

# שליפת נתונים מעלמא - הוצאת מים מן הסלע?

יום עיון

אוניברסיטת חיפה

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# המטרה: התממשקות—

שליפת נתונים ממערכת מסוימת בפורמט מסודר  
עבור קליטתם במערכת אחרת



# ייצוא נתונים למערכות אחרות

- ❑ מערכות תוצרת בית של הספרייה - קריאות חובה (תדפיסים)
- ❑ יחידות אחרות באוניברסיטה - תשלום חשבונות, אחזקת הרשאות משתמשים
- ❑ ספקי מידע (Google Scholar, EDS, TDNet)



# נושאים

- יצירה ושמירה של logical set
- Publishing profile
- Integration profile
- API
- Analytics



# Publishing

## (definition from Alma Glossary)

Publishing

A process that extracts and formats metadata for external uses, such as for discovery in Primo.

# The Good Old Days:

## החוט המשולש

- ❑ p\_ret\_01
- ❑ p\_print\_03
- ❑ p\_manage\_18



# The Good Old Days:

## שליטה במסד נתונים

היכרות במבנה ותפקיד של טבלאות האורקל  
אפשר כתיבה חופשית של שאילתות למטרות  
שונות



# The Good Old Days: שליטה במסד נתונים



## Collected Oracle Tables

Version 22





# The Good Old Days:

## שליטה במסד נתונים



The following is the list of the ALEPH Oracle tables:

TABLE	DESCRIPTION	DOCUMENTATION STATUS	CREATION
Z00	Documents	Done	Conversion – Mandatory
Z00P	Published Documents	Done	Batch Process: Initial Publishing Process (publish-04).
Z00E	My e-Shelf External Documents	Done	Conversion (see Z00).
Z00H	Deleted documents	Done (see Z00)	System
Z00R	Fields from document	Done	Batch process: Short Bibliographic Records (p_manage_07)
Z00T	History of changed document fields	Done	fix_doc_track fix routine
Z01	Headings	Done	Batch process: Heading Index (p_manage_02)
Z01X	Headings -Keyword Search	Done (see Z01)	Activation script: p_fill_z01x XXX01



# XML

In computing, **Extensible Markup Language (XML)** is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

*(Wikipedia)*






# XML - Example

```
<?xml version="1.0" encoding="UTF-8"?>
<payment_data xmlns="http://com/exlibris/repository/acq/invoice/xmlbeans">
  <invoice_list>
    <invoice>
      <invoice_number>1800016403</invoice_number>
      <invoice_owner>University of Haifa</invoice_owner>
      <invoice_amount>
        <currency>USD</currency>
        <sum>416.74</sum>
      </invoice_amount>
      <vendor_code>EBSCON</vendor_code>
      <vendor_name>EBSCO-EBBOOKS</vendor_name>
      <vendor_liable_for_vat>>false</vendor_liable_for_vat>
      <vendor_payment_address_list>
        <payment_address preferred="false">
          <line1>BANK ACCOUNT NO. 77008</line1>
          <line2>DEUTSCHE BANK SPA - VIA VIOTTI, 4D - 10121 TORINO - ITALY</line2>
          <line3>ABI 03104 - CAB 01000 SWIFT CODE: DEUTITMMTOR</line3>
          <line4>IBAN IT44X 031040 1000 770008VARUSD</line4>
          <note>Enrico Ronfani [ERonfani@ebSCO.com]</note>
          <types>
            <type>Payment</type>
          </types>
        </payment_address>
      </vendor_payment_address_list>
    </invoice>
  </invoice_list>
</payment_data>
```

# FTP Configuration



 Update S/FTP connection

Name	Haifa FTP	ID	617865060002791	Context Type	Integration
Definition Type	FTP				

**S/FTP Connection Details**

Name *	Haifa FTP		
Description			
Server *	132.74.59.101	Port *	21
Sub-directory	alma	Max. Number of Files	1
Min. Number of Files	1	Max. file size	2000
Size type	GB	Allow Navigation	True
Ftp Server Type	Default	FTP Passive Mode	<input type="checkbox"/>
Ftp Server Secured	<input type="checkbox"/>		
UserName *	ftplib	Password *	.....



# יצירת logical set

The screenshot displays the Alma library management system interface. The top navigation bar includes the Alma logo, a search bar, and user information: "Currently at: Younes and Soraya Nazarian ...". The main content area is divided into four columns: ACQUISITIONS, RESOURCE MANAGEMENT, FULFILLMENT, and ADMINISTRATION. The "Repository Search" option under "Search and Sets" in the "RESOURCE MANAGEMENT" section is highlighted in yellow. The left sidebar contains a numbered list of items from 1 to 20, corresponding to the main content area.

הספרייה  
הערוץ שלי למידע

# יצירת logical set



Alma - אוניברסיטת חיפה

Repository Search

Find  where  contains   [Advanced search](#) [Saved queries](#)

Limit results to:  
No facets available.

Primary Sort by  Secondary Sort by

No records were found.

# יצירת logical set



מספרי יצירות יונס וסוראיה נזריאן  
המכון הלאומי לחקר התרבות וההיסטוריה

Alma

Repository Search Save

Find  where  contains  Go [Advanced search](#) [Saved queries](#)

Limit results to:

