Software Tools and Frameworks

FORMAT SERVICES

- JHOVE2. Format validation is crucial to digital preservation and access. JHOVE was designed to process a digital object and determine what the object claims to be (*identification*), if the object conforms to requirements (*validation*) and the properties of the object (*characterization*). Requirements have been developed for JHOVE2 with goals to change the architecture to get better performance, enable more simplified system integration and encourage third party development and enhancement. See News and Events
- FITS. The File Information Tool Set (FITS) is open source software that identifies, validates, and extracts technical metadata for various file formats. It wraps several third-party open source tools (JHOVE, exiftool, National Library of New Zealand Metadata Extractor, DROID, FFIdent, and the Unix File Utilty) normalizes and consolidates their output, and reports any errors.
- GDFR (Global Digital Format Registry). The format of a digital object must be known in order to interpret the information content of that object properly. Without knowledge of its format, a digital object is merely a collection of undifferentiated bits. Thus, format typing is fundamental to the effective use, interchange, and preservation of all digitally-encoded content. The GDFR is meant to be a distributed and replicated registry of format information populated and vetted by experts and enthusiasts world-wide. GDFR is available for testing and review. Do not use it for production systems until it is in a more stable state. See the GDFR information site.
- PRONOM is an on-line information system about data file formats and their supporting software products. Originally developed to support the accession and long-term preservation of electronic records held by the National Archives, PRONOM is now being made available as a resource for anyone requiring access to this type of information. Learn more about PRONOM

MIGRATION FRAMEWORKS - ARTICLES, PROTOTYPES, ETC.

- An intelligent decision support system for digital preservation. This paper (Ferreira, Baptista & Ramalho, 2007) describes a Service Oriented Architecture (SOA) based on Web services technology designed to assist cultural heritage institutions in the implementation of migration based preservation interventions.

- PANIC. An integrated approach to the preservation of composite digital objects using SemanticWeb services (Hunter & Choudhury, 2006)

OPEN SOURCE TOOLS AND SYSTEMS

- The Digital Repository Audit Method Based on Risk Assessment (DRAMBORA)is a toolkit intended to facilitate internal audit by providing repository administrators with a means to assess their capabilities, identify their weaknesses, and recognise their strengths.

- The OpenWMS (Workflow Management System) from Rutgers University Libraries is a platform-independent, open source, web-accessible system that can be used as a standalone application or integrated with other repository architectures. It provides a complete metadata creation system for digital materials, with services to ingest objects and metadata into a Fedora repository and to export these objects and metadata, individually and in bulk in a METS/XML wrapper. OpenWMS uses MODS as an underlying metadata schema for descriptive metadata, NISO/AES standard for technical metadata and PREMIS for preservation metadata. Most of the PREMIS data items are supported and mapped to various sections of the METS profile.

- RODA is an open source digital repository specially designed for Archives, with long-term preservation and authenticity as its primary objectives. Created by the Portuguese Directorate-General for the Portuguese Archives and the University of Minho, it was designed to support the most recent archival standards and become a trustworthy digital repository.
  To download the full installation package or sources go to: http://redmine.keep.pt/wiki/roda-public#Download
  To register and participate in discussion forums and report issues http://redmine.keep.pt/account/register
  Try an online demo at http://roda.di.uminho.pt