



REPOX

Data Aggregation and Interoperability Manager

The screenshot shows the REPOX v2.0.15 web interface. The top navigation bar includes links for Home, Statistics, Schema Mapper, OAI-PMH Tests, Harvesting, Administration, and a language dropdown set to English. Below the navigation bar is a toolbar with buttons for 'Create Aggregator', 'View', 'Create Data Set', 'Manage Data Provider', 'View Info', 'Manage Data Set', 'Ingest Now', 'Harvest', and 'Auto Refresh'. The main content area is a table with the following columns: Name, Name Code, Data Set, OAI-PMH Schemas, Ingest Type, Last Ingest, Next Ingest, Records, and Ingest Status. The table is grouped by country (UK, PL, DE). The row for 'The National Library of Poland' is highlighted in green.

	Name	Name Code	Data Set	OAI-PMH Schemas	Ingest Type	Last Ingest	Next Ingest	Records	Ingest Status
UK	Western Manuscripts								
UK	Medieval and Renaissance Manuscripts	a1009g	oai_dc	OAI-PMH	oai_dc	2012-02-10 16:30		24.421	✓
UK	Greek	a1009e	oai_dc	OAI-PMH	oai_dc	2011-09-29 12:54		2.471	✓
UK	Early Printing - in Europe	a1009d	oai_dc	OAI-PMH	oai_dc	2011-09-29 12:22	2012-05-25 19:10	1.171	✓
UK	Celtic Manuscripts	a1009b	oai_dc	OAI-PMH	oai_dc	2011-12-02 18:21		3.253	✓
UK	CPA Poster Collection	a1009c	oai_dc	OAI-PMH	oai_dc	2011-09-29 12:18	2012-05-16 15:40	596	✓
UK	Bindings	a1009a	oai_dc	OAI-PMH	oai_dc	2012-02-16 17:54		113	✓
UK	BinMasterpieces of the non-Western	a1009f	oai_dc	OAI-PMH	oai_dc	2012-02-16 17:36		1.927	✓
PL	The National Library of Poland	a0521	ese	OAI-PMH	ese	2012-02-03 16:32	2012-05-26 10:15	2.964	✓
DE	Bavarian State Library	a1017	ese	OAI-PMH	ese	2011-09-29 15:06		420.770	✓

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Main Concepts:

- **Data Provider** – entity willing to provide or share one or more record sets (collections), such as a National Library.
- **Data Source** – source of a record set, which usually is a OAI-PMH server, but for REPOX can be a pathname in a local file system, or any other service like FTP, HTTP-GET, ODBC (on-line database access), or even Z39.50.
- **Service Provider** – entity collecting (harvesting) data sets from one or more data providers, for an intended use (as for example TEL does with libraries).
- **Aggregator** – a Service Provider aggregating Data Sets intended to be provided to another Service Provider (as for example TEL does for Europeana).

Overview

REPOX is a framework for data aggregation, analysis, transformation and sharing, especially conceived for the digital libraries' domain.

It can be used by Data Providers to publish Data Sets, by Service Providers to harvest Data Sets, or Aggregators to harvest, transform and republish Data Sets.

The harvesting processes can be conveniently scheduled harvests and monitored, according to several options.

Data transformations (translations) also can be supported by several techniques. REPOX can process data in any XML format, with special features for MARC formats (encoded in ISO2709, MarcXchange or MARCXML), Dublin Core based formats, ESE and other common formats in digital libraries.

For Data Providers

A data provider (a library, museum, archive, etc.) can use REPOX as a convenient OAI-PMH server. Records can be ingested from local folders or network services such as FTP, HTTP-GET or ODBC.

For Service Providers or Aggregators

REPOX can be used to harvest and manage multiple on-line sources, working as a simple client harvester or an aggregator.

When used as an Aggregator, REPOX can manage all the Data Providers and Data Sources, as well as their most relevant information: country, name, available schemas, ingesting method, last ingest, scheduled ingest and number of records. It also can manage processes for data consolidation and transformation, for data republishing.



Technology

REPOX is an open source framework, with installers for Linux/Unix and Windows, developed in Java and using:

- Jetty as HTTP server
- GWT + Ext GWT as user interface technology
- Derby DBMS loaded in the JVM (but any other DBMS providing ODBC can be used)
- SVG – Scalable Vector Graphics (mappings)

Contact info

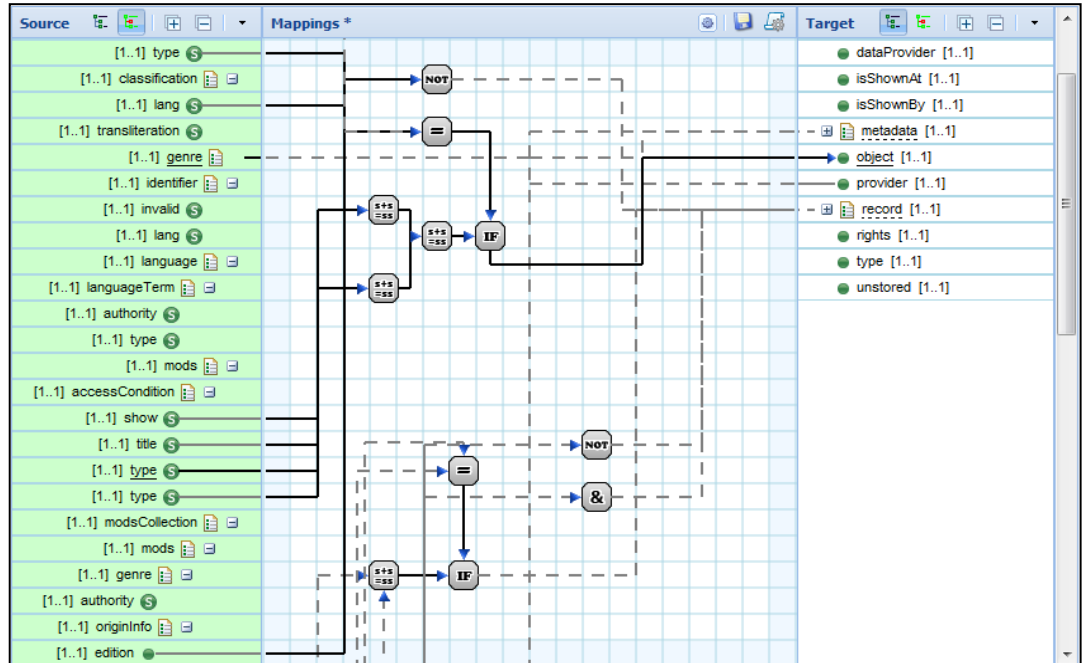
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Integration with Schema Metadata Registry

REPOX comprises a Schema Metadata Registry that can manage all the used schemas and mappings between schemas with a visual practical user interface.



REPOX in use...

REPOX has been deployed as Data Provider in the national libraries of Portugal, Hungary, Slovenia, Poland, Russia and Spain (project TELplus), Albania, Bulgaria Ukraine (project FUMAGABA) and in several Portuguese institutions (project EuropeanaLocal).

As Aggregator, REPOX was used in project DIGMAP and is currently in use in EuDML, TEL (The European Library) and Europeana.

