

GLOSSARY

Application profile: An assemblage of metadata elements from one or more metadata standards that are combined into a compound standard for local usage.

Appropriate copy: The copy the library or information organization actually owns or has access to.

Crosswalk: Human-designed indexes that attempt to match and pair different tags and element in the various metadata schemes, so that web and digital resource creators understand their relationships and can assist in interoperability for retrieval and access.

Deep Web: That part of the Web that cannot be indexed by search engine spiders and bots, such as PDFs, Web sites that incorporate frames structure, and databases.

Document type definition (DTD): Used in markup languages, a DTD prescribes the ordered set of markup tags available for encoding the parts of documents in a similar class into a standardized structure available for repeated use.

Extensible markup language (XML): A subset of SGML, XML was developed to replace HTML as the standard for publishing hypertext on the Web. XML addresses the content-oriented problems associated with HTML, while still maintaining the display and presentation simplicity that have made HTML a popular markup language.

Granularity: Levels of complexity or description related to metadata standards (for example, unqualified Dublin Core is considered low granularity, but qualified Dublin Core is considered high granularity, based on the complexity of the tags and coding).

Harvesting: Metadata automatically generated and/or retrieved from a remote location by computer-generated programs.

Hypertext markup language (HTML): A subset of SGML, HTML is the *lingua franca* for publishing hypertext on the Web.

Indexing: Related to how search engines retrieve and process information contained in Web pages. Metadata assists automated search engine index retrievers (such as spiders and bots) by providing enhanced descriptive and structural information for retrieval and indexing.

Interoperability: The ability of different metadata standards to talk among each other; related to the development of metadata tags within standards, and their functionality to relate and match to other standards through mapping and crosswalks.

Mapping: Mapping metadata standards involves comparison and matching of similar or related tags, and then constructing computer programs that will translate that information, so that one or more standards can speak to one another. An example is *creator* in Dublin Core being mapped to *author* in MARC.

Reference databases: The electronic databases that libraries offer to their patrons.

Registry: An actively maintained electronic dictionary-database that contains information regarding metadata standards, application profiles, and important projects.

Resolver: The TCP/IP protocol library software that formats requests to be sent to the domain name server for hostname to Internet address conversion.

Standard: A structured group of tags and definitions that define and assist an information community in the description and organization of their unique information. Presentation and preservation issues regarding the information also can be addressed.

Standard generalized markup language (SGML): Based on the ISO 8879:1986 international standard, SGML is a method for creating interchangeable, structured electronic documents. Both HTML and XML are simpler subsets of SGML.

Technical metadata: Related to how a system functions or behaves; has to do with hardware and software.

Use metadata: Related to the use of information resources, such as user statistics.

Versioning: When numerous revisions or versions of a document or item are available electronically. Problems develop when URLs are reused as access points when documents and items that they link to are constantly being updated or revised without notifying the user.

Z39.50: Known as ISO 23950/ANSI/NISO Z39.50, this library standard was developed to enable interoperable system-to-system communication for purposes of information retrieval.

METADATA MANAGEMENT PRODUCTS

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DigitaLink

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DigitaLink is a suite of hardware, software, and add-on services used to create and manage digital collections with epixtech's ILS system. Items are created or linked through the program, then described in Dublin Core, and made accessible through the iPac, epixtech's online catalog product. The standard MARC OPAC, as well as any other schema for pre-existing archives, can be migrated to Dublin Core and integrated with the iPac for one-point patron access. Scanning and optical character recognition (OCR) are available as add-ons.

Uses Dublin Core exclusively; other metadata schema (MARC, TEI, EAD, etc.) must be converted to Dublin Core.

Can be purchased as a one-time license with ongoing maintenance or as a subscription.

Pricing factors include concurrent patron usage, collection size, and content text-to-image ratio.

DigitaLink's point of access is with iPac, which has no advanced integration with competitive ILS systems at this time.

