



HSE Central Terminology Service Getting Started Quick Reference Guide

For users new to the service

Version 0.6 03/12/2025)

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Overview

Central Terminology Service

The HSE Terminology Server is a managed service solution that serves as a resource for standards subject matter experts, developers, healthcare organizations, vendors, healthcare data providers, and consumers nationwide.

Our Terminology Server is powered by Ontoserver from CSIRO. The Ontoserver product is a world-leading clinical terminology solution implementing FHIR terminology services and supporting syndication-based content. This advanced technology ensures that our Terminology Server is equipped to meet the highest levels of healthcare interoperability and improved healthcare delivery across Ireland.

Document Audience

This document is intended for new users of the HSE Central Terminology Service.



Document Purpose

The purpose of this document is to function as a quick reference guide to help new users access and use the HSE Central Terminology Service.

The guide covers the following topics:

- What is a Terminology Server
- What content is currently available
- Licence/Access agreements
- How to get an account
- How to determine which terminology artefacts are on the server “Dashboard”
- How to explore terminology artefact content on the server “Shrimp”
- FHIR Terminology Model/Resources/APIs
- How to access the CTS APIs



What is a Terminology Server

HSE's Terminology Server is a fully HL7 FHIR-compliant, cloud-based solution that stores, maintains, and distributes international and nationally approved terminologies.

Healthcare organisations often use different software and different words, or 'terminologies', to record health information, what one doctor records in their system as a 'chest infection', for example, might be recorded as 'upper-respiratory infection' in another, so the two systems might not be able to match the information up.

A terminology server transforms the way in which data is captured, shared and analysed across health and care, meaning more effective, efficient and safer decision-making. This makes providing healthcare services, treatment and cures more efficient and cost-effective.

Terminology Server Content

The ambition of the HSE Terminology Server is to provide access to all nationally endorsed or nationally relevant terminology standards in Ireland.

The latest list of content is available on this page (and includes Snomed CT Irish edition):

[Terminology Content](#)

Licence/Access Agreements

Before accessing the HSE Central Terminology Service users are required to accept the “End User Agreement” and the “Content Licences Agreement” The latest versions of these can be found on this page:

[Licence Agreements](#)



How to get an account

You can self-register for an account linked to an existing Microsoft account that you have by going to here:

[Microsoft Account Self Registration](#)

Note: Currently this is not possible for hse.ie accounts

If self-registration is not suitable for your account, then the instructions to request an account can be found here:

[HSE Account Registration](#)

How to determine which terminology artefacts are on the server content (Dashboard)

To assign Content Requesting permissions you select the “Groups” tab

Access URL

[Ontoserver Dashboard](#)

Logging In

Click the “Login” button on the top right of the page:



Then click the “Microsoft” button if you are using a self-registered account linked to your Microsoft account (or if you requested a standalone account then enter the username and password for the account that you have been issued with)



CTS

Sign in to your account

Username


Password

☐ Remember me

[Forgot Password?](#)

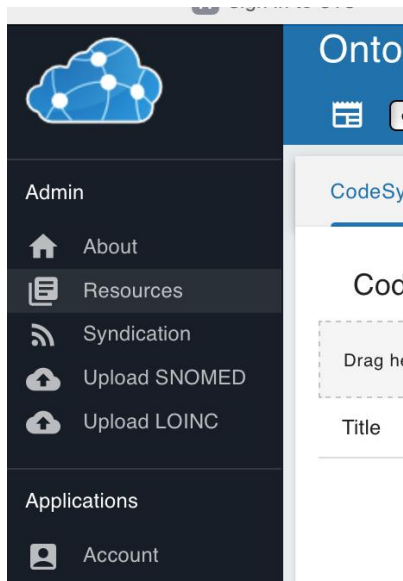
Sign In

Or sign in with

Microsoft

Exploring Artefacts (Resources)
















Click the “Resources” link in the left-hand menu bar:




Searching for resources



Use the search box to find resources you are interested in:

CodeSystem							
CodeSystem (3)							
Drag headers here to group by							
	Title	Version ↓	Status	Domain	Synd		Actions
   >	Irish module	http://snomed.info/sct/11000220105/version/20251121	active	snomed.info	<input type="checkbox"/>		 
   >	Irish module	http://snomed.info/sct/11000220105/version/20250421	active	snomed.info	<input type="checkbox"/>		 
   >	Irish module	http://snomed.info/sct/11000220105/version/20241021	active	snomed.info	<input type="checkbox"/>		 








Viewing further details about resources

Click the “Details” button  to see more information about the resource:




