ProLibis – Solutions for Libraries in the Digital Age

Automation of Core Library Business Processes
We see a modern library not only as a book repository, but also and most importantly as a state-of-the-art, open and interactive information and knowledge centre. This is the vision underlying ProLibis solutions.

Asseco Lithuania, with its extensive experience and thorough understanding of library’s needs, offers products and highly advanced software solutions for a modern library of almost any size, ranging from a large national library, medium size public library to a small school library. It’s even able to introduce an integrated system for the whole network of libraries.

The ProLibis products include the following software functionality:

**Oracle**

- Cataloguing – page 4.
- Acquisition – page 5.
- Circulation (Customer Service) – page 5.
- Interlibrary Loan – page 7.
- Database of Authority Records (Names, Titles and Subjects) – page 7.
- Bibliographic Service – page 7.
- Universal Decimal Classification (UDC) Management – page 7.
- System Administration Functions – page 8.
- Special Databases (Publishers, Pseudonyms, Electronic Resources) – page 9.

**PostgreSQL Apache**


Technical Information and Abbreviations – page 11.
Asseco Lithuania Solutions for Libraries: Highlights

- **Successfully used** for automation of business processes of all library types (national, special, public, school, etc.) implementing up-to-date technologies, standards and regulations (UNIMARC/A, UNIMARC/B, BELMARC, ISBD, ISO 2709, UNICODE, Z39.50, etc.)

- **Universal**: comprises all library services, including preparation and publishing of bibliographic publications as well as creation of the Union catalogue, general databases and allows automation of interlibrary information exchange processes.

- **Multilingual and multiscript**: library documents can be described in source language using different language symbols in each record. Allows entering information from right to left (e.g., Hebrew, Arabic).

- **Easily adaptable**: convenient and flexible tools enabling to adapt the system to each library’s needs, including (but not limited to) definitions of profiles for individual user and workstation, ability to change MARC rules, design of record creation and search forms, layout design of bibliographic publications, flexible report generation, etc.

- **No data duplication**: single entry and reusability of data across the library system or even within the network of libraries.

- **Connection to various external databases**: Authority Records, UDC, LCSH, MeSH, and EUROVOC.
Cataloguing

It is one of the main system functions. It allows easy creation of bibliographic records according to the chosen form by entering data in almost any language and thus describing any document stored in a library: book, printout, video and audio record, etc. Bibliographic records are stored in UNIMARC/B and authority records are stored in UNIMARC/A format. Records are presented to the user in accordance with ISBD regulations or other acceptable form set by the administrator.

Main Functions

- To define all types of library documents using symbols of various languages.
- To link bibliographic records by hierarchical and parallel connections and by creating inverse links, as well as link them with authority records (names, titles and subjects).
- To attach full text documents to a bibliographic record or insert a link in the bibliographic record to any other data files.
- To restrict user access rights to the individual field level (the right to change the field).

Highlights

- Bibliographic records are created in a chosen form: a universal MARC form or a special record entry form (created by the administrator); the functionality allows definition of a set of most frequently used fields for each record type.
- Possibility to copy records from other available catalogues via Z39.50 protocol, to identify automatically the encoding type of the record as well as automatically converting records from other MARC formats.
- Convenient mechanism allows interlinking of records by automatic creation of inverse links, e.g., when a link “translated from” is created the system automatically creates an inverse link “translated into” in the other record. It is possible to link a bibliographic record with bibliographic records in other catalogues. In such a case the interconnected record contains the link only.
- The integrated quality control mechanism ensures that a bibliographic record conforms to MARC format and other regulations integrated into the system.
Acquisition

The module covers all library processes related to formation and changes of library funds: ordering, registration, identification, distribution, transferring and mobility, write-off, accounting and tracking of any type of library documents.

Main Functions

- To record status and requisites of document units: order, receipt, mobility and write-off data.
- To identify units by serial number and barcode.
- To tailor forms of acquisitions documents and record entry forms.
- To provide acquisition budget control, accounting, and reporting.

Highlights

- Flexible tools for defining variables of acquisitions process e.g. unit numbering scheme (pattern), grouping, etc.
- Special tools for defining serial numbering schemes (pattern) for periodicals, item structure according to UNIMARC/H recommendations, and for keeping control over sequence of serial numbers.
- Reporting required by finance accounting provisions and regulations.
- All documents and reports are stored in the database in .xls file by saving document versions.

Circulation (Customer Service)

The circulation module provides access to information about all kinds of documents stored in a library and supports activities related to dispensing library documents to the library's customers (readers) and keeping track of them afterwards.

Main Functions

- Application of readers' database containing reader identification data (incl. picture).
- Management of issuing readers with ID cards.
- Identification of readers by reader ID cards.
- Management (tracking) of library document orders.
- Storage of waiting lists for unavailable library documents.
- Entry and exit control of library's readers.
- Reporting, statistics, and analysis by readers, by library documents, etc.