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

Primary Sort by  Secondary Sort by

1 2 3   1 - 20 of 118 Records

- Alternate worlds : the illustrated history of science fiction / by James Gunn ; [with an introduction by Isaac Asimov]**  
**Book {Book - Physical}** By Gunn, James E., ([Englewood Cliffs, N.J.] : A & W Visual Library [c1975])  
Language: English Record number: (Aleph)000421160HAI01  
**Availability:** [Physical version](#) at **H1: GEN44; PN3448.S45 G8** (1 copy, 0 available)  
[Edit](#) | [Order](#) | [Request](#) | [Document Delivery](#) | [Add to reading list](#) | [Holdings](#) | [Items](#) | [Add to collection](#) | [Linked Data](#) | [Reminders](#) | [More info](#)
- Asimov on physics / Isaac Asimov**  
**Book {Book - Physical}** By Asimov, Isaac, (New York : Avon Books 1979)  
ISBN: 0380418487  
Subject: Physics Science Language: English Record number: (Aleph)000327857HAI01  
**Availability:** [Physical version](#) at **H1: GEN40; QC24.5 .A78 1979** (1 copy, 1 available)  
[Edit](#) | [Order](#) | [Request](#) | [Document Delivery](#) | [Add to reading list](#) | [Holdings](#) | [Items](#) | [Add to collection](#) | [Linked Data](#) | [Reminders](#) | [More info](#)
- Asimov on science fiction / Isaac Asimov**  
**Book {Book - Physical}** By Asimov, Isaac, (Garden City, N.Y. : Doubleday 1981)  
Edition: 1st ed.  
Subject: Science fiction--History and criticism Language: English Record number: (Aleph)000054328HAI01  
**Availability:** [Physical version](#) at **H1: GEN40; PN3448.S45 A86** (1 copy, 1 available)  
[Edit](#) | [Order](#) | [Request](#) | [Document Delivery](#) | [Add to reading list](#) | [Holdings](#) | [Items](#) | [Add to collection](#) | [Linked Data](#) | [Reminders](#) | [More info](#)
- Asimov's biographical encyclopedia of science and technology : the living stories of more than 1000 great scientists from the age of Greece to the space age, chronologically arranged / by Isaac Asimov**  
**Book {Book - Physical}** By Asimov, Isaac, (Garden City : Doubleday 1964)  
Subject: Scientists--Biography--Chronology Scientists--Biography--Dictionaries Language: English Record number: (Aleph)000998078HAI01  
**Availability:** [Physical version](#) at **H1: GEN40; Q141 .A74 1964** (1 copy, 1 available)  
[Edit](#) | [Order](#) | [Request](#) | [Document Delivery](#) | [Add to reading list](#) | [Holdings](#) | [Items](#) | [Add to collection](#) | [Linked Data](#) | [Reminders](#) | [More info](#)
- Asimov's chronology of the world / Isaac Asimov**  
**Book {Book - Physical}** By Asimov, Isaac, (New York, N.Y. : HarperCollins Publishers c1991)  
Edition: 1st ed.  
ISBN: 0062700367

הספרייה  
הערצת שלילי לנחמה



# יצירת logical set

## Additional conditions



Advanced Search - Add Conditions

All titles

- National bibliography number
- Publisher number
- Standard number
- Other System Number
- Copyright Note
- Notes
- Local notes
- Description
- MMS ID
- Record Format
- Bibliographic format
- Bibliographic level
- Date type status

[Cancel](#) [Add Conditions](#)

# יצירת logical set

## Save query



Alma  [Tasks](#) [Analytics](#) Currently at: Younes and Soraya Nazarian ... [Help](#) בראנט, יוסף [Cancel](#) [Save](#)

[Set Details](#) [Cancel](#) [Save](#)

Set name - Set type **Logical** Set ID -

**General Information**

Set name **Isaac Asimov Retrospective**

Description Catalog of books by Isaac Asimov in collection of University of Haifa Library

Note

Set content type All Titles Private  No  Yes

Status  Active  Inactive Status date 04/12/2016 16:50

Created by Ex Libris Updated by Ex Libris

Content Origin Institution only

[Cancel](#) [Save](#)

# יצירת logical set



Manage Sets Back

**Set "Isaac Asimov Retrospective" has been successfully saved.**

My Sets Public Sets All Sets

Filter: All Find: in: Created by Go

Add Set 1 - 8 of 8 Sets Columns Tools

Active	Name	Type	Contents Type	Creation Date	Actions
✓	<a href="#">035 Aleph</a>	Logical	All Titles	15/09/2016 12:37	Actions
✓	<a href="#">All Course Records</a>	Logical	All Titles	21/08/2016 10:02	Actions
✓	<a href="#">All Electronic Portfolios</a>	Logical	Electronic portfolios	16/08/2016 09:53	Actions
✓	<a href="#">Courses 2017</a>	Logical	All Titles	06/09/2016 10:31	Actions
✓	<a href="#">Courses 2017 - combined - 15/09/2016 12:38</a>	Itemized	All Titles	15/09/2016 12:41	Actions
✓	<a href="#">Electronic Portfolios Journal Packages</a>	Logical	Electronic portfolios	16/08/2016 12:40	Actions
✓	<a href="#">Electronic Portfolios Mixed Material Packages</a>	Logical	Electronic portfolios	16/08/2016 12:56	Actions
✓	<b>Isaac Asimov Retrospective</b>	<b>Logical</b>	All Titles	04/12/2016 16:50	Actions

Add Set 1 - 8 of 8 Sets Tools



# הרצת job מבוסס על logical set

[Back to Home Page](#)



## ACQUISITIONS

### Purchase Order Lines

- Search for PO Line
- Order Without Inventory
- Review
- Claim
- Renew
- Review Deferred
- Manage Trials
- Manage EDI Tasks

### Purchase Order

- Package
- Review
- Approve
- Delete PO

### Purchase Requests

- Create Purchase Request
- Manage Purchase Requests

### Receiving and Invoicing

- Search for Invoice
- Receive
- Create Invoice
- Review
- Approve
- Waiting for Payment

### Post-Receiving Processing

- Receiving Department Items
- Scan In Items

### Import

- Import
- Monitor and View Imports
- Resolve Import Issues

### Acquisitions Infrastructure

- Vendors

## RESOURCE MANAGEMENT

### Search and Sets

- Repository Search
- Manage Sets
- Manage Exports
- Manage Collections

### Cataloging

- Search External Resources
- Browse Bibliographic Headings
- Browse Shelf Listing
- Open Metadata Editor
- Authority Control Task List
- Reminders

### Create Inventory

- Add Local Electronic Collection
- Add Local Portfolio
- Add Physical Item
- Add Digital Representation

