



**Linking Systems : Transforming Resource Sharing Through  
ISO ILL and Other Standards  
Thursday, June 17-2004**

**Program**

**Part I: 2:20 – 3:20 p.m.: Background on Library Communications Standards**

Speakers:

**Barbara Shuh**

Barbara has been the Director of the ISO Interlibrary Loan Applications Standards Maintenance Agency, at Library and Archives Canada since 1996. In that role, she has contributed to developments for the application of the communications protocols for libraries that will be discussed in this session.

**Carrol Lunau:**

Carrol is Senior Resource Sharing Policy Officer, Library and Archives Canada and is responsible for national planning and implementation of a Canadian resource-sharing network. She is the editor of release 2 of the Bath Profile; an International Z39.50 Specification for Library Applications and Resource Discovery and a member of NISO Standards Committee AV that developed a U.S. National Z39.50 Profile for Library Applications (Z39.89-2003).

Carrol has been active in CLA over the years, serving as CASLIS President, Chair of the RSIG, Chair of the Research & Development Committee, and member of Executive Council, as well as other volunteer professional commitments.

In March 2003 Carrol was named one of the Movers and Shakers, 2003 by Library Journal.

**\*\*\*\*BREAK: 3:20 – 3:45\*\*\*\***

## **Part 2: 3:45 – 5pm: Implementors Panel Discussion**

Speakers:

### **Atlantic Relais Consortium: Gwyn Pace**

**Gwyn Pace** is the Document Delivery/Circulation Librarian at the Killam Library, Dalhousie University. Gwyn has been involved with document delivery for almost 20 years and has chaired the East Coast Relais Consortium's Implementation Group for the past 4 years.

### **Open ILL: Mark Leggott**

**Mark Leggott** is the University Librarian at the University of Winnipeg and was previously Systems Librarian at St. Francis Xavier University, as well as Project Manager at Optim Corporation. Mark is a strong open source/open access proponent and is actively working to encourage other library directors to be the same. He is also very active in the Canadian library scene and sits on a number of national and regional committees. Some current projects include OpenILL and ReSearcher (both open source library systems), eCommons::Research (an OAI repository) and OSLS.CA (an opportunity for promoting open source in Canadian libraries).

### **Racer (OCUL): Carol Stephenson**

For the past 2 years, Carol Stephenson has managed the Ontario Council of University Libraries (OCUL) implementation of RACER, a Web accessible virtual catalogue and consortial interlibrary loan system for the 20 Ontario universities. Carol recently returned to the University of Waterloo, where she has held a number of science liaison and management positions over the past 16 years.

### **BC OutLook OnLine AGent: Heather Grace Morrison and Anne Morgan**

**Heather Grace Morrison and Anne Morgan** co-coordinate the OutLook OnLine portal to BC's public and post-secondary library catalogues and integrated interlibrary loans system.

**Heather Grace Morrison** is a Project Coordinator with the BC Electronic Library Network (ELN), where she is involved with resource sharing, communications, and database licensing. Before joining ELN, Heather was a Project Coordinator at The Alberta Library and Access Services Coordinator at Concordia University College in Edmonton. Heather is actively involved in the Information Policy Committees of BCLA and CLA, as well as the Liblicense listserv, and is a strong open access advocate.

**Anne Morgan** joined the BC Public Library Services Branch in 2002. Her primary responsibility is managing the interlibrary loan program for public libraries in British Columbia. She has worked for the BC government for many years in government libraries and as a policy analyst.



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### **Overview of ISO ILL Implementations in Canada**

#### **OpenILL Cooperative:**

OpenILL is an open-source ILL management system development project spearheaded by the COPPUL group of libraries. Partners in this cooperative are composed of the following college and university libraries in Western Canada:

- University College of the Cariboo,
- Malaspina University-College,
- Trinity Western University,
- University College of the Fraser Valley,
- University of Saskatchewan,
- University of Victoria,
- University of Winnipeg (Administrative Site).

Generic script has been implemented and work on the ISO ILL protocol component is in progress. More information is available at:

<http://www.openill.org/community/coop.cfm#p>  
<http://cybrary.uwinnipeg.ca/projects/openill/>

#### **Alberta**

All Alberta public libraries are making use of the one implementation of the Dynix Resource Sharing System RSS, which is hosted at Chinook Arch. Chinook Arch processes out of province requests for the public libraries in Alberta, except for the libraries in Edmonton and Calgary which process their own.

Two colleges, Mount Royal College and Lethbridge Community College, also use the public library implementation of RSS.

Alberta Relais Consortium is composed of the following academic libraries:

- University of Alberta,
- University of Calgary,
- University of Lethbridge,
- Athabasca University.

The consortium uses Relais Enterprise. AEU is the only library in the consortium using Relais for ISO communications.

## **British Columbia**

BC's public and academic libraries share an implementation of Auto-Graphics (A-G) AAgent ILL software coordinated by BC Public Library Services Branch and BC ELN. In August 2004, these libraries will be implementing A-G's ISO software. This will provide communication between BC's universities, Library and Archives Canada, and CISTI with BC libraries that use A-G. The University of British Columbia and Simon Fraser University use RSS while Vancouver Public Library uses both RSS and A-G software. A number of academic libraries in BC are committed to the Open ILL project. Plans for future development, including additional ISO partners, are under discussion.

