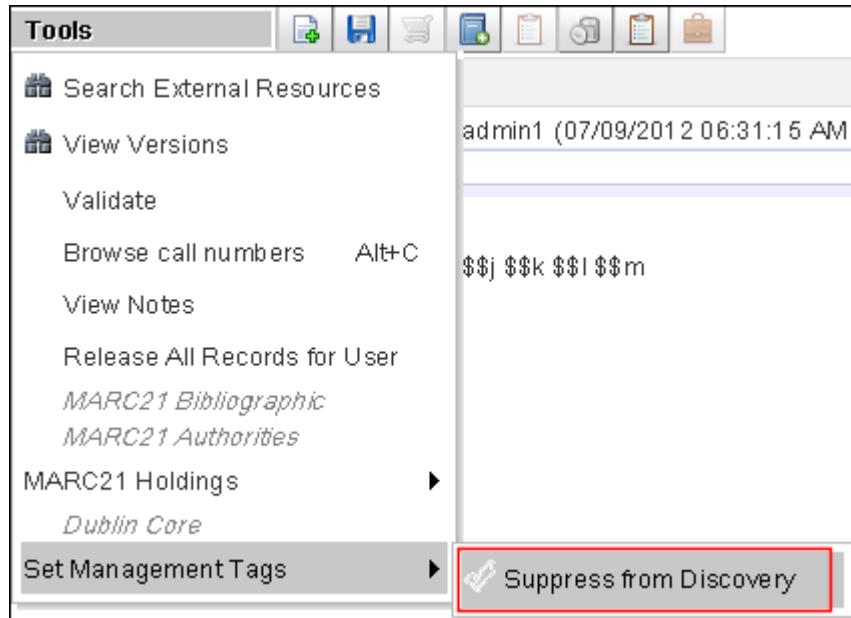


Figure 52: Suppress from Discovery Option for a Holdings Record

- The **Synchronize MMS with national catalog** job that allows you to mark records to publish in bulk is run. For more information, refer to the section **Running Jobs on Defined Sets** in the *Alma Administration Guide* and Step 2 of **To do an initial publishing with Libraries Australia:** on page 86.
- Records can be marked to publish to Libraries Australia as part of the record import process. (This is the recommended practice when the import will result in records ready to publish to Libraries Australia, to ensure an optimal, ongoing update process for Libraries Australia.) For more information, refer to **Managing Profiles for Record Imports** on page 509 in the *Alma Resource Management Guide*. (The Set Management Tags are described in the table **Import Profile Details Wizard - Page 5 Fields.**)
- The bibliographic record or any holdings record linked to the bibliographic record changed since the last time it was published, or a staff user has manually selected the record to be exported, which is also known as forced export. (Select **Force export to Libraries Australia** from the MD Editor's **Tools > Set Management Tags** menu, refer to the figure below.)
- The appropriate publishing profile has been properly defined and enabled (refer to the procedure **To configure the Libraries Australia publishing profile:** below).

The export contains two separate files of bibliographic records with embedded holdings information. One file contains the new and updated holdings, and the other file contains deleted bibliographic records. These can be identified by the

following naming convention (refer to the table below for an explanation of the naming convention):

```
<NUC_CODE>-<process type>.<format.id><sequence>
```

Example: NCLN-B.D66

Table 9. Export File Naming Convention

File Name Component	Description
NUC_CODE	The NUC code as identified in the configuration.
process type	B – For bibliographic records uploaded with or without holdings D – For deleting bibliographic records
format.id	The format ID of D (data) is used.
sequence	The sequence is a running number of file uploads. The numbers are recycled after reaching the upper limit (99). The last sequence number used is saved as part of the publishing profile. When the sequence number reaches 99, it restarts with 00.

Alma normalizes bibliographic records for export to LA in the following manner:

- Local fields (59X and 9XX) are excluded from the record to be published.
- If 019 \$a exists, the contents of the 019 \$a are written to the 001 field in the export file. If there is no content for 019 \$a, the 001 field is removed.
- The value of the Alma MMS ID (from 001) is copied to the 035 \$a
There is only one 035 field in the export files (that contains the MMS ID in \$a) except for instances where (OCoLC) is specified in the other 035 \$a.
- The 090 and 091 fields and \$9s are omitted.

For each holdings record that needs to be published, Alma creates a 984 holdings information field in the export file. Content from the 852 field (subfields k, h, i, j, l, and m) is used to build the 984 field for export to LA. This is handled in the following manner:

- The 852 field is retrieved from the holdings record.
- The NUC code is retrieved from one of the following:
 - The library NUC code mapping table
 - The configured institution NUC code

- A new 984 field is added to the bibliographic record.
- The 984 \$a is set to the NUC code retrieved above.
- The 984 \$c is set with either the normalized value of the call number from the holdings record or the label value such as HELD as set on the Publishing Profile Details page (refer to the configuration procedure [To configure the Libraries Australia publishing profile](#): below).
- When a bibliographic record is deleted or suppressed from publishing to LA, it contains d in the leader position 5 and deleted is specified in the 984 \$c (refer to the example below).

```
<datafield tag="984" ind1=" " ind2=" ">
    <subfield code="a">SUA:A</subfield>
    <subfield code="c">deleted</subfield>
</datafield>
<datafield tag="984" ind1=" " ind2=" ">
    <subfield code="a">SUA:B</subfield>
    <subfield code="c">deleted</subfield>
</datafield>
<datafield tag="984" ind1=" " ind2=" ">
    <subfield code="a">SUA:C</subfield>
    <subfield code="c">deleted</subfield>
</datafield>
```

- When one holdings record is deleted, all other holdings will be published as an update.
- When one holdings record is updated, only this updated holdings record will be published with the new information.
- When bibliographic record information is changed, all holdings which are not deleted will be published as an update.
- There can be repeating subfields. In the example below, \$c and \$d are repeating entries. Other subfields, determined by your mapping, may be repeating subfields.

```
<datafield tag="984" ind1=" " ind2=" ">
    <subfield code="a">NUC_TEST</subfield>
    <subfield code="c">MICROFILM 3502-3508 </subfield>
    <subfield code="d">Vol. 1 (1967) -v. 7 (1974)</subfield>
</datafield>
<datafield tag="984" ind1=" " ind2=" ">
    <subfield code="a">SUA-R</subfield>
    <subfield code="c">JJ73397-73400 </subfield>
    <subfield code="d">Vol. 8 (1974) -v. 11 (1978)</subfield>
    <subfield code="c">375.905 H674 </subfield>
    <subfield code="d">Vol. 1, no. 1-v. 37, no. 4 (Nov. 1967-Aug. 2004)
        </subfield>
</datafield>
```

- Other 984 subfields are set according to the configured mapping information (refer to the procedure [To configure the holdings mapping for Libraries Australia](#): below).
- When multiple holdings exist, the output is one 984 per NUC, where the \$a contains the NUC code, the \$c is repeatable with the call number of all the holdings for that NUC/library. Other subfields, that are mapped from the mapping table, are repeatable, too.

NOTE:

Normalized MARC records are transformed to ISO 2709/MARC-8.

Initial Publishing to Libraries Australia

Prior to running your ongoing automatic synchronization process with Libraries Australia, you need to coordinate and process an initial publishing of the Alma records that you want exposed to Libraries Australia.

To do an initial publishing with Libraries Australia:

IMPORTANT:

Read this procedure in its entirety before you begin to insure that you have completed any necessary prerequisites for each of the steps.

- 1 Communicate with Libraries Australia to let them know that you will be running an initial publishing of records from Alma and prepare any profile configurations that need to be coordinated between your institution and Libraries Australia.
- 2 Mark the bibliographic records that you want published to Libraries Australia using the MD Editor (refer to the information provided under [Overview of Publishing to Libraries Australia](#) on page 80) or run the **Synchronize MMS with national catalog** job described below to mark one or more sets of records.
 - a Access the Run a Job - Select Job to Run page (**Administration > Manage Jobs > Run a Job**) and filter the job list by selecting **Marc 21 Bib normalization** as the **Type**.
 - b Select **Synchronize MMS with national catalog** and click **Next**.
 - c Select the set of physical titles that you previously saved for this purpose. These are the titles that you want Libraries Australia to know that you have in your Alma system.
 - d Click **Next**.

- e Select **Publish Bibliographic records** and click **Next**.

The other option, **Don't publish**, is intended for suppressing records similar to the option provided in the MD Editor (and described under **Overview of Publishing to Libraries Australia** on page 80), but for a group of records (set) instead of one individual record.
 - f Schedule the job and click **Next**.
 - g Review and confirm the run job options that you selected; and if everything is acceptable, click **Submit**.
- 3 Identify the holdings records to be published. More specifically, you need to mark the holdings records that you want suppressed. You can suppress holdings records, as a group, based on their location; or you can suppress individual records using the MD Editor. Refer to **Location configuration** on page 81 and **Using the MD Editor** on page 82 for more information.
- 4 Configure your Libraries Australia publishing profile. Refer to **Libraries Australia Publishing Profile** on page 88 with particular attention to the following:
 - Select **Run full publishing** for your initial upload.

(After Alma has successfully completed running your initial load, it removes the **Run full publishing** selection in your profile in preparation for you to move on to the ongoing phase of publishing.)
 - Select **Not Scheduled** from the drop-down list for your scheduling option. You will want to confirm with Libraries Australia the success of your initial load before setting the publishing profile to run automatically.
 - Confirm that you have an FTP configuration created that addresses your requirements.
- 5 Run your initial load publishing job.
 - a Access the **Upload Holdings to Libraries Australia** publishing profile that you have configured (**Resource Management > Resource Configuration > Configuration Menu > Record Export section > Publishing Profiles**).
 - b Select **Actions > Run**.
- 6 Confirm with Libraries Australia that your initial load has completed successfully.
- 7 Configure your **Upload Holdings to Libraries Australia** publishing profile for the ongoing publishing of your records to Libraries Australia.

Libraries Australia Publishing Profile

Use the instructions below to configure the Alma publishing profile for Libraries Australia.

To configure the Libraries Australia publishing profile:

- 1 On the Resource Management Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), click **Publishing Profiles** under Record Export. The Publishing Profiles page opens.
- 2 Select **Actions > Edit** for the **Upload Holdings to Libraries Australia** row. The Publishing Profile Details page opens.

The screenshot shows the 'Publishing Profile Details' page in Alma. The page has a header with a user icon, 'Publishing Profile Details', 'Cancel', and 'Save' buttons. It contains several sections: 'Profile Details' (Profile name: *Upload Holdings to Libraries Australia, Profile description: Upload Holdings to Libraries Australia, NUC Code: *), 'Run full publishing' (checkbox), '984 Content' (Call number selected, Label option, HELD value), 'Submission Format' (FTP configuration dropdown set to * and Sub-directory: Holdings), 'Status' (Active selected), 'Scheduling' (Not scheduled), and an 'Email Notifications' button.

Figure 53: Publishing Profiles Details Page

- 3 Edit the profile details to match your requirements (see the table below for a description of the options).

Table 10. Publishing Profile Details Page Description

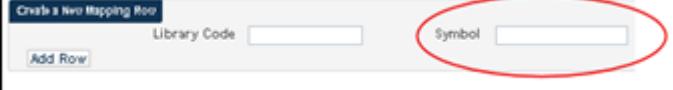
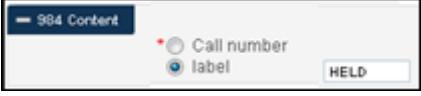
Option	Description
NUC code	<p>Enter the code/symbol by which the institution is identified to the Libraries Australia.</p> <p>NOTE: For a library with a NUC symbol that is different from the institution's, the symbol needs to be specified in the Symbol field located in Resource Management > Resource Configuration > Configuration Menu > Record Export > Institution NUC Symbol. The symbol specified in the Symbol field overrides what is specified in the NUC Code field on the Publishing Profile Details page.</p> 
Run full publishing	<p>Select this option to complete your initial publishing to Libraries Australia. Refer to Initial Publishing to Libraries Australia on page 86 for more information.</p> <p>NOTE: Once the initial publishing is complete, Alma automatically removes the Run full publishing check box selection for this profile to enable it to be used for the ongoing publishing of records to Libraries Australia.</p>
Call number or Label	<p>Select the Call number option for the call number to be mapped for export.</p> <p>Alternatively, select the Label option and enter a label in the field next to this option to have the label you entered be mapped for export. In the example below, HELD is mapped for export (indicating that the institution/library has holdings).</p> 

Table 10. Publishing Profile Details Page Description

Option	Description
FTP configuration	<p>Specify the FTP configuration to be used from the drop-down list of available FTP configurations.</p> <p>Select the FTP configuration that contains the appropriate server, port, user name, and password for the connection (see Configuring S/FTP Definitions in the <i>Alma Administration Guide</i>).</p>
Subdirectory	Specify the subdirectory in which the files should be placed for the FTP upload. For example, if you specified Alma in the Sub-directory field during S/FTP connection configuration and you enter LA in this field, the data is exported to the Alma/LA directory.
Status	<p>Specify the status of the profile as active or inactive.</p> <p>NOTE: Only active profiles will be run.</p>
Scheduling	<p>Select a scheduling option from the drop-down list of previously set scheduling options.</p> <p>If you select the Not scheduled option, the export job for this publishing profile will not run until you select a different scheduling option from the drop-down list for this profile or manually select Actions > Run for Upload Holdings to Libraries Australia from the Publishing Profiles page.</p>
Email Notifications	Opens the Email Notifications for Scheduled Jobs page, which allows you to specify which users and email addresses will receive email notifications when the publishing profile has completed. You will have the option to choose whether to send the notifications for successful jobs and/or jobs that contain errors.

4 Click **Save**.

Holdings Mapping for Libraries Australia

The publish to Libraries Australia job creates the 984 \$a and \$c. If you want to map additional 984 fields to be published to Libraries Australia, they need to be mapped in the mapping table described in the procedure below. You do not need to map the call number (from 852 k, h, i, j, l, and m) to 984 \$c because this is already done by the system.

To configure the holdings mapping for Libraries Australia:

- 1 On the Resource Management Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), click **Map Holdings Fields into Bib Record Libraries Australia** under **Record Export**. The Libraries Australia holdings mapping configuration page opens.

The screenshot shows the 'Mapping Table' configuration page for the 'Orbis Cascade Network Zone'. The 'Table Information' section includes the Sub System (INVENTORY), Table Name (holdingsInBibLa), and a detailed Table Description: 'Map holdings fields into Bib record - for publishing to Libraries Australia external systems'. The 'Mapping Table Rows' section indicates 'No records were found.' A 'Create a New Mapping Row' section features a 'Quick Add' form with fields for targetCode, holdingTag, HoldingSubfield, bibTag, and bibSubfield, plus an 'Add Row' button. Navigation buttons 'Cancel' and 'Customize' are located at the bottom right.

Figure 54: Libraries Australia Holdings Mapping Configuration Page

- 2 Create one or more mapping rows.
 - a Enter the holdings mapping configuration details to match your requirements (refer to the table below for a description of your options).

Table 11. Holdings Mapping Configuration for Libraries Australia

Option	Description
Target Code	Enter a unique code to identify the mapping row.
Holdings Tag (field)	Specify the holdings MARC field from which the content is to be mapped to the bibliographic MARC field.

Table 11. Holdings Mapping Configuration for Libraries Australia

Option	Description
Holdings Subfield	Specify the subfield from which the content is to be mapped for the export file. The following 852 subfields are ignored: h, i, j, k, l, and m.
Bibliographic Tag (field)	Specify the bibliographic MARC field to be mapped for the export file. By definition, this is the 984 field.
Bibliographic Subfield	Specify the subfield that will contain the content of the mapped holdings subfield. Libraries Australia's RIS documentation specifies the following allowed subfields: d, e, f, g and h. Subfield a and c are automatically mapped by the publishing process and do not require configuration here.

- b** For each mapping that you enter, click **Add Row**.

The screenshot shows the 'Mapping Table' interface for configuring holdings mappings. At the top, it says 'You are configuring: University of South Australia'. Below that is a 'Table Information' section with details: Sub System INVENTORY, Updated By quillija, Last Updated 24/02/2014, and Table Description Map holdings fields into Bib record - for publishing to Libraries Australia exten...'. A 'Mapping Table Rows' section is shown, containing a single row with the following values:

Enabled	targetCode	holdingTag	HoldingSubfield	bibTag	bibSubfield
<input checked="" type="checkbox"/>	Journal Textual	866	a	984	d

Figure 55: Libraries Australia Holdings Mapping Configuration Page with Mapping Rows

- 3** When you have completed adding mapping rows, click **Customize**.

Configuring a Library NUC

Use the instructions below to configure a library's NUC symbol that is different from the NUC of the Alma institution.

To configure a library NUC symbol that is different from the institution's NUC symbol:

- 1 On the Resource Management Configuration page (**Resource Management > Resource Configuration > Configuration Menu**), click **Institution NUC Symbol** under **Record Export**.
- 2 Enter the **Library Code** (as found in the 852 \$\$b) and the **Symbol** (unique to the library and different from the NUC code specified for the institution on the Publishing Profile Details page).

The screenshot shows the 'Mapping Table' configuration interface. At the top, it says 'You are configuring: Orbis Cascade Network Zone'. Below that is a 'Table Information' section with fields for 'Sub System' (INVENTORY), 'Table Name' (INSTITUTION_EXTERNAL_SYMBOL_LA), 'Updated By' (empty), and 'Last Updated' (empty). A 'Table Description' field contains the text 'Institution and library codes for publishing to Libraries Australia external systems'. Under the 'Mapping Table Rows' section, a message says 'No records were found.' In the 'Create a New Mapping Row' section, there is a 'Quick Add' button. Two input fields are shown: 'Library Code' containing 'BH' and 'Symbol' containing 'AAS'. A 'Add Row' button is located below these fields. At the bottom right are 'Cancel' and 'Customize' buttons.

Figure 56: NUC Symbol Unique to the Library and Different from the Institution's NUC Code

- 3 Click **Add Row**.
- 4 Click **Customize**.

Publishing Electronic Holdings to Google Scholar

PERMISSIONS:

To configure publishing to Google Scholar, you must have one of the following roles:

- Catalog Administrator
 - Repository Administrator
 - General System Administrator
-

To publish electronic holdings to Google Scholar, you must configure the **Publish electronic records to Google Scholar** publishing profile and run it weekly to make sure that holdings information is accurate. This publishing profile allows you to configure the settings used by Google Scholar to display holdings information for your institution.

IMPORTANT:

If your Alma institution belongs to a Collaborative Network (CN), this export process must be run at the NZ institution the day before it is run at each member institution. This allows updates to the network inventory to be included in the holdings file for each member institution.

To configure the publishing profile for Google Scholar:

- 1 On the Resource Management Configuration page in Alma (**Resource Management > Resource Configuration > Configuration Menu**), click Publishing Profiles in the Record Export section.

The Publishing Profiles page opens.

Publishing Profiles		
Profile Type	All	
Add Profile		
Active	◆ Name	◆ Description
<input checked="" type="checkbox"/>	Publish bibliographic records to OCLC	-
<input checked="" type="checkbox"/>	Publish bibliographic records to Primo	Setup the parameters for publishing bibliographic records to Primo
<input checked="" type="checkbox"/>	Publish electronic records to Google Scholar	Publish electronic records to Google Scholar
<input checked="" type="checkbox"/>	Publish electronic records to Primo Central	Publish electronic records to Primo Central
<input checked="" type="checkbox"/>	Publish holdings to Library of Australia	Upload Holdings to Library Australia
<input checked="" type="checkbox"/>	Publish holdings to OCLC	Synchronize local holdings with OCLC
Add Profile		

Figure 57: Publishing Profiles Page

- 2 In the row that contains the **Publish electronic records to Google Scholar** profile, select **Actions > Edit**. For standard configurations, the Publishing Profile Details page opens and displays the Registration Parameters section.