DigiTool Library, MetLib, and SFX

Ex Libris (USA) Ltd.
1919 N. Sheffield
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tel: 773-404-5527
toll-free: 877-527-1689
fax: 773-404-5601
e-mail: info@exlibris-usa.com
Web: www.exlibris-usa.com/digitoolibrary/index.html

DigiTool—not yet officially released but already implemented in at least three academic settings—is a digital collections building and management software that relies on open standards and remains format neutral. DigiTool aids in the creation and maintenance of such file formats as TIFF, GIF, JPEG, PDF, and text in SGML, HTML, or XML, described in schema including Dublin Core, MARC21, MAB, TEI, and EAD, with support for others forthcoming. DigiTool also provides means to control access and manage copyright compli-

ance. MetaLib uses such schema to provide patrons with one unified access point to disparate collections, and SFX, an Open-URL database management system that allows patrons to link from full-text documents-to-documents through hypertext content such as footnote citations and bibliographies.

DigiTool, SFX, and MetLib are standalone software that will work with other ILS systems.

Products are available as a one-time purchase with ongoing maintenance and support.

Factors affecting pricing include the full-time-equivalent staff count, or patron count in a nonacademic setting, and number of staff clients need.

ENCompass

Endeavor Information Systems
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<http://encompass.endinfosys.com>

ENCompass consists of three components, ENCompass for Resource Access, ENCompass for Digital Collections, and LinkFinder*Plus*. All are available separately or bundled in the complete ENCompass package. The Resource Access component uses XML and Z39.50 standards to provide integrated access to the different pieces of the local collection (catalog and digital archives) and the various external information sources (such as subscription databases, electronic journals, or other libraries' holdings), through one patron interface. In the Digital Collections component, for use in building digital collections or integrating existing collections, items are described with an unlimited number of fields in any of a variety of schema, including Dublin Core, TEI, EAD, and more. LinkFinder*Plus* gives libraries the ability to manage their own OpenURL-resolving database, giving patrons the ability to link from document to document through linked content (source citations, footnotes, endnotes, bibliographies). These tools are built on nonproprietary standards and can work with any ILS system.

Compatible with Dublin Core, TEI, EAD, OpenURL, and more.

Purchased through a one-time license fee with annual ongoing maintenance that includes user support. Additional licenses may be negotiated at any time.

Pricing is based on such factors as size of collection, number of staff using software, and number of patrons accessing collection.

MarcXml Converter

CASPR Library Systems, Inc.
14395 Saratoga Ave., Suite 150
Saratoga, CA 95070
tel: 800-852-2777
fax: 408-741-2325
e-mail: sales@caspr.com
www.caspr.com/MarcXml.html

This free program is fairly limited in its abilities and intended only to convert MARC 21 records into new industry standard MARCXML records without any loss of data. By freely providing MARC to XML and XML to MARC conversion tools, CASPR encourages the standardization of

MARC21 in the XML environment.
Available as standalone piece of software.
Free with licensing agreement

MetaSource

Innovative Interfaces, Inc.
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Web: www.iii.com/html/products/p_image.shtml

MetaSource is an integrated software suite that helps create and store digital collections in many file formats, and describes these files and paper archives in various metadata schema. The first aspect of MetaSource, called "Millennium Media Management," is the digital archives-creating tool, which helps create, import, or link to most digital file formats (DOC, PDF, JPEG, MPEG, and WAV) while simultaneously integrating with the OPAC and Web OPAC, or maintaining separate catalogs and managing copyright and access permission.

The second element, "XML Harvester," is an automatic cataloging tool that crawls the Internet, leveraging such standards as the Open Archives Initiative (OAI), to harvest XML records according to library-defined criteria, and converting them from schema such as EAD and Dublin Core into MARC records for the OPAC. Finally, "Metadata Builder" is the metadata management component that supports the storage of formats including EAD, TEI, Dublin Core, and XML, and it enables indexing, batch loading, exporting, and other complex operations through a Web-based interface.

Compatible with MARC 21, EAD, TEI, Dublin Core, XML, and more.

MetaSource is a one-time purchase.

The components are available through the integrated MetaSource software suite or as standalone software.

Pricing is based on overall system size, based on various parameters.

OCLC Connexion

OCLC Online Computer Library Center, Inc.
6565 Frantz Road
Dublin, OH 43017-3395
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e-mail: oclc@oclc.org

Connexion is the new name for OCLC's synthesized cataloging suite, with a browser interface, including the functions of CORC and CatExpress and eventually to include all OCLC cataloging functionality. It allows record editing in MARC or Dublin Core view and allows records to be exported in Dublin Core, MARC, HTML, and Dublin Core RDF/XML. Support for new metadata schema, as well as other substantive improvements, is in development, and will be rolled out quarterly. Participation in the OCLC WorldCat allows for easy downloading and uploading of records.

