

# **SNOMED CT Concrete Domains Tech Preview package Release Notes - February 2021**



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## Introduction

The SNOMED CT terminology provides a common language that enables a consistent way of indexing, storing, retrieving, and aggregating clinical data across specialties and sites of care. The International Health Terminology Standards Development Organisation (IHTSDO<sup>®</sup>) maintains the SNOMED CT technical design, the content architecture, the SNOMED CT content (including the concepts table, the descriptions table, the relationships table, a history table and ICD mappings), and related technical documentation.

This document is intended to give a brief description, background context, explanatory notes on the SNOMED CT International Concrete Domains Tech Preview release.



## Audience for this document

This document should be read by all those (National Release Centers, vendors of electronic health records, terminology developers and regulators) with an interest in the usage of Concrete Domains content in SNOMED CT.



## Background

A technical preview of the impending Concrete Domains changes (currently planned for the July 2021 International Edition) will be published in February 2021, but in line with the January 2021 International Edition. It will contain drug concept strengths and counts expressed as concrete values in a new Relationships file. This is currently planned to be a full RF2 International Edition package (as opposed to a standalone Delta file containing Concrete Domains), containing all International content in addition to the new Concrete Domains Relationship file (ie) it will comprise the January 2021 International Edition release *as if we had already transitioned to Concrete Domains*, as a preview of what the final Release package will look like when the transition is complete.

***For additional information on the transition to Concrete Domains, please visit the resources listed below or email [info@snomed.org](mailto:info@snomed.org). Any feedback on the technical preview release files are requested as early as possible, but certainly before April 15th, 2021.***



## Scope and Purpose of the Tech Preview Release

The scope of the SNOMED CT International Concrete Domains Tech Preview is to publish for review a Preview package in line with the January 2021 International Edition, with drug concept strengths and counts expressed as concrete values in the new Relationships file.

Please see here (and the various sub-pages) for details of the current proposed technical changes: <https://confluence.ihtsdotools.org/mag/concrete-domains-community-of-practice-consultation>. (*Please note, you may have to register for Confluence user account in order to access this link*).

In this child page in particular there is guidance on the impact for both maintainers of SNOMED CT plus for implementers and vendors of software that utilises the terminology: <https://confluence.ihtsdotools.org/mag/concrete-domains-community-of-practice-consultation/snomed-international-proposal-for-representing-concrete-domains-in-rf2>

*Please, however, be aware that the technical proposal is still in the consultation stage, and therefore changes to the proposal **may still be made** before the final solution is implemented in Production.*

The transition has been discussed and agreed with numerous stakeholders from the community, and as such is targeted to be implemented over the course of the next two International Release cycles, as follows:

### Q1 2021:

- A technical preview to be published in line with the January 2021 International Edition, with drug concept strengths and counts expressed as concrete values in the new Relationships file.
- This is a full RF2 International Edition package (as opposed to a standalone Delta file containing Concrete Domains), containing all International content in addition to the new Concrete Domains Relationship file
- (ie) it comprises the January 2021 International Edition release *as if we had already transitioned to Concrete Domains*, as a preview of what the final Release package will look like when the transition is complete.

### Q3 2021:

- The current target is for the July 2021 International Edition to be the first release after the transition to Concrete Domains. This means that the RF2 package would be impacted as follows:
  - existing drug concept strength and count relationships inactivated +
  - existing strength and count attribute types will be inactivated, replaced with new ones using the same FSNs.
- Inferred Relationship file changes:
- Stated OWL Axiom file changes:





- existing drug concept axioms will be updated to use concrete values +
- existing strength and count attribute types will be inactivated, replaced with new ones using the same FSNs.
- New Inferred "Relationship Concrete Values" file
  - A new concrete values relationship file will contain all new relationships for values of strength and count for medical products.
  - The new concrete values relationship file also contains 2 entries to demonstrate string values for the product name and supplier (they are for demonstration purpose and will not be included in the production release)
- Inferred Relationship file changes:
  - All relationships for values of strength and count for medical products will be inactivated
  - All relationships for attributes of strength and count for medicinal products will be inactivated
  - New relationships for new concept model data attributes of strength, count, product name, and supplier for medicinal products will be added.
- Additional Features in International Release
  - new separate concrete value relationship file will express these same attributes using numeric values
  - new attributes will be used, although they will have the same FSNs as the current attributes
  - MRCM will include new rows to indicate that the new attribute types are expected to take a concrete domain - specifically numbers - as target values.

**NOTE**

We would like to highlight that the above changes will require updates to existing software, scripts, and queries. For example, without updates, a SNOMED CT browser or editing tool will not contain and display the full concept model of medicinal products with strengths and ingredient counts. Similarly, existing scripts and queries will not return the expected results if they were written against the concepts as values for the strengths and counts. The new relationship file for concrete values and the changes in the OWL expression refset, MRCM and diagram need to be implemented to enable the applications for concrete domains.

***If you can foresee any critical issues with the transition plans, or have any questions regarding any of these upcoming changes, please contact SNOMED International immediately at [support@snomed.org](mailto:support@snomed.org) with "Concrete Domains transition question" in the subject line.***



## Technical Notes

### RF2 package format

The RF2 package convention dictates that it contains all relevant files, regardless of whether or not there is content to be included in each particular release. Therefore, the package contains a mixture of files which contain both header rows and content data, and also files that are intentionally left blank (including only a header record). The reason that these files are not removed from the package is to draw a clear distinction between:

1. ...files that have been deprecated (and therefore removed from the package completely), due to the content no longer being relevant to RF2 in this or future releases, and
2. ...files that just happen to contain no data in this particular release (and are therefore included in the package but left blank, with only a header record), but are still relevant to RF2, and could therefore potentially contain data in future releases.

This allows users to easily distinguish between files that have purposefully been removed or not, as otherwise if files in option 2 above were left out of the package it could be interpreted as an error, rather than an intentional lack of content in that release.

### Effective date

The content in the January 2021 SNOMED CT Concrete Domains Tech Preview package has been updated in line with the January 2021 International Edition. However, in order to clearly distinguish this Preview package from the Production International Edition, all component states in the have been assigned the value of 20210201 in the effectiveTime field.

### SNOMED CT Browser

A separate instance of the SNOMED CT Browser has been created in order to enable effective review of the new changes - this can be accessed here:

- <https://concrete-browser.ihtsdotools.org/>