CodeSystem (3) Search × ≡ + +

Drag headers here to group by

	Title	Version ↓	Status	Domain	Synd	Actions
   	Irish module	http://snomed.info/sct/11000220105/version/20251121	active	snomed.info		 
resourceType	CodeSystem					
id	11000220105-20251121					
> meta						
url	http://snomed.info/sct					
▼ identifier[0]						
system	urn:ietf:rft:3986					
value	urn:oid:2.16.840.1.113883.6.96					
version	http://snomed.info/sct/11000220105/version/20251121					
name	SNOMED_CT					
title	Irish module					
status	active					
experimental	false					
date	2025-11-21T00:00:00+00:00					
publisher	The owner of the module 11000220105					
description	SNOMED CT is the most comprehensive and precise clinical health terminology product in the world, owned and distributed around the world by The International Health Terminology Standards Development Organisation (IHTSDO).					
copyright	© 2002-2016 International Health Terminology Standards Development Organisation (IHTSDO). All rights reserved. SNOMED CT®, was originally created by The College of American Pathologists. "SNOMED" and "SNOMED CT" are registered trademarks of the IHTSDO https://www.snomed.org/get-snomed					

Customising the search results

To see more metadata about the resource in the search results use the “Show Columns” button:

 × ≡ + +

Show Columns

And select the columns you are interested in:



Ontoserver Dashboard (1.7.14)https://datastandards.hse.ie/fhir (4.0.1)

en

Logout

CodeSystem

ConceptMap

NamingSystem















StructureDefinition

ValueSet

CodeSystem (3)

snomed

Drag headers here to group by

	Title	Version ↓	Status	Domain	Synd
   	Irish module	http://snomed.info/sct/11000220105/version/20251121	active	snomed.info	
   	Irish module	http://snomed.info/sct/11000220105/version/20250421	active	snomed.info	
  	Irish module	http://snomed.info/sct/11000220105/version/20241021	active	snomed.info	

Rows per page10 rows

Add or remove columns

☐ Id

☒ Title

☐ Topic

☐ URL

☒ Version

☒ Status

☒ Domain

☐ Last Updated

☐ Publisher

☐ Description

☐ Purpose

☐ Tags

Ordering search results

Hovering over a search result column brings up an arrow to allow you to order the results by

Version ↓

that field in either ascending

Version ↑

or descending order

Grouping Search results

Any of the search result columns can be dragged into the bar above labelled “Drag headers here to group by”



CodeSystem (3)




Drag headers here to group by

CodeSystem (3)

Grouped by:

Version ↑



Title	Status
>  : http://snomed.info/sct/11000220105/version/20241021	
>  : http://snomed.info/sct/11000220105/version/20250421	
>  : http://snomed.info/sct/11000220105/version/20251121	



How to explore terminology content (Shrimp)

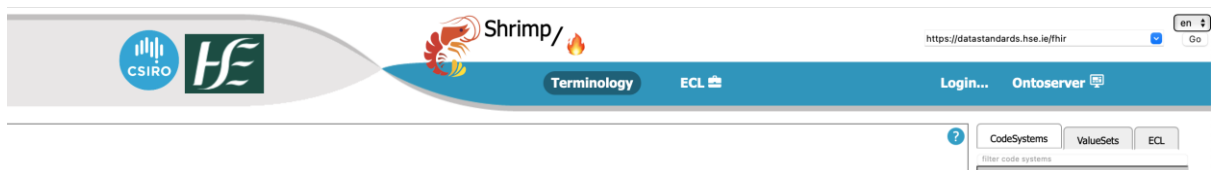
To assign Content Requesting permissions you select the “Groups” tab

Access URL

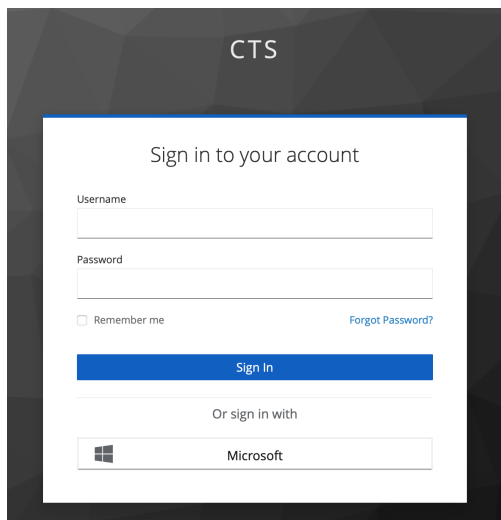
[Access Shrimp](#)

Logging In

Click the “Login...” button on the top right of the page:

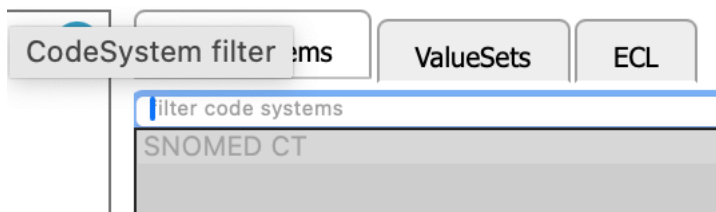


Then click the “Microsoft” button if you are using a self registered account linked to your Microsoft account (or if you requested a standalone account then enter the username and password for the account that you have been issued with).