### Manage Inventory

- Community Zone Updates Task List
- Manage Electronic Resource Activation
- Shelf Report

### Import

- Import
- Upload Single Record From File
- Monitor and View Imports
- Resolve Import Issues

### Advanced Tools

- Overlap and Collection Analysis
- Duplicate Title Analysis
- Digital Uploader

### Resource Configuration

- Configuration Menu

## FULFILLMENT

### Resource Requests

- Scan In Items
- Manage In Process Items
- Approve Digitization Requests
- Monitor Requests & Item Processes

### Course Reserves

- Courses
- Reading Lists

### Resource Sharing

- Partners
- Rota Templates

### Advanced Tools

- Fulfillment Configuration Utility
- Create Fulfillment Sets
- Bulk Change Due Dates
- View Restore Request Jobs
- View Overdue and Lost Loan Jobs
- Items Requiring Action
- Transfer requests
- Create Fines And Fees Report
- Bulk Citation Inventory Enrichment

### Fulfillment Configuration

- Configuration Menu

## ADMINISTRATION

### User Management

- Find and Manage Users
- Purge User Records
- Load Desk/Department Operators
- Bulk Fine Waiving
- Manage Sets
- User Identifier Types

### User Management Configuration

- Configuration Menu

### General Configuration

- Configuration Menu

### Advanced Tools

- HealthCheck Dashboard

### Analytics

- Design Analytics
- Configuration Menu
- Subscribe to Analytics

### Manage Jobs

- Run a Job
- Monitor Jobs
- Restore Jobs

# הרצת job מבוסס על logical set



Alma

Tasks Analytics Currently at: Younes and Soraya Nazarian ...

בראנס יוסף Help

Run a Job - Select Job to Run

1 2 3 4 5 Cancel Next

Job List

Type Export Source type All Find: in: Description Go

1 - 7 of 7 Task Chains Columns Tools

	Name	Description	Content Type	Type
1	Export URLs	Export URLs of bibliographic records / electronic resources / digital titles	Versatile	Export
2	Export Physical Items Labels	Export physical items labels for printing	Physical item	Export
3	Export Physical Items	Export Physical Items	Physical item	Export
4	Export Electronic Portfolios	Export active electronic portfolios information	Portfolio	Export
5	Export Digital Titles	Export Digital Records	Digital title	Export
6	Export Bibliographic Records	Export set of Bibliographic Records	Bibliographic title	Export
7	Export Authority records	Export set of local authority records	Authority MMS	Export

1 - 7 of 7 Task Chains Tools

Cancel Next

# הרצת job מבוסס על logical set



ארכיון הלימודים וההוראה  
אוניברסיטת חיפה

Alma

Run a Job - Select Set

Find: **asimov** in: **Name** Go

1 - 20 of 275 Sets Columns Tools

	Name	Type	Content Type	Create Date
1	035_Aleph	Logical	All Titles	15/09/2016 12:37
2	090/098 on order and Holding not yet ordered	Logical	Physical titles	27/10/2016 15:01
3	0test	Logical	All Titles	31/10/2016 16:19
4	338_\$bnc	Logical	Electronic titles	08/11/2016 13:03
5	4002	Logical	All Titles	20/09/2016 09:18
6	4002all	Logical	All Titles	20/09/2016 09:20
7	4002all - combined - 20/09/2016 09:23	Itemized	All Titles	20/09/2016 09:24
8	4038	Logical	All Titles	27/10/2016 09:29
9	42002016	Logical	All Titles	27/10/2016 09:45
10	42352016	Logical	All Titles	25/10/2016 11:26
11	42352016 - combined - 25/10/2016 11:29	Itemized	All Titles	25/10/2016 11:30
12	42352017	Logical	All Titles	25/10/2016 11:18
13	42352017 - combined - 25/10/2016 11:27	Itemized	All Titles	25/10/2016 11:28
14	655 Qualitative research and Quantitative research	Logical	All Titles	21/09/2016 15:36
15	901 contains keywords "ASA02" and Tag Suppressed equals "No" - itemized - 28/07/2016 17:10	Itemized	All Titles	28/07/2016 17:10
16	902_author_and_more	Logical	All Titles	01/09/2016 14:56
17	902_Yosef	Logical	All Titles	01/09/2016 14:55
18	902_Yosef - combined - 01/09/2016 14:59	Itemized	All Titles	01/09/2016 15:00
19	904_905	Logical	All Titles	25/09/2016 07:12
20	990002559960402791	Logical	All Titles	05/09/2016 14:05

1 - 20 of 275 Sets Tools

הספרייה  
הערוץ שלי למידע

# הרצת job מבוסס על logical set



Alma

Tasks Analytics Currently at: Younes and Soraya Nazarian ...

בראנט, יוסף Help

Run a Job - Select Set

1 2 3 4 5 Back Cancel Next

Content Type All Find: asimov in: Name Go

1 - 1 of 1 Sets Columns Tools

	Name	Type	Content Type	Create Date
1	Isaac Asimov Retrospective	Logical	All Titles	04/12/2016 16:50

Back Cancel Next

# הרצת job מבוסס על logical set



Alma אניברסיטת חיפה Tasks Analytics Currently at: Younes and Soraya Nazarian ... בראנס, יוסף Help

**Run a Job - Enter Task Parameters** 1 2 3 4 5 Back Cancel Next

**The selected set contains 118 members.**

**Task Parameters: Export Bibliographic Records**

Physical format	XML
Output format	MARC21 Bibliographic
Number of records in file	One File
Expand routine	
Export into folder	Private
FTP configuration	Haifa FTP
Sub-directory (Path relative to ftp configuration)	booklists

Back Cancel Next



# הרצת job מבוסס על logical set



Alma - [Tasks](#) [Analytics](#) Currently at: Younes and Soraya Nazarian ... [Help](#) בראנס, יוסף

