

independence

openness

modularity

completeness and integrity

reliability

plug & play

scalability

hotline

simplicity

flexibility

Contact

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Bratislavská 57 908 48 Kopčany, Slovak Republic fax: +421 346 681 312 mobile: +421 903 727 255 e-mail: firma@cosmotron.sk web: www.cosmotron.sk Advanced Rapid Library (ARL) is an information system designed for processing, administration and access of collections, catalogues and various types of information in memory and cultural heritage institutions and regional information centres.

ARL is a highly flexible, modular, open, scalable, robust, and fully reliable multilingual system. It comes from a multi-layer architecture of the client-server type and respects service-oriented architecture.

System modules

Cataloguing and authorities administration

Complex processing of documents and authorities with the possibility of accepting records from external sources.

Circulation (lending)

Monitoring collective and individual users, evidence of various types of lending and transactions, setting differentiating conditions for individual categories of users, creation of requests and reservations, generation of reservation notifications, generation and sending out of reminders.

Interlibrary lending service (ILL)

Active and passive interlibrary lending service - documentation of requests, documentation on state of availability, generation of notice of delivery of a requested document.

Acquisition

Automation of all activities relating to obtaining documents - building a database of desiderata and suppliers, creation of orders, documentation of invoices and monitoring the delivery of documents, generation of reminders of undelivered documents, receipt of specimens.

Administration of journals

Convenient daily documentation of journals, creation and documentation of orders for journals, evidence of invoices, sending out reminders to suppliers.

Inventory and discarding

Fast revision of the collection and consequent discard of documents.

IPAC (online catalogue)

Searches on the basis of various criteria, display of results of inclusive relations and links, integration of external information resources into one IPAC interface; access to the user account; personalization and electronic services.

EPCA (documentation of publishing activity)

Complex documentation of publishing activity – processing of all types of documents, administration of outputs requested in the academic environment and exports into central registers; also includes www forms for entering publishing documentation.

EPKA (documentation of materials for complex accreditation)

Documentation of all materials that are required by the Accreditation Commission of the Slovak Republic for individual attributes taken into account when assessing research.

EUCA (documentation of artistic activity, reactions and awards)

Complex documentation of all types of artistic activities, awards and reactions for the needs of arts academies and universities, compilation of outputs into annual reports and other outputs for the needs of the academic environment.

REDO (regional documents)

Compilation of all types of documents with relations to the region with regards to individual requests of public libraries, compilation of special reports (ex. new titles in the collection) and presentation of information within the framework of a library Website.

REOS (regional personalities), REFA (regional factual references)

Compilation of all information subjects with relations to the region, i.e. personalities, institutions, undertakings, cities, towns and other geographic terms together with specific outputs, ex. in the form of a calendar.

ARL is the result of successful fusion of the most modern information and communications technologies.

Interoperability

ARL has also met the most stringent requirements for interoperability of information systems in memory institutions.

It supports an entire series of technical standards and recommendations.

Formats

MARC (UNIMARC, MARC 21), DC, XML, CDWA, MODS, MADS, EAD, METS, ISO 2709

Rules and recommendations

AACR2, ISBD, GARR, ISO 690, ISAD, ISAAR, CCO, OpenURL (Z39.88)

Protocols

SUSHI, MXG, ISO 23950 (Z39.50), SRU/SRW, OAI PMH, NCIP (Z39.83), SIP2, ISO 10161 (ILL)

Ontological framework

CIDOC/CRM (ISO 21127), FRBR, FRAD



What attributes are typical for ARL?

- openness
- multi-layer architecture of the client-server type
- full graphics interface
- access by means of any www browser

• independence on the operation system – Windows, Linux

- work with MARC formats
- support of cataloguing rules and recommendations

• full support of authorities and authorities with added value

- support of building access to compilation
- display of formats supporting ISBD, AACR2, ISO 690

• Z39.50 server, Z39.50 client in accordance with BATH profile

- web services
- full UNICODE support
- multi-language capacity



Integration

ARL is an open system, and it supports architecture oriented to services in full measure. This way, it enables twoway integration with other information systems. Depending on a customer's demands, the integration can be realized on the application level but also with the use of integration platform and assembling web services in the form of orchestration.

ARL also supports, in full measure, the integration with RFID technology in all working processes and technical activities.

System architecture



Digital library - Content Server

A part of ARL is a digital library – i.e. set of tools designated for the digital objects' administration and presentation, including the control and the check of the access to these digital objects. The digital library can be delivered separately, or it is fully integrated in other modules within the ARL system.

The direct connection with the digital library is ensured in the modules for data processing (e.g. Cataloguing and authorities' administration, EPCA, REOS, REFA and others). The digital library is also interconnected with the module IPAC which is designated for the data presentation.

Content Server is an independent module of ARL system for saving, administration and presentation of digital objects of any types, including operational and user metadata (insert date, optional publishing date, file type, file size,...).

Uploader

Saving is ensured by a configurable page "uploader" through which an authorized user can upload a file / object to a server into the Content Server repository. It will cause its saving in a persistent repository (disc/disc field directly accessible for the server).

Presentation

Making a file / object available is ensured by sub module CSG (Content Server Gateway). Those kinds of objects which are known to a browser will be opened in an expected way (e.g. PDF in a PDF viewer), the rest is offered to download.

Files' presentation is possible through a displaying record format in a web interface IPAC. An exact downloading number of each file is also available.

Files are connected to catalogues' records via their metadata, the records themselves are not affected. Any other user metadata can be added to a file through the uploader. Based on metadata, it is possible to evaluate rights to files, or to display metadata after the edit of the displaying template.

