# 2020-08-12 - SLPG Meeting

# Date & Time

20:00 to 21:00 UTC Wednesday 12th August 2020

## Location

Zoom meeting link (password: 764978)

#### Attendees

- Chair: Linda Bird
- Project Group: Michael Lawley, Anne Randorff Højen, Ed Cheetham, Peter Jordan, Rob Hausam

# **Agenda and Meeting Notes**

# Goals

- To walk through complete draft of ECL v1.5
  To discuss URIs for 'extended editions'

### Apologies

#### **Daniel Karlsson**

Description	Owner	Notes
Welcome and agenda	Linda Bird	NOTE: Next meeting to be held on Wednesday 26th August
Concrete Values	Linda Bird	Specifications         • SCG v2.4 (with booleans) has been published         • ECL v1.4 (with booleans, childOrSelfOf and parentOrSelfOf) has been published         • MRCM (with updated rangeConstraint) - 5.3 MRCM Attribute Range Reference Set         • STS v1.1 and ETL v1.1 (with booleans) to be published soon

Expression	Linda	Undefee to WID ECL of 5
Constraint Language	Bird	<ul> <li>Updates to WIP ECL v1.5</li> <li>1. Introduction - History updated to mention ECL v1.5</li> <li>3.2 Expression Constraint and Query Requirements - The 'term filter' requirement is explained.</li> <li>4. Logical Model - Filters are added to the abstract model, and the example expression constraint (with marked components)</li> <li>4.1 Details - Filter constraints added to the UML class diagram</li> <li>5.1 Brief Syntax (Normative) - Syntax updated with filters</li> <li>5.2 Long Syntax (Informative) - Syntax updated with filters</li> <li>5.3 Informative Comments - Comments added for new rules</li> <li>5.5 Character Collation for Term Filters - New section. Default collation still needs to be defined</li> <li>6.8 Description Filters - New page with filter constraints (to be added)</li> <li>Appendix A.7 - Valid examples with filter constraints (to be added)</li> <li>Appendix C - Dialect Aliases - Proposed dialect aliases for a range of refsets accessible through browser</li> <li>THIS WEEK</li> </ul>
		<ul> <li>Please review all the new content for ECL v1.5 (above) and provide feedback</li> <li>Should we add acceptabilities inside a dialect set?</li> <li>Preferred Term filters on dialect lists (first refset? or both refsets?) - needs clarification</li> <li>Appendix A.7 and B.7 to be completed (once examples agreed upon)</li> <li>How are the default collation rules determined?</li> <li>1. The 'Language' property of each description (note: descriptions can be pre-indexed based on their language)</li> <li>2. The 'Language reference set' being used? (note: each language refset would need to be associated with a locale)</li> <li>3. In the ECL query? Language filter? Dialect filter?</li> <li>4. The local environment</li> <li>5. A combination of these</li> <li>On Hold</li> </ul>
		<ul> <li>Can/should we register ECL as a MIME type? – Waiting for volunteer time to complete registration form</li> <li>To be progressed through the MAG         <ol> <li>Dialect Alias Refset</li></ol></li></ul>
		<ul> <li>Alternative 3 - Use non-defining relationships on the language refset concept</li> <li>1. 2. Constructing a Language Refset from other Language Refset         <ul> <li>Allowing an intensional definition for a language refset</li> <li>Includes order/precedence of language refsets being combined</li> </ul> </li> </ul>
URIs for Extended Editions		How to refer to an 'extended edition' using a URI - e.g. "International Edition plus the following 2 nursing modules: 733983009  IHTSDO Nursing Health Issues module and 733984003  IHTSDO Nursing Activities module  Use Case - Need to execute an ECL, that refers to "^ 733991000   Nursing Health Issues Reference Set
		(foundation metadata concept)  " and/or "^ 733990004   Nursing Activities Reference Set (foundation metadata concept)  ", where the substrate includes the international edition, plus the modules that include these reference sets
		July 2020 International Edition URI: http://snomed.info/sct/9000000000207008/version/20200731 July 2020 International Edition + nursing modules URI ?? - For example:
		<ul> <li>http://snomed.info/sct/9000000000207008/version/20200731/module/733983009/time/20200131/module/733984003/time/20200131</li> <li>http://snomed.info/sct/9000000000207008/version/20200731/modules/733983009:733984003</li> <li>http://snomed.info/sct/9000000000207008/version/20200731/modules/733983009:733984003</li> <li>http://snomed.info/sct/9000000000207008:733983009:733984003/version/20200731:20190731:20200131</li> <li>Canonical order? Or order doesn't matter?</li> <li>Constraints on what can go in the additional packages (only refsets and their metadata)</li> </ul>
Querying Refset Attributes	Linda Bird	Proposed syntax to support querying and return of alternative refset attributes (To be included in the SNOMED Query Language)

