LexEVS

Current Release

Version 6.5.4 August, 2020

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Application Overview

LexEVS is the central EVS terminology server, developed by the National Cancer Institute (NCI). LexEVS provides a common terminology model and open access to a wide range of terminologies, terminology value sets, and cross-terminology mappings needed by NCI and its partners. For users wanting to install and run a local instance of LexEVS, the LexEVS server package provides a comprehensive set of software and services to load, publish, and deploy vocabulary in a variety of web-enabled environments. The LexEVS API serves users who want programmatic access to the data made available by LexEVS.

NCI's EVS is the primary user of the LexEVS services, but there are many others (see EVS Use and Collaborations). You can consume controlled terminologies hosted by NCI's EVS without setting up your own servers to do so. Seeing what NCI has done with EVS is a good way to learn about what LexEVS can do. Refer to the EVS Wiki for further information.

LexEVS provides a collection of program interfaces, affording users and developers open access to both controlled terminologies available from the NCI and other supported terminologies. NCI's installation of LexEVS is not only a tool for the community to use, but also an example of what developers can implement at their own sites. By creating a private installation of LexEVS, an organization can control the content and have any set or subset of terminologies and mappings. One installation can be used by multiple applications in an enterprise.

LexEVS Terminology Service includes the following components:

- LexEVS API - A Java interface based on the LexGrid Object Model
- LexEVS REST - Common Terminology Services 2 (CTS2) Based REST service to access LexEVS content
- LexEVS Distributed API - A Java interface to provide remote client access to the native LexEVS API to access LexEVS content
- URI Resolver Server - A REST service for translating identifiers into valid URIs
- Developer Tools - Tooling (graphical user interfaces) to support server administration, query testing, and value set development for developers

The name LexEVS highlights the merging of LexGrid, LexBIG, and EVS technologies and designates an entire suite of applications. In this suite, LexGrid is the underlying model for standard storage of controlled vocabularies and ontologies. The LexBIG API is the set of services that EVS adapters use to store and retrieve terminology metadata. LexEVS APIs are a combination of convenience methods and the LexBIG API (combining LexBIG and the EVS adapters into one set of services). For detailed information, refer to the LexEVS architecture overview.

After you have a chance to get familiar with the LexEVS suite, consider looking through the LexEVS 6.5.4 Functionality Overview. This lays out everything that can be done from a developer's or ontologist's point of view.

API's, Installation, and Downloads

LexEVS offers both a regular java api and a somewhat more limited remote method invocation java api that runs on the Tomcat application server. Additionally, it runs behind the CTS2 REST Services. It currently uses the MySQL database as as its datastore.

The installation overview provides an introduction to the different environments that can be installed. Refer to the LexEVS 6.x Installation Guide for more information.

The LexEVS 6.5.4 Installation Options identify the download files for each LexEVS environment that can be installed (Local Runtime and Distributed Services).

Forum and Support

LexEVS Issues and Discussion 🔗
Users and developers can report and discuss issues regarding the LexEVS application on its GitHub site.

What's New in LexEVS 6.5.4

Features - refer to LexEVS 6.5.4 Release Notes

LexEVS 6.5.4 Technical stack updates.

CTS2 References on this Wiki

LexEVS 6.x REST CTS2 Service

Contributions

The contribution process is described in LexEVS Community Code Contribution. LexEVS source code is in the NCIP channel of Github 🔗

Presentations, Demos, and Other Materials

Presentations

Refer to LexEVS Presentations.

Examples

- Query Service with Program Examples, included in the LexEVS base installation. Both Lexical Set Operations and Graph Operations are included for common vocabulary functions using a sample vocabulary and CodedNodeSet. This is described in the LexEVS 6.x Installation Guide.
- Example Programs and Verification Test Suite, included in the LexEVS base installation. The Example Programs provide a limited interactive demonstration of LexEVS capabilities. Both are explained in the LexEVS 6.x Installation Guide.
- LexEVS Example Code zip file. These are code examples for subjects of frequently asked questions such as creating a coded node graph using the LexBIG convenience methods.

Documentation and Training

- LexEVS 6.5.4 Release Notes
- LexEVS 6.x Installation Guide - outlines the supported configurations and technical installation instructions for LexEVS Vocabulary Services
- LexEVS 6.x Administration Guide - outlines the environment configuration from the perspective of an existing installation
- LexEVS 6.x Programmer's Guide - explains the LexEVS API (services, extensions, utilities, and GUI); also many related APIs
- LexEVS 6.x Design and Architecture Guide - explains the LexGrid model and the LexBIG services
- LexEVS 6.x Value Set and Pick List Definition Guide - explains the LexEVS 6.x Value Set and Pick List Definition documentation
- LexEVS 6.x Loader Guide -- intended for a LexEVS developer and provides information about the loaders provided, mapping, and how to create your own loaders using the loader framework
- LexEVS 6.x OWL Export Guide - explains the steps necessary to export content in OWL/RDF format
- LexEVS 6.5.4 Javadocs download - has several parts to consult depending on what you are looking for. One download includes all the Javadocs.

Deprecated Releases

- Deprecated LexEVS Releases

LexEVS License

- LexEVS License

Related Applications

- NCI Protégé
- NCI Term Browser
- NCI Thesaurus Browser
- NCI Metathesaurus Browser