OAI Data Provider

Version 16 and later
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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/](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
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE oairoot 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:


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

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

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

Request Examples

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/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:

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](http://www.openarchives.org/OAI/2.0/oai_dc/oai_dc.xsd))
- marc21 ([http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd](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:

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

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

```xml
<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.