Virtual Update Notes June 1 & 2, 2009 - ProjectDB Update

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Tue, 06/02/2009 - 6:02pm — sremillard

All our discussions will be related to the documentation posted at:
http://intranet.lternet.edu/im/project/LTERProjectDatabase [1]

Participants:
Monday (6/1): Margaret O'Brien (moderator, SBC), Corinna Gries (CAP), James Brunt (LNO), John Porter (VCR), Kristin Vanderbilt (SEV), Suzanne Remillard (AND)

Tuesday(6/2): Corinna Gries (moderator, CAP), Barbara Benson (NTL), Dave Balsiger (NTL), Don Henshaw (AND), Wade Sheldon (GCE), Theresa Valentine (AND), Nicole Kaplan (SGS), Emery Boose (HFR), Gastil Buhl (MCR), Dan Bahauddin (CDR)

Monday Notes:
Notes by John Porter. See attachment below (ProjectDB_VWC_1june2009.pdf).

Tuesday Notes:
by Emery Boose

See IM website / Projects / Project Database for LTER Sites for details and documentation.

ProjectDB will provide a central, searchable database for LTER research projects.

Initial discussion at last IMC meeting. What constitutes a research project? Up to the site to decide.

Goal is to store all essential information. Features requested by IMs include: status of dataset completion and submission, related publications, funding, reports submitted, permits (both by and for the site).

Two workshops to date. First workshop developed use case scenarios. Second workshop developed code.

See documentation on IM website for technical details. Includes goals, scope, use case scenarios.

Adapted from EML project module. Root element = researchProject. Other elements are same or similar to EML elements. See SBC link for complete schema.

Associated materials can include photos, images, etc (virtually any digital object).

See Specifications for parameters that may be used to query the database. See Accessing the REST webservices for details.

eXist is an open source XML database. Includes infrastructure for web services. Just need to write XQuery documents. REST web services are accessed via a URL.

Note that the web services return an XML file. Use View Source in browser to display. Search can be modified by changing parameters in the URL.

eXist can store stylesheets (xsl files) to format results. Example includes sort by header capability.

See directions for including code in site web page. Uses iframe.

To view database details, follow eXist link (User Guide for IMs / The Database) and select Admin. To see file details, use Browse Collections / Projects. See Data for XML files. See Util for XQuery, XSL, etc files. Note that clicking on an XQuery file runs the web service. Download the XQuery file to view.

Java desktop client can be downloaded from eXist website and installed on local machine. Use local machine to test system before uploading to server.

Oxygen is free to non-profit organizations. Use Oxygen to connect to LNO database. Open and edit all files in Oxygen. New files still need to be uploaded to database.

XForms for use by scientists are still under development.

Sites may use their own stylesheets to customize their interface. Wade will provide information in an upcoming DataBits article. Simple process to embed general code in site website. Customization with stylesheets is not difficult.

XQuery is a very powerful tool for manipulating XML documents and for searching across collections of XML documents. Need to develop a common output schema.

Query form examples build a list of names referenced in project documents and convert to html.

James converted the LTER personnel database to eXist in a couple of hours. XQueries can return an EML party fragment. Or return an EML project node for insertion into EML files. Many promising options for web services with relatively little effort.

Other possibilities for eXist include the controlled vocabulary and unit dictionary.

Best practices needs to be filled out. Better user coordination needed. Create logins using site alias.

Avoid test documents, unfinished documents, multiple versions in main database. Use LNO to archive earlier versions. Avoid retrieval of test documents, etc in search results.

This technology makes versioning easy, comparable to file system management. Just upload the most recent version.

ProjectDB already has Impressive capability and documentation. Many options exist for applying this technology elsewhere. Incorporate into NIS planning. Link names to personnel database, publications, etc.

These developments go a long way towards addressing NSF's recent concerns. A project is easier to find than a dataset.

To add site documents, see online documentation. Contact Corinna for login details.

Attachment	Size
ProjectDB_VWC_1june2009.pdf [2]	66.33 KB

- Virtual Updates [3]

This material is based upon work supported by the National Science Foundation under Cooperative Agreement #DEB-0236154. Any opinions, findings, conclusions, or recommendations expressed in the material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.
Please contact us with questions, comments, or for technical assistance regarding this web site.

Source URL: http://im.lternet.edu/node/459

Links:
[1] http://intranet.lternet.edu/im/project/LTERProjectDatabase
[2] http://im.lternet.edu/sites/im.lternet.edu/files/ProjectDB_VWC_1june2009.pdf
[3] http://im.lternet.edu/taxonomy/term/169