

A Public Cloud-Based Portal for Ontology Management and Distribution

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Testbed Project / Semantic Web Cluster

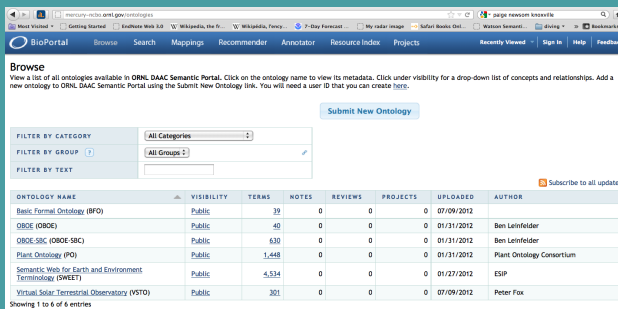
Objectives

- Enable earth and environmental science ontologies to be accessible from the Web
- Host ontology services in a scalable public cloud
- Incorporate tools for managing, accessing, searching, browsing, and disseminating ontologies

Advantages

- A repository with tools where ESIP members can store, visualize, share and map their ontologies
- Ontology versioning managed within the portal
- Community sourcing of ontology maintenance

Implemented portal



Browse
View a list of all ontologies available in ORNL DAAC Semantic Portal. Click on the ontology name to view its metadata. Click under visibility for a drop-down list of concepts and relationships. Add a new ontology to ORNL DAAC Semantic Portal using the Submit New Ontology link. You will need a user ID that you can create [here](#).

Submit New Ontology

FILTER BY CATEGORY: All Categories
 FILTER BY GROUP: All Groups
 FILTER BY TEXT: []

ONTOLOGY NAME	VISIBILITY	TERMS	NOTES	REVIEWS	PROJECTS	UPLOADED	AUTHOR
Basic Formal Ontology (BFO)	Public	39	0	0	0	07/09/2012	
ORDE (ORDE)	Public	40	0	0	0	01/31/2012	Ben Leinfelder
ORDE-SBC (ORDE-SBC)	Public	630	0	0	0	01/31/2012	Ben Leinfelder
Plant Ontology (PO)	Public	1,448	0	0	0	01/31/2012	Plant Ontology Consortium
Semantic Web for Earth and Environment Terminology (SWEEET)	Public	4,534	0	0	0	01/27/2012	ESIP
Virtual Solar Terrestrial Observatory (VSTO)	Public	301	0	0	0	07/09/2012	Peter Fox

Showing 1 to 6 of 6 entries

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Approach

- Investigate and set up a private cloud computing environment at USC for serving ESIP ontologies
- Investigate and set up an Amazon AWS point of service for serving ESIP ontologies
- Obtain and install the BioPortal image
- Produce ESIP-related descriptions for re-branding of BioPortal into an ESIP portal
- Produce outreach material to publicize and assist users with the ESIP-Portal

Status

- The virtual machine (VM) for BioPortal has been acquired and installed on a server at the University of South Carolina
- The VM is being modified for ESIP

Discussion Points

- What are the criteria for a shareable ontology?
- What is the best size for an ontology to be reusable?
- When combining ontologies, how can the semantics be reconciled?