## **Saskatchewan**

- Saskatchewan Public Libraries implementing RSS.

## **Manitoba**

- Manitoba Public Libraries (MAPLIN) is developing an open-source ISO compliant ILL software.
- University of Manitoba: using Relais Enterprise for ISO communications.

## **Ontario**

- Ontario public libraries using Fretwell Downing's VDX.  
<http://www.sols.org/INFO/SOLS/>
- OCUL Ontario College and University Libraries using Fretwell Downing's VDX.  
<http://www.scholarsportal.info/vdx/index.html>
- Bank of Canada implementing AG-Canada's AAgent software.
- Natural Resources Canada, Earth Sciences Sector, Earth Sciences Information Centre acquired Fretwell Downing's VDX Host.

## **Quebec**

- Conférence des recteurs et des principaux des universités du Québec (CREPUQ) libraries implementing Fretwell Downing's VDX.
- Bibliothèque de Montréal uses RSS

## **Atlantic Canada: East Coast Relais Consortium**

The East Coast Relais Consortium members are:

Memorial University - QE2 Library and Health Sciences Library,  
Dalhousie University - Killam Library,  
Acadia University - Vaughan Library,  
University of New Brunswick - Fredericton (Harriet Irving Library) and St. John (Ward Chipman Library),  
Mt. Allison University Library,  
University of PEI - Robertson Library,  
Université de Moncton - Bibliothèque de Champlain (in process of joining).

The Lending component has been implemented and the Borrowing component is being tested. ISO messaging and generic script with external partners is supported.



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Standards Resource List**

**Information Retrieval: Z39.50**

Z39.50 specifies a client/server based protocol for Information Retrieval. It specifies procedures and structures for a client to search a database provided by a server, retrieve database records identified by a search, scan a term list, and sort a result set. Access control, resource control, extended services, and a "help" facility are also supported. The protocol addresses communication between corresponding information retrieval applications, the client and server (which may reside on different computers); it does not address interaction between the client and the end-user.

**Standard**

ANSI/NISO Z39.50-2003: *Information Retrieval: Application Service Definition and Protocol Specification*. Available online from NISO at:

([http://www.niso.org/standards/std\\_info\\_retrieval.html#Z39.50](http://www.niso.org/standards/std_info_retrieval.html#Z39.50))

ISO 23950:1998. *Information and documentation -- Information retrieval (Z39.50) -- Application service definition and protocol specification* is technically identical to the 1995 edition of Z39.50.

This ISO standard is available for purchase from ISO.

**Maintenance Agency**

Z39.50 Maintenance Agency is provided by the Library of Congress (U.S.) in Washington, D.C.

(<http://lcweb.loc.gov/z3950/agency/>)

**Implementors Group: ZIG**

Z39.50 Implementors Group (ZIG)

(<http://lcweb.loc.gov/z3950/agency/zig/zig-meetings.html>)

**Directories of Z39.50 Targets**

- Global coverage
  - IndexData (<http://indexdata.dk/targettest>)
  - WebClarity (<http://www.webclarity.info/products/registry.htm>)
- National coverage
  - Australia (<http://www.nla.gov.au/libraries/z3950/z3950list.html>)
  - United Kingdom (<http://www.ukoln.ac.uk/distributed-systems/zdir>)

## **Z39.50 International and National Profiles**

A profile documents the decisions, options and values agreed upon by groups of users and/or implementors, which specify how one or more standards is to be interpreted and implemented.

- *The Bath Profile Maintenance Agency* (<http://www.lac-bac.gc.ca/bath>)
- *The Bath Profile: An International Z39.50 Specification for Library Applications & Resource Discovery. Release 2* (<http://www.lac-bac.gc.ca/bath/tp-bath2-e.htm>)
- *Z39.89-200X The US National Z39.50 Profile for Library Applications* (<http://www.unt.edu/zprofile/Profile/PostBallotRevision/PostBallotRevisedProfileFinal8August2003.doc>)
- *ONE2* (<http://www.crxnet.com/one2/ONE-2Profilev2rev5.pdf>)

## **Interoperability testing**

- *Z-Interop*, ([www.unt.edu/zinterop](http://www.unt.edu/zinterop))

## **Directories: ISO 2146**

The Directories standard provides an information model of the data describing the collections, services and activities of libraries, museums, archives, information and documentation centres and document suppliers. The directory data is required by applications managing the delivery of services, such as interlibrary loan or networked reference. It is envisioned that directories conformant to this standard will operate in an international distributed environment.

## **A work in progress**

The National Library of Australia is coordinating the work to revise ISO 2146 *Information and documentation -- Directories of libraries and related information*.

