TopBraid Enterprise Vocabulary Net (EVN)™

TopBraid EVN is a standards-based solution that simplifies the development and management of interconnected vocabularies. With a convenient browser-based interface, it supports business stakeholders who need to collaborate on defining and linking enterprise vocabularies, taxonomies, and metadata used for information sharing, data integration and search.

Solution Context and Requirements

Business definitions of data are essential to understanding, integrating and provisioning enterprise information. In modern enterprises, this information is often managed in a distributed setting where its meaning and applicability depend on the local context. A single, centralized, master system does not support today’s dynamic business environment. Here are just a few examples of common challenges — conceptually simple, but potentially costly disconnects:

- The term “Customer” means different things for the Sales and Marketing departments
- “North-east” region for the Distribution group includes “Delaware,” but for the Customer Support team “Delaware” is part of the “South-central” region
- After standardizing on the use of ISO 3166 country codes in all its systems, an organization finds that it needs to interact with an external partner that uses FIPS codes for countries and geo-political divisions

Because monolithic, top-down approaches to managing information have proven to be unrealistic, the tool of choice for business vocabularies is often a set of spreadsheets, trapped and hidden on users' desktops. While some enterprise systems include their own vocabulary capabilities, they do so without providing globally accessible, standards-based identities for the information they manage. As a result, disconnected vocabularies proliferate, undermining the promised value of reference data.

TopBraid EVN creates a linked web of business vocabulary assets — for cross-community collaboration.

Changes in terms are available immediately to any vocabulary that references them. External vocabulary components are integrated in the same way as internal ones. The Semantic Web structure provides a uniform, distributed but connectible representation of all metadata, taxonomies and even data validation rules. EVN manages information in a modular and re-usable way, offering an intuitive, model-driven user interface and a rich set of extensible features.
User-centered experience
As the owners of vocabularies that directly affect business efficiency, business users need a solution that is designed for them, without requiring extensive technical skill or IT support. TopBraid EVN is a web-based collaborative solution for defining metadata and building hierarchies. It’s easy to get started with and puts companies on the fast track to achieving the strategic goal of managing and governing their information assets. Auto-complete, drag and drop, copy, clone, merge and other convenient operations ensure user productivity.

Why Semantic Web standards?
EVN’s commitment to Semantic Web technology standards as the basis of the enterprise information infrastructure brings key benefits:

- Resource Description Framework (RDF) provides a way to create a web of information, whether on the public internet or within intranets. Like the familiar World Wide Web, the Semantic Web is easily extensible, allowing information to be liberated from silos. With each vocabulary element having its own Uniform Resource Identifier (URI), it can be easily referenced from anywhere in an enterprise.

- RDF Schema and OWL (Web Ontology Language) provide languages for semantic modeling of complex concept types, attributes and relationships.

- Simple Knowledge Organization System (SKOS) provides a language for describing structured terminology systems like taxonomies and thesauri. Based on RDF, it inherits the power of flexibility and distribution, while being simpler to use than OWL.

- SPARQL Query Language for RDF provides more than a query facility. It offers a powerful mechanism for modeling and implementing business and data validation rules. Connections that once required custom software can now be described in a standard, declarative way.

Core Capabilities
- **Vocabulary Editing** — Cloning, merging, repositioning and many other operations to improve user productivity
- **Search and Browsing** — Simple lookups and advanced search, tree and list views, saved queries and reports, visual graph exploration and query
- **Import/Export** — Import/Export from RDBMs, RSS feeds, spreadsheets, XML, XSD, MultiTes, UML/XMI, SPARQL endpoints, RDF and OWL
- **Validation Rules at the Point of Entry** — Comprehensive data quality checks to ensure consistency using customizable rules
- **Audit Trails** — Every change is logged and time stamped; change history can be searched and rolled back
- **Unlimited Work-in-Progress Copies** — Virtual work-in-progress copies of vocabularies allow parallel development of versions and support controlled publishing, review and approval workflow
- **Flexible Data Model** — Ability to define and use any number of custom attributes and relationships
- **Access Control** — Ability to define rights and responsibilities per vocabulary and working copy
- **Customizability** — On-the-fly creation of customized model-driven web user interfaces and operations to meet the unique needs of each group
- **Open Architecture and Standards** — External data need not be transformed into a proprietary schema. TopBraid EVN offers native support for RDF, OWL and SPARQL
- **Systems Integration** — Connect to any system via Web Service interfaces and APIs
- **Enterprise-ready** — Scalable and robust architecture with DBMS deployment (choice of relational and RDF databases) with LDAP integration for access control

A Model-driven Solution
Moving beyond the capabilities of traditional vocabulary tools, EVN focuses on the modularity, re-use and connectivity of business vocabularies. By eliminating the restrictions of pre-defined models or rigid relational data structures, EVN provides standards-based modeling features which can flexibly address all the requirements of your user communities. Users can define an unlimited number of concept types, attributes and relationships and immediately see them reflected in the user interface. Modeling capabilities include custom rules and operations. TopBraid EVN is a true model-driven solution for capturing business semantics.