Compatible with MARC, Dublin Core, HTML, and Dublin Core RDF/XML.

Connexion is an OCLC cataloging service with transaction-based pricing; a fixed-fee plan is available as an alternate pricing option.

VTLS MetaCat

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MetaCat is a standalone program with a Web-based interface that uses list boxes and repetitive drop-down menus to streamline the description process in MARC, Dublin Core, and HTML. Tagging goes on in the background, and MetaCat is able to handle batch conversions to and from MARC.

Compatible with MARC, HTML, Dublin Core.

MetaCat is priced as a one-time purchase with ongoing maintenance and support.

BIBLIOGRAPHY

- Association for Library Collections and Technical Services. Committee on Cataloging: Description and Access. CC:DA/MARBI task force on Metadata. Final report (2000). www.ala.org/alcts/organization/ccs/ccda/tf-meta6.html.
- Bush, Vannevar. "As We May Think." *Atlantic Monthly*, vol. 176, no. 1 (July 1945), pp. www.theatlantic.com/unbound/flashbks/computer/bushf.htm.
- Dempsey, L. and Heery, R. "A Review of Metadata: A Survey of Current Resource Description Formats." March 1997. www.koln.ac.uk/metadata/DESIRE/overview. DESIRE project.
- Duval, Erik et al. "Metadata Principles and Practicalities." *D-Lib magazine*, vol. 8, no. 4, April 2002. www.dlib.org/dlib/april02/weibel/04weibel.html.
- "A Framework of Guidance for Building Good Digital Collections." www.ims.gov/pubs/forumframework.htm.
- Gilliland-Swetland, Anne. Setting the stage. Getty Research Institute, www.getty.edu/research/institute/standards/intrometadata
- Hodge, Gail. *Metadata Made Simpler: A Guide for Libraries*. Annapolis Junction, MD: NISO Press, 2001.
- Hudgins, Jean, Grace Agnew, and Elizabeth Brown. *Getting Mileage out of Metadata*. Chicago: American Library Association, 1999.
- Introduction to Metadata: Pathways to Digital Information*. Version 2.0. Edited by Murta Baca. www.getty.edu/research/institute/standards/intrometadata.
- Morville, Peter. *Internet Searcher's Handbook*. 2nd ed. New York: Neal-Schuman, 1999.
- Lyman, Peter and Hal R. Varian. "How much information?" www.sims.berkeley.edu/research/projects/how-much-info.
- McClure, Charles R.; Ryan, Joe; and Moen, William E. Moen. (1992). Identifying and Describing Federal Information Inventory/Locator Systems: Design for Networked-Based Locators. 2 vols. Bethesda, Md.: National Audio Visual Center. Available from ERIC, document no. ED349031.
- McClure, Charles R. & Moen, William E. (1994, May 7). Using Z39.50 in an Application for the Government Information Locator Service (GILS). <ftp://ftp.cni.org/pub/gils/profile/background.doc.txt> or <ftp://ftp.cni.org/pub/gils/profile/background.doc.ps>.
- Van de Sompel, H., Hochstenbach, P., 1999, "Reference Linking in a Hybrid Library Environment. Part 1: Frameworks for Linking", *D-Lib Magazine*, 5, 4, www.dlib.org/dlib/april99/van_de_sompel/04van_de_sompel-pt1.html.
- Van de Sompel, H., Hochstenbach, P., 1999, "Reference Linking in a Hybrid Library Environment. Part 2: SFX, A Generic Linking Solution", *D-Lib Magazine*, 5, 4, www.dlib.org/dlib/april99/van_de_sompel/04van_de_sompel-pt2.html.
- Van de Sompel, H., Hochstenbach, P., 1999, "Reference Linking in a Hybrid Library Environment. Part 3: Generalizing the SFX Solution in the 'SFX@Ghent & SFX@LANL' experiment," *D-Lib Magazine*, 5, 10, www.dlib.org/dlib/october99/van_de_sompel/10van_de_sompel.html.