 Publishing Profile Details Cancel Save

Profile name *	Publish electronic records to Google Scholar
Profile description	Publish electronic records to Google Scholar
Status	<input type="radio"/> Active <input checked="" type="radio"/> Inactive
Scheduling	Not scheduled <input type="button" value="Email Notifications"/>
Registration Parameters	
Display name (institution name will be used as default)	<input type="text"/>
keywords(1)	<input type="text"/>
keywords(2)	<input type="text"/>
keywords(3)	<input type="text"/>
keywords(4)	<input type="text"/>
keywords(5)	<input type="text"/>
Label of resolver links (when article exists electronically)	<input type="text"/>
Label of resolver links (when article does not exist electronically)	<input type="text"/>
OpenURL base	<input type="text"/>
Patron IP range (enter up to 256 IP ranges, semicolon separated, e.g 123.12.12.*;122.10.10.1-123.10.10.80)	<input type="text"/>
Show resolver links only to users that come from your IP range?	<input type="radio"/> Yes <input type="radio"/> No
Contact Information for Technical Issue	
First Name *	<input type="text"/>
Last Name *	<input type="text"/>
E-mail address *	<input type="text"/>

Cancel Save

Figure 58: Publishing Profile Details Page (Standard Configuration)

NOTE:

For multicampus configurations, the Publishing Profile Details page opens and displays the Electronic profiles section, which allows you to configure Google Scholar settings per campus. For more information, see [Adding a Profile for a Multicampus Configuration on page 104](#).

- 3 In the **Status** field, select **Active** to enable the publishing profile.
- 4 In the **Scheduling** field, select a scheduling option from the drop-down list to identify when you want the publishing job to be run that is associated

with this Google Scholar publishing profile. If you select the **Not scheduled** option, the export job for this publishing profile will not run until you select a different scheduling option from the drop-down list for this profile.

- 5 Click **Email Notifications** to specify which users and email addresses will receive email notifications when the publishing profile has completed.

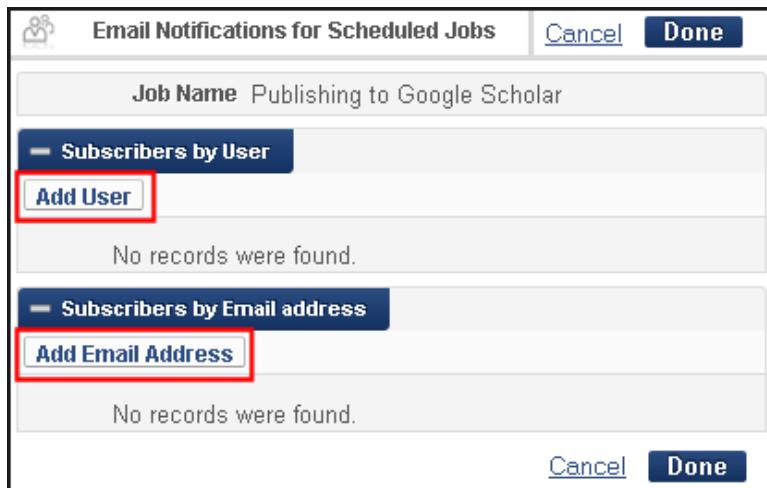


Figure 59: Email Notifications for Scheduled Jobs Page

- 6 Select the users that you want to receive email notifications.
 - a Click **Add User**.
-
- Figure 60: Add User Dialog Box
- b In the **User** field, search for and select a user name.
 - c Select the following options to specify when the email notification will be sent to the user: **Send on Success** and **Send on Error**.
 - d Click **Add** to include additional users, click **Add and Close** to add the user and also close the dialog box, or click **Close** to exit the dialog box.
 - 7 Select the email addresses that you want to receive email notifications.

- a Click **Add Email Address**.

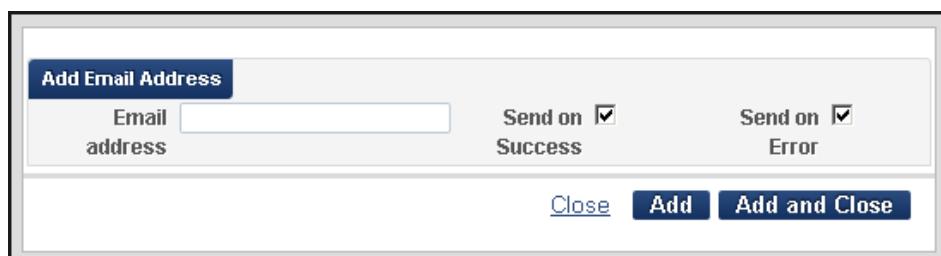


Figure 61: Add Email Address Dialog Box

- b In the **Email address** field, enter an email address.
- c Select the following options to specify when the email notification will be sent to the email address: **Send on Success** and **Send on Error**.
- d Click **Add** to include additional email addresses, click **Add and Close** to add the email address and also close the dialog box, or click **Close** to exit the dialog box.
- e Click **Done** to return to the Profile Details tab.

(Running the Google Scholar publishing profile enables Google Scholar to view the changes to the registration parameters. Refer to the next step.)

- 8 Refer to the following table to configure the parameters in the Registration Parameters section.

Table 12. Registration Parameters

Parameter	Description
Display Name	Enter the name that will display for your institution/campus in the Google Scholar preferences. If no name is provided, the display name defaults to the institution name.
Keywords 1/2/3/4/5	This field is optional and has a limit of five words or 30 characters. The keywords (such as the school's nickname) enable users to find the library when configuring their preferences in Google Scholar.

Table 12. Registration Parameters

Parameter	Description
Label of resolver links (when article exists electronically)	<p>This field is mandatory and has a limit of 25 characters. It is the label for the link that displays in Google Scholar search results.</p> <p>For example: ViewIt@MyU</p> <p>NOTE: If you have an old Google Scholar account, it is recommended that you set a new label for testing purposes, so that you can distinguish between your old and new systems. Following verification, you can change the label back to its required setting.</p>
Label of resolver links (when article does not exist electronically)	<p>This field is mandatory and has a limit of 25 characters. It defines the label for the link that displays in Google Scholar search results.</p> <p>For example: GetIt@MyU</p>
OpenURL base	<p>This field is mandatory and has a limit of 1024 characters. The value is the base URL of the service page in the institution's discovery system (such as Primo).</p> <p>For Primo, use the following format:</p> <pre>http://<primo_server_host:port>/openurl/ <primo_institution_code>/ <primo_view_code>?</pre> <p>Where the base URL includes the following elements:</p> <ul style="list-style-type: none"> ■ Primo server and port – Specify the Primo Front End server and port. In the case of multiple FE servers, use the server that serves as the load balancer. ■ Services component code – Set to openurl to use the services component. ■ Primo institution – Specify the institution code used in Primo. ■ Primo view code – Specify the code of your Service Page view. <p>For example:</p> <pre>http:// primo2.prod.alma.hosted.exlibrisgroup.com: 1701/openurl/BCL/sp_view?</pre>

Table 12. Registration Parameters

Parameter	Description
Patron IP range	<p>The range of library IP addresses that permit users to access material without signing in to the library. This field is optional. Enter up to 256 IP ranges separated with commas.</p> <p>For example:</p> <p>123.12.12.* , 122.10.10.1-123.10.10.80</p>
Show resolver links only to users that come from your IP range?	This field is optional, and indicates whether users can see the resolver links in Google Scholar results when they perform searches within the specified IP ranges only. The valid values are yes and no . The default value is no .
Contact Information for Technical Issue	Enter your institution's contact information in the following required fields: First name , Last name , and Email address .

- 9 Click **Save** to save the changes to the Google Scholar publishing profile job.
- 10 Wait approximately one week for Google Harvester to harvest the files (this operation usually occurs on Wednesdays).

IMPORTANT:

The label you configured is visible on the live Google Scholar site, which is the reason why it is recommended that you initially configure your profile using a test label. If you are concerned about the display of a test label during implementation, it is recommended that you not test Google Scholar until after "Go Live."

- 11 Verify that your Google Scholar data is correct, using the [**To verify that your Google Scholar data is correct:**](#) procedure below.

To verify that your Google Scholar data is correct:

- 1 Configure Google Scholar to work with your library:
 - a Access <http://scholar.google.com/> and click **Settings**.

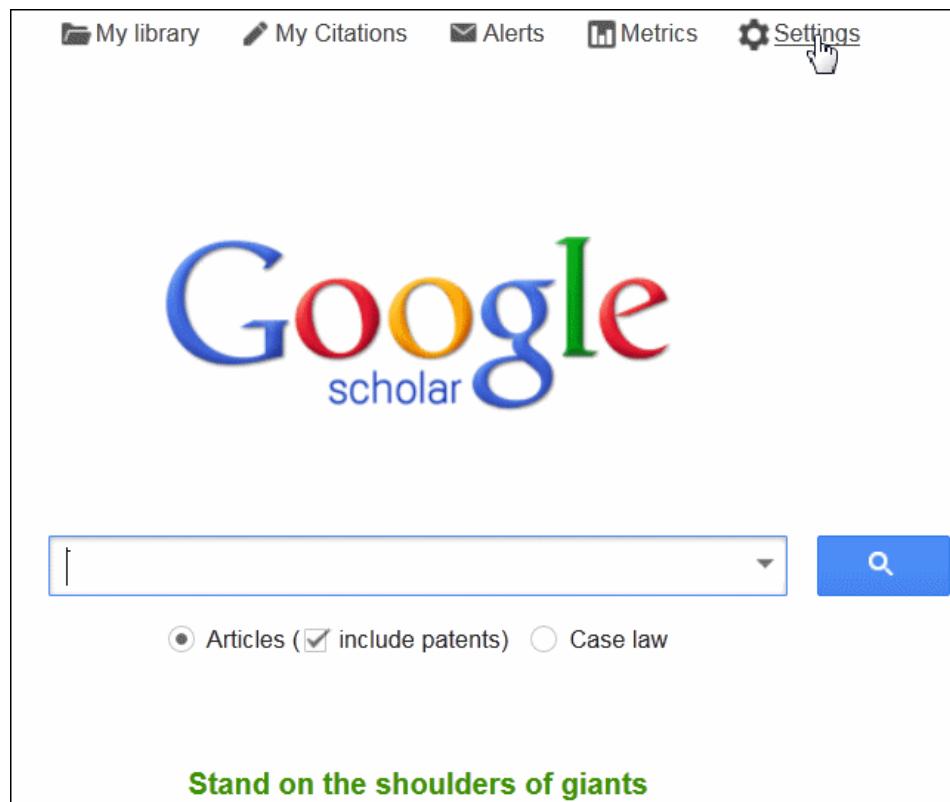


Figure 62: Accessing Google Scholar

- b Click **Library links** under **Scholar Settings**.

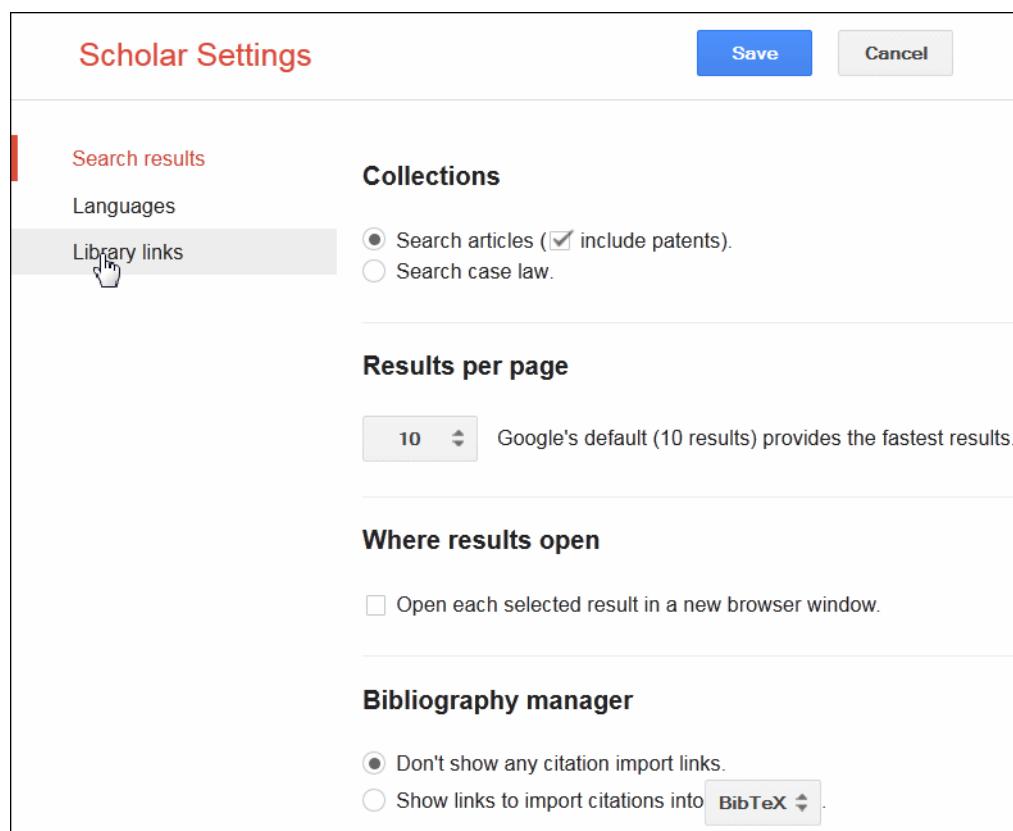


Figure 63: Google Scholar Library Links

- c Search for your library, select it, and click **Save**.

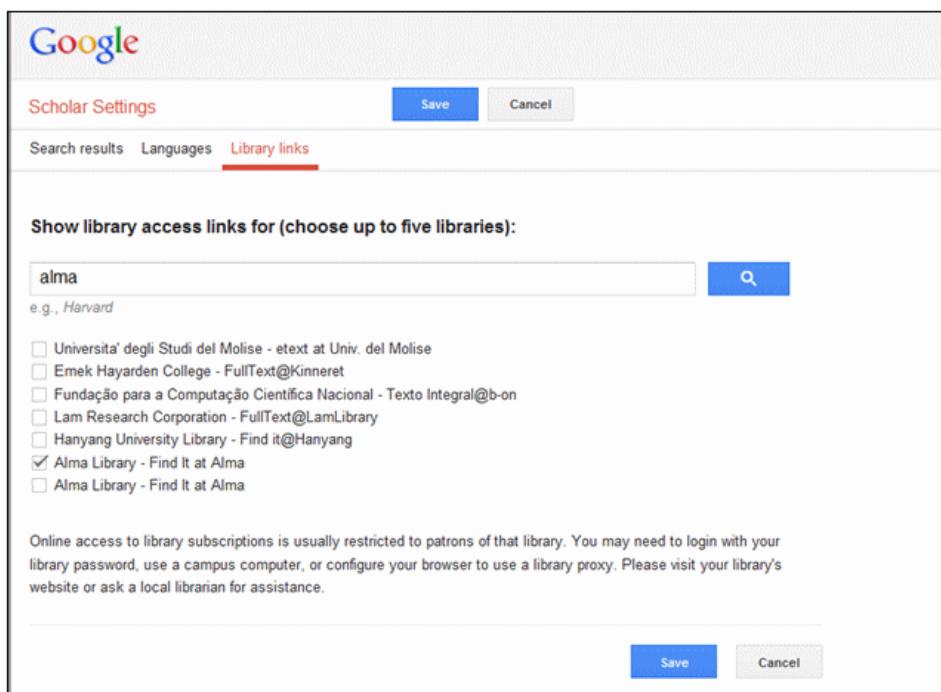


Figure 64: Select Library

- 2 Search Google Scholar for a title that is available at your library, and click **More**.

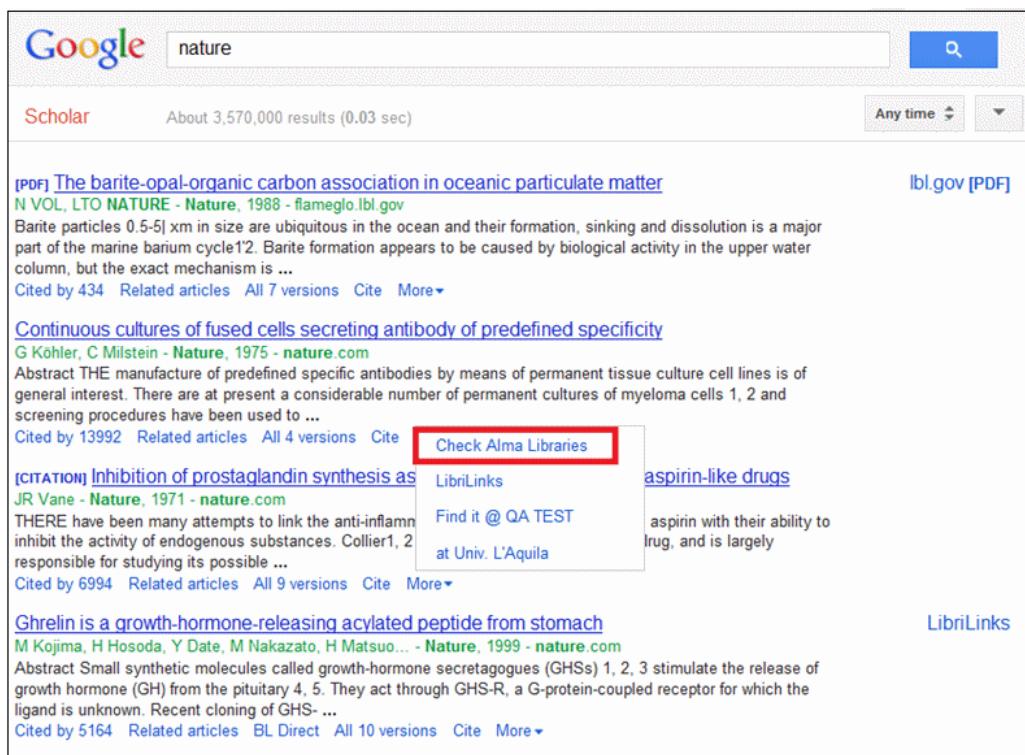


Figure 65: Search Google Scholar

- 3 Click the relevant label and verify that you are redirected to Primo.

Adding a Profile for a Multicampus Configuration

For multi-campus configurations, the **Publish electronic records to Google Scholar** publishing profile job includes an **Electronic Profiles** section, which allows you to configure different Google Scholar registration parameters per groups of libraries and campuses that are defined as inventory management groups in a multi-campus configuration. This allows you to publish separate holdings information per campus.

VIDEO:

For more information about publishing electronic records per campus/library, see the *Library-Level Publish to Google Scholar and Primo Central* video (4:08 mins).

To add a Google Scholar profile:

- 1 On the Resource Management Configuration page in Alma (**Resource Management > Resource Configuration > Configuration Menu**), click

Publishing Profiles in the **Record Export** section. The Publishing Profiles page opens.

- 2 In the row that contains the **Publish electronic records to Google Scholar** profile, select **Actions > Edit**. The Publishing Profile Details page opens and displays the Electronic profiles section.

The screenshot shows the 'Publishing Profile Details' page. At the top, there is a 'Profile name' field containing 'Publish electronic records to Google Scholar' with a red asterisk indicating it is required. Below it is a 'Profile description' field with the same value. Underneath these fields are 'Status' and 'Scheduling' options. The 'Status' field has radio buttons for 'Active' (selected) and 'Inactive'. The 'Scheduling' field is set to 'Not scheduled'. To the right of these are 'Email Notifications' and 'Save' buttons. A large section titled 'Electronic profiles' is expanded, showing an 'Add Profile' button and a message stating 'No records were found.' At the bottom are 'Cancel' and 'Save' buttons.

Figure 66: Electronic Profiles Section (Multicampus Configurations Only)

- 3 In the **Status** field, select **Active** to enable the publishing profile.
- 4 In the **Scheduling** field, select a scheduling option from the drop-down list to identify when you want the publishing job to be run that is associated with this Google Scholar publishing profile. If you select the **Not scheduled** option, the export job for this publishing profile will not run until you select a different scheduling option from the drop-down list for this profile.
- 5 Click **Email Notifications** to specify which users and email addresses will receive email notifications when the publishing profile has completed.