Content Server has the use of a broadly configurable authorization subsystem which enables individual user roles to allow/deny particular operations with objects based upon the object status. When accessed to CSG, rights to URL for a file are evaluated every time. Rights are configured for these operations:

- 1. file upload / metadata inserting,
- 2. file download / display,
- 3. metadata file editing,
- 4. file deletion including metadata,
- 5. file status change (e.g. unauthorized / authorized).

Administration

A service page is available. It is used for metadata editing of each file, a file deletion or a file status change. As an option there is a summarizing page with the files of the logged in author / processor who is divided according to the files status. On the basis of their role, a user can easily change files' status and move them in their life cycle or change metadata.

Files are administered automatically in a server files system by generated names. The link with the original file name and the record is in metadata. They can be exported in an XML format.

<u>1</u> .	Údaje o názvu	Amatérské astronomické dalekohledy						
Ē	Osobní jméno	Renard, Josef, 1923-						
	Údaje o vydání	Vyd. 1.						
	Vyd.údaje	Praha : Státní nakladatelství technické literatury, 1962						
	Fyz.popis	218 s. : il.						
	Dal.odpovědnost	🔍 <u>Erhart, Vilém,</u> 1914-1996						
	Forma, žánr	naučná-dosp						
	Země vyd.	Česko	Česko					
	Jazyk dok.	čeština						
	Druh.dok.	Knihy						
	Signatura	Čár.kód		Lokace		Dislokace	Info	
	C 41.272	268015133	3	Lidická		Sklad	nedost.	
	B 47.201	787836		Lidická		Lidická - studovna	Doba výp. 14 dní	
	B 47.201 v1	787837		Lidická		Lidická - studovna	Doba výp. 14 dní	
	B 47.201 v2	787838		Lidická		Lidická - studovna	Doba výp. 14 dní	
l r	Název souboru		Staženo	Velikost	Komentář			
	P002165.jpg		0	152.6 KB	Fotografie	obrázkové přílohy		
	Prezentace.pdf		0	148 KB	Prezentace	e soukromých sbírek		
	Správa <u>Na</u> souborů	hrát přílohu						

0376832 - UEK-B 2013 RIV PL eng J - Článek v odborném periodiku							
Juszczak, R <u>Acosta, Manuel^G</u> - <u>Olejnik, Janusz</u>							
Comparison of Daytime and Nighttime Ecosystem Respiration Measured by the Closed Chamber Technique on a Temperate							
M	Mire in Poland.						
Polish Journal of Environmental Studies. Roč. 21, č. 3 (2012), s. 643-658. ISSN 1230-1485							
V	Výzkumný záměr: CEZ:AV0260870520						
KI	Klicova slova: nighttime ecosystem respiration * daytime ecosystem respiration * chamber measurements * CO2 fluxes *						
m	mire Kád obaru BIVU EV. Ekologia, gooločenstva						
Impakt faktor: 0.508 rok: 2011							
		Název souboru	Staženo	Velikost	Komentář	Verze	Přístup
	6	Pol.J.Environ.Stud. Acosta, Oleinik.pdf	8	553.6 KB		Vydavatelský postprint	<u>povolen</u>
	•	Pol. J. Environ. Acosta Mpdf	0	719.1 KB	pouze na vyžádání od autora	Autorský postprint	<u>vyžádat</u>

IPAC interface example for the upload and administration of digital objects

Soubor:	Procházet.	
Datum zpřístupnění :		
Komentář:		
2000 zbývajících znaků		
	LIIožit	

Záznam: (Amatérské astronomické dalekohledy)					
Správa nahraných souborů k záznamu					
1. Název souboru: P002165.jpg					
Datum zpřístupnění: 21.02.2012					
Komentář:					
Fotografie obrázkové přilohy					
Uložit změny Smazat					
2. Název souboru: Prezentace.pdf					
Datum zpřístupnění: 21.02.2012					
Komentář:					
Prezentace soukromých sbírek					
Uložit změny					
Smazat					

Image server

Image server enables to connect pictures and other objects to a bibliographic record automatically; there is no need to interconnect pictures/objects manually to a particular record. A record identifier is possible to find in the file path of an object.

More local end distant repositories (directories) can be connected. These are periodically scanned and thus the internal database of objects, which are linked up to the individual records, is updated.

Already existing pictures' repositories located in any address structure on a disc or a web (if possible to identify from their address path the record they belong to) can be connected without any repository reorganization. The result is the automatic generation preview.

The preview is linked to

- a full size of the picture
- a new browser panel with the full size of the picture
- a lightbox gallery with all the record pictures
- a detailed displaying format or to a particular displaying format
- HTML page of the user's own choice
- a generated HTML page enabling to display a large picture by a tiled technology Zoomify or IIPImage

Prerequisites

- on the web accessible URL of the internal Image Server repository
- functional automatic preview generation

Requirements

- a sufficient disc capacity for cache objects' previews
- in case of the local repository, a sufficient disc capacity for the full size of pictures/objects
- a local repository rights for reading are sufficient, not necessarily published on a web
- a distant repository URL of the regularly updated repository listing

• if a customer owns their own repository, it is necessary to define a clear record identifier in the file path of each object

Example of the digital objects displaying in IPAC and of the lightbox gallery





IPAC for mobile phones

IPAC for mobile phones is not only a miniature of the online catalogue, but it is the application with all the elements for the mobile devices, and the maximum function of the standard IPAC is kept as well.

Besides other things, the application enables

- Searching in the library catalogue
- Searching in the library external sources
- Summary of the book news in the collection
- Document loan or reservation
- Access to the reader's account with the summary of the loans, reservations
- Loans renewal and reservations
- Library contacts mail, skype, map...
- Display help page

Its use is very intuitive, easy, quick and well arranged.

For easy installation, we recommend creating an QR code with an input URL mobile version of IPAC and make it accessible to readers.

