

Toolkit for Integration of SNOMED CT® (CSNOtk) – Release Note

About CSNOtk

C-DAC's Toolkit for SNOMED CT (CSNOtk) is a specially designed toolkit for easy access and integration of SNOMED CT in healthcare applications. CSNOtk provides a simple use suite of tools for SNOMED CT database integration, term/state/semantic tag-based search, and ready-to-use jQuery-based custom control for SNOMED CT UI enablement. This toolkit enables clinicians and researchers to find relevant SNOMED CT codes with synonyms, fully specified names and different types of relationship concepts. The salient features of the CSNOtk include:

- Easy to use Object-Oriented API for search, suggest, lookup, and explore
- Simple map and SNOMED CT to ICD-10 Mapping API
- Facility to access Drug Information Service Bundle (DISB) APIs
- Facility for import and search from the reference sets
- Support for national extension(s)
- Easy to use embed jQuery-based custom controls
- Apache Lucene engine-based full-text search
- Ready to use SNOMED CT web service
- Automates database and Lucene index creation from the SNOMED CT release files
- Feature-rich SNOMED CT browser
- Easy to setup components using the installer package

The developed CSNOtk can help *Original Equipment Manufacturers (OEM)* involved in the manufacturing of medical and pro-medical devices, *Independent Software Vendors (ISV)* building applications used in medical and healthcare domains, and *Software Vendors* that make applications or systems that require supporting medical informatics and IT standards. *Health Informatics professionals* studying or doing research in the area of medical data capture, storage, transmission, visualization, etc. will also need the CSNOtk to interact with medical systems. Moreover, due to the online search service and the CSNOtk, *Doctors, and Clinicians* will find it easy to use SNOMED CT in their practice.

What's new in CSNOtk v8.0

Release Date: May 03, 2024

- Migration from Java 8 to 11
- Addition of *preferredName* value in Explore API response
- Log generation migrated to Log4j2
- Introduced *Extension* tab in CSNOFinder to display members
- Introduced a new filter option to the 'All Concepts by Attribute' API to get the subsumption of destination concepts

Bug Fixes

- CSNOLib: Fixed: Refset index creation failure not reported in logs
- CSNOLib: Fixed: Transclosure index not generating for extensions and refsets
- CSNOLib: Fixed: Log generation for SNOMED to ICD-10 map
- CSNOLib: Improved TC table creation logic hence improving 'all Descendants' API response.
- CSNOLib: Shortened length of DISB error messages (for better readability)
- CSNOServ: Corrected displayed links on the Validate API page
- CSNOFinder: Fixed Refset members count in the Refset tab
- CSNOFinder: Fixed search for a term with brackets issue

Improvements

- CSNOLib: Added preferredName in Explore API's descendant response
- CSNOLib: Log generation using Log4j2
- CSNOLib: Logged the database name for which index creation fails
- CSNOFinder: Added loading animation for Refset / Extension members
- CSNOLib/
CSNOFinder: Implemented pagination to display Extension members
- CSNOFinder: Hiding sub-license during DB/Index creation
- CSNOLauncher: Upgraded to jetty 11 for CSNOLauncher
- CSNOLib: Corrected logs for re-indexing international RF2
- CSNOServ: Hover the close button for the Parameter Description tab
- CSNOLib: Increased description table's 'term' column's length (as per the new guidelines)

Configuration Notes

- Pre-requisite software needs to be updated as mentioned in the README file.
- A fresh installation of the SNOMED CT database, Lucene index creation, CSNOLib, and other required components for using the latest released version. Follow README provided for each component.

Availability

The CSNOtk is a free and open-source software downloadable package from C-DAC's Portal (<http://www.cdac.in>) under Apache License v2.0.

Users are advised to obtain a suitable license to use SNOMED CT codes in their software and work from the National Resource Centre for EHR Standards (NRCeS), India for development & deployment within India. Information is available at <https://www.nrces.in/standards/snomed-ct>. In any other use case please refer to Affiliate Licensing related information at <http://www.snomed.org/snomed-ct/get-snomed-ct>

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