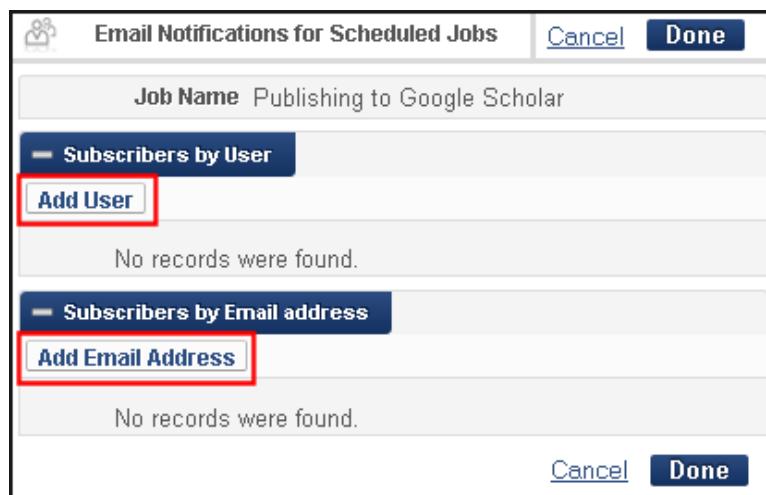


Figure 67: Email Notifications for Scheduled Jobs Page

- 6 Select the users that you want to receive email notifications.
 - a Click **Add User**.

The screenshot shows a modal dialog box titled 'Add User'. It has a 'User' input field with a search icon, and two checkboxes labeled 'Send on Success' and 'Send on Error'. At the bottom are 'Close', 'Add', and 'Add and Close' buttons.

- b In the **User** field, search for and select a user name.
- c Select the following options to specify when the email notification will be sent to the user: **Send on Success** and **Send on Error**.
- d Click **Add** to include additional users, click **Add and Close** to add the user and also close the dialog box, or click **Close** to exit the dialog box.
- 7 Select the email addresses that you want to receive email notifications.

- a Click Add Email Address.

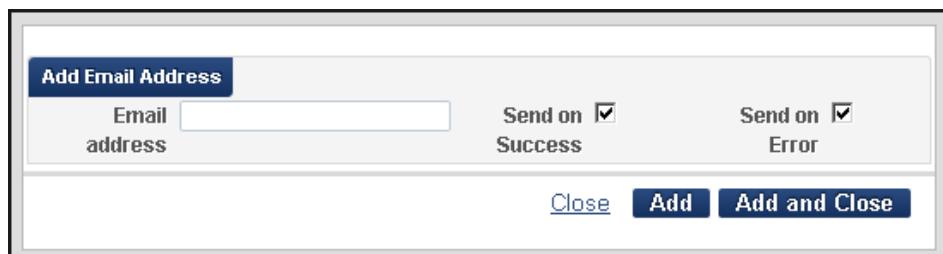


Figure 69: Add Email Address Dialog Box

- b In the **Email address** field, enter an email address.
 - c Select the following options to specify when the email notification will be sent to the email address: **Send on Success** and **Send on Error**.
 - d Click **Add** to include additional email addresses, click **Add and Close** to add the email address and also close the dialog box, or click **Close** to exit the dialog box.
 - e Click **Done** to return to the Profile Details tab.
- 8 Click **Add Profile** to open the Add Profile dialog box.

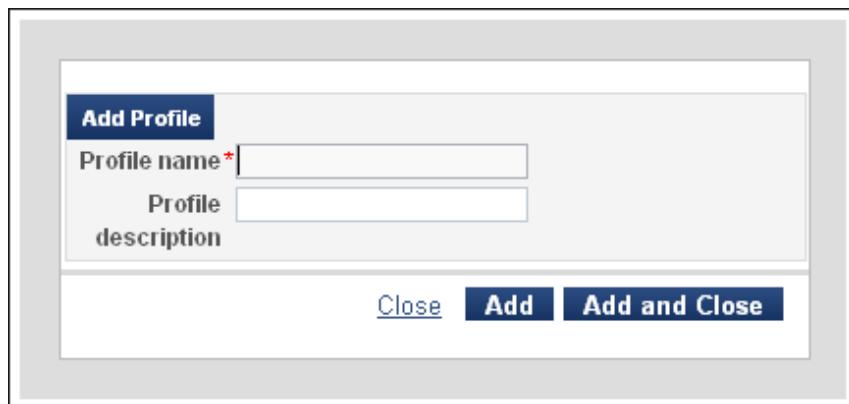


Figure 70: Add Profile Dialog Box (Multicampus Configurations Only)

- 9 Specify a name for campus or library in the **Profile name** field.
- 10 Click **Add and Close** to return to the Publishing Profile Details page.

The screenshot shows the 'Publishing Profile Details' page. At the top, there is a 'Profile name' field containing 'Publish electronic records to Google Scholar' with a red asterisk indicating it is required. Below it is a 'Profile description' field with the same value. Underneath these fields are 'Status' and 'Scheduling' options. The 'Status' section has radio buttons for 'Active' and 'Inactive', with 'Inactive' selected. The 'Scheduling' section shows 'Not scheduled'. To the right of these are 'Email Notifications' and a 'Tools' button. A sidebar on the left is titled 'Electronic profiles' and contains an 'Add Profile' button. The main content area displays a table with two rows. The first row has columns for 'Profile name' (containing 'West') and 'Profile description' (containing 'West campus'). The second row has a single 'Actions' column. At the bottom right are 'Cancel' and 'Save' buttons.

Figure 71: Publishing Profile Details Page (Added Profile)

- 11 Select **Actions > Edit** to edit the new profile. The Publishing Profile Details page for the selected profile opens.

Publishing Profile Details

Profile name *West
Profile Description West campus

Electronic profile members

No records were found.

Add another member

Add Campus Add Library

Registration Parameters

Display name

(institution name will be used as default)

keywords(1)
keywords(2)
keywords(3)
keywords(4)
keywords(5)

Label of resolver links (when article exists electronically)

Label of resolver links (when article does not exist electronically)

OpenURL base

Patron IP range (enter up to 256 IP ranges, semicolon separated, e.g 123.12.12.*;122.10.10.1-123.10.10.80)

Show resolver links only to Yes No users that come from your IP range?

Contact Information for Technical Issue

First Name
Last Name
E-mail address

Cancel Back Save

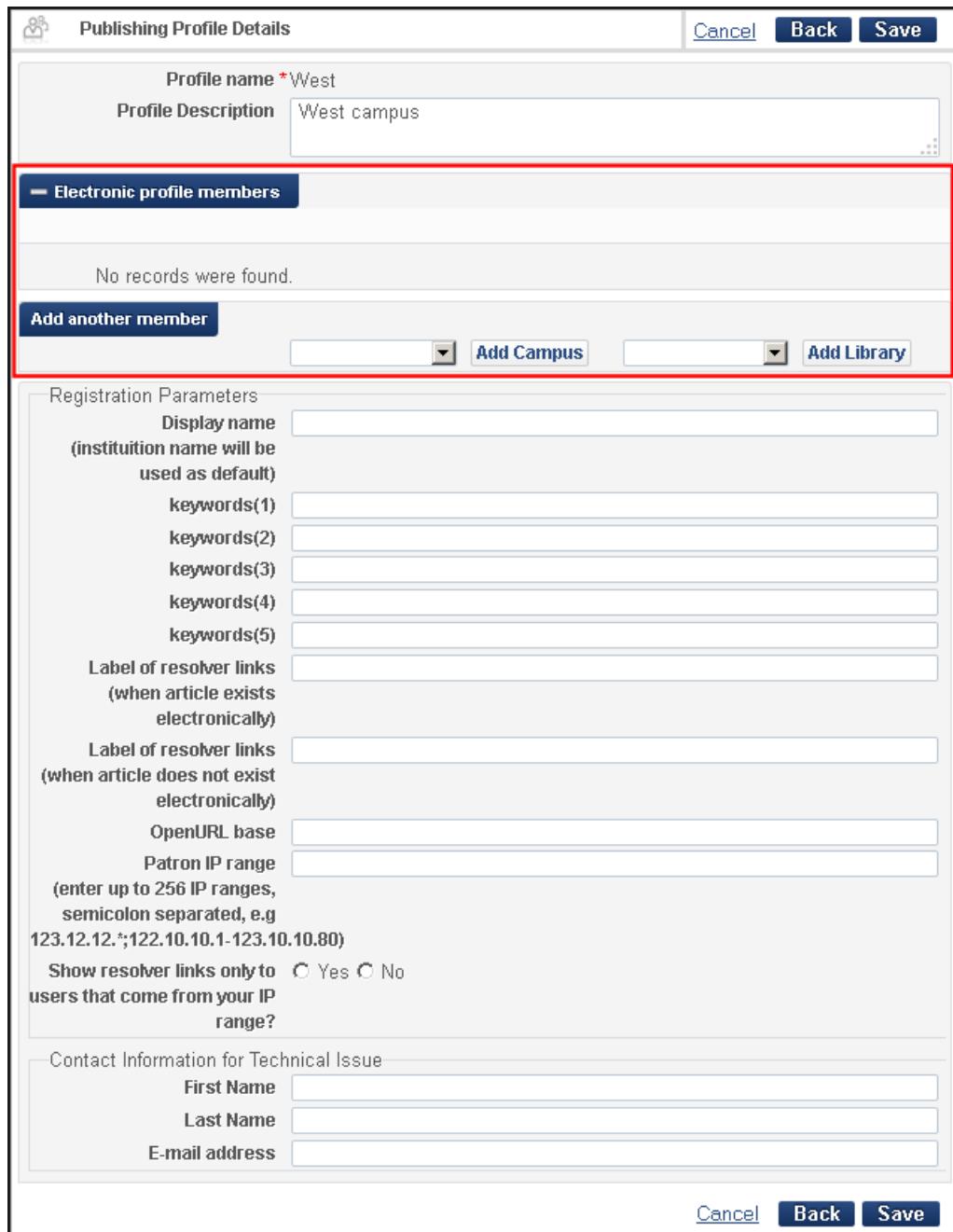


Figure 72: Publishing Profile Details Page (Electronic Profile Members)

- 12 In the **Add another member** section, use the following fields to add members to the profile group:
- **Campus** – Select a campus from the drop-down list and click **Add Campus**.

- **Library** – Select a library from the drop-down list and click **Add Library**.

The screenshot shows the 'Publishing Profile Details' page. At the top, there are buttons for 'Cancel', 'Back', and 'Save'. The main area has fields for 'Profile name' (set to *West) and 'Profile Description' (set to 'West campus'). Below this, a section titled 'Electronic profile members' lists one record: 'Law Library' under 'Member' and 'LIBRARY' under 'Type'. There is a 'Delete' button next to this entry. Below the table, there are buttons for 'Add another member', 'Add Campus', 'Law Library', and 'Add Library'. At the bottom, there is a 'Registration Parameters' section with a 'Display name' field containing '(institution name will be)'.

Figure 73: Publishing Profile Details Page (Member Added)

- 13 Configure the parameters in the Registration Parameters section using the table below that describes your options.

Table 13. Registration Parameters

Parameter	Description
Display Name	Enter the name that will display for your institution/campus in the Google Scholar preferences. If no name is provided, the display name defaults to the institution name.
Keywords 1/2/3/4/5	This field is optional and has a limit of five words or 30 characters. The keywords (such as the school's nickname) enable users to find the library when configuring their preferences in Google Scholar.

Table 13. Registration Parameters

Parameter	Description
Label of resolver links (when article exists electronically)	<p>This field is mandatory and has a limit of 25 characters. It is the label for the link that displays in Google Scholar search results.</p> <p>For example: ViewIt@MyU</p> <p>NOTE: If you have an old Google Scholar account, it is recommended that you set a new label for testing purposes, so that you can distinguish between your old and new systems. Following verification, you can change the label back to its required setting.</p>
Label of resolver links (when article does not exist electronically)	<p>This field is mandatory and has a limit of 25 characters. It defines the label for the link that displays in Google Scholar search results.</p> <p>For example: GetIt@MyU</p>
OpenURL base	<p>This field is mandatory and has a limit of 1024 characters. The value is the base URL of the service page in the institution's discovery system (such as Primo).</p> <p>For Primo, use the following format:</p> <pre>http://<primo_server_host:port>/openurl/ <primo_institution_code>/ <primo_view_code>?</pre> <p>Where the base URL includes the following elements:</p> <ul style="list-style-type: none"> ■ Primo server and port – Specify the Primo Front End server and port. In the case of multiple FE servers, use the server that serves as the load balancer. ■ Services component code – Set to openurl to use the services component. ■ Primo institution – Specify the institution code used in Primo. ■ Primo view code – Specify the code of your Service Page view. <p>For example:</p> <pre>http:// primo2.prod.alma.hosted.exlibrisgroup.com: 1701/openurl/BCL/sp_view?</pre>

Table 13. Registration Parameters

Parameter	Description
Patron IP range	The range of library IP addresses that permit users to access material without signing in to the library. This field is optional. Enter up to 256 IP ranges separated with commas. For example: 123.12.12.* , 122.10.10.1-123.10.10.80
Show resolver links only to users that come from your IP range?	This field is optional, and indicates whether users can see the resolver links in Google Scholar results when they perform searches within the specified IP ranges only. The valid values are yes and no . The default value is no .
Contact Information for Technical Issue	Enter your institution's contact information in the following required fields: First name , Last name , and Email address .

- 14 Click **Save** to return to the list of profiles in the Electronic Profiles section.
- 15 Click **Save** to save the changes to the Google Scholar publishing profile job.
- 16 Wait approximately one week for Google Harvester to harvest the files (this operation usually occurs on Wednesdays).

IMPORTANT:

The label you configured is visible on the live Google Scholar site, which is the reason why it is recommended that you initially configure your profile using a test label. If you are concerned about the display of a test label during implementation, it is recommended that you not test Google Scholar until after Go Live.

- 17 Verify that your Google Scholar data is correct, using the [To verify that your Google Scholar data is correct](#) procedure.

Z39.50 Search

PERMISSIONS:

To configure a Z39.50 Server profile, you must have the following role:

- General System Administrator
-

An institution's catalog can be made searchable by external applications. This may be required for a number of purposes—for example, if the institution serves as a copy cataloging source or participates in a resource sharing network.

For general information about the Z39.50 protocol, see <http://www.loc.gov/z3950/gateway.html#about>

If a Z39.50 Server integration profile is configured, Alma listens for incoming Z39.50 searches. If an incoming request is detected, Alma returns a Z39.50 response, which includes record information in either MARC or OPAC format, depending on your client configuration.

NOTES:

- Only one Z39.50 profile can be defined for an institution.
 - The following attributes are supported by Alma: Term (1016, 1017); Author (1, 1003, 1004); Subject (21); Title (4); ISBN (7); ISSN (8); Date (31); Identifier (12); OCLC Number (1211).
 - You must configure the Alma IP address, port, and database name on the Z39.50 client machine. The IP address/port to be configured is: <Alma server>:1921 (or 210, if you are working with Refworks – see **To configure a Z39.50 Refworks client**, below). The database name to be used is the Alma institution code—for example, 60univ_inst. The Alma server to be specified is as follows: eu.alma.exlibrisgroup.com for European libraries, na00.alma.exlibrisgroup.com or na01.alma.exlibrisgroup.com for North American libraries, and ap01.alma.exlibrisgroup.com for APAC libraries.
 - For filtering Alma's Z39.50 response at a campus level in a multicampus environment, you must add the campus code to the database name that is configured on the Z39.50 client machine using the following format: *base (institution ID)</campus code>*. For example, *base 60univ_inst/Springfield* may be used at the client Z39.50 machine where *60univ_inst* = the Alma institution code and *Springfield* = the Alma campus code. When this is implemented, Alma's Z39.50 search and present results are displayed/filtered only for resources that are owned by the campus (and its libraries). This enables institutions in a multicampus environment to provide results that belong only to libraries identified within the selected campus.
-

The following rules govern the return of MARC record information:

- MARC holdings records are returned only if the **Enrich with holdings** check box is selected (see the procedure below)
- MARC holdings records are returned only for permanent locations.
- Suppressed MARC holdings records (**Suppress from discovery** is selected for the record in the MD Editor) are excluded.
- MARC holdings records from suppressed locations (**Suppress from externalization** is selected for the location in **Fulfillment Configuration > Physical Locations**) are excluded.

- Suppressed MARC bibliographic records (**Suppress from discovery** is selected for the record in the MD Editor) and their associated holdings records are excluded.

The following rules govern the return of OPAC record information:

- OPAC holdings records are returned for both permanent and temporary locations (one holding per location).
- Suppressed OPAC holdings records (**Suppress from discovery** is selected for the record in the MD Editor) are excluded.
- OPAC holdings records from suppressed locations (**Suppress from externalization** is selected for the location in **Fulfillment Configuration > Physical Locations**) are excluded.
- Suppressed OPAC bibliographic records (**Suppress from discovery** is selected for the record in the MD Editor) and their associated holdings records are excluded.

To configure a Z39.50 search type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a Enter a code and name for the profile you are defining.
 - b From the **Integration type** drop-down list, select **Z39.50 Server**.

External System		
Code -	Name -	Integration Type -
External System		
Code * Z39.50 Server	Name * Z39.50 Search	
Integration * Z39.50 Server	Type	
<input type="checkbox"/> Default		
Description		
Created By Ex Libris (24/10/2012)		Updated By Ex Libris (24/10/2012)

Figure 74: Z39.50 Search Integration Profile Definition – Page 1

- 4 Click **Next**. The second page of the wizard opens.
- 5 Under **Actions**:
 - a Enter a user name and password (optional) for Alma to communicate with the Z39.50 client machine. If these are configured, Alma cannot be searched unless the username and password are provided.
 - b Select the **Allow access** check box to enable the Z39.50 client machine to access Alma.
 - c Select the **Enrich with holdings** check box to include holdings information, in addition to bibliographic information, in the Z39.50 response that Alma returns.

External System		
Code z3950	Name Z39.50 Search	Integration Type Z39.50 Server
Actions		
Export		
User Name	Alma	
Password	a123A567	
Allow Access *	<input checked="" type="checkbox"/>	
Enrich with Holdings *	<input checked="" type="checkbox"/>	

Figure 75: Z39.50 Search Integration Profile Definition – Page 2

- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

To configure a Z39.50 Refworks client:

- 1 In the Refworks client administrative application, select **Search > Online Catalog or Database**. The Online Catalog or Database dialog box opens.
- 2 Click the **Request a Z39.50 Site** link. The Request dialog box opens.

The screenshot shows a dialog box titled "Request a Z39.50 Site". It has two main sections: "Z39.50 Site Name" and "Details". The "Z39.50 Site Name" section contains a text input field with placeholder text "Enter the name of the Z39.50 site you would like us to add.". The "Details" section contains a larger text area with placeholder text "Enter any other details about the Z39.50 site you would like RefWorks to support.".

Figure 76: Request a Z39.50 Site

- 3 In the **Z39.50 Site Name** box, enter the name that you want to display for your institution in Refworks.
- 4 In the **Details** field, enter the following:
 - Server – The Alma server:
 - For European libraries: eu.alma.exlibrisgroup.com
 - For North American libraries: na00.alma.exlibrisgroup.com or na01.alma.exlibrisgroup.com
 - For APAC libraries: ap01.alma.exlibrisgroup.com
 - Port – Specify 210
 - Database – This is the Alma institution code, such as 01_EXL_INST
 - User and password, if defined in Alma
- 5 Click **Send request**.

