



OAI Data Provider

Version 16 and later

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Document released: June 2, 2014

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Overview

The Ex Libris OAI (Open Archive Initiative) Data Provider implements the OAI Protocol Version 2.0. It supports 6 OAI-PMH requests specified by the OAI protocol.

For more information, refer to the OAI Web site: <http://www.openarchives.org/>.

OAI Data Provider Configuration

The configuration files are in the `./alephe/tab/oai` directory.

The files are:

- ❑ `oaiconf.xml` – an XML file with OAI Data Provider settings
- ❑ `oaiconf.dtd` – the DTD of `oaiconf.xml`

oaiconf.xml

The `oaiconf.xml` file contains the following data:

1. sets available (shown in ListSets response, can be used in ListRecords and ListIdentifiers requests)
2. timeZone (for example, `-00:00`, used in protocol response to specify responseDate)
3. repositoryName (used in Identify response)
4. baseURL (used in Identify response)
5. adminEmail (used in Identify response)

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE oaiconf SYSTEM "oaiconf.dtd">
<oairoot>
<set>
  <setSpec>USM01</setSpec>
  <setName>USM01 Test library</setName>
</set>
<set>
  <setSpec>UNI01</setSpec>
  <setName>UNI01 Test library</setName>
</set>
<timeZone>-00:00</timeZone>
<repositoryName>ExLibris Israel</repositoryName>
<baseURL>http://ram43:8991/OAI-script</baseURL>
<adminEmail>Irina.Dijour@exlibris.co.il</adminEmail>
</oairoot>
```

oaiconf.dtd

```
<!-- DTD for oaiconf.xml -->

<!ELEMENT oairoot set*>
<!ELEMENT set (setName, setSpec)>
<!ELEMENT timeZone (#PCDATA)>
<!ELEMENT repositoryName (#PCDATA)>
<!ELEMENT baseURL (#PCDATA)>
<!ELEMENT adminEmail (#PCDATA)>
```

How to Run the OAI Data Provider

The OAI data provider is part of our Web server.

To access OAI data, type the following in the address bar of your Web browser
<www host>:<apache port>/OAI-script?<oai request>

where <www host> is the Web server host, <apache port> is the apache port used by the Web server and <oai request> is the OAI protocol request.

For example:

<http://ram43:8991/OAI-script?verb=ListSets>

Note: if the OAI configuration in `./alephe/tab/oai` is changed, the Web server should be restarted.

Protocol Requests and Responses

GetRecord

Summary

Retrieves a specified record in a specified format from the repository.

Arguments

- ❑ **identifier** (required): has the form <base>-<doc number> (for example, USM01-500)
- ❑ **metadataPrefix** (required): supported values – oai_dc, marc21

Request Example

http://ram43:8991/OAI-script?verb=GetRecord&identifier=USM01-500&metadataPrefix=oai_dc

Note: The retrieved documents are fixed using the fix procedures that are defined in the OAI section of the `tab_fix` table. OAI section is used if no fix routine has been defined in the format's `mdFixType` tag in the `alephe_tab/oai/oaiconf.xml` table.

Identify

Summary

Retrieves information about the repository

Arguments

None

Request Example

<http://ram43:8991/OAI-script?verb=Identify>

ListIdentifiers

Summary

Retrieves identifiers of records in the repository.

Arguments

- ❑ **until** (optional): record modification date (for example, 2001-01-01)
- ❑ **from** (optional): record modification date (for example, 2001-01-01)
- ❑ **metadataPrefix** (required): supported values – oai_dc, marc21; only identifiers for records which can be retrieved in the specified format are shown.
- ❑ **set** (optional): set (e.g. USM01), default is USM01
- ❑ **resumptionToken** (exclusive)

Request Examples

<http://ram43:8991/OAI-script?verb=ListIdentifiers>

http://ram43:8991/OAI-script?verb=ListIdentifiers&from=1997-04-02&until=1999-02-01&set=UNI01&metadataPrefix=oai_dc

<http://ram43:8991/OAI-script?verb=ListIdentifiers&resumptionToken=USM01@036983001000000030>

ListMetadataFormats

Summary

Retrieves available metadata formats from the repository.

Ex Libris supports:

oai_dc (http://www.openarchives.org/OAI/2.0/oai_dc.xsd)

marc21 (<http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd>)

Arguments

- ❑ **identifier** (optional): retrieve metadata formats available for specified record

Request Examples

<http://ram43:8991/OAI-script?verb=ListMetadataFormats>

<http://ram43:8991/OAI-script?verb=ListMetadataFormats&identifier=USM01-500>

ListRecords

Summary

Retrieves records from the repository.

Arguments

- ❑ **until** (optional): record modification date (for example, 2001-01-01)
- ❑ **from** (optional): record modification date (for example, 2001-01-01)
- ❑ **metadataPrefix** (required): supported values – `oai_dc`, `marc21`; only records that can be retrieved in the specified format are shown.
- ❑ **set** (optional): set (for example, USM01), default is USM01
- ❑ **resumptionToken** (exclusive):

Request Examples:

http://ram43:8991/OAI-script?verb=ListRecords&metadataPrefix=oai_dc

http://ram43:8991/OAI-script?verb=ListRecord&from=1997-04-02&until=1999-02-01&set=UNI01&metadataPrefix=oai_dc

<http://ram43:8991/OAIscript?verb=ListIdentifiers&resumptionToken=UNI01@036984001000000030>

Note: The retrieved documents are fixed using the fix procedures that are defined in the OAI section of the `tab_fix` table. OAI section is used if no fix routine has been defined in the format's `mdFixType` tag in the `alephe_tab/oai/oaiconf.xml` table.

ListSets

Summary

Retrieves the list of sets from the repository.

Arguments

- ❑ **resumptionToken** (exclusive)

Request Examples:

<http://ram43:8991/OAI-script?verb=ListSets>

Protocol Issues

Datestamp Granularity

Ex Libris supports YYYY-MM-DD granularity for Datestamps

Sets

Ex Libris supports sets. We have flat set organization. Any physical library (specified in `tab_base`) can be used as a set.

Metadata Formats

oai_dc (http://www.openarchives.org/OAI/2.0/oai_dc/oai_dc.xsd)

marc21 (<http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd>)

Fix Routine

As noted above in GetRecord and ListRecords, the retrieved documents are fixed using the fix procedures that are defined in the OAI section of the tab_fix table.

The OAI section is used if no fix routine has been defined in the format's mdFixType tag in the alephe_tab/oai/oaiconf.xml table.

It is possible to define another fix routine.

For example:

In tab_fix (Bibliographic library \$data_tab) add the following:

```
MAN25 fix_doc_punctuation_usm
MAN25 fix_doc_001_prefix_sysno      (USM01)
```

In \$alephe_tab/oai/oaiconf.xml add the following:

```
<md>
  <mdName>marc21</mdName>
  <mdFixType>MAN25</mdFixType>
</md>
```

In this example, the MAN25 routine uses the fix_doc_001_prefix_sysno program that creates a 001 field with the prefix defined in column 3.