Selecting CodeSystem/ValueSet

The resources you want to explore can be located via the filter box on the top right of the screen:





e.g. “snomed”

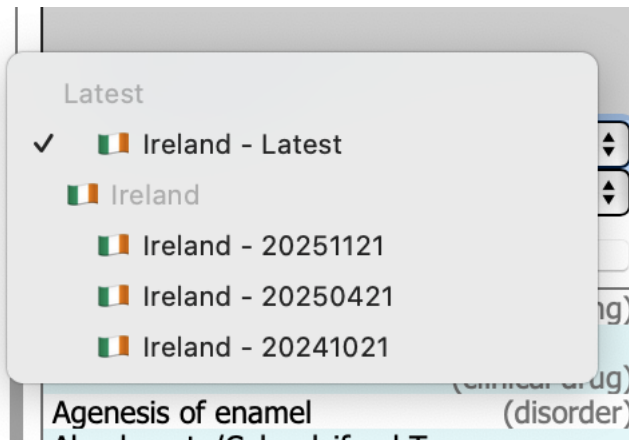
The screenshot shows a search interface with three tabs: 'CodeSystems', 'ValueSets', and 'ECL'. The 'CodeSystems' tab is selected. A search bar contains the text 'snomed'. Below the search bar, the results are displayed as 'SNOMED CT' with a 'Code System' button.

Selecting the Version

The version of the resource can be selected from the “Version” drop down box:

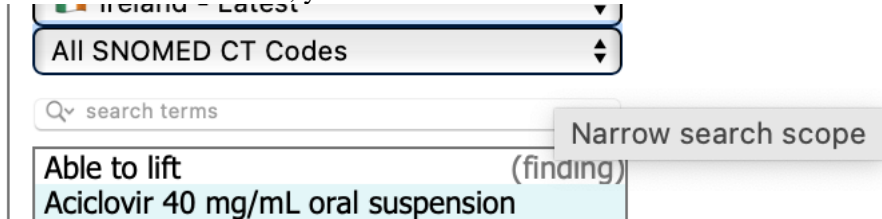
The screenshot shows the same search interface as before, but with the 'Version' dropdown menu open. The dropdown menu has two options: 'Ireland - Latest' and 'All SNOMED CT Codes'. The 'Ireland - Latest' option is selected. Below the dropdown menu, there is a search bar with the text 'search terms' and a button labeled 'Able to lift (finding)'.

Select the version you are interested in (defaults to the latest)

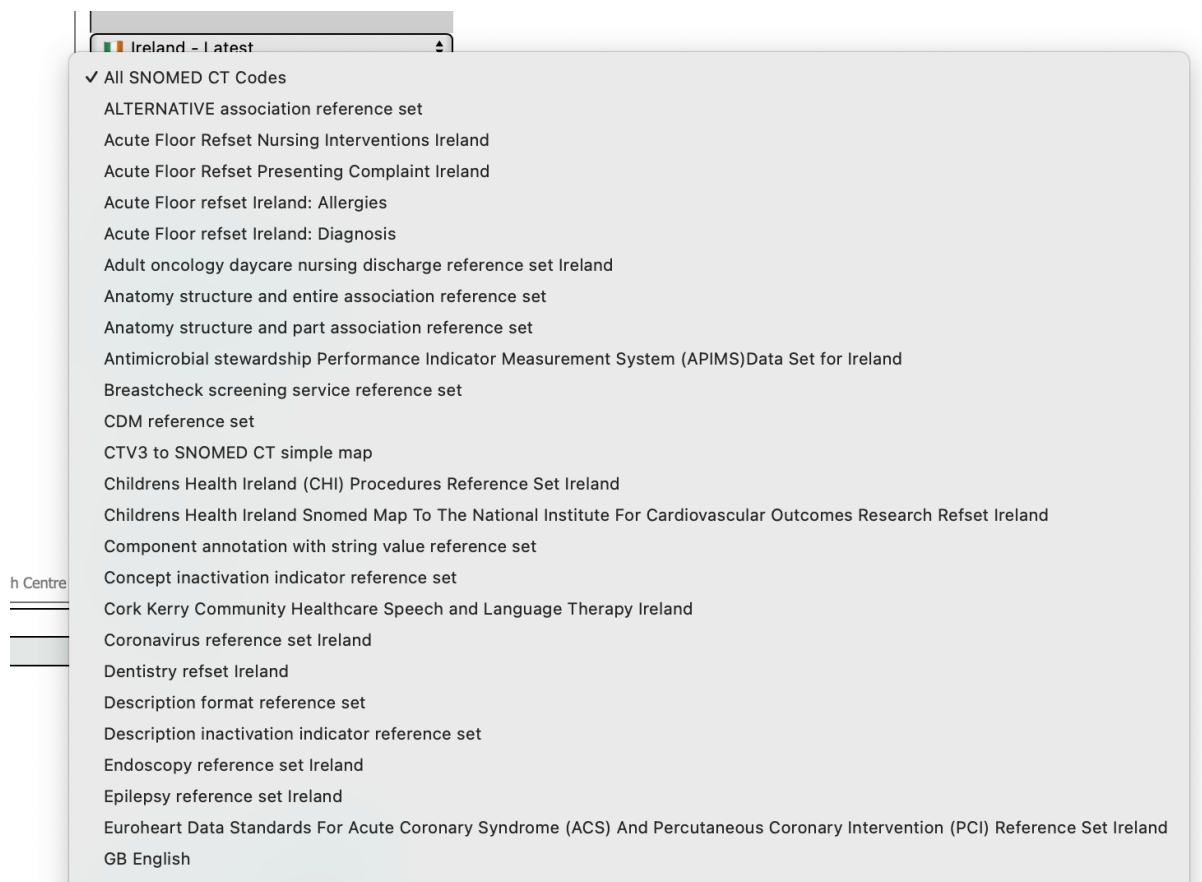


Selecting a SNOMED refset

In the case of SNOMED, you are also able to select SNOMED refsets to search on:



Select the refset you are interested in (defaults to “All SNOMED CT Codes”)

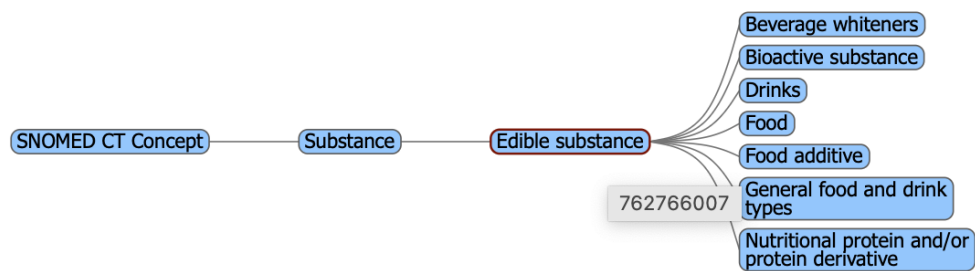


Exploring the resource

You can navigate the resource in the left-hand visualisation by clicking on nodes to expand the hierarchy at specific points and to select concepts:

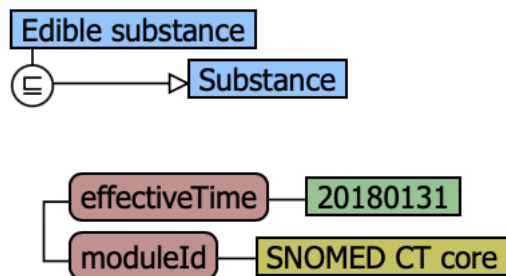


All SNOMED CT Codes

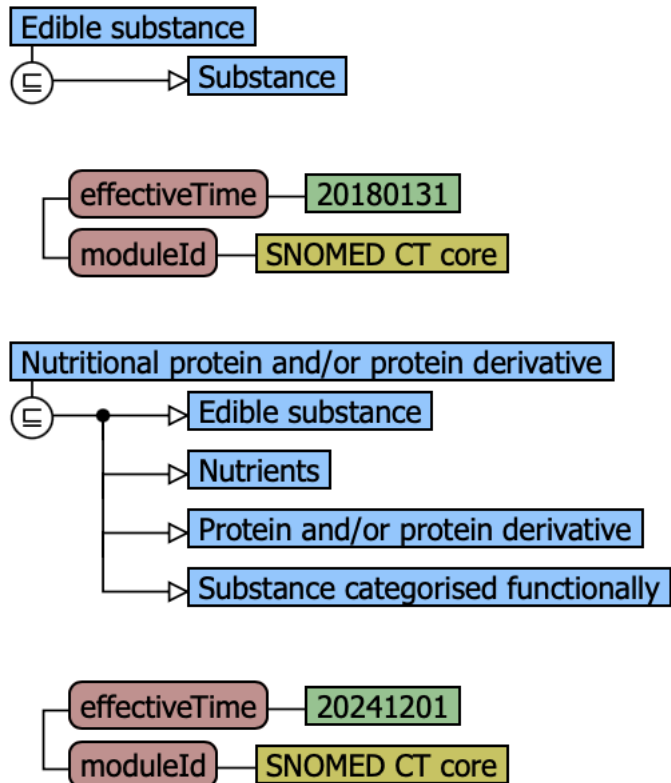


Visualising a concept

A visualisation of the concept is shown in the box below



Multiple concepts can be visualised to allow side by side comparison (control click on multiple concepts in the visualisation and the visualisations will appear below)



Viewing basic properties/designations

The box at the bottom right of the view will give a table of basic properties and all designations (e.g. Synonyms/display values) for the concept:



16 matches

PROPERTY	VALUE
System	http://snomed.info/sct
Code	22298006
Preferred	Heart attack
Display <i>en</i>	Myocardial infarction
	Heart attack
Effective Time	20020131
Primitive	false
Fully specified name <i>en</i>	Myocardial infarction (disorder)
Inactive	false
Module ID	900000000000207008
Synonym (acceptable) <i>en</i>	Myocardial infarction
	Myocardial infarct
	MI - myocardial infarction
	Infarction of heart
	Heart attack
	Cardiac infarction

Text search (Smart) for concepts

Concepts can also be located using the search box. The search looks across all designations for the concept (as well as the codes themselves):

All SNOMED CT Codes

Q search terms

Able to lift (finding)

Smart search allows searching on e.g. abbreviations etc. and ranks the results by quality of match:

All SNOMED CT Codes

Q pne pne

Pneumococcal pneumonia (disorder)

Pneumocystosis pneumonia (disorder)

Pneumococcal lobar pneumonia (disorder)

Clicking on the concept in the search results will load it into the visualisation



ECL Builder

Shrimp includes a visual ECL builder/evaluator that can be opened using the “ECL” button in the middle of the top bar:

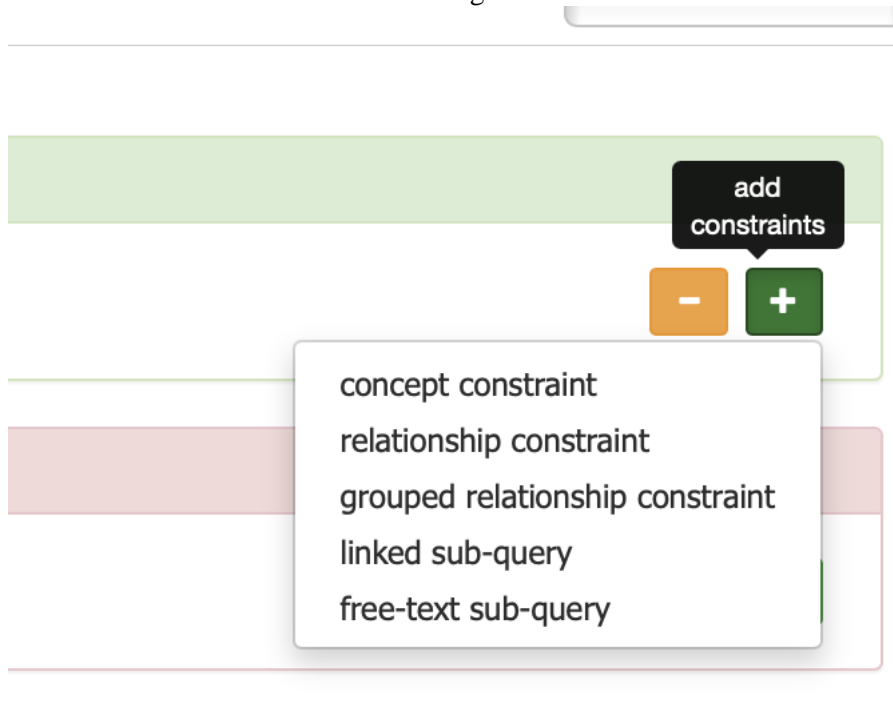


ECL Documentation

For more information about ECL please see: [ECL Documentation](#)

Adding/Removing constraints

Constraints can be added/removed using the -/+ buttons





Populating constraints

Constraints can be populated using the drop downs and search boxes:

Use the button to the left to create new ECL queries. Use the menu in the query builder below to add new parts to your query.
Note, a free-text node allows you to enter arbitrary ECL.

The screenshot shows the SNOMED ECL Builder interface. The 'Name' field is 'Untitled-8896'. The 'INCLUDE' section is active, showing a dropdown menu for relationship types: 'Self' (checked), 'Descendants', 'Descendants Or Self', 'Children', 'Ancestors', 'Ancestors Or Self', 'Parents', and 'Members Of'. The search term 'Diabetes mellitus' is entered in the text box. Below the search box, the text '73211009|Diabetes mellitus|' is visible. The footer includes the CSIRO logo, the HE logo, and the text 'SNOMED ECL Builder: Untitled-8896'. There are also buttons for 'Terminology' and 'ECL'.

New query [ECL help] [ECL spec] Use the button to the left to create new ECL queries. Use the menu in the query builder below to add new parts to your query.
Note, a free-text node allows you to enter arbitrary ECL.

Untitled-8896

The screenshot shows the search results for 'Diabetes mellitus'. The 'Name' field is 'Untitled-8896'. The 'INCLUDE' section is active, showing a dropdown menu for relationship types: 'Self' (checked), 'Current', 'Exclude', and 'Include'. The search term 'dia mell' is entered in the text box. Below the search box, the text '73211009|Diabetes mellitus|' is visible. The footer includes the CSIRO logo, the HE logo, and the text 'SNOMED ECL Builder: Untitled-8896'. There are also buttons for 'Terminology' and 'ECL'.

CODE	DISPLAY
288331003	Able to lift
376966009	Aciclovir 40 mg/mL oral suspension
376966009	Aciclovir 40 mg/mL oral suspension

Combining constraints

Multiple constraints can be combined (multiple include and multiple exclude)



INCLUDE

Descendants Or Self

Diabetes mellitus

Current

-

+

at least one

Self

Finding site

Current

equal to

-

+

Descendants Or Self

Structure of endocrine system

Current

-

+

EXCLUDE

Descendants Or Self

Disorder in remission

Current

-

+

Free-text ECL

You can add a constraint that is based on free-text ECL by selecting “free-text sub-query”

-

+

concept constraint

relationship constraint

grouped relationship constraint

linked sub-query

free-text sub-query

And then just writing/pasting the ECL into the box:

INCLUDE

(<< 73211009 : 363698007 = << 113331007) MINUS (<< 765205004)|

Viewing/copying ECL

The box below the constraints allows you view and copy the resulting ECL query string

(
 << 73211009|Diabetes mellitus| : 363698007|Finding site| = << 113331007|Structure of endocrine system|
) MINUS (
 << 765205004|Disorder in remission|
)

Copy ECL

Copy ValueSet



The buttons below allow you to copy either the ECL “Copy ECL” or the FHIR ValueSet definition URL “Copy ValueSet” into your clipboard

Viewing/downloading ECL results

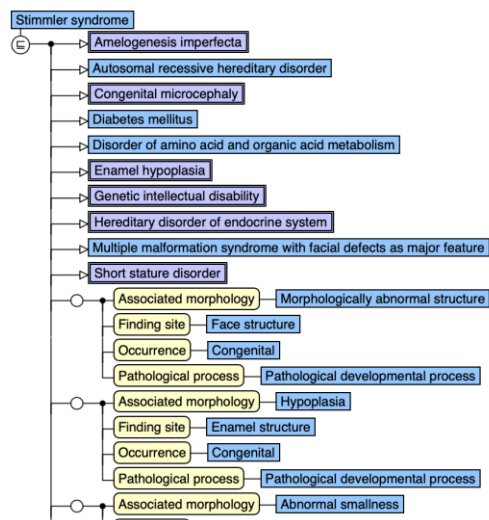
The box at the bottom allows you view the results of the ECL expression and download them as CSV/XLSX

Total matches: 121

Download CSV

Download XLSX

CODE	DISPLAY
8801005	Secondary diabetes mellitus
237601000	Secondary endocrine diabetes mellitus
190447002	Steroid-induced diabetes
733072002	Stimmler syndrome
46635009	Type 1 diabetes mellitus
190372001	Type 1 diabetes mellitus maturity onset
1255271005	Type 1 diabetes mellitus, central and peripheral neurodegeneration syndrome
44054006	Type 2 diabetes mellitus
164971000119101	Type 2 diabetes mellitus controlled by diet
359642000	Type 2 diabetes mellitus in nonobese
81531005	Type 2 diabetes mellitus in obese
190389009	Type 2 diabetes mellitus with ulcer



Named ECL query

A name can be assigned to the ECL query

NOTE, a free-text node allows you to enter arbitrary ECL.

Name: Demo query

INCLUDE

This allows it to be queried/explored in the “Terminology” view of Shrimp:



?

CodeSystems

ValueSets

ECL

Demo query

Q search terms

FHIR Terminology

Model

The FHIR R4 terminology model is described in detail in the FHIR specification:

[FHIR R4 Terminology Model](#)

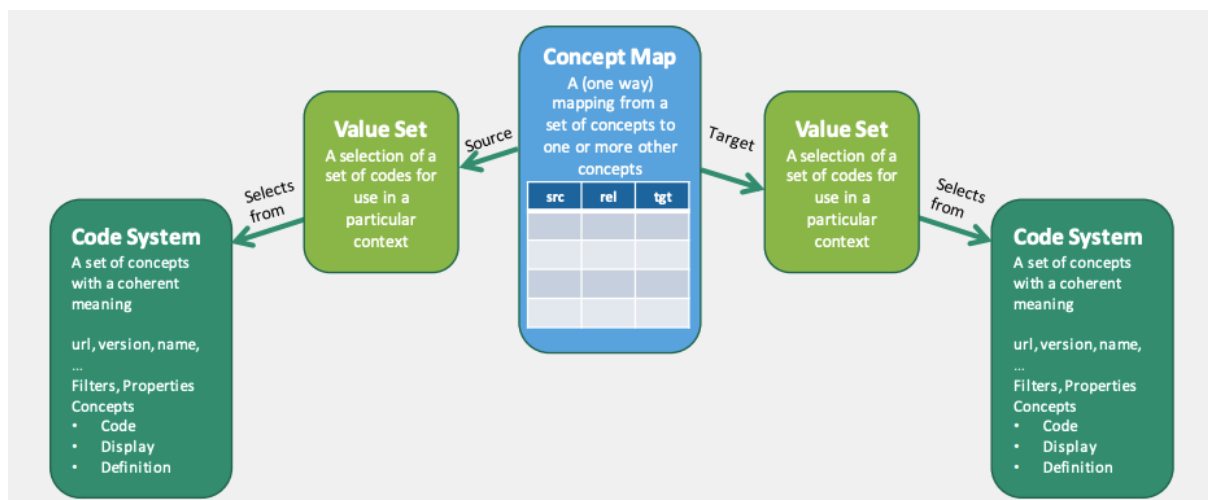
Key Resources (Building blocks)

The key FHIR terminology resources are:

[CodeSystem](#)

[ValueSet](#)

[ConceptMap](#)





Key Operations

The key API operations for the terminology resources are:

- [ValueSet/\\$expand](#)
- [ValueSet/\\$validate-code](#)
- [ConceptMap/\\$translate](#)
- [CodeSystem/\\$validate-code](#)
- [CodeSystem/\\$subsumes](#)
- [CodeSystem/\\$lookup](#)