Example of Refworks Client Settings

The following is an example of one Alma customer's Refworks client settings (note that this has not been verified by Ex Libris):

- URL: na01.alma.exlibrisgroup.com
- Port: 210

- Database: 01_EXL_INST
- Record Syntax: USMARC
- Element Set Name: F
- Import Filter: MARC Format
- Character Set: ANSEL/ALA/USMARC
- Requires Password: No
- Any Field: 1016
- Author Field: 1003
- Year Field: 31
- Title Field: 4
- Keyword Field: 21

Alma Resolver Augmentation

PERMISSIONS:

To configure a resolver augmentation definition profile, you must have the following role:

- General System Administrator
-

Incoming OpenURLs trigger requests to source discovery systems to augment the OpenURL metadata. The enriched OpenURL is then used to locate a matching bibliographic record (MMS).

In Alma, an integration profile defines the parameters that are used to augment incoming OpenURLs from the following systems:

- DOI
 - OAI
 - PubMed
-

NOTE:

Only one resolver augmentation profile should be defined per institution (all three of the above systems can be defined in this profile).

The following is an illustration of the augmentation workflow.

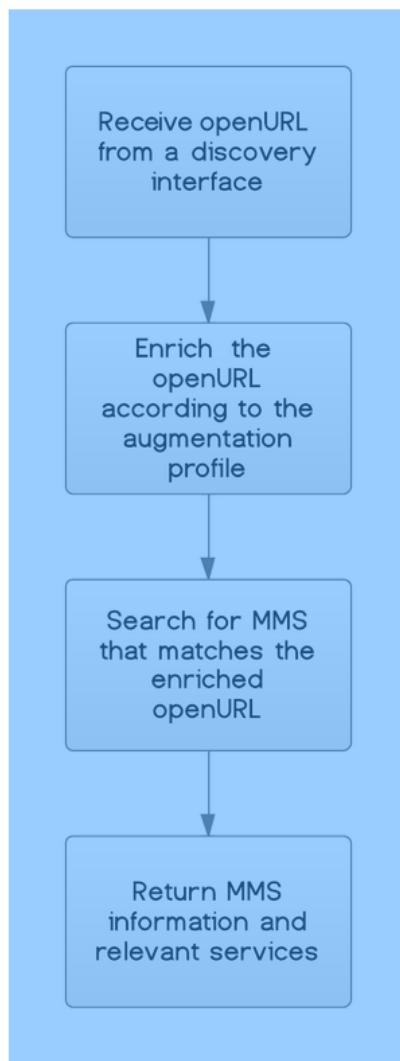


Figure 77: Alma Link Resolver Augmentation Workflow

To configure an OpenURL Resolver Augmentation type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.

- 3 Perform the following actions on this page:
 - a From the **Integration type** drop-down list, select **Resolver Augmentation**.

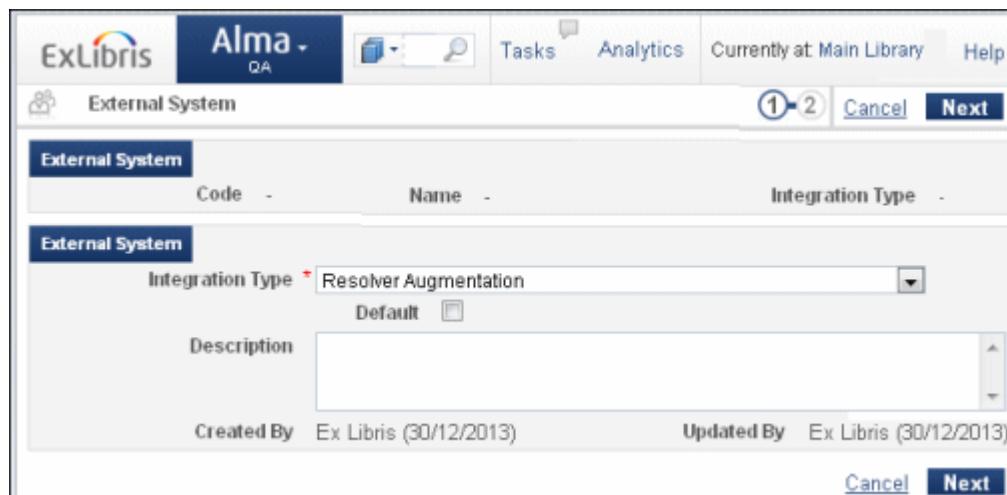


Figure 78: Resolver Augmentation Integration Profile – Page 1

NOTE:

The **Default** check box is not functional.

- 4 Click **Next**. The second page of the wizard opens.
- 5 Under **Actions**:
 - a Redefine the query timeout period (by default, 10 seconds), if necessary.
 - b For the DOI, OAI, and/or Pubmed definitions, select whether you want the profile to be active. Note that only active profiles can be run.
 - c For the DOI definition, enter a user name and password to be used in accessing the CrossRef database.

NOTE:

If you are using DOI to get metadata from CrossRef, it is necessary to enter a user name/password. If you are using DOI to link to the article level for certain collections, it is not necessary to enter a user name/password.

External System

Code AUGMENTATION	Name AUGMENTATION	Integration Type Resolver Augmentation
Actions		
Global Parameters		
Query TimeOut * 10		
DOI Definitions		
Description Query the CrossRef database using a DOI to obtain complete article-level metadata		
Status <input checked="" type="radio"/> Active <input type="radio"/> Non Active		
Query Url http://doi.crossref.org/query/xref.cgi?id=%s&pid=%s:%s&format=xsd_xml		
Username * Alma		
Password * a1234A		
OAI Definitions		
Description Query the arXiv OAI data provider to obtain metadata for articles		
Status <input checked="" type="radio"/> Active <input type="radio"/> Non Active		
Query Url http://export.arxiv.org/oai2?verb=GetRecord&identifier=oai:%s&metadataPrefix=oai_dc		
Pubmed Definitions		
Description Query Pubmed using pubmed id to obtain complete metadata for biomedical literature from MEDLINE		
Status <input checked="" type="radio"/> Active <input type="radio"/> Non Active		
Query Url http://eutils.ncbi.nlm.nih.gov/entrez/eutils/esummary.fcgi?db=pubmed&id=%s		

Figure 79: Resolver Augmentation Integration Profile – Page 2

- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

To test an OpenURL source:

- 1 Request a test account from an OpenURL-enabled source (such as EBSCO).
- 2 Set up the base URL for your test account to use your Alma resolver. For example:

```
http://alma.exlibrisgroup.com/view/uresolver/<inst_code>/  
openurl
```

The above URL should return a message requesting you to enter search parameters. The following syntax can be used to search for a specific ISSN and year:

```
http://alma.exlibrisgroup.com/view/uresolver/<inst_code>/  
openurl?rft.issn=0000-0019&rft.year=2000
```

Resolver Proxies

PERMISSIONS:

To configure a resolver proxy profile, you must have the following role:

- General System Administrator
-

To enable off-campus users to access full text services at different vendor sites, you must define a proxy server, which is used to authenticate these users.

The Alma Resolver responds to an incoming OpenURL and changes it to an electronic link by automatically including additional proxy information in the resolved URL. Some institutions use a single proxy server, in which case one proxy profile should be defined. If an institution uses several proxy servers, a proxy profile should be defined for each proxy server. You must then define the relevant proxy for each electronic collection, service, or portfolio. Refer to the following for additional proxy information:

- **Table 20 (Linking Information Tab Options)** in the *Alma Resource Management Guide* that describes the **Linking Information** tab options of the Electronic Service Editor
- **Table 27 (Electronic Portfolio Editor Page)** in the *Alma Resource Management Guide* that describes the **Linking Information** tab options of the Electronic Portfolio Editor

Refer to **Table 14** below for a description of the relationships between the proxy-enabled setting for electronic collections, services, and portfolios. Portfolios inherit the proxy-enabled setting from the service-level, proxy-enabled setting to which they are attached. As a result, you do not need to set a portfolio-level proxy-enabled setting unless you want it to be something different from the service-level setting. The electronic collection proxy-enabled settings are not inherited by portfolios.

Table 14. Proxy Relationships

Proxy Enabled for Electronic Collection Level	Proxy Enabled for Service Level	Proxy Enabled for Portfolio Level	Proxy Enabled Setting Results
N	N	N	Redirected to resource
N	N	Y	Redirected to proxy login
N	Y	N	Redirected to proxy login Portfolio inherits service setting
N	Y	Y	Redirected to proxy login

Table 14. Proxy Relationships

Proxy Enabled for Electronic Collection Level	Proxy Enabled for Service Level	Proxy Enabled for Portfolio Level	Proxy Enabled Setting Results
Y	N	N	Redirected to the resource The Electronic Collection proxy is not inherited by the service or portfolio level
Y	N	Y	Redirected to proxy login
Y	Y	N	Redirected to proxy login Portfolio inherits the service setting
Y	Y	Y	Redirected to proxy login

To configure a resolver proxy definition type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a From the **Integration type** drop-down list, select **Resolver Proxy**.
 - b Enter a name (Code) for the profile you are defining and, optionally, enter a description.
 - c Select **Default** if you want the profile you are defining to be the default proxy definition profile. (If you previously defined another profile as the default profile, you must clear the **Default** selection in this profile before selecting **Default** in the new profile).



Figure 80: Resolver Proxy Integration Profile – Step 1

- 4 Click **Next**. The second page of the wizard opens.

5 Under Actions:

- a Select the type of proxy server that you are using. Alma supports the following types: EZProxy, LIBProxy, OpenAthens, and WAM.
- b Enter the proxy URL and proxy IP address.
- c Select one of the following values from the **Use Proxy** drop-down list:
 - **Always** – The proxy is used for any resolving.
 - **Never** – The proxy is never used for resolving.
 - **Selective** – The proxy is used only for electronic collections or portfolios that have been defined to use proxies.

The screenshot shows the 'Proxy Definitions' section of the 'Resolver Proxy' integration profile. It includes fields for 'Proxy server type' (EZProxy), 'Proxy url' (http://proxyserver), 'Proxy ip' (171.13.20.11), and 'Use Proxy' (Always).

Figure 81: Resolver Proxy Integration Profile – Step 2 (Proxy Definitions)

- 6 Click Save.** The profile you configured displays in the Integration Profile List.

To edit a resolver proxy profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 From the Integration Type filter, select **Resolver Proxy**.
- 3 For the proxy profile you want to edit, select **Actions > Edit**. The General Information tab on the External System page displays.

The screenshot shows the 'General Information' tab of the 'Edit Proxy' page. It includes fields for 'Name' (CC Resolver Proxy Profile), 'Integration Type' (Resolver Proxy), and 'Description' (CC Resolver Proxy Profile).

Figure 82: General Information Tab (Edit Proxy)

- 4 After selecting the appropriate tab, make the changes to the proxy profile to match your requirements.

NOTE:

When editing the proxy profile you have the option to add contact information (address, phone, and/or email) on the Contact tab for general communication or reporting errors.

- 5 When you are finished making your changes, click **Save**.

4

Fulfillment

This section includes:

- [Courses and Reading Lists](#) on page 125
- [Resource Sharing Requests](#) on page 125
- [Requests to Remote Storage](#) on page 135
- [Dematic Automated Storage Retrieval System \(ASRS\)](#) on page 142
- [Self-Check Machines](#) on page 150
- [SMS Communications](#) on page 155

Courses and Reading Lists

Alma enables you to integrate the Alma-supplied reading list citations and their statuses into a Course Management System (CMS), and provide a link that can be used from within the CMS to view the services that the library can supply for a given citation.

For information on working with the course management Web services, see <https://developers.exlibrisgroup.com/alma/apis/soap/course>

Resource Sharing Requests

PERMISSIONS:

To configure the communication between Alma and resource sharing systems, you must have the following role:

- Resource Sharing Partners Manager
-

Resource sharing partners can be created to define the types of request/receive communication that can take place between Alma and a resource sharing system:

- **NCIP** – Communication between Alma and resource sharing systems, such as OCLC Navigator, OCLC iLLiad, VDX, and Relais D2D, via NCIP 2.0 messages. Note that Alma supports the OCLC CIRC ILL and Relais application profiles for both borrowing and lending, as well as the responder role for the following NCIP messages: RequestItem, CheckOutItem, CheckInItem, AcceptItem, LookupUser.
- **ARTEmail** – Communication between Alma and the British Library resource sharing system.
- **ISO** – Communication between Alma and another resource sharing (Alma or non-Alma) system.
- **Email** – The sending of borrowing requests by the Alma borrowing partner via email.
Email requests are sent in XSL format. The XSL used for formatting the email is **FulOutGoingEmailLetter.xsl** and is configurable on the Configuration Files page (see **Customizing Letters** in the *Alma Administration Guide*).

To configure a resource sharing partner:

- 1 On the Resource Sharing Partner List page (**Fulfillment > Resource Sharing > Partners**), click the **Add Partner** button. The Resource Sharing Partner page opens to the General Information tab.

The screenshot shows the 'Resource Sharing Partner' configuration interface. At the top, there are fields for 'Partner Code' and 'Partner Name'. Below this, there are three tabs: 'General Information' (which is selected and highlighted in blue), 'Contact Information', and 'Parameters'. The 'General Information' tab contains several input fields and dropdown menus:

- 'Code' (mandatory field, marked with a red asterisk): An empty text input field.
- 'Profile Type' (mandatory field, marked with a red asterisk): A dropdown menu set to 'ARTEmail'.
- 'System Type' (mandatory field, marked with a red asterisk): A dropdown menu set to 'BL DSS'.
- 'Average Supply Time': An input field containing the value '0'.
- 'Currency': An input field containing the value 'Currency'.
- 'Name' (mandatory field, marked with a red asterisk): An empty text input field.
- 'Status': A dropdown menu set to 'Active'.
- 'Delivery Delay': An input field containing the value '0'.
- 'Supports Borrowing': A checked checkbox.
- 'Supports Lending': A checked checkbox.
- 'Locate Profile': A file selection input field with a browse button (represented by a folder icon and a right-pointing arrow).

Figure 83: Resource Sharing Partner Page – General Information

- 2 Enter a code and name for the resource sharing partner.
- 3 In the **Profile type** field, select the type of protocol—**NCIP**, **ISO**, **Email**, or **ARTEmail**—you want to create.

NOTE:

The **NCIP-P2P** protocol displays in this field, but is not currently functional.

- 4 Optionally, select **Inactive** from the **Status** drop-down list if you do not want the partner to be active.
- 5 Select the resource sharing system with which you are integrating from the **System type** drop-down list (for Ex Libris' informational purposes). Note that this is mandatory.
- 6 Enter values in the **Average supply time**, **Delivery delay**, and **Currency** fields, and select the **Supports borrowing** and/or **Supports lending** check boxes.

If you select **Supports borrowing** and/or **Supports lending**, choose one of the workflows from the drop-down list options predefined by an administrator (in **Fulfillment > Fulfillment Configuration > Configuration Menu > Workflow Profiles**). For details on configuring workflow profiles, see [Configuring Workflow Profiles](#) in the *Alma Fulfillment Guide*.

NOTE:

The workflows selected here control the actions that can be performed on the borrowing and lending request task lists for the defined partner.

- 7 In the **Delivery delay** field, enter the number of days needed for delivery of the item. The due date calculated when the received item is loaned to the requesting patron is automatically advanced by the number of days indicated in this field.

For example, if the due date when receiving the item is June 5, 2013 and **Delivery Delay = 4**, the **Due Date** value displays on the Patron Services page as June 1, 2013, to allow 4 days for item delivery and ensure that the item arrives by its 'actual' due date of June 5.

VIDEO:

For more information about managing the due date for an interlibrary loan, see the [Interlibrary Loan With Due Date](#) video (7:01 mins).

- 8 In the **Locate profile** field, select a locate profile to determine how the partner's catalog is to be searched. The **Holding code** field appears.

The screenshot shows the 'Resource Sharing Partner' configuration page. At the top, there's a 'Partner Code' field with a value of '-'. Below it are three tabs: 'General Information', 'Contact Information', and 'Parameters', with 'General Information' being the active tab. Under 'General Information', there's a section titled 'Partner Information' with the following fields:

- 'Code *' (mandatory field)
- 'Profile Type *' set to 'ARTEmail'
- 'System Type *' set to 'BL DSS'
- 'Average Supply Time' with a value of '0'
- 'Currency' (empty field)
- 'Supports Borrowing' (checkbox checked)
- 'Supports Lending' (checkbox checked)
- 'Locate Profile' set to 'urm01BC' with a browse icon
- 'Holding Code' (mandatory field, highlighted with a red border)

Figure 84: Resource Sharing Partner Page - Holding Code Field

For details on locate profiles, see [Configuring Locate Profiles](#) in the *Alma Fulfillment Guide*.

- 9 In the **Holding code** field, enter a library or campus code. The locate process for the partner searches the library/campus indicated by the value in this field.

Specifying a holdings code enables you to do the following:

- Determine whether a requested resource is available at a specific campus of a potential supplier.
- Request the resource from that lender only if the resource is owned at the requested campus.

- 10 In the **Contact Information** tab, add address, phone number, and email information for the resource sharing partner. For instructions, see [Working With Contact Information](#) in the *Alma Administration Guide*.
- 11 In the **Parameters** tab, configure the ARTEmail, NCIP, ISO, or Email resource sharing parameters.

The screenshot shows the 'Resource Sharing Partner' configuration page with the 'Parameters' tab selected. The 'Partner Name' is set to 'Navigator'. The 'General Information' section includes fields for 'User identifier type' (Barcode), 'Request pushing method' (Open URL or Link), 'URL template' (http://www.exlibrisgroup.com), 'Enable service for guest user' (Yes), 'Disable service when' (Never or specific resource ownership conditions), 'Loan period' (4 months), and 'Default library owner' (Resource Sharing Library). The 'Request Item' section sets the 'Bibliographic record ID type' to 'other_system_number'. The 'Check-Out Item' section defines the 'Default location' as 'Lending Resource Sharing Request' and the 'Default item policy' as '1 Day Loan'. The 'Accept Item' section specifies the 'Default location' as 'Lending Resource Sharing Request', 'Default pickup library' as 'Art Library', and has an 'Automatic receive' checkbox. The 'Look Up User' section has a 'Require Authentication' checkbox set to 'No'.

Figure 85: Resource Sharing Partner Page – Parameters Tab

- **ARTEmail parameters** – You must enter the ARTEmail email address. In addition, for each customer ID you add, you must enter a code and password. Optionally, if you want to enable the ability to send requests to an alternate physical location or email address (which you can select to do in the Request Attribute section of the Resource Sharing Borrowing Request page), you may select the **Supports ADD request** check box. You may also select keyword codes—that is, request values—to include. (Refer to the *British Library's Guide to ARTEmail* for an explanation of these values.) These define the communication that is possible vis-a-vis the resource sharing partner.
- **NCIP parameters** – Configure parameters as described in the following table:

Table 15. NCIP Parameters

Section	Field	Description
General Information	User identifier type (Required)	The identification type that will be used to match users when a message contains a user ID. Select one of the options predefined by an administrator.
	Request pushing method (Required)	Select the type of link— Open URL or Link —that will be used to push the request into the resource sharing system. If you select Open URL , the Add user auto login field appears.
	URL template	The URL that is used to send patrons from Primo to the resource sharing library's Web site.
	Add user auto login to URL	Select Yes to add a user's login credentials to the URL, thereby logging the user in automatically upon accessing the URL. This field displays only when Request pushing method = Open URL . Select Yes when configuring integration with a Relais system (see Working with an NCIP Broker in the <i>Alma Fulfillment Guide</i>).
	Enable service for guest user	Indicates whether the link to the partner displays in Primo when the patron is not logged in.