- Example use cases

   Execution of maps from international substance concepts to AMT substance concepts
   Find the anatomical parts of a given anatomy structure concept (in |Anatomy structure and part association reference set)
   Find potential replacement concepts for an inactive concept in record
   Find the order of a given concept in an Ordered component reference set
   Find a concept with a given order in an Ordered component reference set

- Examples
<ul> <li>Try to recast relationships table as a Refset table + graph-based extension</li> </ul>
Find primitive concepts in a hierarchy
• ROW ?
<ul> <li>ROWOF ( Anatomy structure and part association refset ) ? ( referenced component ,  target</li> </ul>
component])
<ul> <li>same as: ^  Anatomy structure and part association refset </li> </ul>
<ul> <li>Same as: ~ [Anatomy structure and part association refset]</li> <li>ROWOF ([Anatomy structure and part association refset]). [referenced component]</li> </ul>
same as: ^  Anatomy structure and part association refset      DOM/OF (Anatamy structure and part association refset) (( Information and part association))
ROWOF ( Anatomy structure and part association refset ) {{  referenced component  = <<  Upper
abdomen structure }} ?  targetComponentId
ROWOF (< 90000000000496009 Simple map type reference set  {{ term = "*My hospital*"}}) {{
449608002 Referenced component  = 80581009  Upper abdomen structure }?
9000000000505001  Map target
<ul> <li>(ROW (&lt; 90000000000496009 Simple map type reference set  {{ term = "*My hospital*"}}):</li> </ul>
449608002 Referenced component  = 80581009  Upper abdomen structure  ).
9000000000050001 [Map target]
• <b>#?</b>
<ul> <li># f</li> <li>#  Anatomy structure and part association refset  ?  referenced component\</li> </ul>
# ( Anatomy struture and part association refset  {{ referenced component  = <<  Upper abdomen structure ) 2  targetComponential
structure ) ?  targetComponentid
• ? notation + Filter refinement
Anatomy structure and part association refset  ?  targetComponentId
Anatomy structure and part association refset  ?  referencedComponent  (Same as ^  Anatomy
structure and part association refset])
( Anatomy structure and part association refset  {{  referencedComponent  = <<  Upper abdomen
structure}} )? [targetComponentId]
<ul> <li>( Anatomy structure and part association refset  {{  targetComponentId  = &lt;&lt;  Upper abdomen</li> </ul>
structure}}) ? [referencedComponent]
<ul> <li>(  My ordered component refset :  Referenced component  =  Upper abdomen structure ) ?  priority</li> </ul>
order
?  My ordered component refset  {{  Referenced component  =  Upper abdomen structure  }}
.  priority order
?  My ordered component refset  .  referenced component
<ul> <li>equivalent to ^  My ordered component refset </li> </ul>
?(< My ordered component refset ) {{  Referenced component  =  Upper abdomen
structure  }} .  priority order
? (< My ordered component refset  {{ term = "*map"}} ) {{ Referenced component  =  Upper
abdomen structure  }} .  priority order
<ul> <li>REFSETROWS (&lt; My ordered component refset  {{ term = "*map"}} ) {{  Referenced</li> </ul>
component  =  Upper abdomen structure  }} SELECT  priority order
• Specify value to be returned
? 449608002  Referenced component ?
734139008  Anatomy structure and part association refset
^ 734139008  Anatomy structure and part association refset  (Same as previous)
90000000000533001  Association target component ?
734139008  Anatomy structure and part association refset
? 9000000000533001 [Association target component]?
734139008 [Anatomy structure and part association refset] :
449608002 [ReferencedComponent] = << [Upper abdomen structure]
<ul> <li>90000000000533001  Association target component ?</li> </ul>
734139008  Anatomy structure and part association refset
{{ 449608002  referencedComponent  = <<  Upper abdomen structure  }}
(? 90000000000533001  Association target component ?
734139008  Anatomy structure and part association refset  :
449608002  ReferencedComponent  = (<<  Upper abdomen structure ) :  Finding site  = *)

