

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-to-use suite of SNOMED CT database integration tools, 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
- APIs for simple map and SNOMED CT to ICD-10 & LOINC mapping APIs
- Facility to access Drug Information Service Bundle (DISB) APIs
- Provision for SNOMED CT Expression Constraint Language (ECL) queries
- 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 researching medical data capture, storage, transmission, visualisation, 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 v9.0

Release Date: December 19, 2025

- Introduced an API for seamless SNOMED to LOINC mapping, enabling better interoperability.
- Added functionality to handle LOINC Extensions, expanding coverage for clinical terminology.
- Enhanced Concept Details view in CSNOFinder by adding a dedicated attribute relationship box for clearer insights.
- Improved filtering by allowing multiple semantic tag selections, making searches in CSNOFinder more efficient and precise.

Bug Fixes

- CSNOLib: Fixed: Inconsistent Search API results (parenthesis)
- CSNOLib: Handled importing Full Release

Improvements

- CSNOtk: Restructured Code for Modularity.
- CSNOServ: Updated helpful links after introduction of SNOMED Spaces.
- CSNOtk: Removed redundant code (overridedb parameter).

New feature

- CSNOtk: Add support for LOINC Extension integration
- CSNOFinder: Added Attribute Relationship Box for concept details
- CSNOFinder: Filter search based on multiple semantic tags.

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 the README provided for each component.

Availability

The CSNOtk is a free and open-source software downloadable 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>.

For any information regarding CSNOtk, please write to C-DAC at sdk-eng@cdac.in