

## 5.2.15 Code to Expression Reference Set

### Purpose

The [Code to expression type reference set](#) is designed to enable associations between codes in another code system ([other-codes](#)) and [SNOMED CT concepts](#), where the following constraints apply:

1. Some of the [other-codes](#) cannot be mapped to an individual [SNOMED CT concept](#).
2. Licensing conditions (or other considerations) prevent addition of new [SNOMED CT concepts](#) to represent the same meaning as the [other-codes](#).
3. The [other-codes](#) can be logically defined using the [SNOMED concept model](#) to represent the same meaning ([sufficiently defined](#)) or a similar though less specific meaning ([primitive](#)).
4. Other requirements similar for those applicable to mapping may also apply including:
  - a. An indication of the degree of correlation between the [other-code](#) and the [SNOMED CT expression](#).
  - b. An indication of whether the [other-code](#) was created before any single concept representation of that meaning in [SNOMED CT](#) or whether the single concept representation in [SNOMED CT](#) predated the creation of the association.

### Data Structure

The general approach to the above requirements is to associate each of the [other-codes](#) with a representation of the same logic based definition as would have been applied to a [SNOMED CT concept](#) with that meaning. However, since the [other-code](#) are not identified by an [SCTID](#), the logical definition cannot be represented using [defining relationships](#). There are two potential approaches to this, one would be to use a general purpose description logic language (e.g. [OWL](#)) and the other is to use a [SNOMED CT expression](#) to represent each definition. The [Code to expression type reference set](#) is designed to support the expression-based approach.

**Table 5.2.15-1: Code to expression type reference set - Data Structure**

Field	Data type	Purpose	Mutable	Part of Primary Key
id	UUID	A 128 bit unsigned <a href="#">Integer</a> , uniquely identifying this <a href="#">reference set member</a> .  Different versions of a <a href="#">reference set member</a> share the same <a href="#">id</a> but have different <a href="#">effectiveTime</a> . This allows a <a href="#">reference set member</a> to be modified or made <a href="#">inactive</a> (i.e. removed from the active set) at a specified time.	NO	YES (Full/Snapshot)
effectiveTime	Time	The inclusive date or time at which this version of the identified <a href="#">reference set member</a> became the current version.  <b>Note:</b> In distribution files the effectiveTime should follow the short ISO date format ( <i>YYYYMMDD</i> ) and should not include the hours, minutes, seconds or timezone indicator.  The current version of this <a href="#">reference set member</a> at time <i>T</i> is the version with the most recent <a href="#">effectiveTime</a> prior to or equal to time <i>T</i> .	YES	YES (Full)  Optional (Snapshot)
active	Boolean	The state of the identified <a href="#">reference set member</a> as at the specified <a href="#">effectiveTime</a> .  If <a href="#">active</a> = 1 (true) the <a href="#">reference set member</a> is part of the current version of the set, if <a href="#">active</a> = 0 (false) the <a href="#">reference set member</a> is not part of the current version of the set.	YES	NO
moduleId	SCTID	Identifies the <a href="#">SNOMED CT module</a> that contains this <a href="#">reference set member</a> as at the specified <a href="#">effectiveTime</a> .  The value must be a <a href="#">subtype</a> of 900000000000443000  Module (core metadata concept)  within the metadata <a href="#">hierarchy</a> .	YES	NO
refsetId	SCTID	Identifies the <a href="#">reference set</a> to which this <a href="#">reference set member</a> belongs.  In this case, a subtype descendant of: <a href="#">Code to expression type reference set</a>	NO	NO
referenceComponentId	SCTID	A reference to the <a href="#">SNOMED CT component</a> to be included in the <a href="#">reference set</a> .  A subtype of 705113004  Terminology system  identifying the code system from which the code in the <a href="#">mapTarget</a> field is derived.  • For example: 705114005  LOINC Code System .	NO	NO
mapTarget	String	The <a href="#">other-code</a> to/from which the concept is mapped.	NO	NO

expression	String	A <a href="#">SNOMED CT expression</a> that represents the SNOMED CT definition of the <a href="#">other-code</a> . This expression may be a <a href="#">stated</a> or <a href="#">inferred view</a> of the definition provided that documentation of each identified reference set specifies the view provided.  The expression must conform to the syntax defined in the <a href="http://snomed.org/scg">SNOMED CT Compositional Grammar - Specification and Guide (http://snomed.org/scg)</a> .	YES	NO
definitionStatusId	SC TID	Indicates whether or not the expression contains a sufficient definition of the <a href="#">other-code</a> in the mapTarget field. Possible values are the following subtypes of 900000000000444006  Definition status :  90000000000074008  Necessary but not sufficient concept definition status  90000000000073002  Sufficiently defined concept definition status	YES	NO
correlationId	SC TID	The correlation between the SNOMED CT expression and the <a href="#">other-code</a> . Possible values are the following subtypes of 447247004  SNOMED CT source code to target map code correlation value :  447559001  Broad to narrow map from SNOMED CT source code to target code  447557004  Exact match map from SNOMED CT source code to target code  447558009  Narrow to broad map from SNOMED CT source code to target code  447560006  Partial overlap between SNOMED CT source code and target code   When these values are applied to this reference set type, the phrase " <i>SNOMED source code</i> " is interpreted as meaning " <i>SNOMED expression</i> " and "target code" refers to the <a href="#">other-code</a> ..	YES	NO
contentOriginId	SC TID	Indication of whether the concept was initially in one of the terminologies (SNOMED CT or <a href="#">other-codes</a> ) and added to the other as part of mapping or was in both terminologies at the outset. Values are subtypes of 705116007  Original code system source for linked content value .	YES	NO

refs

## Related Links

- For further information see Using LOINC with SNOMED CT: [4.2.2 LOINC Term to Expression Reference Set](#).