[Run a Job - Review and Confirm](#) 1 2 3 4 5 [Back](#) [Cancel](#) [Submit](#)

**General Information**  
Job Name Export Bibliographic Records - Isaac Asimov Retrospective - 12/12/2016 13:26

**Set Information**  
Set ID 4958698090002791  
Name Isaac Asimov Retrospective  
Set Size 118

**Scheduling**  
Schedule As soon as possible

**Task Parameters: Export Bibliographic Records**  
Physical format XML  
Output format MARC21 Bibliographic  
Number of records in file One File  
Expand routine  
Export into folder Private  
FTP configuration Haifa FTP  
Sub-directory (Path relative to ftp configuration) booklists

[+ API Information](#)

[Back](#) [Cancel](#) [Submit](#)



# תוצאות השליפה -

## קובץ פלט XML הועתק לתיקייה בשרת

```
ftplib
File Edit View Terminal Tabs Help
drwxrwxrwx 3 ftplib ftp 4096 Jul 15 07:03 alma
drwxrwxr-x 2 ftplib ftp 4096 Jun 28 11:46 boaz
drwxrwxr-x 3 ftplib ftp 77824 Dec 4 06:00 course_readings
drwxrwxr-x 2 ftplib ftp 4096 Nov 22 14:31 digitool
drwxrwxrwx 3 ftplib ftp 4096 Dec 4 08:59 export
drwxrwxr-x 2 ftplib ftp 4096 Oct 24 22:40 export_fines
drwxrwxr-x 2 ftplib ftp 204800 Dec 4 17:00 export_users
drwxrwxr-x 3 ftplib ftp 4096 Jul 14 13:41 import
drwxrwxr-x 4 ftplib ftp 4096 Nov 29 11:57 invoices
drwxr-xr-x 2 ftplib ftp 4096 Sep 6 10:25 orders
drwxrwxr-x 2 aleph exlibris 4096 Aug 2 14:37 primo
drwxrwxr-x 2 ftplib ftp 4096 Nov 5 03:06 subjects
drwxrwxr-x 2 ftplib ftp 4096 Dec 4 08:00 synchronize
drwxrwxr-x 2 ftplib ftp 4096 Dec 2 07:08 uli
[ftplib@balephprod ~/alma]$ mkdir ./booklists
[ftplib@balephprod ~/alma]$ cd ./booklists
[ftplib@balephprod booklists]$ ls -l
total 212
-rw-rw-rw- 1 ftplib ftp 211345 Dec 4 17:42 BIBLIOGRAPHIC_4869056510002791_1.xml
[ftplib@balephprod booklists]$ cd ../
[ftplib@balephprod ~/alma]$ ls -l ./booklists
total 212
-rw-rw-rw- 1 ftplib ftp 211345 Dec 4 17:42 BIBLIOGRAPHIC_4869056510002791_1.xml
[ftplib@balephprod ~/alma]$
```



# תוצאות השליפה -

## קובץ פלט XML הועתק לתיקייה בשרת

```
ftplib
File Edit View Terminal Tabs Help
<?xml version="1.0" encoding="UTF-8"?>
<collection><record><leader>00700nam a2200217 a 4500</leader><controlfield tag="
001">990000862900402791</controlfield><controlfield tag="005">20160824211853.0</
controlfield><controlfield tag="008">160725s1985 a r 000 0 eng d</c
ontrolfield><datafield tag="010" ind1=" " ind2=" "><subfield code="a">84009179</
subfield></datafield><datafield tag="020" ind1=" " ind2=" "><subfield code="a">0
825302250</subfield></datafield><datafield tag="035" ind1=" " ind2=" "><subfield
code="a">(Aleph)000086290HAI01</subfield></datafield><datafield tag="035" ind1=
" " ind2=" "><subfield code="a">(0CoLC)10723053</subfield></datafield><datafield
tag="035" ind1=" " ind2=" "><subfield code="a">0086290HAI</subfield></datafield
><datafield tag="041" ind1="0" ind2=" "><subfield code="a">eng</subfield></dataf
ield><datafield tag="090" ind1=" " ind2=" "><subfield code="a">CB161</subfield><
subfield code="b">.L496 1985</subfield></datafield><datafield tag="245" ind1="0"
ind2="0"><subfield code="a">Living in the future /</subfield><subfield code="c"
>edited by Isaac Asimov ; devised by Peter Nicholls</subfield></datafield><dataf
ield tag="260" ind1=" " ind2=" "><subfield code="a">Dunton Green, Kent :</subfie
ld><subfield code="b">New English Library,</subfield><subfield code="c">1985</su
bfield></datafield><datafield tag="300" ind1=" " ind2=" "><subfield code="a">288
p. :</subfield><subfield code="b">ill. (1 col.) ;</subfield><subfield code="c">
25 cm.</subfield></datafield><datafield tag="650" ind1=" " ind2="7"><subfield co
de="a">Twenty-first century</subfield><subfield code="v">Forecasts</subfield><su
bfield code="9">lat</subfield><subfield code="2">NLI</subfield></datafield><data
field tag="700" ind1="1" ind2=" "><subfield code="a">Asimov, Isaac,</subfield><s
--More-- (0%)
```

# Acquisitions Sets



The screenshot displays the Alma library system interface. At the top, there is a search bar and the Alma logo. Below the search bar, the user is logged in as 'Set' and can click 'Back to Home Page'. The main content area is divided into two columns. The left column contains a sidebar with a 'General' tab selected. The right column is titled 'ACQUISITIONS' and lists various functions under several sub-headings: 'Purchase Order Lines', 'Purchase Order', 'Purchase Requests', 'Receiving and Invoicing', 'Post-Receiving Processing', 'Import', 'Acquisitions Infrastructure', 'Advanced Tools', and 'Acquisitions Configuration'. The 'Manage Sets' option under 'Advanced Tools' is highlighted in yellow. The right column also contains a 'RESOURCE MANAGEMENT' section with sub-headings like 'Search and Sets', 'Cataloging', 'Create Inventory', 'Manage Inventory', and 'Import'.