Table 15. NCIP Parameters

Section	Field	Description
General Information (continued)	Disable service when	<p>Select the parameters upon which the service is to be disabled. Possible values are:</p> <ul style="list-style-type: none"> ■ Never – The service is never disabled. ■ When resource is owned by the campus – The service is disabled when physical items for the resource are owned by the campus. ■ When resource is self-owned by campus and available – The service is disabled when physical items for the resource are owned by the campus and are available (that is, they are not involved in a process). ■ When resource is owned by the library – The service is disabled when there are physical items for the resource that are owned by the library. ■ When resource is owned by the library and available – The service is disabled when there are physical items for the resource that are owned by the library, are in place, and are in an open location. <p>NOTE: When a guest user or a user without a configured campus performs any of the campus-level disabling activities, Alma disables/hides the service based on a self-ownership check done on the institution level.</p>

Table 15. NCIP Parameters

Section	Field	Description
General Information (continued)	Loan period	The amount of time the user has before having to return the item to the resource sharing library. (This may be seen by patrons in Primo.)
	Default library owner	The resource sharing library which manages the borrowing request created by this profile.
Request Item An NCIP message is sent when a lending request is registered on the borrowing side.	Resource sharing library	The single resource sharing library that is supported for all actions. Select from a list predefined by an administrator.
	Bibliographic record ID type	Defines the index that will be used to match the record that is described in the incoming RequestItem message. Select a value predefined by an administrator (configured in tag 035 – for example, an OCLC number).
	Default library (Required)	The resource sharing library to be used as the default, if there are multiple resource sharing libraries (in preparation for a future Ex Libris development).
Check Out Item An NCIP message is sent when an item is shipped from the lending side to the borrowing side.	Default location (Required)	The temporary location at the resource sharing library that will be assigned to an item that is shipped to a resource sharing borrower. Select from a list predefined by an administrator.
	Default item policy (Required)	The policy that will be attached to an item that is shipped to a resource sharing borrower. Select from a list predefined by an administrator.

Table 15. NCIP Parameters

Section	Field	Description
Accept Item An NCIP message is sent when the arrival of an item is registered on the borrowing side.	Default location (Required)	The temporary location at the receiving library. Select from a list predefined by an administrator. This location is assigned to an item that is shipped to a resource sharing borrower, unless a different location has been assigned by a Temporary Item Creation Rule.
	Resource sharing library	The resource sharing library, if there are multiple resource sharing libraries (in preparation for a future Ex Libris development).
Accept Item (continued) An NCIP message is sent when the arrival of an item is registered on the borrowing side.	Default pickup library	The default pickup location to which temporary items are transferred when an item arrives for a borrowing request. Select from a list of libraries predefined by an administrator.
	Automatic receive	Select to enable receiving resource sharing items automatically. Automatic receiving enables staff to register a Receive action in the broker system, without having to repeat the Receive action in Alma.
	Receive desk	Select a desk at which the item is to be received. The available options are the desks of the library that is specified in the Default library owner field. The value you select indicates the location where the item arrives when the AcceptItem message is received. This field displays only when Automatic receive is selected.

Table 15. NCIP Parameters

Section	Field	Description
Look Up User An NCIP message is sent when a patron attempts to create a request at the resource sharing system.	Require authentication	Select whether authentication should or should not be required for the resource sharing library's Web site. When working with a Relais broker, select No .

NOTES:

You must also configure the following parameters on the NCIP partner:

- the NCIP URL, in the following format: `https://<Alma URL>/view/NCIPServlet`
 - the AgencyID, which is your Alma institution code
 - the ApplicationProfileType, which is the code defined on the Resource Sharing Partner page (see Step 2 above)
-

■ **ISO parameters**

- **Server** – The partner's server name (or IP address)
- **Port** – the partner's ILL port number
- **ISO symbol** – the symbol by which the ILL partner is referred
- **Request Expiry** – configure when the partner's lending settings expire. Choose from the following:
 - **No expiry**: The request does not expire
 - **Expire by interest date**: The request expires on the date specified in the **Needed by** field on the Resource Sharing Borrowing Request page (displayed when creating a borrowing request).
 - **Expiry time**: The **Expiry time** field appears, where you enter a number. This value indicates the number of days after the request has been sent to the lender that the request expires.
- **Send requester information** – Select for resource sharing requests sent via the specified partner to contain the requester's information

Optionally, select **Supports ADD Address** to include the requester's email in the ILL request, enabling the lending partner to send the shipped resource directly to the requester.

NOTE:

Alma supports the following ISO Resource Sharing messages: **ILL Request, Shipped, Received, Returned, Checked-In, Answer – Unfilled, Cancel/Cancel Reply, and General Messages.**

- **Email parameters** – Enter the email address to which resource sharing borrowing requests are to be sent. Note that if you are working in a sandbox environment or in a pre-“Go Live” production environment, the entered address must be added to the Email Include List Mapping Table in **General Configuration > Configuration menu > External Systems > Allowed Emails**. For details, see [Configuring Allowed Emails](#) in the *Alma Administration Guide*).

- 12 Click **Save**. The resource sharing partner is created and appears on the Resource Sharing Partner List page.

The partner can then be selected from the **Partner** drop-down list (accessible when clicking the **Edit, Duplicate, or Send** options on the Resource Sharing Borrowing Requests page) or **Supplied to** drop-down list (accessible when clicking the **Edit or Duplicate** options on the Resource Sharing Lending Requests Task List page).

NOTE:

A **Notes** tab is available when editing the resource sharing partner (**Actions > Edit**).

Requests to Remote Storage

PERMISSIONS:

To configure a remote storage type of integration profile, you must have the following role:

- General System Administrator

To associate a remote storage profile with a remote storage facility, or update the locations that use the remote storage facility, you must have the following role:

- Fulfillment Administrator
-

When Alma places a resource request on an item that belongs to a remote storage location, an automatic job exports the requested information to a defined FTP location. The remote storage system then retrieves the file and processes it.

The files placed at the FTP location adhere to the rules defined in the `external_sys_remote_storage_export_requests.xsd` file in the

Documentation Center (under **Alma > Product Documentation > Integrations with External Systems > Sample Files**).

To configure the export of requests to a remote storage system, you must perform the following actions:

- 1 Configure an S/FTP connection to be used by Alma and the remote storage system (see [Configuring S/FTP Definitions](#) in the *Alma Administration Guide*).
- 2 Configure a remote storage type of integration profile (see below).
- 3 Associate the remote storage profile with a remote storage facility (see below).
- 4 Update the physical locations that use this remote storage facility (see below).

NOTES:

- For information on running and monitoring the remote storage export job after you have configured all of the above, see [To manually run and monitor the remote storage export job](#): on page 140.
 - The XML/NCIP ASRS is currently being developed and is not yet fully functional.
-

Alma supports integration with a Dematic Automated Storage and Retrieval System (ASRS), which efficiently stores library resources and utilizes an automated system to retrieve resources from remote storage. For details, see [Dematic Automated Storage Retrieval System \(ASRS\)](#) on page 142.

To configure a remote storage type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a Enter a code and name for the profile you are defining.
 - b From the **Integration type** drop-down list, select **Remote storage**.
 - c From the **S/FTP connection type** drop-down list, select the name of the FTP connection that you previously defined.
 - d Optionally, enter a description of the integration you are configuring.

The screenshot shows a configuration page for an external system. At the top, there are three tabs: 'External System' (selected), 'Code -', 'Name -', and 'Integration Type -'. Below these tabs, the 'External System' tab is expanded, showing the following fields:

- Code:** Remote Storage
- Integration Type:** Remote Storage
- S/FTP Connection:** ftp1
- Description:** (empty)

At the bottom of the page, it says 'Created By Ex Libris (24/10/2012)' and 'Updated By Ex Libris (24/10/2012)'.

Figure 86: Remote Storage Integration Profile Definition – Page 1

4 Click **Next**. The second page of the wizard opens.

The screenshot shows the 'Actions' configuration page for the external system. It includes the following sections:

- Remote Storage Integration type:** XML
- Export Requests:**
 - Active:** Active Non Active
 - Export File Path:** (empty)
 - Request types to export for schedule:**
 - Hold request:** No Yes
 - Patron digitization:** No Yes
 - Library digitization:** No Yes
 - Move request:** No Yes
 - Work Order:** No Yes
 - Schedule frequency:** Not scheduled- Request types to export for running job:**
 - Hold request:** No Yes
 - Patron digitization:** No Yes
 - Library digitization:** No Yes
 - Move request:** No Yes
 - Work Order:** No Yes

Figure 87: Remote Storage Integration Profile Definition – Page 2

- 5 In the **Export Requests** section:
 - a Select whether you want the profile to be active. Note that only active profiles can be run.
 - b From the **Plugin** drop-down list, select the out-of-the-box plug-in to be used.
 - c In the **Export file path** field, enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified Alma in the **Sub-directory** field during S/FTP connection configuration and you enter remote storage in the **Export file path** field, the invoices are exported to the Alma/remote storage directory.
 - d Under **Request types to export for schedule**, select **Yes** for the request types you want to export with scheduled integration profile export jobs. In the **Schedule frequency** field, select the frequency by which the export job is to run.
 - e Under **Request types to export for running job**, select **Yes** for the request types you want to export with manually run integration profile export jobs.
- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

When the scheduled/manual job runs, one barcode is sent per request, and the following new fields are displayed in the XML:

- Shipping Address of the target pickup location or requesting partner if the request is a resource sharing request
- MMS ID
- Item ID
- Library Code of the Target Pickup Location

The item that is automatically selected by the system is marked as **Not Available**, with **Process Type = Requested**.

When configuring a Dematic ASRS remote storage integration profile for a Dematic ASRS system, you must run the see [Updating Dematic ASRS Inventory](#) on page 145.

To associate a remote storage profile with a remote storage facility:

- 1 On the Fulfillment Configuration page (**Fulfillment > Fulfillment Configuration > Configuration Menu**), click **Remote Storage** under **Physical Locations**. The Remote Storage List page opens.

Code	Name	Description	Transit Scheme	Priority	Actions
RS	Remote Storage	-	Owning Desk	Highest	

Figure 88: Remote Storage List Page

- 2 Select **Actions > Edit** for the remote storage facility you want to associate with the previously defined remote storage profile, or click the **Add Remote Storage** button to create a new remote storage facility with which you want to associate the remote storage profile.
- 3 On the Edit Remote Storage Facility page or in the Add Remote Storage dialog box, select the previously defined remote storage profile from the **Integration profile** drop-down list. (For information on the other fields, see [Adding a Remote Storage Facility](#) in the *Alma Fulfillment Guide*.)
- 4 In the **Calendar Management** section of the Edit Remote Storage Facility page, edit the details that define when the remote storage facility is open and closed. For details, see [Adding/Editing Calendar Details](#) in the *Alma Administration Guide*.
- 5 Click **Save** to store your changes to the remote storage facility details.

To update the physical locations that use the remote storage facility:

- 1 On the Fulfillment Configuration page (**Fulfillment > Fulfillment Configuration > Configuration Menu**), select the library for which you want to update the physical locations from the **You are configuring** drop-

down list at the top of the page, and then click the **Physical Locations** link. The Physical Locations List page opens.

The screenshot shows a web-based application interface titled "Physical Locations List". At the top, there are navigation links for "Back", "Organization Unit List", and "Tools". Below the title, a message says "You are configuring: Law Library". There are search fields for "Find" and "in", with dropdowns for "Code" and "Go". A toolbar below the search includes "Add Location" and "Tools". The main area displays a table with 13 rows of data. The columns are labeled "Code", "Name", "Location Type", and "Fulfillment Unit". Each row contains a "Actions" button. The data includes:

Code	Name	Location Type	Fulfillment Unit	Actions
ATLAS	Atlas	Open	Limited Circulating Material	Actions
AV	Audio-Visual	Open	Media and Equipment Circulating Material	Actions
CASEB	Casebooks	Open	Limited Circulating Material	Actions
COURS	Course Reserves Collection	Open	Reserve Location Circulating Material	Actions
GEN	General	Open	Regular Location Circulating Material	Actions
ILL	ILL material	Open	Regular Location Circulating Material	Actions
SAFE	In security safe	Open	Limited Circulating Material	Actions
INSLS	Institute for the Advancement of Library Science	Open	Limited Circulating Material	Actions
DEWEY	Melville Dewey Memorial Collection	Open	Limited Circulating Material	Actions
PER	Periodicals	Open	Limited Circulating Material	Actions
REF	Reference	Open	Limited Circulating Material	Actions
RESV	Reserves	Open	Reserve Location Circulating Material	Actions
STAFF	Staff Workroom	Open	Limited Circulating Material	Actions

Figure 89: Physical Locations List Page

- 2 Select **Actions > Edit** for the physical location whose remote storage facility you want to update, or click the **Add Location** button to create a new physical location with which you want to associate the remote storage facility you previously updated.
- 3 On the Edit Physical Location page or in the Add Location dialog box, select the previously updated remote storage facility from the **Remote storage** drop-down list.
- 4 Click **Save** or **Add and Close**. The physical location is updated with the remote storage facility you previously associated with the remote storage integration profile you defined.

Perform the above steps for each physical location whose remote storage facility you want to update.

To manually run and monitor the remote storage export job:

On the Integration Profile List page, select **Actions > Edit** for the remote storage profile you defined, click the **Actions** tab, ensure that the **Active** radio button in the **Export Requests** section is selected, and then click the **Run** button.

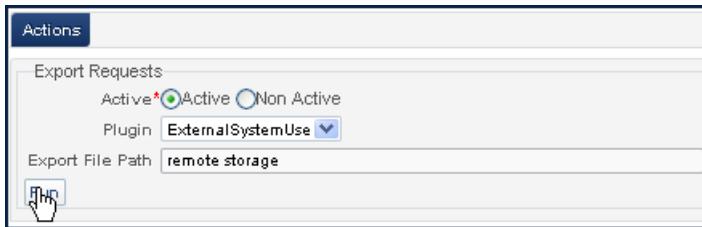


Figure 90: Running the Remote Storage Export Job

The job runs as soon as the system can accommodate it. If email notifications are enabled in Alma, you receive notification via email.

You can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate remote storage profile on the Integration Profile List page. For example, the following figure shows a job that completed successfully, processing one file.

Job ID	Status	User	Time Started	Time Ended	Files Processed	Files Failed	Action
34953450000121	Completed Successfully	admin1	2012-07-12 00:55:20	2012-07-12 00:55:20	1	-	

Figure 91: Export Job History

NOTE:

The status **Completed Successfully** does not mean that requests were exported successfully. Rather, it means that the job completed without error.

You can use the **Actions** button on this page to access a more detailed job report, including statistics on the number of request records and request records with exceptions processed (**Actions > View**), events that occurred during the job processing (**Actions > Events**), and a report of errors (**Actions > Error reporting**).

Dematic Automated Storage Retrieval System (ASRS)

PERMISSIONS:

To configure ASRS functionality, you must have the following role:

- General System Administrator

To place requests for remote storage items, you must have the following role:

- Fulfillment Services Operator
-

An Automated Storage and Retrieval System (ASRS) is a system for storing library resources using special cost-effective storing techniques, and based on an automated system which is used whenever a resource needs to be retrieved from the storage. The ASRS utilizes an automated retrieval machine and a special integrated software control system to provide fully automated, high density media archiving.

The Automated Remote Storage must be notified each time items are added or removed from the remote storage. Alma sends messages to the remote storage so that the ASRS can update its own database of inventory stored in the remote storage.

Alma sends an Add Item message to the Dematic ASRS when an item is added or moved to a Dematic ASRS location or when its barcode is changed. The Inventory Add (IA) message that Alma sends to the Dematic ASRS contains the following:

- Barcode
- Title
- Location
- Call number
- Author

Additionally, Alma sends a message to the remote storage whenever a request is created, so that the ASRS system can automatically pull the proper bin off the shelf and supply the requested item.

To activate the Dematic ASRS integration, the following conditions must be met:

- An Integration Profile is defined for the Dematic ASRS
- A Remote Storage facility is defined for the Dematic ASRS and is linked to the Integration Profile
- The Dematic ASRS locations are linked to a Remote Storage facility that has been defined for the Dematic ASRS

- The items stored at the Dematic ASRS system belong to one or more dedicated Dematic ASRS locations
- Stunnel is configured to facilitate communications between Alma and the Dematic ASRS

To utilize Dematic ASRS functionality and invoke its configurations, you must perform the following actions:

- Request a Dematic ASRS item (see [Requesting a Dematic ASRS item](#) on page 143)
- Update Dematic ASRS inventory (see [Updating Dematic ASRS Inventory](#) on page 145)
- Configure the Dematic ASRS (see [Configuring the Dematic ASRS](#) on page 146)

Requesting a Dematic ASRS item

To request a Dematic ASRS item, perform the following procedure:

To request a Dematic ASRS item:

- 1 On the Repository Search page ([Resource Management > Search and Sets > Repository Search](#)), perform a search for a title or item whose location is connected to remote storage, or whose integration profile has a type of **ASRS Remote Storage**.
- 2 Click Request to place a request. If an ASRS item is available to fulfill the request, the item's **Process Type = Requested** on the Repository Search page.

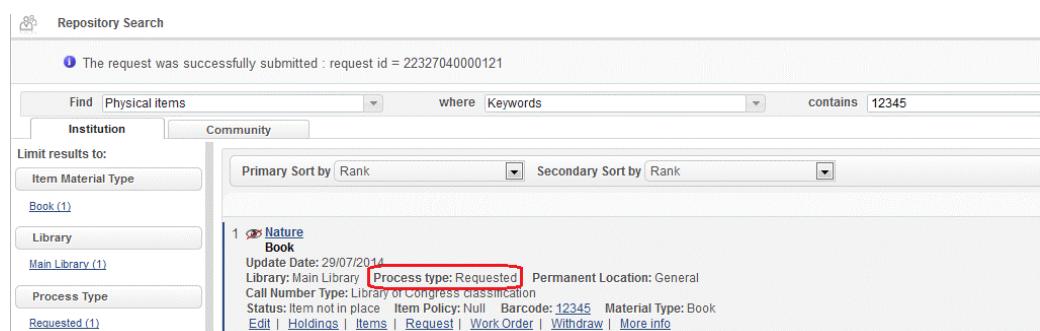


Figure 92: Repository Search Page – Process Type = Requested

The request displays on the Resource Request Monitoring page ([Fulfillment > Resource Requests > Monitor Requests & Item Processes](#)) with **Workflow Step = Request Communicated to Storage**.

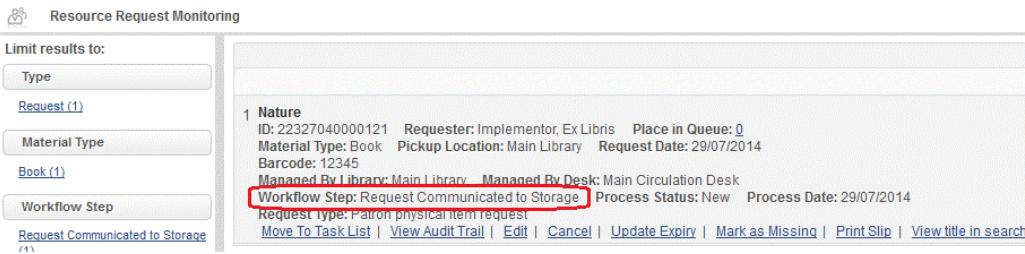


Figure 93: Resource Request Monitoring Page – Workflow Step = Request Communicated to Storage

If the Dematic Interface installed on the ASRS server supports outgoing messages from the ASRS to Alma and the ASRS sends a Request Filled (RF) message response, the **Process Status** on the Resource Request Monitoring page changes to **ASRS Approved**.

NOTE:

Process Status = ASRS Approved displays only when the Dematic ASRS message indicates that the request can be fulfilled and the item can be provided. If the Dematic ASRS system indicates that the request cannot be fulfilled, the request is either sent back to the request queue with the item marked as **Missing**, or is canceled. See the following example.

For example:

If the Dematic interface has been configured to respond with an RF message for every request placed by Alma, the message's Status Code will reflect whether or not the request can be supplied by the Dematic ASRS, and if not, why it cannot be fulfilled.

The **Status Code** field of the RF message indicates whether the request can be fulfilled, as follows:

- If Status Code is **000** – Request can be fulfilled, and ASRS sends the item to Alma
 - If Status Code is not **000** – Request cannot be fulfilled and is either sent back to the request queue or is canceled
 - The following Status Codes trigger a **Missing** item: **002, 003**
 - The following Status Codes indicate that the item cannot be fulfilled but do not trigger a **Missing** item: **006, 007**
- 3 When the item arrives at the institution, it is scanned into Alma and is transited (if necessary) and placed on the Hold Shelf until the requesting patron picks up the item.
 - 4 When the patron returns the item, the item's status and process type depend on the **Define as In Transit to Remote Storage at Return** setting, as configured in Remote Storage Configuration:

- If this setting is selected – **Process Type = In Transit to Remote Storage** and **Status = Item Not in Place**.