Highlights

- Readers can be assigned to certain groups. Library access profile for a reader group defines what library sub-funds a reader can access.
- Reader can place an order via OPAC or WWW-OPAC and monitor status of the order.
- If a library item is not available at the moment the reader has an option of joining the waiting list. The reader is automatically informed about the order status in the waiting list by email.
Public Access Catalogue (OPAC and WWW-OPAC)

A flexible tool allows readers to search for documents in the library catalogue and order them at a library (OPAC) and online (WWW-OPAC). Catalogue data is presented to the Internet user according to IFLA recommendations (Guidelines for Online Public Access Catalogue (OPAC) Displays).

**Main Functions**

- Search for bibliographic records by various search forms: simple, advanced, articles, unified, authority records, and search in text lists.
- **Navigation** through various records.
- Search for new documents by subjects and period.
- Display of information contained in the catalogue of bibliographic records according to FRBR terms: work, expression, manifestation, and item.
- Preview of full text document related to bibliographic record. Possibility to save the user's requests and their history in the section My area.
- Possibility to save the lists of the bibliographic records in .rtf format.

**Highlights**

- Possibility to define contextual search by title, author and other elements of bibliographic records, or by any other words by using logical operators.
- Search forms created by the administrator can have additional filters defining specific search areas.
- Search for analytical bibliographic record by source, periodical series or publication date.
- Search by the file fragment (supported formats: .txt, .pdf, .doc, .rtf) attached to the bibliographic record.
- Each record can be presented in different types of forms (comprehensive, concise, special) according to ISBD regulations and UNIMARC/B.
Interlibrary Loan

Interlibrary loan and cooperation module facilitates exchange of books and other library documents among the national public library and foreign libraries.

**Main Functions**

- **To manage requests** and orders via OPAC and WWW-OPAC.
- **To forward** requests and orders to other libraries.
- **To track status** of requests, orders, and library documents being exchanged.

Database of Authority Records (Names, Titles and Subjects)

It is an integral part of the system where information about the author’s name, pseudonym, titles and subject rubrics is stored.

**Main Functions**

- **To define** all types of elements according to the requirements of UNIMARC/A (multilingual/multiscript).
- **To create record links** and automatically create inverse links.
- **To compose combined records** from two separate records using a single record approach.

Bibliographic Service

It is a module facilitating management of electronic library services, such as the electronic service **Ask the librarian** as well as the creation and forwarding of bibliographic publications, lists and indexes to the users.

**Main Functions**

- Possibility for users to submit and specify library requests on the Internet.
- Automatic registration of the submitted requests on the database.
- Possibility for the librarian to prepare and send responses (lists, indexes) or information related to other services.
- Accumulation of statistics and request management control.

Universal Decimal Classification Management and Translation

This module facilitates management of Universal decimal classification (UDC) indexes.

**Main Functions**

- Data import from MRF update files.
- Automatic translation of UDC paragraph titles and possibility to compile a multilingual dictionary.
- UDC index search by prefix and text fragment.
System Administration Functions

These functions are a set of additional tools and means by which the system can be easily adapted to library needs. In addition to the traditional system administration functions, such as setting user rights and options in the system, a number of tools are available for defining UNIMARC elements and rules, designing record search and entry forms, displaying records (simple and multilevel) according to ISBD regulations, describing the publication structure and indexes (from selected catalogue records), editing reports and other document templates, the automatic creation of CD catalogue with flexible search capabilities, and many others.

Main Functions

- To manage user rights.
- To create and update forms for entry of and search for bibliographic records.
- To describe and update UNIMARC rules used in cataloguing.
- To import and export bibliographic records according to ISO 2709 requirements.
- To create and update printed document forms used in acquisition management.
- To create and update different record display forms, publication and index templates.
- To create a library catalogue CD with search functions.
<table>
<thead>
<tr>
<th>General Databases</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Union catalogue</strong> is a catalogue database which consolidates all catalogue information from the whole library network (e.g. national library network). Through the union catalogue, libraries are able to share bibliographic data. Library users can search and order library documents from the whole library network using union catalogue as a single point of contact.</td>
</tr>
<tr>
<td>• <strong>Database of analytic records serve as a repository</strong> of descriptions of articles published in periodicals.</td>
</tr>
<tr>
<td>• <strong>Common readers’ database</strong> is a centralized database shared by the network of libraries. It allows identifying the reader by a single reader card in different libraries; libraries store reader registration and status data and share it via a common readers’ database. It also provides libraries with up-to-date information on offenders of library regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special Databases</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Electronic catalogue of publishers’ factographic data</strong> stores publisher’s data accumulated by ISBN, ISMN, ISSN agencies as well as data provided by publishers themselves.</td>
</tr>
<tr>
<td>• <strong>Pseudonym collection</strong> provides various information related to the use of pseudonyms: pseudonym owners, publications under a pseudonym, etc. There is a possibility for the user to get the printed publication and CD.</td>
</tr>
<tr>
<td>• <strong>Archive of electronic resources</strong> is responsible for registration, archiving and long term preservation of national web space resources. By harvesting, the system accumulates all web resources of the national web space and selects all web resources of the other domains with national content.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Material Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Material Management software is designed to store and manage digital documents and metadata: to collect digital data, link it with scanned images, store it in a long-term data storage, retrieve from and present it to the user, link with bibliographic records in catalogue as well as other description database. This software offers a possibility to collect document data and prepare it to be stored in online as well in offline (with regard to the central database) working modes. Public access to all digital material is available through the WWW application.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Digitization of documents and objects, storage and management of digital material data.</td>
</tr>
<tr>
<td>• Management of digital material database.</td>
</tr>
<tr>
<td>• Search for and retrieval of digital data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The system is designed to store and operate huge quantity of digital objects.</td>
</tr>
<tr>
<td>• The solution is highly scalable.</td>
</tr>
<tr>
<td>• The system supports UNIMARC, DublinCore, EAD, and METS standards.</td>
</tr>
</tbody>
</table>
Software Solution for Small Libraries