# Acquisitions Sets PO Line Search



מספריית יונס וסוראיה נזריאן  
ארכיון המידע והספרים  
מספריית יונס וסוראיה נזריאן

Alma

Tasks Analytics Currently at: Younes and Soraya Nazarian ...

Search for PO Line

Set name PO Search Set type logical Set content type PO Lines

Advanced Search

Find		in	Title
Workflow	Equals		
Material Supplier	Equals		
Material Supplier Account	Contains Keywords		
Access Provider	Equals		
Acquisition Method	Equals		
Fund Code	Equals		
Fund Name	Contains Keywords		
License Code	Equals		
Rush	Equals		
Cancellation restriction	Equals		
Reporting Code	Equals		
PO Line Type	Equals		

Go

# Publishing Profile

- ייצוא של פריטים מ-set לפי הפרמטרים שנקבעו
- שמירת תוצאות בקובץ XML בתיקייה מוגדרת בשרת FTP
- תזמון הרצה למועדים קבועים



# Built-in Publishing Profiles



**Publishing Profiles** [Back](#)

Publishing Profile Type **Built-in Profiles**

[Add Profile](#) 1 - 7 of 7 Records Columns Tools

	Active	Name	Description	Modification Date	
1		Publish bibliographic record (DataSync) to OCLC	Synchronize your local catalog with WorldCat	-	<a href="#">Actions</a>
2		Publish bibliographic records to <b>Primo</b>	Setup the parameters for publishing bibliographic records to Primo	16/11/2016	<a href="#">Actions</a>
3		Publish electronic records to <b>Google Scholar</b>	Publish electronic records to Google Scholar	02/09/2016	<a href="#">Actions</a>
4		Publish electronic records to <b>Primo Central</b>	Publish electronic records to Primo Central	30/05/2016	<a href="#">Actions</a>
5		Publish electronic record to PubMed	Synchronize electronic records with PubMed	-	<a href="#">Actions</a>
6		Publish holdings to Libraries Australia	Upload Holdings to Libraries Australia	-	<a href="#">Actions</a>
7		Publish your Local Holdings Records (LHRs) to OCLC	Make your library's Local Holdings Records (LHRs) accessible through WorldCat	-	<a href="#">Actions</a>

[Add Profile](#) 1 - 7 of 7 Records Tools

# Built-in Publishing Profiles – Google Scholar



Alma

Tasks Analytics Currently at: Younes and Soraya Nazarian ...

### Publishing Profile Details

Profile name \* Publish electronic records to Google Scholar

Profile description Publish electronic records to Google Scholar

Status  Active  Inactive

Scheduling Every Saturday at 02:00 [Email Notifications](#)

#### Registration Parameters

Display name University of Haifa Library  
(institution name will be used as default)

keywords(1)

keywords(2)

keywords(3)

keywords(4)

keywords(5)

Label of resolver links Fulltext@Haifa Library  
(when article exists electronically)

Label of resolver links More options@Hai-Library  
(when article does not exist electronically)

OpenURL base http://haifa-primos.hosted.exlibrisgroup.com/openurl/972HAI\_MAIN/NHAU\_SP?

Patron IP range 132.74.\*.\*; 132.75.\*.\*  
(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 users that come from your IP range?  Yes  No

#### Contact Information for Technical Issue

First Name \* Yosef

Last Name \* Branse

Email address \* jody@univ.haifa.ac.il

Last Harvesting Date 29-11-2016 01:23



# Built-in Publishing Profiles – Google Scholar

- harvest ע"י GS פעם בשבוע
- אין גישה לקובץ הפלט – נוצר על שרתי עלמא בענן, לא בשרת FTP של הספרייה
- במערכת SFX, הקובץ שנוצר בשביל GS –  
Insitutional\_holdings.xml – היה זמין ונקלט גם ע"י EDS. בעלמא חייבים להריץ publishing בנפרד עבור EDS.





# Built-in Publishing Profiles

אופציות תזמון מוגדרות מראש ומוגבלות ביותר!:

- Google Scholar: Every Saturday - **OR** – Sunday at 02:00
- Primo: Every 6 hours (from 01:00, 03:00, OR 05:00) – **OR** – every Saturday at 05:00 – **OR** – every day at 05:00
- Primo Central: Every Wednesday at 02:00



# Local (“General”) Publishing Profiles

Publishing Profiles [Back](#)

Publishing Profile Type **General Profiles**


[Add Profile](#) 1 - 9 of 9 Records Columns [Tools](#)

	Active	Name	Description	Modification Date	
1	<input type="checkbox"/>	4primo	-	08/06/2016	<a href="#">Actions</a>
2	<input type="checkbox"/>	902_2017_Alma	Bib records for items linked to courses for academic year 2016-2017, that exist in Alma only (no source record in Aleph).	09/10/2016	<a href="#">Actions</a>
3	<input checked="" type="checkbox"/>	ASAJ_Export	-	30/11/2016	<a href="#">Actions</a>
4	<input type="checkbox"/>	check_alma_2_primo	-	11/09/2016	<a href="#">Actions</a>
5	<input checked="" type="checkbox"/>	Course_Records_Republish	-	24/11/2016	<a href="#">Actions</a>
6	<input checked="" type="checkbox"/>	<b>Course_Records_Update</b>	-	28/11/2016	<a href="#">Actions</a>
7	<input checked="" type="checkbox"/>	Export MARC XML for Digitool	-	22/11/2016	<a href="#">Actions</a>
8	<input type="checkbox"/>	Recent_902	-	09/10/2016	<a href="#">Actions</a>
9	<input checked="" type="checkbox"/>	ULI	-	01/12/2016	<a href="#">Actions</a>

[Add Profile](#) 1 - 9 of 9 Records [Tools](#)