API Examples

A collection of API examples is available to help give an overview of capabilities:

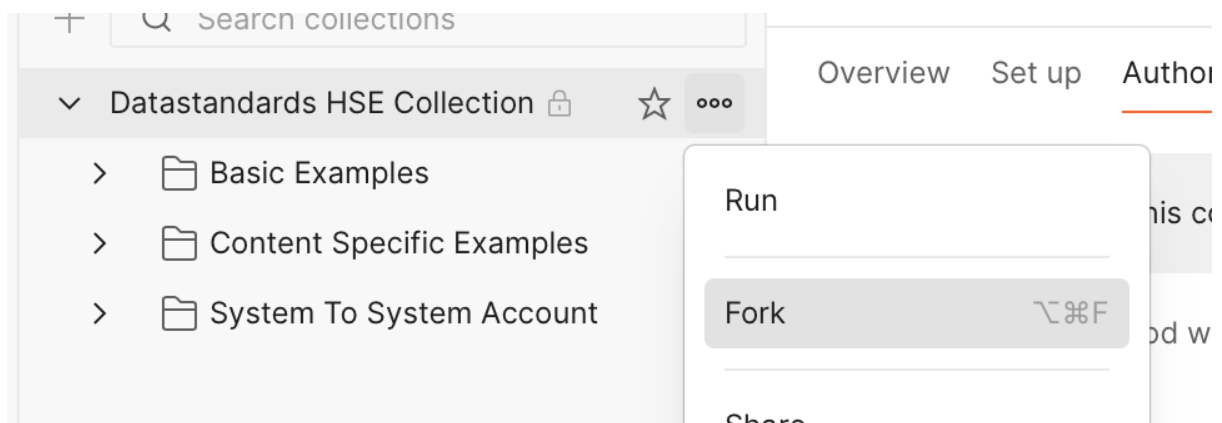
[API Examples](#)

This guide is specific to the “Datastandards HSE Collection” and assumes a basic understanding of Postman. If you are not familiar, then please explore the documentation provided by Postman:

[Postman Documentation](#)

Forking the example so you can run it yourself

To use the collection, you will need to Fork it into your own workspace:



Examples Overview

The examples are broken into three groups:

- Basic Examples (Using User Account)
 - Examples of key operations
- Content Specific Examples (Using User Account)
 - Examples of how to use Content specific features (such as ECL for SNOMED)



- System To System Account
 - Examples of how to authenticate with a System Account

User Authentication (Important)

Before you can run the examples – you need to Authenticate. To do this you need to navigate to the “Authorisation” tab on your fork of the collection:

Datastandards HSE Collection Dougal's fork

Overview

Authorization ●

Scripts ●

Variables ●

Runs

This authorization method will be used for every request in this collection. You can override this by sp

Auth Type

OAuth 2.0

The authorization data will be automatically generated when you send the request.
Learn more about [OAuth 2.0](#) authorization.

Scroll right down to the bottom and click the “Get New Access Token” button:

Refresh Request

	Key	Value
	Create parameter	Value

Get New Access Token

You will be prompted to login with your user account:



CTS

Sign in to your account


Username

Password

☐ Remember me [Forgot Password?](#)