- FROM concept WHERE id IN (< |Clinical finding|) AND definitionStatus = |primitive| SELECT id, moduleld FROM concept, ECL("< |Clinical finding") CF WHERE concept.id = CF.sctid
- AND definitionStatus = |primitive|

Potential syntax to consider (brainstorming ideas)

SELECT id, moduleId

• SELECT ??

- SELECT ??? |id|, ??? |moduleId|

WHERE 123 |referenced component| = (< 888 |Upper abdomen structure| {{ term = "\*heart\*" }} )

- FROM concept ( < |Clinical finding| {{ term = "\*heart\*" }} {{ definitionStatus = |primitive| }} )
- Question Can we assume some table joins e.g. Concept.id = Description.conceptId etc ??

SELECT 123 |referenced component|, 456 |target component| FROM 799 |Anatomy structure and part association refset|

- Examples

Returning Attributes	Michael Lawley	<ul> <li>Proposal (by Michael) for discussion</li> <li>Currently ECL expressions can match (return) concepts that are either the source or the target of a relationship triple (target is accessed via the 'reverse' notation or 'dot notation', but not the relationship type (ie attribute name) itself.</li> <li>For example, I can write: <ul> <li>&lt;&lt; 404684003 [Clinical finding] : 363698007 [Finding site] = &lt;&lt;66019005 [Limb structure]</li> <li>&lt;&lt; 404684003 [Clinical finding] . 363698007 [Finding site]</li> </ul> </li> <li>But I can't get all the attribute names that are used by &lt;&lt; 404684003 [Clinical finding]</li> <li>Perhaps something like: <ul> <li>? R.type ? (&lt;&lt; 404684003 [Clinical finding])</li> </ul> </li> <li>This could be extended to, for example, return different values - e.g.</li> <li>? [Simple map refset].[maptarget] ? (^ Simple map refset[ AND &lt;  Fracture])</li> </ul>
Reverse Member Of	Michael Lawley	<ul> <li>Proposal for discussion</li> <li>What refsets is a given concept (e.g. 421235005  Structure of femur ) a member of?</li> <li>Possible new notation for this: <ul> <li>^ . 421235005  Structure of femur </li> <li>? X ? 421235005  Structure of femur  = ^ X</li> </ul> </li> </ul>