# Publishing Profile – Course Records Update



 **Alma**  Tasks Analytics Currently at: Younes and Soraya Nazarian ... He

**Publishing Profile Details**

Profile Id 4351023980002791 Profile Name Course\_Records\_Update

**Profile Details** | **Data Enrichment**

Profile Name \*

Profile Description

Status  Active  Inactive

Scheduling

**Content**

Set name \*

Filter Records

Publish on: Bibliographic level

Output format MARC21 Bibliographic

Publishing Mode  Incremental  Full  Date Range  Republish Set

**Publishing Protocol**

FTP

FTP configuration \*  Sub-directory

Single File Configuration

Physical format

Number of records in file

Output File Configuration

Use default file name  No  Yes

File name \*

Compressed file extension tar.gz



# Publishing Profile – Course Records Update

- מבוסס על set קיים
- אפשר לבחור שם שונה מה-set המקורי
- אופציות תזמון מצומצמות
- יוצר קובץ דחוס –

*Course\_Records\_Update\_new.tar.gz*

*Course\_Records\_Update\_delete.tar.gz*

# תזמון תהליכים



**Alma**  Tasks Analytics Currently at: Younes and Soraya Nazarian ...

**Publishing Profile Details**

Profile Id: 4351023980002791 Profile Name: Course\_Records\_Update

Profile Details | Data Enrichment

Profile Name: Course\_Records\_Update

Profile Description:

Status:  Active  Inactive

Scheduling: Every day at 01:00 Email Notifications

**Content**

Set name: All\_Course\_Records

Filter Records:

Publish on: Bibliographic level

Output format: MARC21 Bibliographic

Publishing Mode:  Incremental  Full  Date Range  Republish Set

**Publishing Protocol**

FTP:

FTP configuration: Haifa FTP Sub-directory: course\_readings

Single File Configuration

Physical format: XML

Number of records in file: One File

Output File Configuration

Use default file name:  Yes  No

File name: Course\_Records\_Update

Compressed file extension: tar.gz



# תזמון תהליכים

**לא גמיש – סה"כ שש אפשריות:**

- שבועי ביום א'
- יומי (אחת מתוך ארבע שעות)
- חודשי בראשון לחודש

**I miss crontab! ☹️**

**למרות מגבלות התזמון, ניתן לשלוח תהליך  
כלשהו באופן יזום מתי שרוצים!**

# Integration Profiles for Third-Party Systems



אוניברסיטת חיפה  
פריית יונס וסוראיה נזריאן

The screenshot shows the Alma Configuration interface for the University of Haifa. The main navigation bar includes 'Configuration' and 'You are configuring: University of Haifa'. The 'General' section is active, showing various configuration categories:

- Libraries:** Add a Library or Edit Library Information, Relationships, Define Campuses
- Locations:** Physical Locations, Remote Storage
- Work Orders and Departments:** Work Order Types, Work Order Departments
- External Systems:** Integration Profiles, S/FTP definitions
- User Interface Settings:** Alma Logo and Color Scheme, Delivery System Skins, Policies, Social Login Labels
- General Configuration:** Letter emails, Letter Activity, Notification Template, XML To Letter Admin, Customize Letters, Other Settings, Institution Languages, Home page Notifications, CRM Contacts, Staff Login Report

הספרייה  
הערוץ שלי למידע



# Integration Profiles for Third-Party Systems



Alma אניברסיטת חיפה בראנס, יוסף Help Tasks Analytics Currently at: Younes and Soraya Nazarian ...

**Integration Profile List** Back

Integration Profile List

Integration Type  Find:  in: **Name**

1 - 9 of 9 Records

Name	Code	Description	Integration Type	Updated By	Status Date	Actions
<a href="#">BX Harvest</a>	BX	-	Link Resolver Statistics	System	11/12/2016	<input type="button" value="Actions"/>
<a href="#">Connexion</a>	Connexion	-	OCLC Connexion	admin	13/06/2016	<input type="button" value="Actions"/>
<a href="#">OAI DEFINITION</a>	OAI_DEFINITION	Digitool Harvesting	OAI Repository Definition	admin	21/03/2016	<input type="button" value="Actions"/>
<b><a href="#">Invoice Payment</a></b>	PayInvoices	Export invoices ready for payment as XML file, for processing (by Library script) into payment orders for submission to University financial office.	Finance	011205887	29/11/2016	<input type="button" value="Actions"/>
<a href="#">SAML-DEV</a>	SAML Dev	-	SAML	admin	17/03/2016	<input type="button" value="Actions"/>
<a href="#">SAML-PROD</a>	SAML Prod	-	SAML	admin	20/07/2016	<input type="button" value="Actions"/>
<a href="#">Student Information System</a>	SIS	Student Information System	Users	admin	28/11/2016	<input type="button" value="Actions"/>
<a href="#">Staff Information System</a>	STIS	Staff Information System	Users	027467075	28/11/2016	<input type="button" value="Actions"/>
<a href="#">Z39.50</a>	Z39.50	-	Z39.50 Server	011127776	14/06/2016	<input type="button" value="Actions"/>

1 - 9 of 9 Records





# Integration Profiles –

## תשלום חשבונות

□ נוצר קובץ XML בתיקייה המיועדת.

