

SNOMED CT Implementation Course E-Learning Notes on Generating the SNOMED CT Transitive Closure Table

Version: 2015-09-07

Introduction

These notes:

- Accompany the SNOMED CT Implementation Course presentation **IC09) Testing Subsumption between Concepts**
- Provide information about the following script file: **transitiveClosureRf2Snap.pl**

Source and Limitations of use

- The associated script is Copyright IHTSDO 2013. It is based on work by Dr Kent Spackman (IHTSDO Chief Terminologist 2007-2014).
- The IHTSDO E-Learning Team, provides this script without any warranties or support as a learning aid to demonstrate transitive closure generation. The script may be used by SNOMED CT Affiliate Licensees to process SNOMED CT Release files in the manner described below.

Prerequisites

- The script must be run on a system that runs a Perl interpreter. Mac OSX and most Unix based environments include Perl. Microsoft Windows does not include a Perl interpreter but Windows versions of Perl interpreters are available for download. The script has been demonstrated to run on OSX and on Windows with Strawberry Perl (<http://strawberryperl.com/>) installed.
- When running in Windows ensure that the PATH variable includes the folder that Perl is installed in (or explicitly reference the folder on the command line).

SNOMED CT Relationships File

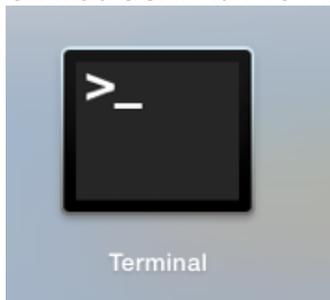
- As input this file must take the SNAPSHOT view of the RF2 Relationship file
 - **sct2_Relationship_Snapshot_INT_20150731.txt**
 - or later versions: **sct2_Relationship_Snapshot_INT_YYYYMMDD.txt**
 - or SNAPSHOT view file for another Edition (i.e. the Extension of this file combined with the contents of relationships from all modules on which it depends – e.g. International plus any Extensions it depends on
- This file is found in the International Release RF2 subfolder
 - **Snapshot/Terminology**

DO NOT USE:

- FULL or DELTA views as input.
- The Stated Relationships file **sct2_StatedRelationship_Snapshot_INT_20150731.txt**

Instructions

1. Create a new folder somewhere convenient for the purposes of running the script.
2. Copy the relevant relationship snapshot file (e.g. sct2_StatedRelationship_Snapshot_INT_20150731.txt) to the new folder
3. Copy the Perl script file (transitiveClosureRf2Snap.pl) to the new folder
4. Open a command line
 - a. On Mac OSX: Run Terminal



- b. On Windows: Run CMD



5. Change directory to the new folder created
 - a. `cd new-folder`
6. Type the command to run the script

```
perl transitiveClosureRf2Snap.pl input-file output-file
```

Replace *input-file* with the relationship filename. For example:

```
sct2_Relationship_Snapshot_INT_20150731.txt
```

Replace *output-file* with filename to which the transitive closure should be written. For example:

```
transitiveClosure_Snapshot_INT_20150731.txt
```

Note:

The four elements of the argument can be adapted to include the paths of the relevant folders if necessary but for the purpose of this example the following command line will work provided the system path variable includes the folder containing the executable perl interpreter.

```
perl transitiveClosureRf2Snap.pl sct2_Relationship_Snapshot_INT_20150731.txt transitiveClosure_Snapshot_INT_20150731.txt
```

Output file

The output file is a tab-delimited text file containing two-columns of SNOMED CT identifiers. The first column is the subtype and the second column is the supertype.