

RODA

Repository of Authentic Digital Objects

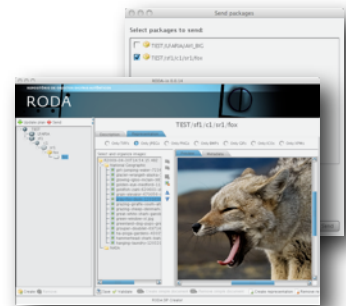
<http://roda.dgarq.gov.pt>

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 National Archives in partnership with the University of Minho, it was designed to support the most recent archival standards¹ and become a trustworthy digital repository².

RODA embodies high level standards of security, scalability and usability. Its centralized architecture enables an easy management while the auto-deposit ingest tools and workflow accounts for the scalability of the human-resources.

Ingest

A simple, yet powerful, cross-platform ingest desktop tool allows producers to easily create, describe, manage and upload digital objects³ directly to RODA. RODA's ingest workflow tests the objects in many ways to make sure they are eligible for long-term preservation. Tests include virus check, fixity check, format validation, metadata completeness, producer authorization, format normalization, and manual semantic check.



Access

Use the search interface to find the information you are looking for. RODA offers a simple search mechanism (a la google) as well as an advanced search interface that allows the user to take advantage of a full range of features such as description level chooser, metadata field definition, logical operators, etc. View or download descriptive metadata as well as preservation metadata. Download the original or normalized versions of a digital representation, or use one of the beautiful online readers.



¹ The RODA project follows the standards OAIS, METS, EAD, PREMIS, MIX, and many others.

² RODA is compliant with the Trustworthy Repositories Audit & Certification (TRAC).

³ Currently supported formats are available at <http://trac.roda.dgarq.gov.pt/wiki/RODASupportedFormats>

Management

RODA uses format migration as its primary preservation strategy. Every preservation intervention is registered as preservation metadata close to the affected object. This accounts for the authenticity of the digital material.



An embedded scheduler enables an easy and extensible way to add new preservation actions to the repository (developed and installed as plugins). RODA includes many plugins designed to carry out most of its inner jobs, e.g, format normalization, recurrent fixity checks, statistics calculation, producer notification and monitoring plugins, classification plan's date inference mechanism, etc.



High level security standards are in place, with a complete user management solution, with groups, subgroups and fine grain permissions (down to the object level).



Detailed logs about all user or plugin actions are kept and shown in the interface, with tools to filter and find the actions, users, or the date interval you want to see.

Finally, refined statistics and reports are available, showing the current status of the repository and its evolution throughout the years. Examples of statistics gathered are number of collections, descriptions and representations, distribution of the representations by class and format, number of logins, page views, downloads and previews, number of deposits, distribution of deposits by state, mean time of automatic and manual submission information packages processing, distribution of users that create, edit or remove descriptions, tasks, and users, reports of CPU load, disk usage, JBoss and MySQL load, etc.



Technologies

RODA was developed using open source state-of-the art technologies such as Java, Apache Axis, Fedora Commons, Open LDAP, MySQL, JHove, Google Web Toolkit, JBoss, OpenSymphony's Quartz, ImageMagick, MEncoder, GStreamer, IZPack, Launch4j, PhpMyAdmin, Handle System, VSFTPd, Apache Lucene, etc.

Maintenance and support

RODA is being supported by a company called KEEP SOLUTIONS⁴, a spin-off of the University of Minho, specialized in digital preservation and advanced solutions for digital archives and libraries.



⁴ <http://www.keep.pt>