Expression Templates	Peter G. Williams	<ul> <li>ON HOLD WAITING FROM IMPLEMENTATION FEEDBACK FROM INTERNAL TECH TEAM</li> <li>WIP version - https://confluence.ihtsdotools.org/display/WIPSTS/Template+Syntax+Specification <ul> <li>Added a 'default' constraint to each replacement slot - e.g. default (72673000 [Bone structure (body structure)])</li> <li>Enabling 'slot references' to be used within the value constraint of a replacement slot - e.g. [[ +id (&lt;&lt; 12037004 [Body structure] [MINUS &lt;&lt; Stinding(Stile2) @finding(Stile1)]</li> <li>Allow reference to 'SELF' in role group arrays</li> <li>Adding 'sameValue' and 'allOrNone' constraints to information slots - e.g. sameValue (Ssite), allOrNone (Soccurrence)</li> <li>See changes in red here: 5.1. Normative Specification</li> </ul> </li> <li>Examples: <ul> <li>[[Hid]]: [111] @my_group sameValue(morphology)] ( [Finding site] = [[ +id (&lt;&lt;123037004 [Body structure (body structure] (MINUS &lt;&lt; Ssite] 'See changes of the same role group, with some attributes the same and others different. Eg same orghology, jotentially uprovement Project: <ul> <li>Multiple instances of the same role group, with some attributes the same and others different. Eg same morphology, toentially different use case. Instead of <i>filling</i> template slots, we're looking at existing content and asking 'exactly <i>how</i> does this concept fail to comply to this template?"</li> </ul> </li> <li>For discussion: <ul> <li>[[0.1]] {[[0.1]] 246075003 [Causative agent] = [[+id (&lt; 410607006 [Organism]) @Organism]]}</li> </ul> </li> <li>Is it correct to say either one of the cardinality blocks is redundant? What are the implications of 11 on either side? This is less obvious for the self grouped case.</li> </ul> </li> <li>Road Forward for SI <ul> <li>Generate the parser from the ABNF and implement in the Template Service</li> <li>User Interface to a) allow musers to specify templates at allogment, check (aligns to non-off)</li> <li>Output must clearly indicate exactly what feature of concept caused misalignment, and what condition was not met.</li> <li>A</li></ul></li></ul>
Description Templates	Kai Kewley	<ul> <li>ON HOLD</li> <li>Previous discussion (in Malaysia)</li> <li>Overview of current use</li> <li>Review of General rules for generating descriptions <ul> <li>Removing tags, words</li> <li>Conditional removal of words</li> <li>Automatic case significance</li> <li>Generating PTs from target PTs</li> <li>Reordering terms</li> </ul> </li> <li>Mechanism for sharing general rules - inheritance? include?</li> <li>Description Templates for translation</li> <li>Status of planned specification</li> </ul>

Query Language	Linda Bird	FUTURE WORK
- Summary from previous	Dird	Examples: version and dialect
meetings		<ul> <li>&lt;&lt; 64572001  Disease  {{ term = "*heart*" }} VERSION http://snomed.info/sct/9000000000207008 /version/20180131</li> <li>&lt;&lt; 64572001  Disease  {{ synonym = "*heart*" }} VERSION http://snomed.info/sct</li> </ul>
		<ul> <li>&lt;&lt; 64572001  Disease  {{ FSN = "*heart*" }} VERSION http://snomed.info/sct/900000000207008/ver sion/20180131, DIALECT W</li> </ul>
		<ul> <li>&lt;&lt; 64572001  Disease  {{ preferredTerm = "*heart*"}} VERSION http://snomed.info/sct /9000000000207008/version/20180131, DIALECT Y</li> </ul>
		<ul> <li>&lt;&lt; 64572001  Disease  {{ acceptableTerm = "*heart*"}}</li> <li>VERSION http://snomed.info/sct /9000000000207008/version/20180131, DIALECT Y</li> </ul>
		<ul> <li>(* {{ term = "*heart*" }} VERSION http://snomed.info/sct/9000000000207008/version/20180131, DIAL</li> <li>ECT Z) MINUS</li> </ul>
		(* {{ term = "*heart*" }} VERSION http://snomed.info/sct/9000000000000000000/version/20170731, DIAL ECT W)
		<ul> <li>X MINUS Y WHERE X = * , Y = (* {{ term = "*heart*" }}) VERSION http://snomed.info/sct /9000000000207008/version/20180131, DIALECT W</li> </ul>
		Notes
		<ul> <li>Allow nested where, version, language</li> <li>Scape of versionles is incer succession</li> </ul>
		<ul> <li>Scope of variables is inner query</li> </ul>

#### File Modified

No files shared here yet.