The software solution for small libraries was designed as an affordable solution for automation of the main business processes of a school library or any library of similar size. It offers almost the same core functionality as ProLibis does and thus can be considered as a “light” version of ProLibis. The solution designed for small libraries does not use licensed products provided by third parties with the exception of PostgreSQL as relational database system and Apache as HTTP Server (under LGPL licensing).

Main Functions

• Cataloguing.
• Acquisitions.
• Circulation.
• Access to Internet/intranet catalogue (WWW-OPAC).
• Logging, reporting on library work processes.
• Availability of the specialized textbook database as separate module.

Highlights

• Both online (client-server-multi-user) and single workstation modes are available.
• Possibility to copy bibliographic records from other catalogues via z39.50 protocol and catalogue to a CD with a single mouse click.
• Highly developed reporting on status and usage statistics of library funds (incl. specialized reports on textbooks).
• Supports multilingual – multiscript features in bibliographic records.
• Comprehensive documentation and user support.
Technical Information

Standards and Regulations in Use

• UNIMARC/B – storage of bibliographic records
• UNIMARC/A – storage of authority records
• ISO 2709 – standard of bibliographic descriptions
• Z39.50 – protocol for inter-library information search and retrieval
• ISBD rules – display of bibliographic records.
• UNICODE (ISO 106460) – data encoding
• LST – Library Fund and Work Accounting Units

System Requirements for Large Libraries

Server: any Windows, Linux and Unix OS server supported by Oracle and Oracle 10g

Database

Workstation: Windows PC with Oracle client

System Requirements for Small Libraries

Server: Windows or Linux server with Postgres and Apache

Workstation: Windows PC

Abbreviations

EAD - Encoded Archival Description
FRBR – Functional Requirements for Bibliographic Records
IFLA – International Federation of Library Associations and Institutions
ISBD – International Standard Bibliographic Description
ISMN – International Standard Music Number
ISO 2709 – 1981: Documentation – Format for bibliographic information interchange on magnetic tape
ISSN – International Standard Serial Number
LCSH – Library of Congress Subject Headings
LGPL - Lesser General Public License
MARC – Machine Readable Cataloguing
MeSH - Medical Subject Headings
METS - Metadata Encoding and Transmission Standard
MRF – Meter Reading Data
OCLC – Online Computer Library Centre
OPAC – Online Public Access Catalogue
UDC – Universal Decimal Classification
UNIMARC – Universal MARC Format
Asseco Lithuania has wide experience in the creation and implementation of library processes’ automation systems.

Asseco Lithuania library processes’ automation systems have been introduced in:
• Martynas Mažvydas National Library of Lithuania;
• More than 80 public and scientific libraries and more than 500 school libraries;
• Office of the Chief Archivist of Lithuania;
• Vilnius University;
• More than 10 museums.

Asseco Lithuania provided consulting services for design and implementation of an automated library information system (ABIS) for the Belarus National Library and for the Presidential Library of the Republic of Belarus.

About Asseco Lithuania

• Asseco Lithuania is a Lithuanian software development company and a leading system integrator in Lithuania, belonging to Asseco Group, that is the largest IT group in Central and Eastern Europe.
• The company has been operating since 1991 (formerly under the name of Sintagma).
• Asseco Lithuania develops information systems, software and specialized software solutions for automation of company business processes.
• The company specializes in the following segments and areas: document and process management, libraries, museums and archives, insurance and finance, the public sector.
• Asseco Lithuania’s Quality Management System conforms to ISO 9001 requirements.
• Asseco Lithuania holds Oracle Platinum Partner status.

Asseco Lithuania
Kalvarijų str. 125, 08221 Vilnius
Phone: +370 5 210 2426, +370 5 210 2413
Fax: +370 5 210 2401
info@asseco.lt, www.asseco.lt