

Another Piece for the Metadata Management System at CAP

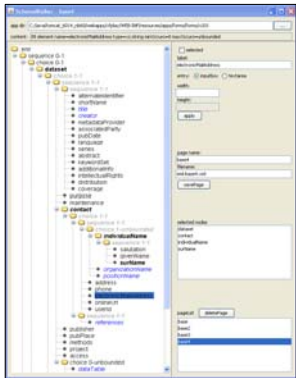
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Introduction

CAP's metadata management system is being expanded to include the advantages offered by latest technologies. An online editor for documents in the Ecological Metadata Language (EML) is being developed. Based entirely on XML, this smart editor offers auto-complete features from known choice lists, thesaurus automatic lookup, automatic save of typing, validation of metadata, and many other advanced features that are already showing in popular web applications. The editor accesses the EML files in a native XML database storing changes as the user enters them. The XML database is already being used to search for relevant datasets, display lists of datasets and metadata in the CAP website, and display selected XML data content.

Code Generation



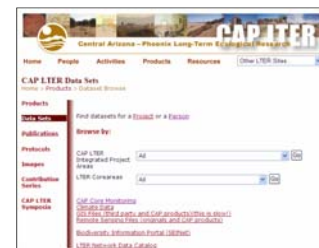
Editor Page



EML Files in XML Database



Dataset Search



List of Datasets



Display of EML File



Architecture

The metadata editor is entirely based on the latest XML technologies. The input forms are written according to the XForms standard using the Orbeon open source framework. A schema walker was developed that generates the XForms code based on a XML schema. Any XML schema, including EML, can be used as template to generate a multi-page online data-entry editor. The editor features tight access control in a multi user environment, a 'publish' function which will make the metadata available for public search, and conversion of the metadata into other standards. The metadata files are stored and accessed by the editor in 'eXist' an Open Source native XML database featuring efficient, index-based XQuery processing, automatic structural indexing, full-text search, and tight integration with existing XML development tools.