□ סטטוס החשבונות עודכן ל- *Waiting for*

*Payment*

□ פרטי חשבונות בקובץ XML נקלטו בטבלה

מקומית לצורך הפקת הוראות תשלום

**מודפסות לאגף הכספים**



# Integration Profiles – תשלום חשבונות



```
</xml version="1.0" encoding="UTF-8" />
<payment_data xmlns="http://com/exlibris/repository/acq/invoice/xmlbeans">
  <invoice_list>
    <invoice>
      <invoice_number>1800016403</invoice_number>
      <invoice_owner>University of Haifa</invoice_owner>
      <invoice_amount>
        <currency>USD</currency>
        <sum>416.74</sum>
      </invoice_amount>
      <vendor_code>EBSCON</vendor_code>
      <vendor_name>EBSCO-EBBOOKS</vendor_name>
      <vendor_liable_for_vat>>false</vendor_liable_for_vat>
      <vendor_payment_address_list>
        <payment_address preferred="false">
          <line1>BANK ACCOUNT NO. 77008</line1>
          <line2>DEUTSCHE BANK SPA - VIA VIOTTI, 4D – 10121 TORINO - ITALY</line
2>
          <line3>ABI 03104 - CAB 01000 SWIFT CODE: DEUTITMMTOR</line3>
          <line4>IBAN IT44X 031040 1000 770008VARUSD</line4>
          <note>Enrico Ronfani [ERonfani@ebSCO.com]</note>
          <types>
            <type>Payment</type>
```



# תזמון תהליכים

גם כאן אופציות מוגבלות:

☐ כל יום ד' בשעה 03:00 **או**

יום ה' בשעה 06:00

☐ כל יום בשעה 03:00 **או** 12:00 **או** 17:00 **או**

19:00 **או** 20:00

☐ מצב דומה עבור תהליך ה-import

# Integration Profiles – אישור תשלום בעלמא



```
<?xml version="1.0" encoding="UTF-8"?>
<xb:payment_confirmation_data xmlns:xb="http://com/exlibris/repository/acq/xmlbeans"
ans">
<xb:invoice_list>
<xb:invoice>
  <xb:vendor_code>ABEDE</xb:vendor_code>
  <xb:invoice_number>104637096</xb:invoice_number>
  <xb:unique_identifier>4363619940002791</xb:unique_identifier>
  <xb:payment_status>PAID</xb:payment_status>
  <xb:invoice_date>20160914</xb:invoice_date>
  <xb:payment_voucher_date>20161025</xb:payment_voucher_date>
  <xb:payment_voucher_number>2017-1973</xb:payment_voucher_number>
  <xb:voucher_amount>
    <xb:currency>EUR</xb:currency>
    <xb:sum>44.9</xb:sum>
  </xb:voucher_amount>
  <xb:exchange_rates_list>
    <xb:exchange_rate>
      <xb:foreign_currency>EUR</xb:foreign_currency>
      <xb:exchange_rate>4.188</xb:exchange_rate>
      <xb:explicit_rate>true</xb:explicit_rate>
    </xb:exchange_rate>
  </xb:exchange_rates_list>
```

# API

(Application Programming Interface)

**Application program interface (API)** is a set of routines, protocols, and tools for building software applications... specifies how software components should interact

[What is API - Application Program Interface?](#)  
[Webopedia](#)

*[www.webopedia.com/TERM/A/API.html](http://www.webopedia.com/TERM/A/API.html)*





# API

## EXL Developers' Network

ExLibris  
a Product Company

Haifa University 972HAI\_MAIN

Developer Network Docs Tech Blog Code & Apps Forum Dashboard

Put Ex Libris products at the center of your library ecosystem.

Learn Code & Apps

Resources: Primo Alma Rosetta Leganto bX SFX Aleph Voyager

**From the Tech Blog**

- DEC 05 Integrating Blacklight with Alma and an Ex Libris Central Index  
Josh Weisman
- NOV 24 RefME Cite button for Primo  
James Clark
- NOV 23 Derivative Copy Submission Tool  
Adi Kozar
- NOV 21 Hosting a Webhook Listener in AWS  
Josh Weisman

**Top Code & Apps**

- Integrating Blacklight with Alma and an Ex Libris Central Index  
CODE & APPS ALMA  
RefME Cite button for Primo  
CODE & APPS PRIMO  
Derivative Copy Submission Tool  
CODE & APPS ROSETTA  
Hosting a Webhook Listener in AWS  
CODE & APPS ALMA WEBHOOKS

**Get Help**

Got Questions?  
The Ex Libris Developer Network Forum is the place to go. Search the forum for instant help, or ask a question and get help from knowledgeable customers and Ex Libris staff.

Join a discussion

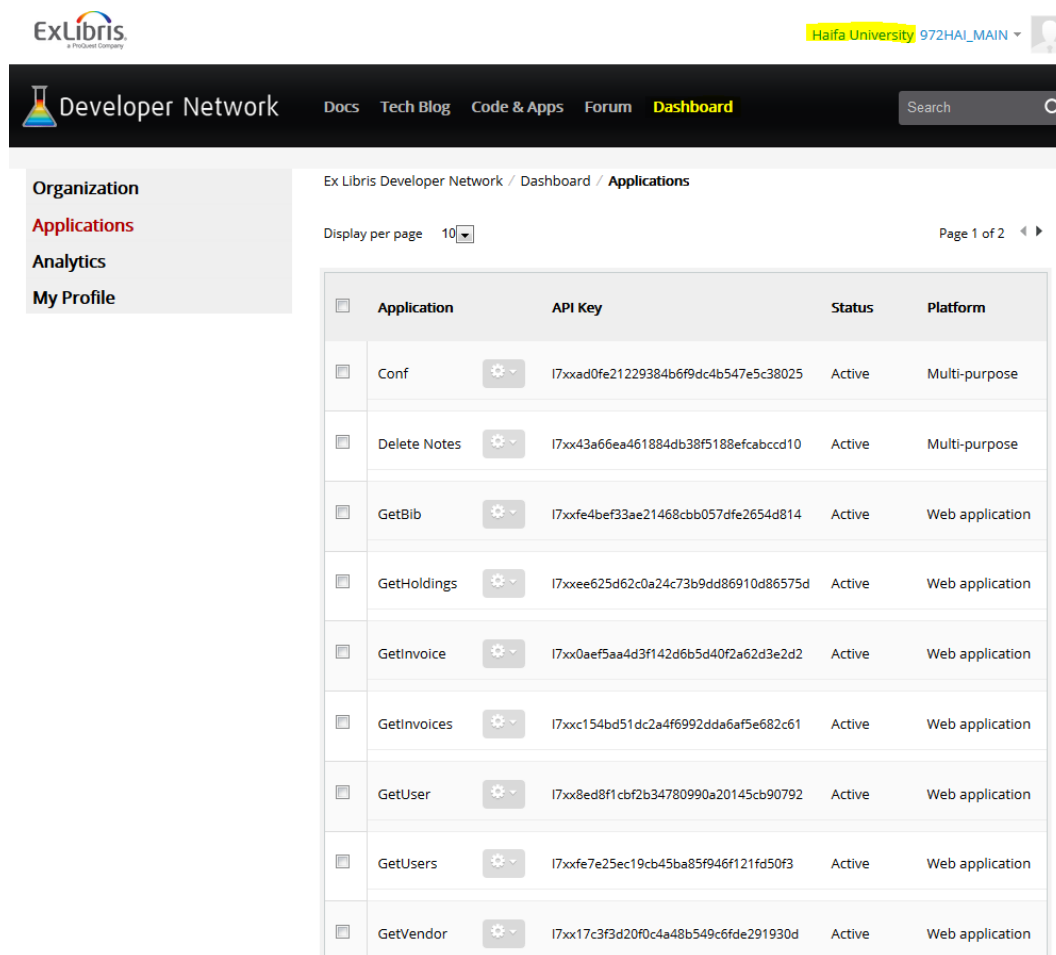
Need help with our blog and forum? We recommend checking out these [Blog](#) and [Forum Tips](#).