When the item arrives at the remote storage location, the **Process Type** is removed and the Dematic ASRS sends an Item Return (IR) message to Alma which changes the **Status** to **Item in Place**.

Select this setting when the Dematic ASRS can send an Item Return (IR) message.

- If this setting is not selected – When the patron returns the item, **Status = Item in place**.

When the customer's system does not support sending an Item Return (IR) message from the ASRS to Alma, do not select this setting.

When an ASRS system needs to be automatically updated by Alma with the addition or removal of items from the remote storage facility, the Inventory Remote Storage Update job must be activated (see [Updating Dematic ASRS Inventory](#), below).

Updating Dematic ASRS Inventory

You must run the Inventory Remote Storage Update job to update the ASRS with inventory changes.

To run the inventory job to update the ASRS with inventory changes:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), configure the Dematic ASRS integration profile, as described in [Configuring a Dematic ASRS Integration Profile](#) on page 146.
 - 2 Click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
 - 3 Select from the following options:
 - To schedule the Inventory Remote Storage Update Job to run automatically, select the interval to run the job in the **Schedule inventory remote storage update job** field, and click **Save**.
- Scheduled jobs are displayed on the Monitor Jobs page, on the Scheduled tab (**Administration > Manage Jobs > Monitor Jobs**), with the following name:
- Inventory Remote Storage Update <Integration Profile Name>**

	Active	Name	Job Category	Creator	Schedule
1	<input type="checkbox"/>	Inventory - Electronic Package Activation/Deactivation	Repository	saas_admin	-
2	<input checked="" type="checkbox"/>	MMS - Build Record Relations	Repository	exl_support	Every day at 09:00 AM
3	<input checked="" type="checkbox"/>	Authorities - Handle Local Authority Record Updates	Repository	exl_support	Every day at 08:00 AM
4	<input checked="" type="checkbox"/>	Authorities - Link BIB Headings	Repository	exl_support	Every day at 11:00 AM
5	<input checked="" type="checkbox"/>	Authorities - Preferred Term Correction	Repository	exl_support	Every day at 01:00 PM
6	<input type="checkbox"/>	Inventory Remote Storage Update - Remote Storage System	Repository	exl_support	Every 2 hours
7	<input checked="" type="checkbox"/>	Inventory Remote Storage Update - AUGMENTATION1	Repository	exl_support	Every 2 hours

Figure 94: Monitor Jobs Page – Inventory Remote Storage Update Job

- To run the Inventory Remote Storage Update Job manually, click the **Run Inventory Remote Storage Update Job** button.
The job's output displays on the Job Report page (on the **Monitor Jobs > Completed** tab, select **Actions > Report**).

Configuring the Dematic ASRS

Before requesting a Dematic ASRS item, you must ensure that the ASRS configuration has been properly invoked. This includes:

- [Configuring a Dematic ASRS Integration Profile](#) on page 146
- [Configuring Stunnel](#) on page 148
- [Configuring Remote Storage](#) on page 150
- [Configuring Locations](#) on page 150

Configuring a Dematic ASRS Integration Profile

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.

The form contains the following fields:

- Code**: A dropdown menu currently set to "Code".
- Name**: A dropdown menu currently set to "Name".
- Integration Type**: A dropdown menu currently set to "Remote Storage".
- System (for Ex Libris purposes)**: A dropdown menu currently set to "informational purposes".
- Description**: A text area labeled "Default" with a checkbox next to it.

Figure 95: External System Page – Page 1 of Wizard

- 3 In the **Code** and **Name** fields, enter a code and name for the profile, respectively.
- 4 In the **Integration type** field, select **Remote Storage**. The **System (for Ex Libris' informational purposes)** field appears.
- 5 In the **System (for Ex Libris' informational purposes)** field, select **Dematic ASRS**.
- 6 Click **Next**. The second page of the wizard opens.

The screenshot shows the 'External System' configuration page. At the top, there's a header with a 'Back' button and a 'Save' button. Below the header, the title 'External System' is displayed above a table. The table has two rows: 'Code' with value '123' and 'Name' with value '123'. Under the 'Actions' section, there's a dropdown menu labeled 'Integration type' which is currently set to 'Remote Storage'. A small note below the dropdown says 'Integration type'.

Figure 96: External System Page – Page 2 of Wizard

- 7 In the **Integration type** field, select **Dematic ASRS**. The page refreshes and displays additional fields.

The screenshot shows the same 'External System' configuration page after step 7. The 'Integration Type' dropdown now shows 'Remote Storage'. Below it, a new section titled 'ASRS Parameters' is visible. It contains three input fields: 'Remote host name', 'Remote port', and 'User identifier type' (set to 'Student ID'). There's also a 'Download Certificate' button. Further down, under 'Inventory updates job parameters', there are several settings: 'Active inventory remote storage' (radio buttons for 'Active' and 'Non Active'), 'Schedule inventory remote storage update job' (dropdown set to 'Not scheduled'), and 'Last run date of inventory remote storage update job (UTC)' (a date picker). At the bottom of this section is a 'Run Inventory Remote Storage Update Job' button.

Figure 97: External System Page – Page 2 of Wizard

NOTE:

The **XML/NCIP** option in the **Integration type** field is currently under development.

- 8 In the **Remote host name** field, enter the Dematic ASRS host name, which is the same value as the hostname in the **Alma Incoming** entry in the Stunnel configuration's **Connect** field.

- 9 In the **Remote port** field, enter the local port that receives messages from Alma. This value is the same port as in the **Alma Incoming** entry in the Stunnel configuration's **Accept** field.
- 10 In the **Active inventory remote storage job** field, select **Active**.
- 11 In the **Schedule inventory remote storage job** field, select the relevant scheduling for the inventory job to run the job automatically.
- 12 Select from the relevant option to run the Inventory Remote Storage Update job manually (enter a value in the **Schedule inventory remote storage update job** field), or automatically (click the **Run Inventory Remote Storage Update Job** button). For details, see **To run the inventory job to update the ASRS with inventory changes:** on page 145.

Configuring Stunnel

- 1 Download Stunnel (<https://www.stunnel.org/downloads.html>) and install it on the machine on which ASRS is being configured.
- 2 Edit the Stunnel configuration, as follows:
 - a Navigate to **Stunnel Menu > Configuration > Edit Configuration**. The configuration page opens.

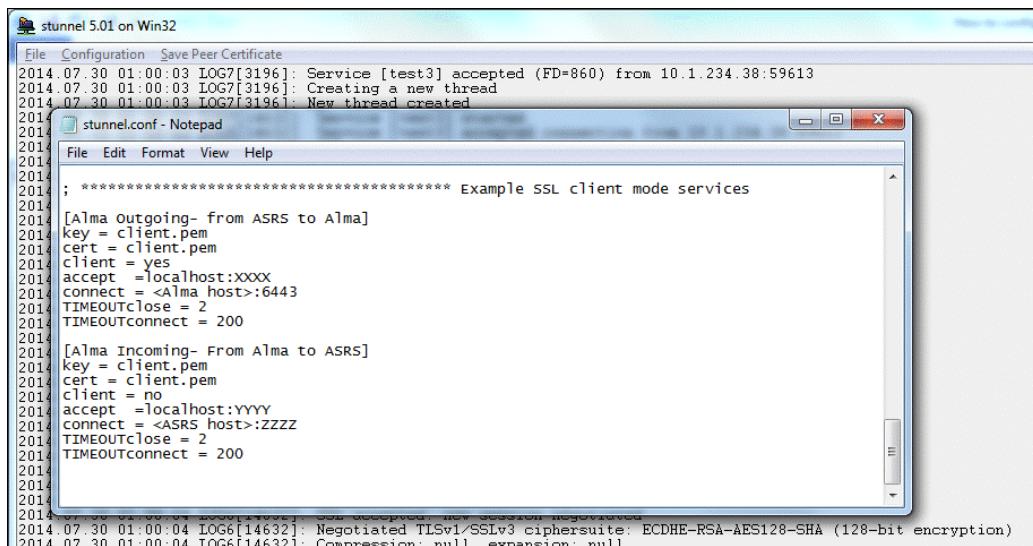


Figure 98: Stunnel Configuration Page

- b Configure the parameters as depicted in the image above:
[Alma Outgoing- from Dematic ASRS to Alma section]
 - **key = client.pem** //File name for the certificate
 - **cert = client.pem**

- **client = yes**
- **accept = localhost:XXXX** // Stunnel machine - receive messages from localhost in XXXX
- **connect = <Alma host>:6443** //Alma server - sends the message to Alma in 6443
- **TIMEOUTclose = 2**
- **TIMEOUTconnect = 200**

[Alma Incoming- From Alma to Dematic ASRS section]

- **key = client.pem**
- **cert = client.pem**
- **client = no**
- **accept =localhost:YYYY** // Stunnel machine- same port in Integration Profile
- **connect = <ASRS host>:ZZZZ** //Dematic ASRS server
- **TIMEOUTclose = 2**
- **TIMEOUTconnect = 200**

In the above examples, customize the XXXX, YYYY, and ZZZZ ports, as follows:

- **XXXX:** The port to which the Dematic ASRS system sends its messages (Stunnel is listening on this port)
- **YYYY:** The local port that receives messages from Alma
- **ZZZZ:** The local port that receives messages in the ASRS system

NOTE:

The **YYYY** port must be open on the library's firewall.

The following diagram illustrates the information flow from the Dematic ASRS to Alma and back using the Stunnel.

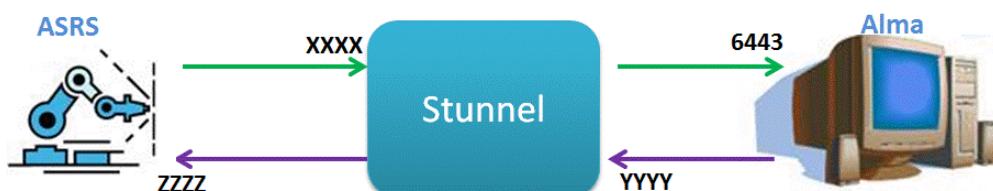


Figure 99: Stunnel ASRS/Alma Flow

- 3 Download a certificate, as follows:

- a On the External System page's Actions tab (**Administration > General Configuration > Configuration Menu > External Systems > Integration Profiles**, select **Actions > Edit** for an Integration Profile), click **Download Certificate**.
 - b Save the certificate in the Stunnel directory.
- 4 Reload Stunnel configuration by selecting **Configuration > Reload Configuration** on the Stunnel menu. If configuration is successful, the **Configuration successful** message displays in the Stunnel log.

```
2014.07.29 17:45:24 LOG6[3196]: Loading cert from file: C:\Program Files (x86)\stunnel\client.pem
2014.07.29 17:45:24 LOG6[3196]: Loading key from file: C:\Program Files (x86)\stunnel\client.pem
2014.07.29 17:45:24 LOG7[3196]: Private key check succeeded
2014.07.29 17:45:24 LOG7[3196]: SSL options set: 0x01000004
2014.07.29 17:45:24 LOG6[3196]: Initializing service [test3]
2014.07.29 17:45:24 LOG6[3196]: Loading cert from file: C:\Program Files (x86)\stunnel\client.pem
2014.07.29 17:45:24 LOG6[3196]: Loading key from file: C:\Program Files (x86)\stunnel\client.pem
2014.07.29 17:45:24 LOG7[3196]: Private key check succeeded
2014.07.29 17:45:24 LOG7[3196]: DH initialization
2014.07.29 17:45:24 LOG7[3196]: Could not load DH parameters from C:\Program Files (x86)\stunnel\client.pem
2014.07.29 17:45:24 LOG7[3196]: Using hardcoded DH parameters
2014.07.29 17:45:24 LOG7[3196]: DH initialized with 2048-bit key
2014.07.29 17:45:24 LOG7[3196]: ECDH initialization
2014.07.29 17:45:24 LOG7[3196]: ECDH initialized with curve prime256v1
2014.07.29 17:45:24 LOG7[3196]: SSL options set: 0x01000004
2014.07.29 17:45:24 LOG5[3196]: Configuration successful
2014.07.29 17:45:24 LOG7[3196]: Closing service [test1]
2014.07.29 17:45:24 LOG7[3196]: Service [test1] closed (FD=700)
2014.07.29 17:45:24 LOG7[3196]: Sessions cached before flush: 1
2014.07.29 17:45:24 LOG7[3196]: Sessions cached after flush: 0
2014.07.29 17:45:24 LOG7[3196]: Service [test1] closed
2014.07.29 17:45:24 LOG7[3196]: Closing service [test3]
2014.07.29 17:45:24 LOG7[3196]: Service [test3] closed (FD=476)
2014.07.29 17:45:24 LOG7[3196]: Sessions cached before flush: 4
2014.07.29 17:45:24 LOG7[3196]: Sessions cached after flush: 0
2014.07.29 17:45:24 LOG7[3196]: Service [test3] closed
2014.07.29 17:45:24 LOG7[3196]: Service [test1] (FD=476) bound to 127.0.0.1:2222
2014.07.29 17:45:24 LOG7[3196]: Service [test3] (FD=700) bound to 10.1.116.119:5555
2014.07.29 17:45:24 LOG7[3196]: Signal pipe is empty
```

Figure 100: Stunnel Log

Configuring Remote Storage

See [Adding a Remote Storage Facility](#) in the *Alma Fulfillment Guide*.

Configuring Locations

See [Adding a Physical Location](#) in the *Alma Fulfillment Guide*.

Self-Check Machines

PERMISSIONS:

To configure a self-check type of integration profile, you must have the following role:

- General System Administrator

To associate a self-check profile with a circulation desk, you must have the following role:

- Fulfillment Administrator
-

VIDEO:

Learn about Self-Check machines in the *Integration with Self-Service Systems* video (23:24 mins).

Alma receives and acts upon received SIP messages from SIP 2.0 self-check machines and returns responses to these machines. For details on the integration with self check systems, see <https://developers.exlibrisgroup.com/alma/integrations/selfcheck>

To configure the communication between Alma and a self-check machine, you must perform the following actions:

- 1 Configure a self-check type of integration profile (see the procedure below).
 - 2 Associate the self-check profile with a circulation desk (see the procedure below). The self-check machine will be able to provide services only to locations that are serviced by this circulation desk. (Note that a circulation desk, if defined as a primary circulation desk, can service other libraries – see **Configuring Fulfillment Relationships** in the *Alma Fulfillment Guide*).
-

NOTE:

If your institution is in the implementation phase, you cannot perform this step. Contact your Ex Libris project manager to perform this for you.

- 3 Configure a secure transmission between Alma and the self-check machine, following the instructions located in the Ex Libris developers network: <https://developers.exlibrisgroup.com/alma/integrations/selfcheck/stunnel>. These procedures should be performed after you configure a self-check integration profile in Alma.
-

IMPORTANT:

A separate self-check profile and corresponding certificate (see Step 5) are required for each group of self-check machines that have different capabilities (for example, one for machines that support fee payments and another for machines that support only check-in/checkout). A separate profile is also mandatory for each machine that is linked to a separate circulation desk, as each profile can be linked to only one circulation desk. Note that the certificate you obtain is valid as long as the integration profile exists, regardless of any changes made to the profile.

NOTE:

The format of dates for self-check machine messages is determined by the `system_time_format` parameter (**Administration > General**)

Configuration > Configuration Menu > Other Settings). If this parameter contains the z symbol, the time zone is included in the date sent in self-check machine messages.

To configure a self-check type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a In the **Code** and **Name** fields, enter a code and name (respectively) for the profile you are defining.
 - b From the **Integration type** drop-down list, select **Self-check**.
 - c In the **System (for Ex Libris' informational purposes)** field, indicate the type of self-check system with which you are integrating. Note that this is now mandatory.
 - d Optionally, in the **Description** field, enter a description of the integration you are configuring

External System		
Code	Name	Integration Type
Code * Self_check	Name * Self-Check Machine	
Integration * Self Check		Type
System (for Ex Libris' informational purposes)	Homegrown	
Default <input checked="" type="checkbox"/>		
Description		
Created By Ex Libris (16/05/2013)		Updated By Ex Libris (16/05/2013)

Figure 101: Self-Check Machine Integration Profile Definition – Page 1

- 4 Click **Next**. The second page of the wizard opens.
- 5 Under **General Information**, perform the following actions:
 - In the **SC Identifier** field, enter any string.

- Select whether you want the self-check machine to send the following to Alma:
 - Error correction – Select **Yes** for Alma to send/receive sequence numbers and checksums as part of the relevant messages. If this capability is enabled on the self-check machine, it must be enabled here as well. If you do not want to use this option, select **No** and turn it off also on the self-check machine.
 - Alert messages
 - Item transfer messages (not currently supported)
- From the **SC language** drop-down list, select the language in which Alma and the self-check machine communicate.
- In the **Retries allowed** and **Timeout period** fields, enter the number of times you want Alma or the self-check machine to try to send a message following a failure of the first message to reach its destination, and the amount of time, in seconds, between each retry.

NOTE:

Note that the recommended number of retries allowed is 2-5 and the recommended timeout period is 5-7.

- Select the actions to be supported (**Yes/No**) between Alma and the self-check machine. (Note that **Return message** is not currently supported.)

NOTE:

If you are using a 3M self-check machine, the **checkin** option must be set to **Yes**, due to a 3M requirement for enabling initial communication. If you do not want the check-in action to be allowed, ensure that you block it when configuring your 3M self-check machine.

- From the **Extension type** drop-down list, select **Extended fines and fees** (**Extended check-in** is not currently supported) to enhance your self-check messages (SIP2) with additional fields. This option includes the following elements for each open charge in the SIP2 Patron Information Response message and allows self-check users to view this information (if available) when requested:
 - EB - Barcode of the item that is linked to the charge (such as for an overdue/lost item)
 - ET - Title of the item that is linked to the charge
 - EC - Cash transaction type code
 - ED - Cash transaction type description
 - EF - Sum
 - EK - Fee ID

- BZ - Payment transaction number

NOTE:

Not all self-check machines support this option. This option should not be selected for self-check machines that handle only loans and returns (and not payment).

- From the **Item Identifier** drop-down list, select the type of ID—**Barcode**, **Call number**, or **Item ID**—used to match physical items when incoming messages contain item IDs.
- Under **Authentication required**, select **Yes** if you want the patron to be required to supply a password.
- For a secure TCP connection, click **Download Certificate** and save it so that it can be used when configuring Stunnel (see Step 3 in the introductory section above).

The screenshot shows a configuration interface for a self-check integration profile. The 'Actions' tab is selected. Under 'General Information', various settings are listed:

- SC Identifier *: 1902
- Error Correction: Yes No
- Alert: Yes No
- Item Transfer: Yes No
- SC Language: Unknown
- Retries Allowed: 3
- Timeout Period: 999
- Checkin: Yes No
- Checkout: Yes No
- Renew Policy: Yes No
- Fee Payments: Yes No
- Return Message: Yes No
- Extension Type: Extended Checkin
- Item Identifier: Barcode
- Authentication Required: Yes No

At the bottom left is a 'Download Certificate' button.

Figure 102: Self-Check Integration Profile Definition – Page 2

- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

To associate a self-check profile with a circulation desk:

- 1 On the Fulfillment Configuration page (**Fulfillment > Fulfillment Configuration > Configuration Menu**), select the library whose circulation desk you want to associate with the self-check profile from the **You are**

configuring drop-down list at the top of the page, and then click **Circulation Desk** under **Library**. The Circulation Desks List page opens.

