

VIVO 1.5 Release Announcement

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Released on July 12, 2012

October 15, 2012. *Release 1.5 has been superseded by [VIVO 1.5.1](#). We recommend you install the newer version and, if you have previously installed or upgraded to VIVO 1.5 that you install VIVO 1.5.1 due to a number of bug fixes and performance improvements. Since there are no ontology changes between 1.5 and 1.5.1, it is not necessary to upgrade to VIVO 1.5 prior to upgrading 1.5.1.*

Downloads

Release 1.5 is available for download from SourceForge.

VIVO as a [zip file](#) and as a [tar.gz file](#)

Vitro as a [zip file](#) and as a [tar.gz file](#)

Overview

VIVO 1.5 introduces a number of new features addressing extensibility and interoperability, reasoning, page customization, and a first step toward internationalization. VIVO's profile management has been improved with a number of new custom forms, and there are significant improvements to ontology browsing and editing.

The VIVO 1.5 development cycle has also included extensive design work on features anticipated for implementation beginning with version 1.6, including increased modularity, the introduction of a separate ontology for display and editing controls, and the addition of a graphical ontology class expression editor.

Extensibility

Since version 1.2, VIVO's use of the Jena Semantic Web framework (1) has allowed implementation sites to use any database supported by Jena, including MySQL, PostgreSQL, and Oracle. VIVO Release 1.5 extends this flexibility a major step further by making it much easier to extend VIVO to use any triple store, and include an experimental feature that supports connecting to any triple store that exposes a SPARQL endpoint that supports SPARQL update. Initial tests with Sesame are quite promising.

VIVO is now an OpenSocial container

The OpenSocial standard (2) defines a web-based container environment for hosting third-party components in a web application and provides a set of common application programming interfaces for developing these components by leveraging the Google Gadgets (3) framework. Eric Meeks and colleagues at the University of California–San Francisco and other institutions have developed OpenSocial gadgets designed to work with RDF expressed using the VIVO ontology. For VIVO 1.5, Eric has adapted the Apache Shindig (4) OpenSocial reference implementation to communicate with VIVO and collaborated with the VIVO development team in extending VIVO itself to support OpenSocial gadgets referencing data in VIVO or bringing additional data to VIVO based on page being viewed.

Reasoning

The simple reasoner built into VIVO now has support for sameAs reasoning to allow joint display of statements associated with two URIs that have been asserted or inferred to be sameAs each other. The VIVO reasoner will also now maintain inverse property statements based on presence or absence of inverse property declarations in an ontology. Although the VIVO application has previously added and removed property inverse statements during interactive editing, this feature had been requested to simplify the preparation of data for ingest with the VIVO Harvester or other tools. Recomputing inferences will trigger the reasoner to supply any missing inverse property statements.

New page types

The VIVO 1.5 release expands the flexibility of VIVO as a web application by adding additional dynamic content features. Sites may create arbitrary HTML pages or web pages that display the results of SPARQL queries and link to those from any template in the application; these new pages may optionally be top-level menu pages and may include multiple sections featuring the results of parameterized SPARQL queries and static HTML content as well as data filtered by class group and type. New page specifications are typically paired with page template modifications to provide the desired level of control over display of dynamic content. These changes significantly augment VIVO's native reporting capabilities and enable sites to demonstrate aggregation, interconnectivity, and network effects in VIVO data. Queries and report templates will be useful to share across sites and a SPARQL resource page has already been established on the VIVO wiki (5).

Customized short views

Site maintainers may also customize the way that individuals are displayed on VIVO index pages, browse pages, or search results - all without modifying the basic VIVO code. Custom templates, populated by custom queries, can be assigned to classes of individuals in any of these contexts.

Language filter

VIVO 1.5 will respect a user's browser language preference setting and filter labels and data property text strings to only display values matching that language setting whenever versions in multiple languages are available. This is an important first step toward internationalization of the VIVO application, an effort we expect to continue in future releases.

Improved editing

VIVO 1.5 includes new forms to simplify entry and editing of awards, advising relationships, and additional types of publications. Forms make greater use of autocomplete functionality, and very large pick lists are converted to autocomplete functionality by the application on the fly.

Improved Map of Science visualization

VIVO's Map of Science visualizations benefit from improved labeling and color coding as well as additional explanation; the maps also now support dynamic interchange between discipline and sub-discipline sliders.

Ontology changes

Ontology changes from 1.4 to 1.5 include identifying primary job appointments, modeling citation information for publications, and adding new types of publications to better align with PubMed. Changes for each release are documented on this wiki at [Ontology](#).

The VIVO ontology is now available via the Bioportal (<http://www.bioontology.org/bioportal>), an open repository of ontologies hosted by the National Center for Biomedical Ontology.

Acknowledgements

This release represents the work of the entire VIVO team and contributions of feature requests, requirements development and design, ontology design reviews, software development, and testing from the larger VIVO open source community.

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References

1. <http://jena.apache.org/>
2. <http://docs.opensocial.org/display/OS/Home>
3. <https://developers.google.com/gadgets/>
4. <http://shindig.apache.org/>
5. [SPARQL_Resources](#)