הספרייה  
הערוץ שלי למידע



# API

## EXL Developers' Network



The screenshot shows the Ex Libris Developer Network dashboard. The user is logged in as 'Haifa University' with ID '972HAI\_MAIN'. The dashboard has a navigation menu with 'Docs', 'Tech Blog', 'Code & Apps', 'Forum', and 'Dashboard' (selected). A search bar is also present. On the left, there is a sidebar with 'Organization', 'Applications' (selected), 'Analytics', and 'My Profile'. The main content area displays a table of applications with columns for 'Application', 'API Key', 'Status', and 'Platform'. The table lists 10 applications, all of which are 'Active'.

<input type="checkbox"/>	Application	API Key	Status	Platform
<input type="checkbox"/>	Conf	I7xxad0fe21229384b6f9dc4b547e5c38025	Active	Multi-purpose
<input type="checkbox"/>	Delete Notes	I7xx43a66ea461884db38f5188efcabcccd10	Active	Multi-purpose
<input type="checkbox"/>	GetBib	I7xxfe4bef33ae21468cbb057dfe2654d814	Active	Web application
<input type="checkbox"/>	GetHoldings	I7xxee625d62c0a24c73b9dd86910d86575d	Active	Web application
<input type="checkbox"/>	GetInvoice	I7xx0aef5aa4d3f142d6b5d40f2a62d3e2d2	Active	Web application
<input type="checkbox"/>	GetInvoices	I7xxc154bd51dc2a4f6992dda6af5e682c61	Active	Web application
<input type="checkbox"/>	GetUser	I7xx8ed8f1cbf2b34780990a20145cb90792	Active	Web application
<input type="checkbox"/>	GetUsers	I7xxfe7e25ec19cb45ba85f946f121fd50f3	Active	Web application
<input type="checkbox"/>	GetVendor	I7xx17c3f3d20f0c4a48b549c6fde291930d	Active	Web application

הספרייה  
הערוץ שלי למידע



# API דוגמה



Request	Query	Response
---------	-------	----------

GET https://api-eu.hosted.exlibrisgroup.com/almaws/v1/acq/invoices/4718425970002791

PHP

Select Code

```
$ch = curl_init();  
$url = 'https://api-eu.hosted.exlibrisgroup.com/almaws/v1/acq/invoices/{invoice_id}';  
$templateParamNames = array('{invoice_id}');  
$templateParamValues = array(urlencode('4718425970002791'));  
$url = str_replace($templateParamNames, $templateParamValues, $url);  
$queryParams = '?' . urlencode('apikey') . '=' . urlencode('17xx0aef5aa4d3f142d6b5d40f');  
curl_setopt($ch, CURLOPT_URL, $url . $queryParams);  
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);  
curl_setopt($ch, CURLOPT_HEADER, FALSE);  
curl_setopt($ch, CURLOPT_CUSTOMREQUEST, 'GET');  
$response = curl_exec($ch);  
curl_close($ch);  
  
var_dump($response);
```

# Analytics



מכון הלימודים והמחקר  
לאוניברסיטת חיפה  
ספריית יונס וסוראיה נזריאן

הספרייה  
הערואל של חיפה



# סיכום

## בצד השלילי

- ❑ נכון לעכשיו – מבחינת אחזקת מערכות מקומיות - לא מורגש שיפור על מה שעמד לרשותנו באלף
- ❑ חוסר גמישות בתזמון תהליכים גורם עבודה ידנית מיותרת
- ❑ הפרדה בין הענן והשרת המקומי מונע שילוב וסידור תהליכים בצורה יעילה



# סיכום - המשך

## בצד החיובי

□ הוכרחתי ללמוד XML ו-API, שיטות

סטנדרטיות ונפוצות – הרחבת אופקים למתכנת

□ הזדמנות לעשות סדר בתהליכים, תכניות

וקבצים שהצטברו במהלך שנים רבות ולשקול  
מחדש

□ תקווה שפיתוח ממושך של עלמא יפתור

קשיים שחווינו בהתחלה



# סיכום - המשך

## תכנון המעבר

- להכין רשימה של ממשקים עם גורמים מחוץ לספריה (במוסד, ספקים, וכו')
- יידוע והתייעצות עם אנשי קשר (כולל צוות מחשוב מקומי) בשלבים מוקדמים של הפרויקט – לברר דרישות, צרכים טכניים, תקלות צפויות וכו' – שכולם יהיו מודעים לשינויים הבאים
- הגדרת תשתית FTP
- לימוד XML לפי הצורך

# בהצלחה!

יוסף בראנס  
מערכות מידע ספרייטיות  
ספרייט יונס וסוראיה נזריאן  
אוניברסיטת חיפה

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