Code	Name	Description	Primary	Supports Digitization	Actions
LAW CIRC	Law Circulation Desk	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Actions

Figure 103: Circulation Desks List Page

- 2 Select **Actions > Edit** for the circulation desk you want to associate with the previously defined self-check profile, or click the **Add Circulation Desk** button to create a new circulation desk with which you want to associate the self-check profile.
- 3 On the Circulation Desk – General Information page, under **Self-Check Information**, select the **Has self check** check box and select a previously defined self-check profile from the **Integration profile** drop-down list. The password for the self-check machine is automatically listed in the **Terminal password** field. (For information on the other fields on this page, see [Configuring Circulation Desks](#) in the *Alma Fulfillment Guide*.)

The screenshot shows a form section titled "Self Check Information". It contains three fields: "Has self check" with a checked checkbox, "Integration Profile" with a dropdown menu showing "Self-Check Machine", and "Terminal Password" with the value "UARCV.".

Figure 104: Self-Check Information Section

- 4 Click **Save** to store your changes to the circulation desk.

SMS Communications

PERMISSIONS:

To configure SMS communications, you must have the following role:

- General System Administrator
-

As part of a library's processes, Alma produces various notifications for the library's users. The notifications may be sent to a user by email, or printed. Alternatively, some of the notifications may be sent as SMS messages to the user's mobile phone. Using SMS messages as the notification channel is now quite popular, as this has become an efficient and effective way in which to contact users.

For details on configuring SMS communications, see <https://developers.exlibrisgroup.com/alma/integrations/sms>

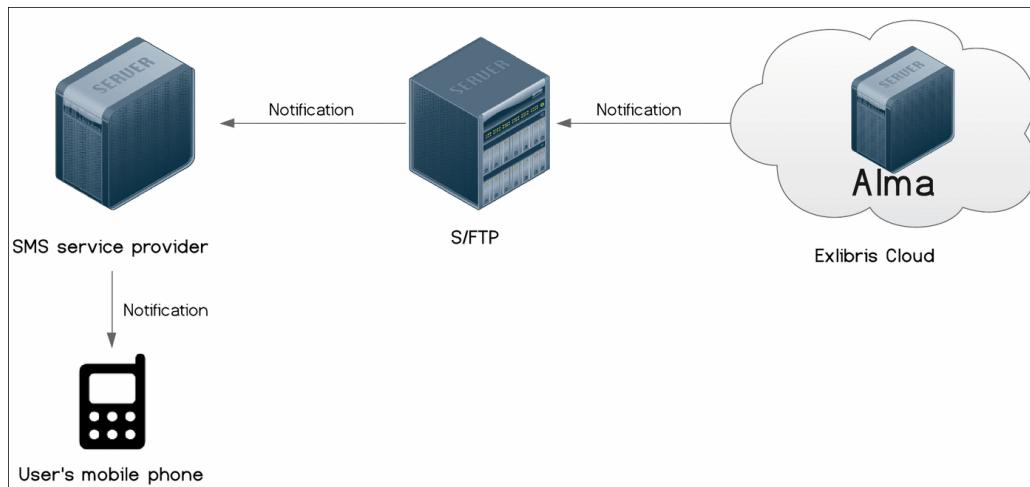


Figure 105: SMS Notifications - Workflow Diagram

SMS communication is enabled for the following notification types:

- Item on Hold Shelf
- Courtesy Letters
- Overdue Notice Letters
- Change Due Date
- Request Cancellation
- Lost Loan
- Lost Loan Notification
- Borrowing Activity

SMS messages are sent to users only if preferred SMS numbers are indicated.

To configure SMS communication with patrons, you must perform the following actions:

- 1 Configure an S/FTP connection to be used by Alma and the SMS service provider (see [Configuring S/FTP Definitions](#) in the *Alma Administration Guide*).

NOTE:

It is also recommended that you test your S/FTP connection by clicking the **Test FTP** button. You should receive messages indicating that the FTP upload, download, and delete were successful. If you did not receive such messages, resolve your S/FTP connection issues before continuing.

- 2 Configure an SMS type of integration profile (see below).

- 3 Ensure that the SMS channel of notification is activated (see below).
- 4 Define the format of the notification (see <https://developers.exlibrisgroup.com/alma/integrations/sms>).

To configure an SMS type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a From the **Integration type** drop-down list, select **SMS Communication**.
 - b From the **S/FTP connection type** drop-down list, select the name of the FTP connection that you previously defined.
 - c Optionally, enter a description of the integration you are configuring.

NOTE:

The name and code are defined for you by the system (both as **SMS**).

The screenshot displays a configuration interface for an integration profile. At the top, there's a header bar with the title 'External System'. Below this, the main form has several input fields: 'Integration Type' set to 'SMS Communication' with a dropdown arrow, 'S/FTP Connection' set to 'ftp1' with a dropdown arrow, a 'Default' checkbox which is unchecked, and a 'Description' text area which is currently empty. At the bottom of the form, there are two status lines: 'Created By: Ex Libris (24/10/2012)' and 'Updated By: Ex Libris (24/10/2012)', each followed by an envelope icon.

Figure 106: SMS Communication Integration Profile Definition – Page 1

- 4 Click **Next**. The second page of the wizard opens.
- 5 Under **Actions**:
 - a Select whether you want the profile to be active. Note that only active profiles can be run.
 - b In the **Sub-directory** field, enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified Alma in the **Sub-directory** field during S/FTP connection configuration and you enter SMS in this **Sub-directory** field, the invoices are exported to the Alma/SMS directory.

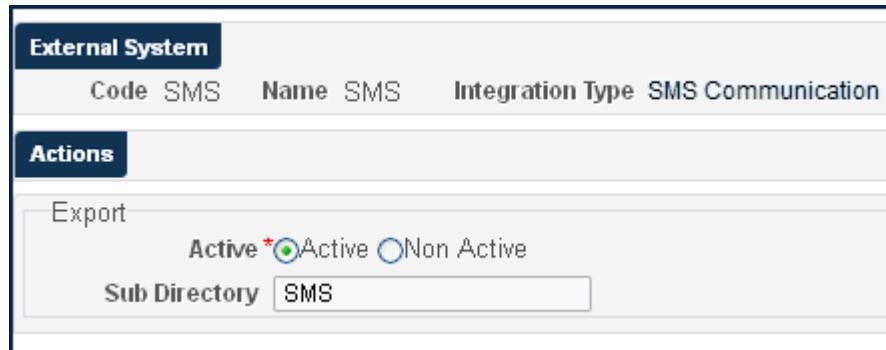


Figure 107: SMS Communication Integration Profile Definition – Page 2

- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

NOTE:

You can create only one SMS Communication integration profile per institution.

To ensure that the SMS channel of notification is activated:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Letter Activity** under **General Configuration**. The Letter Activity Mapping Table page opens.
- 2 Ensure that the **FulPlaceOnHoldShelfLetter** type with the **SMS** channel is enabled (the check mark to the left of the type is yellow).



Figure 108: FulPlaceOnHoldShelfLetter Type with SMS Channel Enabled

If it is not enabled (the check mark is gray), click the **Customize** button, click the check mark so that it becomes yellow, and then click **Save**.

NOTE:

There is also a **FulPlaceOnHoldShelfLetter** type with the **EMAIL** channel. This letter type is enabled by default; users who receive hold shelf notification by SMS will also receive notification by email, unless you disable this setting.

5

User Management

This section includes:

- [Student Information Systems](#) on page 159
- [Bursar Systems](#) on page 170

Student Information Systems

PERMISSIONS:

To configure a Student Information Systems (SIS) profile, you must have the following role:

- General System Administrator

After a zip file containing an XML file with all the users is placed by the Student Information System (SIS) at a defined S/FTP location, Alma fetches the file, parses the information, and uploads the users (of type External) according to the parameters defined in the SIS integration profile.

Users that owe the library money or contain certain blocks may also be exported from Alma to the SIS to enable blocking these users from certain activities until they clear their outstanding obligations to the library.

For a detailed overview of user management in Alma, see <https://developers.exlibrisgroup.com/alma/integrations/user-management>. Note that your external authentication system must be up and running before you can begin Alma implementation.

For details on SIS integration, see <https://developers.exlibrisgroup.com/alma/integrations/user-management/sis>

VIDEO:

For more information on uploading users into Alma, see the *Uploading Users into Alma* video (20 mins). Note that you must be logged in to the Learning Center to view this video.

To configure a User type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a Enter a code and name for the profile you are defining.
 - b From the **Integration type** drop-down list, select **Users**.
 - c From the **S/FTP connection type** drop-down list, select the name of the FTP connection that you previously defined.
 - d Indicate the type of student information system with which you are integrating (for Ex Libris' informational purposes). Note that this is mandatory.
 - e Optionally, enter a description of the integration you are configuring.

The screenshot shows the 'External System' configuration page. At the top, there are tabs for 'External System' (selected), 'Profile', and 'Mapping'. Below the tabs, there are fields for 'Code' (set to 'Users') and 'Name' (set to 'User Information'). A dropdown menu for 'Integration Type' is set to 'Users'. Another dropdown for 'S/FTP Connection Type' is set to 'SISSubmission'. A dropdown for 'System (for Ex Libris' informational purposes)' is set to 'Campus Management'. There is a checkbox for 'Default' which is unchecked. A text area for 'Description' contains the text 'User Information'. At the bottom, it shows 'Created By' as 'Ex Libris (28/04/2014)' and 'Updated By' as 'Ex Libris (28/04/2014)'. The top right corner shows a progress bar with step 1 completed and step 2 pending, along with 'Cancel' and 'Next' buttons.

Figure 109: Users Integration Profile Definition – Page 1

- 4 Click **Next**. The second page of the wizard opens.

The screenshot shows the 'Actions' section of the External System Integration Profile. It includes four main sections: Import, Synchronize, Export user blocks, and Export users.

- Import:** Active is set to "Active". Plugin is "ExternalSystemUserXmiToXmr". Record Type is "Contact". Input File Path is empty.
- Synchronize:** Active is set to "Non Active". Plugin is "ExternalSystemUserXmiToXmr". Record Type is "Contact". Match ID Type is "Primary Identifier". Unmatched Record is "Add". Synchronization Type is "Swap All". Input File Path is empty. Schedule is "Not scheduled".
- Export user blocks:** Active is set to "Non Active". Plugin is "ExternalSystemUserXmiToXmr". User ID Type is "Primary Identifier". User Groups and Block Types have search icons. Fine/Fee Age(days) and Threshold Amount are empty. Output File Path is empty. Schedule is "Not scheduled".
- Export users:** Active is set to "Non Active". User Groups have search icons. Days Since Creation, Days Since Update, and Days Since Deletion are empty. Output File Path is empty. Schedule is "Not scheduled".

A blue 'Run' button is located at the bottom left of the form.

Figure 110: Users Integration Profile Definition – Page 2

- 5 Under **Actions**, configure the following integration parameters:

Table 16. Import/Synchronize/Export User Blocks/Export Users Fields

Section	Field	Description
Import (to be used for the initial import of users that have not been loaded to Alma)	Active/Inactive	Indicates whether or not the job is active. If the job is active, it will run according to the selected scheduling option. If it is inactive, it will not run.
	Plugin	The method of conversion to be used to transform input files of different formats to input that can be recognized by Alma.
	Record type	The type of user record to create in Alma: Contact , Public , or Staff . For more information on selecting the record type, see https://developers.exlibrisgroup.com/alma/integrations/user-management/sis/synch .
	Input file path	Enter a subdirectory of the path specified when creating the secure FTP connection. For example, if you specified Alma in the Sub-directory field during secure FTP connection configuration and you enter SIS_import in the Input file path field, the SIS files are imported to the Alma/ SIS_import directory (under the root FTP directory).

Table 16. Import/Synchronize/Export User Blocks/Export Users Fields

Section	Field	Description
	Create Sample File (available in the Actions tab, when editing an existing profile)	<p>Click this button, select an existing user, and click Create to create a new user XML file from an existing user. This enables you to preview the way in which a user XML file should be structured.</p> <hr/> <p>NOTE: You can also view a sample XML file on https://developers.exlibrisgroup.com/alma/apis/xsd/external_sys_user.xsd.</p>

Table 16. Import/Synchronize/Export User Blocks/Export Users Fields

Section	Field	Description
Synchronize (to be used for the ongoing synchronization of existing Alma users)	Active/Inactive	See the above explanation.
	Plugin	See the above explanation.
	Record type	See the above explanation.
	Match ID type	Select the predefined unique identifiers in the system as the identifiers with which you want to match existing Alma users. For detailed information on match IDs, see https://developers.exlibrisgroup.com/alma/integrations/user-management/sis/synch .
	Synchronization type	This is automatically set to Swap all , which means that all existing user records will be replaced by matching incoming user records. For detailed information on the synchronization workflow, see https://developers.exlibrisgroup.com/alma/integrations/user-management/sis/synch .
	Unmatched record	Specify whether Alma will add a new user record if it has failed to find a matching record, or reject the incoming record if no match is found for it. By default, the records are added.
	Input file path	See the above explanation.
Export User Blocks	Schedule	Select one of the scheduling options that are predefined by an Ex Libris administrator. If you select Not scheduled , the job will run only when you manually run it. For details, see the procedure below.
	Active/Inactive	See the above explanation.
	Plugin	See the above explanation.
	User ID type	See the above explanation for Match ID type .

Table 16. Import/Synchronize/Export User Blocks/Export Users Fields

Section	Field	Description
	User groups	Select the user group(s) to which the users that you want to export belong. If no value is specified, users belonging to any of the configured user groups are exported.
	Block types	Select the previously defined block types (see Configuring Block Preferences in the <i>Alma Fulfillment Guide</i>) whose associated users you want to export. If no value is specified, users matching any of the configured block types are exported.
	Fine/fee age (days)	The users (of the selected groups and with the selected block types) whose fines/fees are older than the stipulated number of days are exported. By default, this number is 0.
	Threshold amount	The users (of the selected groups and with the selected block types) whose fines/fees exceed the stipulated threshold are exported. By default, the threshold amount is 0.
	Output file path	Enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified Alma in the Sub-directory field during S/FTP connection configuration and you enter SIS_export in the Output file path field, the SIS files are exported to the Alma/SIS_export directory (under the root FTP directory).
	Schedule	See the above explanation.

Table 16. Import/Synchronize/Export User Blocks/Export Users Fields

Section	Field	Description
Export Users	Active/Inactive	See the above explanation.
	User groups	Browse to select one or more user groups to identify the patron records to be considered for export.
	Days since creation	<p>Use this option to set a condition, in number of days, that identifies when to include a patron record in the export. This parameter indicates the number of days since the patron record was created in Alma. The patron record that meets this criterion must also be a member of one of the user groups selected in the User Groups parameter in order for the patron record to be exported.</p> <p>For example, if you specify 10 here, patron records that were created in the past 10 days are included in the export.</p>
	Days since update	<p>Use this option to set a condition, in number of days, that identifies when to include a patron record in the export. This parameter indicates the number of days since the patron record was updated in Alma (see example in Days since creation). The patron record that meets this criterion must also be a member of one of the user groups selected in the User Groups parameter in order for the patron record to be exported.</p>

Table 16. Import/Synchronize/Export User Blocks/Export Users Fields

Section	Field	Description
	Days since deletion	Use this option to set a condition, in number of days, that identifies when to include a patron record in the export. This parameter indicates the number of days since the patron record was deleted in Alma (see example in Days since creation). The patron record that meets this criterion must also be a member of one of the user groups selected in the User Groups parameter in order for the patron record to be exported.
	Output file path	Enter a subdirectory of the path specified when creating the secure FTP connection. For example, if you specified Alma in the Sub-directory field during secure FTP connection configuration and you enter SIS_Export in the Output File Path field, the files are exported to the Alma/SIS_Export directory (under the root FTP directory).
	Schedule	See the above explanation.

NOTE:

The Online Import functionality is currently being developed and should not yet be used.

-
- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

NOTE:

When the export users job is run based on the integration profile you have created, the export process creates an XML file in the format that is used by the Import and Synchronize actions (refer to the Import section and Synchronize section defined under the Actions section on the Actions tab of the integration profile you saved). An XSL file may be used to alter the format. The XSL file, `./xsl/letters/ExportUserLetter.xsl` (with the description export user letter xsl), is available and configurable in Customize Letters (**Administration > General Configuration > Configuration Menu > General Configuration**).

To manually run and monitor an SIS import/export:

In the **Import/Export** section of the **Actions** tab, ensure that the **Active** radio button is selected and click the **Run** button.

The screenshot shows the 'Actions' tab with the 'Import' section selected. The 'Active' radio button is selected. The 'Run' button is highlighted with a mouse cursor. Other fields include 'Plugin' set to 'ExternalSystemUserXmlToXmlPlugin', 'Record Type' set to 'Staff', and 'Input File Path' set to 'Import'.

Figure 111: Example - Running an Import

The job runs as soon as the system can accommodate it. A file that is imported is marked so that it is not run again by the system. If email notifications are enabled in Alma, you receive notification via email of an import and the system sends notifications to the SIS of an export.

You can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate User profile on the Integration Profile List page. For example, the following figure shows an import job that completed successfully, processing one user record.

34130740000121	Completed Successfully	admin1	2012-05-21 16:38:19	2012-05-21 16:38:22	1	0	Actions
----------------	------------------------	--------	---------------------	---------------------	---	---	---------

Figure 112: Import Job History

NOTE:

The status **Completed Successfully** does not mean that all files were imported or exported successfully. Rather, it means that the job completed without error.

You can use the **Actions** button on this page to access a more detailed job report (**Actions > View**), events that occurred during the job processing (**Actions > Events**), and a report of errors (**Actions > Error reporting**).

You can view a newly imported user's details in the User Management area. The user's account type is **External**.

Name	Account Type	Record Type	Job Category	User Group	Status
Aaron_Daren	External	Public	-	Graduate Student	Active

Figure 113: Imported User

NOTE:

If you import a user whose primary identifier (userName tag in the XML) matches a primary identifier of one of the existing users, a **User rejected**

on identifier event is generated.

Events Report				
File parse				
Description User rejected on identifier				
File parse				
1 - 1 of 1 Records				
Description	File name	User name	Parse type	Input
User Rejected	patronload.xml	Users identifier already exists across Institution	userNme	orangedqw

To manually run and monitor an SIS synchronization:

In the **Synchronize** section of the **Actions** tab, click the **Run** button.

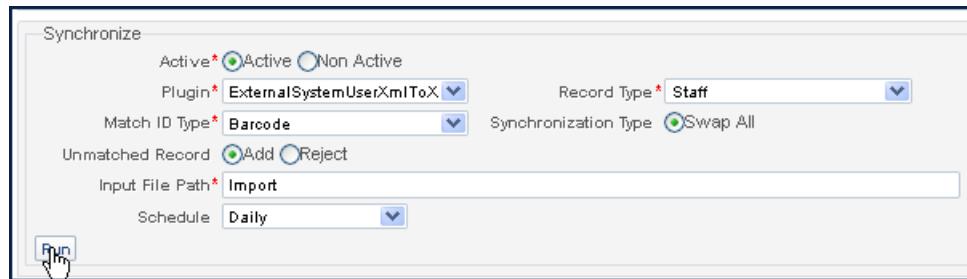


Figure 114: Running a Synchronization

The synchronization job runs as soon as the system can accommodate it. The file that is synchronized is marked so that it is not run again by the system. If email notifications are enabled in Alma, you receive notification via email.

As with the import job, you can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate User profile on the Integration Profile List page. You can then use the **Actions** button on the Job History page to access a more detailed job report (**Actions > View**), events that occurred during the job processing (**Actions > Events**), and a report of errors (**Actions > Error reporting**).

NOTE:

The status **Completed Successfully** does not mean that all files were synchronized successfully. Rather, it means that the job completed without error.

For more information on the synchronization process, see <https://developers.exlibrisgroup.com/alma/integrations/user-management/sis/synch>.

Bursar Systems

PERMISSIONS:

To configure a bursar publishing profile, you must have the following role:

- General System Administrator
-

As part of a library's processes, patrons can be charged with various fines and fees. For example, if a patron returns a loaned book after its due date, the patron is charged for each day following the due date. For details, see [Configuring Fines/Fees Behavior](#) in the *Alma Administration Guide*.