*ISO 2146 Project page* (<http://www.nla.gov.au/wgroups/ISO2146/>)

The ILL Protocol Implementors Group (IPIG) defined requirements for directory services for interlibrary loan. Their Directory Services for Interlibrary Loan - Information Model has been generalized to provide the core information model for the revised ISO 2146. This and related documentation are available in the ILL ASMA website under:

*Directory Services* (<http://www.lac-bac.gc.ca/iso/ill/ipd.htm>)

## **Circulation Interchange (NCIP): Z39.83**

The NISO Circulation Interchange protocol defines various transactions needed to support circulation activities among independent library systems and facilitates direct patron borrowing, remote patron authentication, on-line payment, and controlled access to electronic documents.

## **Standards**

Copies of the standards and profiles are available without charge through the NISO web-site

- *Z39-83-2002 Circulation Interchange Part 1 : Protocol (NCIP)* (<http://www.niso.org/standards/resources/z3983pt1rev1.pdf>)
- *Z39-83-2002 Circulation Interchange Part 2 : Protocol Implementation Profile 1* (<http://www.niso.org/standards/resources/z3983pt2rev1.pdf>)

Additional documentation includes the eight application profiles written by members of NISO Committee AT for use in direct consortial borrowing, circulation/interlibrary loan interaction and self service circulation scenarios

- Z39.83 Application Profiles:  
(<http://www.niso.org/standards/resources/Z39-83-ApplProfiles.html>)

## **Maintenance Agency**

As of Sept. 1, 2003, NISO named the Colorado State Library as the Maintenance Agency for NCIP

(<http://www.cde.state.co.us/ncip>)

## **Implementors Group: NCIP-IG**

National Information Standards Organization (NISO) Circulation Interchange Protocol (CIP) Implementation Group (IG)

(<http://www.cde.state.co.us/ncip/NCIP-IG.htm>)

## **Interlibrary Loan: ISO 10160/10161-1**

The ISO ILL Protocol provides a set of messages and associated behaviours that can be used by libraries to perform resource-sharing activities in a distributed network environment. It includes the capability to request the loan of returnable bibliographic items, such as books, or to request non-returnable items, such as photocopies of journal articles. Related procedures, such as loan renewal, item recall, overdue notification, etc. are also supported by this service.

## **Standards**

- ISO 10160:1997 *Information and Documentation - Open Systems Interconnection - Interlibrary Loan Application Service Definition*
- ISO 10161-1:1997 *Information and Documentation - Open Systems Interconnection - Interlibrary Loan Application Protocol Specification - Part 1: Protocol Specification*
- ISO 10161-2: *Information and Documentation - Open Systems Interconnection - Interlibrary Loan Application Protocol Specification - Part 2: PICS Proforma*

Introductory information on the standards is available on the maintenance agency web site. Unlike the NISO standards, online versions of the documents for this standard are not available, but must be purchased from national standards agencies, or online from ISO. Details can be found at:

(<http://www.lac-bac.gc.ca/iso/ill/standard.htm>)

## **Maintenance Agency**

Interlibrary Loan Application Standards Maintenance Agency and Registration Authority is located in the Library and Archives Canada in Ottawa, Ontario.

(<http://www.lac-bac.gc.ca/iso/ill/>)

## **Implementors Group: IPIG**

*Interlibrary Loan Protocol Implementors Group* (IPIG)

(<http://www.arl.org/access/naildd/ipig/ipig.shtml>)

Additional information for implementors of the ILL Protocol is found at:

(<http://www.lac-bac.gc.ca/iso/ill/implementors.htm>)

*IPIG Profile for the ILL Protocol, Guidelines for Implementors of the IPIG Profile*, links to conformance statements posted by protocol implementors (useful for evaluating software products)

(<http://www.lac-bac.gc.ca/iso/ill/ipigprfl.htm>)

## **GEDI**

GEDI, the Generic Electronic Document Exchange, was developed for use in Ariel and other electronic document delivery services. Data elements carried in the GEDI header can be mapped to equivalent data in the ILL Protocol.

### **Standard**

— ISO 17933:2000 *GEDI – Generic Electronic Document Interchange*

## **Request Submission Message**

The Request Submission Message, developed by the ILL Protocol Implementors Group (IPIG), defines a set of data elements to be used to by library patrons to submit requests for library material. Use of this standard message format will facilitate the automatic transformation of patrons' requests into protocol-based ILL REQUESTs when received by ILL Protocol-compliant applications.

### **XML Schema**

— IPIG's Request Submission Message

[http://www.lac-bac.gc.ca/iso/ill/document/ipigwp/requestsubmissionmessage\\_1.3.html](http://www.lac-bac.gc.ca/iso/ill/document/ipigwp/requestsubmissionmessage_1.3.html)

— Open URL

(coming soon)

## **Help for writing RFPs**

Cynthia Hodgson prepared *The RFP Writer's Guide to Standards for Library Systems* to assist library staff writing Requests for Proposals (RFPs) for library systems or evaluating RFP responses and software products. Available online from NISO:

[http://www.niso.org/standards/resources/RFP\\_Writers\\_Guide.pdf](http://www.niso.org/standards/resources/RFP_Writers_Guide.pdf)