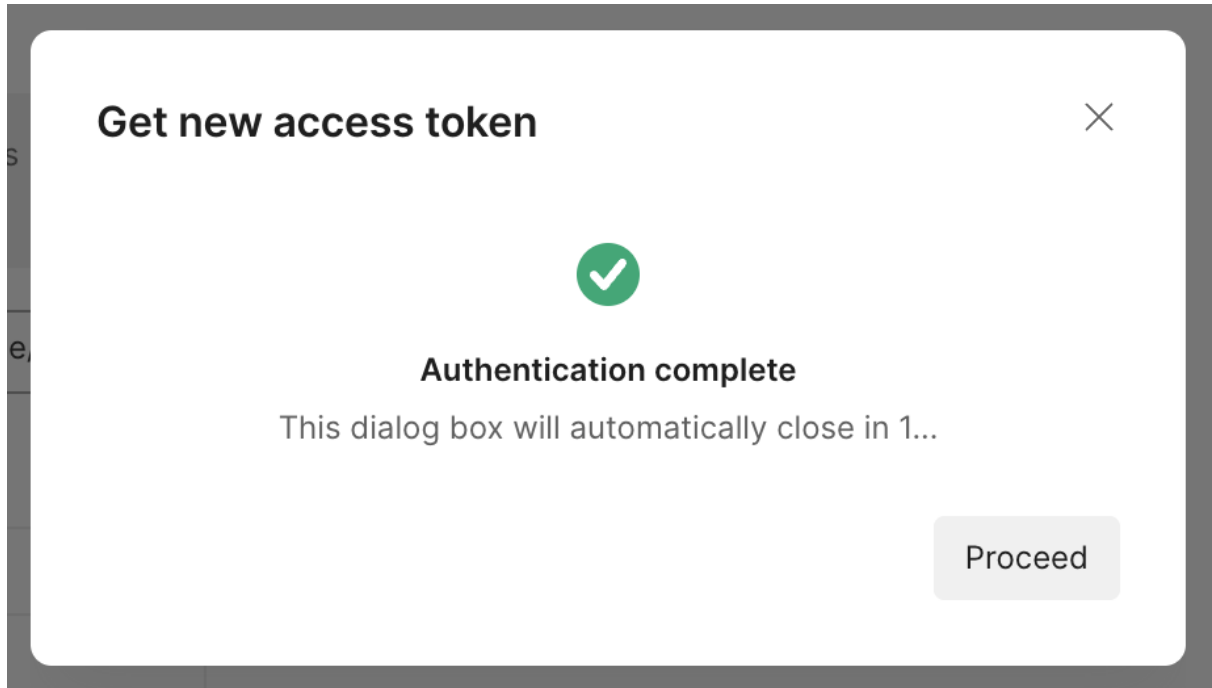
Sign In

Or sign in with

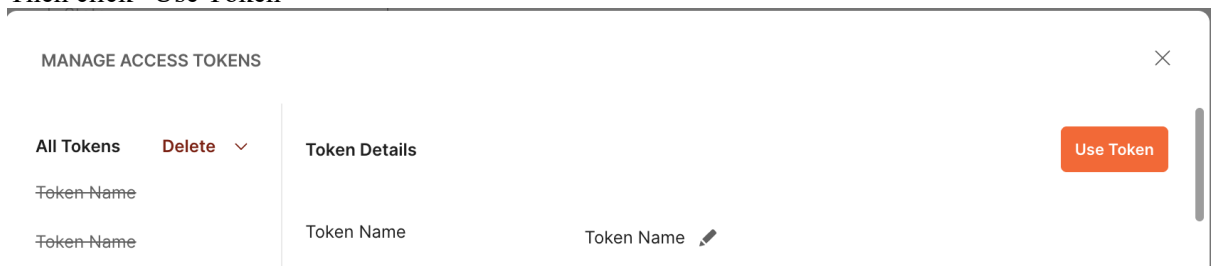
 Microsoft

And then an access token will be obtained for you to use

Click “Proceed” on the next screen (or wait for it to timeout)



Then click “Use Token”



The process will need repeating if the token has expired (each token lasts 30 minutes)

Running examples

Select the example request you wish to run from the tree on the left-hand side of the screen:



+

Search collections

>

Datastandards HSE Collection

▼

Datastandards HSE Collection 1/1 Dougla's fork

▼

Basic Examples

▼

ValueSet Examples

GET

List ValueSets

GET

List ValueSets (Snomed only)

GET

ValueSet (definition)

GET

Basic \$expand

POST

\$expand POSTed ValueSet

POST

\$expand POSTed ValueSet Example 2

POST

\$expand Delta removed in latest release

POST

\$expand Delta added in latest release

GET

Basic \$expand Smart Search *****

GET

Basic \$expand Smart Search American English

POST

Basic \$expand POST Smart Search

GET

Basic \$expand with designations (visualise)

GET

\$validate-code

GET

\$validate-code With Display *****

GET

\$validate-code With Dodgy Display

GET

\$validate-code Dodgy Code

>

CodeSystem Examples

Datastandards HSE Collection / Basic Examples / ValueSet Examples / Basic \$expand Smart Search *****

Save

Share

GET

▼

{{terminology-server}}/ValueSet/\$expand?url=http://snomed.info/sct?fhir_vs=refset/350471000220102&filter=typh

Send

▼

Overview

Params

Authorization

Headers (8)

Body

Scripts

Settings

Overview

Params

Authorization

Headers (8)

Body

Scripts

Settings

Query Params

<input checked="" type="checkbox"/>	Key	Value	Description	⋮ Bulk Edit
<input checked="" type="checkbox"/>	url	http://snomed.info/sct?fhir_vs=refset/350471000220102		⚙ Type
<input checked="" type="checkbox"/>	filter	typh		
	Key	Value	Description	

Body

Cookies

Headers (23)

Test Results

200 OK

713 ms

2.11 KB

⚙

Save Response

⋮

JSON

▼

Preview

Visualization

▼

```
1 {
2   "resourceType": "ValueSet",
3   "url": "http://snomed.info/sct?fhir_vs=refset/350471000220102",
4   "name": "SNOMED CT Reference Set 350471000220102",
5   "status": "active",
6   "experimental": false,
7   "copyright": "This value set includes content from SNOMED CT, which is copyright © 2002+ International Health Terminology Standards
  Development Organisation (IHTSDO), and distributed by agreement between IHTSDO and HL7. Implementer use of SNOMED CT is not covered by
  this agreement",
8   "expansion": {
9     "identifier": "urn:uuid:7657d206-827e-44e6-9967-9c825c4155db",
10    "extension": "2025-12-03T00:00:00.000Z"
11  }
12 }
```

And click “Send”

Send





Additional materials

- [Ontoserver Docs](#)
- [Yellow Brick Code](#) (introduction to FHIR terminology)
- [Terminology Learnathon](#) (INTEROpen)