Patrons can be charged fees for various types of activities, such as signing up for a course, extra education services, and so forth. Thus, many institutions handle patron-related charges in a dedicated bursar system. This can be the institution's ERP system or a system that is in charge of patron-related finance. Institutions export fine and fee information from Alma to the bursar system. Exported fines and fees are considered closed in Alma, since they are handled outside of the library's scope.

For details, see <https://developers.exlibrisgroup.com/alma/integrations/bursar>

To configure a bursar type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add External System** button. The first page of the integration profile wizard opens.
- 3 Perform the following actions on this page:
 - a Enter a code and name for the profile you are defining.
 - b From the **Integration type** drop-down list, select **Bursar**.
 - c From the **S/FTP connection type** drop-down list, select the name of the FTP connection that you previously defined.
 - d Indicate the type of bursar system with which you are integrating (for Ex Libris' informational purposes). Note that this is now mandatory.
 - e Optionally, enter a description of the integration you are configuring.

The screenshot shows the 'External System' configuration page. At the top, there are tabs for 'External System' and 'Integration Type'. Under 'External System', the 'Code' field is set to 'bursar', the 'Name' field is 'Bursar System', and the 'S/FTP' field is 'BursarFtp'. The 'Connection Type' dropdown is open. Below these fields, there is a note: 'System (for Ex Libris' informational purposes)'. A 'Default' checkbox is checked. A large text area labeled 'Description' is present at the bottom.

Figure 115: Bursar Integration Profile Definition – Page 1

4 Under **Actions**, configure the following integration parameters:

Table 17. Bursar Integration Profile Parameters

Field	Description
Active (Required)	Select whether you want the integration profile to be active or non-active. Note that only active profiles can be run. By default, the Non-active option is selected.
Plugin	The out-of-the-box plug-in to be used.
Time before export (days)	The amount of time, in days, that you want Alma to wait before exporting the fines and fees to the bursar system. If this field is left blank, Alma exports the fine and fee information immediately after it is created.
User identifier type	The identification type that will be used to match users when a file contains a user ID. Select one of the options predefined by an administrator.
User groups	Click the Browse icon to select the user groups whose fine and fee information is to be exported. If this field is left blank, Alma exports the fine and fee information for all user groups.
Fine/Fee types to export	Click the Browse icon to select the types of fines/fees to export. When this field is entered, only fines/fees of the specified types are exported.

Table 17. Bursar Integration Profile Parameters

Field	Description
Institutional fine/fee	Select whether you want the fines and fees of the institution to be exported to the bursar system. NOTE: In order to receive credits, you must select Yes .
Library fine/fee	Click the Browse icon to select the libraries whose fine and fee information is to be exported. If this field is left blank, Alma does not export any library fine/fee information.
Output file path	Enter a subdirectory of the path specified when creating the S/FTP connection. For example, if you specified Alma in the Sub-directory field during S/FTP connection configuration and you enter bursar in the Export file path field, the fine/fee information is exported to the Alma/bursar directory (under the root FTP directory).
Schedule	Select one of the scheduling options that are predefined by an Ex Libris administrator.

The screenshot shows the 'External System' configuration page. At the top, there are tabs for 'General Information', 'Actions', and 'Contact Info'. The 'Actions' tab is selected. Below the tabs, there is a section titled 'Export' with various configuration options:

- Active:** Radio buttons for 'Active' (selected) and 'Non Active'.
- Plugin:** A dropdown menu currently set to '1'.
- Time before export:** An input field showing '1' (Days).
- Minimal amount for user:** An input field showing '10'.
- User identifier type:** A dropdown menu set to 'Barcode'.
- User groups:** A list box containing 'Graduate Student, Undergraduate Student, Visitor' with search and refresh icons.
- Fine/Fee types to export:** A list box with a search icon.
- Institutional fine/fee:** Radio buttons for 'No' (selected) and 'Yes'.
- Library fine/fee:** A list box containing 'Art Library, Law Library, Main Libr' with search and refresh icons.
- Output file path:** An input field showing 'bursar'.
- Schedule:** A dropdown menu set to 'Every day at 21:00'.

At the bottom of the form are 'Run' and 'Save' buttons.

Figure 116: Bursar Integration Profile Definition – Page 2

- 5 Click **Save**. The profile you configured appears in the Integration Profile List.

To manually run and monitor the bursar export job:

On the Integration Profile List page, select **Actions > Edit** for the bursar profile you defined, click the **Actions** tab, ensure that the **Active** radio button is selected, and then click the **Run** button.

Actions

Export

Active Active Non Active

Plugin

Time before export 0
(Days)

Minimal amount for user 10

User identifier type Barcode

User groups Graduate Student, Undergraduate Student, Visitor

Fine/Fee types to export

Institutional fine/fee No Yes

Library fine/fee Art Library, Law Library, Main Library

Output file path bursar

Schedule Every day at 21:00

Run

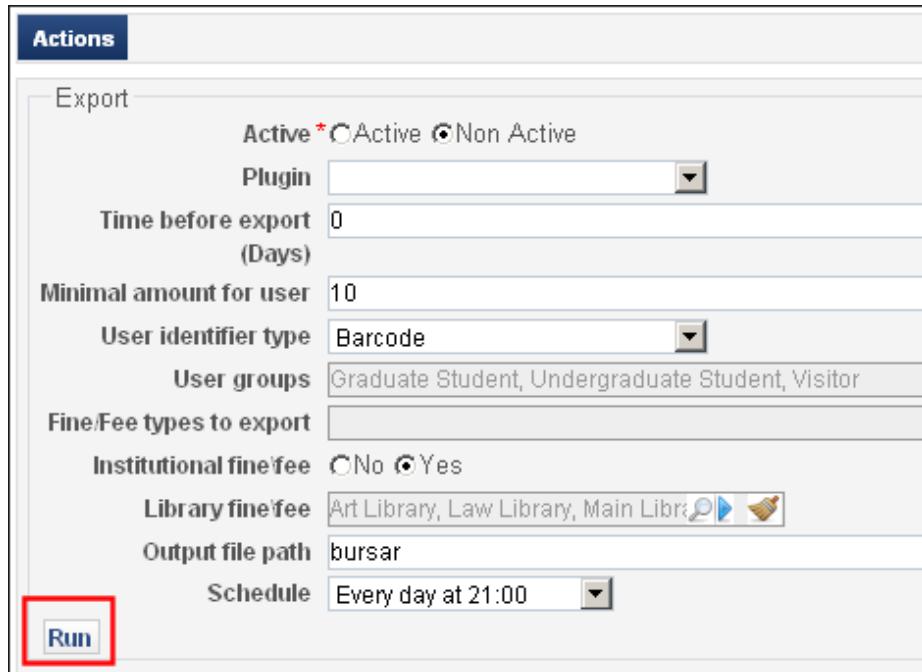


Figure 117: Running the Bursar Export Job

The job runs as soon as the system can accommodate it. If email notifications are enabled in Alma, you receive notification via email.

You can view the status of the job, the number of files processed, and other data by selecting **Actions > Job history** for the appropriate bursar profile on the Integration Profile List page. For example, the following figure shows a job that completed successfully, processing one file.

Job ID	Status	User	Time Started	Time Ended	Files Processed	Files Failed	Action
34953450000121	Completed Successfully	admin1	2012-07-12 00:55:20	2012-07-12 00:55:20	1	-	<input type="button" value="Action"/>

Figure 118: Export Job History

NOTE:

The status **Completed Successfully** does not mean that records were exported successfully. Rather, it means that the job completed without error.

You can use the **Actions** button on this page to access a more detailed job report, including statistics on the number of records, users, and fines/fees processed (**Actions > View**), events that occurred during the job processing (**Actions > Events**), and a report of errors (**Actions > Error reporting**).

6

General

This section includes:

- [LDAP Support](#) on page 175
- [SAML-Based Single Sign-On](#) on page 178
- [OpenAthens LA Proxy Support](#) on page 179

LDAP Support

PERMISSIONS:

To configure an LDAP type of integration profile, you must have the following role:

- [General System Administrator](#)

Alma Lightweight Directory Access Protocol (LDAP) support shares similar characteristics with other Ex Libris LDAP-supported products while providing user name mapping specific to Alma.

For a detailed overview of Alma LDAP support, see <https://developers.exlibrisgroup.com/alma/integrations/user-management/ldap>

To configure an LDAP type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add External System** button. The first page of the integration profile wizard opens.

- 3 Perform the following actions on this page:
 - a Enter a name and code for the LDAP profile you are defining.
 - b From the **Integration type** drop-down list, select **LDAP**.
 - c Indicate the type of LDAP system with which you are integrating (for Ex Libris' informational purposes). Note that this is now mandatory.
 - d Optionally, enter a description of the integration you are configuring.

The screenshot shows the 'External System' configuration page. The 'External System' tab is active. In the top header, 'Code' is set to 'User' and 'Name' is set to 'PROXY'. Under 'Integration Type', 'Self Check' is selected. The main configuration area has 'Code' set to 'LDAP', 'Integration' set to 'LDAP', 'Type' set to 'Homegrown', and a checked 'Default' checkbox. There is a large empty text area for 'Description'. At the bottom, it shows 'Created By Ex Libris (16/05/2013)' and 'Updated By Ex Libris (16/05/2013)'.

Figure 119: LDAP Profile – Page 1

- 4 Click **Next**. The second page of the wizard opens.
- 5 Under **Actions**, enter the LDAP authentication configuration parameters specific to your institution for the LDAP server interaction, as described in the following table.

Table 18. LDAP Integration Profile Configuration Parameters

Field	Description
Active	Select this option to indicate that LDAP is active and available for use.
Host	Enter the host name of the remote LDAP server through which LDAP is accessible.
Port	Enter the port for the remote LDAP server.
Use secure connection	Select this check box to use the SSL protocol to communicate with the LDAP server. NOTE: This is now the only supported option.

Table 18. LDAP Integration Profile Configuration Parameters

Field	Description
Use TLS	Select the check box to convert the existing connection to use Transport Layer Security (TLS), which provides an encrypted connection. NOTE: <i>This requires LDAP version 3 or later.</i>
Connection timeout	Specify your preference for the timeout value in milliseconds. The default value is 60000 – one minute for the connection timeout.
Initial bind DN	Enter the full DN (distinguished name) for the initial bind.
Initial bind password	Enter the DN password for the initial bind.
DN for binding before each search	Use this parameter to specify the DN when you want to use dynamic password binding instead of a hard-coded password for the initial bind.
Convert password from UTF to charset	Leave this field empty.
Response encoding	Enter UTF8 if response encoding is required. This setting is used to encode the LDAP response before sending it back to the calling application. The only possible value is UTF8.
Search base 1 (through Search base 5)	Enter the full path search in the LDAP directory tree to the user. The system searches the LDAP tree to locate the user's record based on the Search base and Search filter . NOTE: The Search base and Search filter parameters can be repeated to search in more than one tree. If the results of the Search base/Search filter are not unique (or a zero-size result), the search step is repeated for the next provided Search base/Search filter.
Search filter 1 (through Search filter 5)	Enter the parameter by which you want to filter the results to return only one object. The system searches the LDAP tree to locate the user's record based on the Search base and Search filter . (See the note above.)

Table 18. LDAP Integration Profile Configuration Parameters

Field	Description
Map user name	<p>Enter the name of an LDAP attribute, such as CN. This attribute is mapped by Alma to serve as the user name.</p> <p>NOTE: The Alma user name must match one of the LDAP identifiers, such as CN. If it does not, the authentication succeeds but the user is not allocated any permissions/roles.</p>

- 6 Click **Save**. The profile you configured appears in the Integration Profile List.

SAML-Based Single Sign-On

PERMISSIONS:

To configure a SAML type of integration profile, you must have the following role:

- General System Administrator
-

Alma supports the SAML 2.0 Web Browser SSO profile. This enables Alma to exchange authentication and authorization information.

For a detailed overview of SAML-based SSO, see <https://developers.exlibrisgroup.com/alma/integrations/user-management/saml>

To configure a SAML type of integration profile:

- 1 On the General Configuration page (**Administration > General Configuration > Configuration Menu**), click **Integration Profiles** under **External Systems**. The Integration Profile List page opens.
- 2 Click the **Add External System** button. The first page of the integration profile wizard opens.
- 3 Enter the external system information, select SAML as the integration type, and click **Next**. The following is displayed:

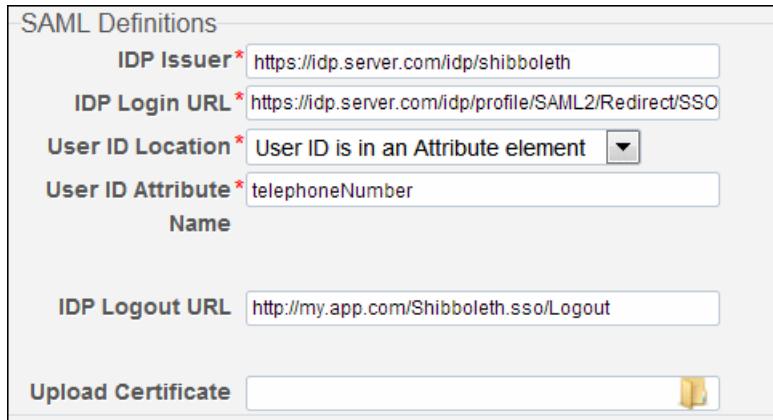


Figure 120: SAML Export Section Settings

- 4 Enter the settings for the **IDP issuer**, **IDP login URL**, **User ID attribute name**, and **IDP logout URL**. For more information on these fields, see [Defining the SAML Profile](#) in the *Alma Administration Guide*.
- 5 Select the certificate to upload (see [Certificate Management](#) in the *Alma Administration Guide*).
- 6 Click **Save**.

OpenAthens LA Proxy Support

PERMISSIONS:

To configure proxy support for OpenAthens LA (Local Authentication), you must have the following role:

- General System Administrator
-

Alma provides support for the OpenAthens LA (Local Authentication) proxy server.

To configure Alma for the OpenAthens LA proxy server:

- 1 On the General Configuration page ([Administration > General Configuration > Configuration Menu](#)), click **Integration Profiles** under **External Systems**. The Integration Profile List page displays.
- 2 Click the **Add Integration Profile** button. The first page of the integration profile wizard opens.
- 3 For Integration Type, select **Resolver Proxy**.
- 4 Enter a name and click **Next**.

- 5 In the Proxy Definitions section, you can now select **OpenAthens** from the Proxy server type drop-down list.

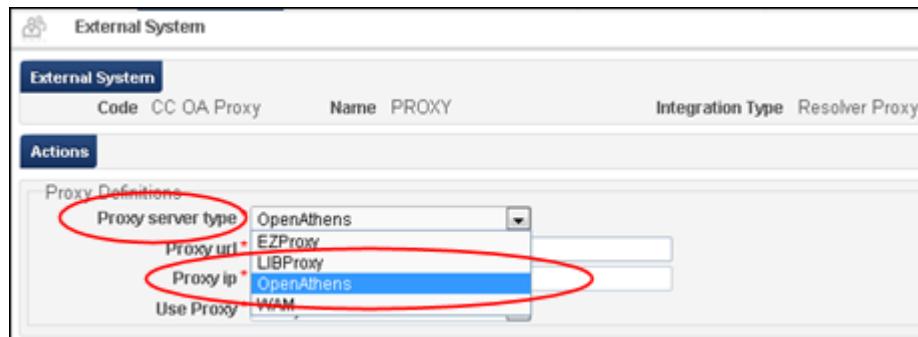


Figure 121: OpenAthens LA Proxy Server Type Option

- 6 Complete the remaining proxy options (see [Resolver Proxies](#) on page [121](#)) and click **Save**.

7

bX

To work with bX in conjunction with Alma, you must define the link resolver base URL in your bX My Profile to point to Alma.

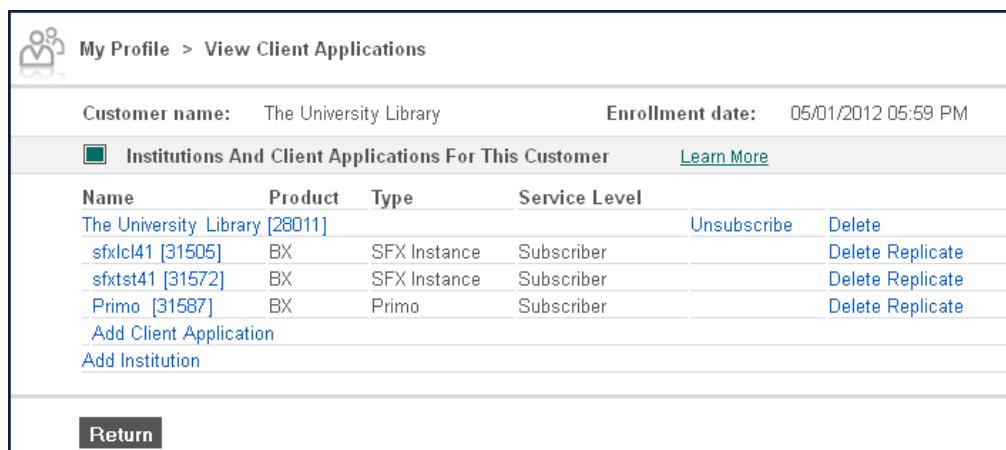
- If you have not yet registered for bX, perform a bX registration as described in the *bX Registration Guide*. Ensure that you configure the link resolver base URL as described below.
- If you have already registered for bX:
 - 1 Copy the license key from the email that you received after registration and paste it into the end of the following URL:

<https://registration.service.exlibrisgroup.com/customer/management/customer.do?licenseToken=<key>>

NOTE:

If you did not receive this email, contact your Ex Libris bX representative.

- 2 On the Main Menu page, click **My Client Applications**. The View Client Applications page opens.



The screenshot shows the 'View Client Applications' page. At the top, there is a breadcrumb navigation: 'My Profile > View Client Applications'. Below this, customer information is displayed: 'Customer name: The University Library' and 'Enrollment date: 05/01/2012 05:59 PM'. A section titled 'Institutions And Client Applications For This Customer' contains a table with the following data:

Name	Product	Type	Service Level	Unsubscribe	Delete
The University Library [28011]				Unsubscribe	Delete
sfxlcl41 [31505]	BX	SFX Instance	Subscriber	Delete Replicate	Delete Replicate
sfxtst41 [31572]	BX	SFX Instance	Subscriber	Delete Replicate	Delete Replicate
Primo [31587]	BX	Primo	Subscriber	Delete Replicate	Delete Replicate

Below the table are two buttons: 'Add Client Application' and 'Add Institution'. At the bottom of the page is a 'Return' button.

Figure 122: View Client Applications Page

- 3 Click the name of the relevant Primo application. The View Client page opens.

- 4 Click **Edit Client Attributes**. The Edit Client Instance page opens.
- 5 Modify the **Link resolver base URL** field as required. Ensure that you use the following syntax:

```
http://<PRM_SERVER_URL>/openurl/<PRIMO_INSTITUTION_CODE>/  
<PRIMO_INSTITUTION_SERVICES_PAGE>
```

For example:

The screenshot shows the 'Edit Client Instance' page in Alma. At the top, it displays 'Customer name: The University of Auckland Library' and 'Institution name: The University of Auckland Library'. Below this, there is a section titled 'Client Attributes' with a 'Learn More' link. A note states '* indicates a required field'. Under 'Client name', the value 'Primo' is entered. Under 'Link resolver base URL', the value 'http://my-primo.exlibrisgroup.com:1702/openurl/01MY_INST/01MY_INST_services_page' is entered. Other fields like 'CRM username' and 'CRM userpass' are also present but not filled.

Figure 123: Example of Link Resolver Base URL

- 6 Click **Save**.

NOTES:

- If you want to add a new institution and/or client application, following the instructions provided in the *bX Registration Guide*. Ensure that you define the link resolver base URL as described above.
 - There are no actions that need to be performed in Alma in order to configure the bX-Alma integration.
-