

# 2020-07-14 - SNOMED on FHIR Meeting (TS)

## Date

20:00 UTC on Tuesday 14 July 2020 - 90 minutes.

## Objectives

- FHIR Terminology Services and Resources

## Meeting Details

**Online:** <https://snomed.zoom.us/my/snomedhl7>

**Phone:** See <https://zoom.us/join> for available phone numbers (meeting id **242-348-6949**)

**Chat:** [public-snomedintl.slack.com](https://public-snomedintl.slack.com) # snomed-hl7-fhir (ask for invite!)

**Zulip Chat:** <https://chat.fhir.org/#narrow/stream/179202-terminology>

## Attendees

[Rob Hausam](#), [Peter G. Williams](#), [Peter Jordan](#), [Michael Lawley](#), [Sander Mertens](#), [Suzy Roy](#)

## Apologies

## Meeting Recording

## Discussion items

Item	Description	Mins	Owner	Notes & Actions																		
1	Welcome and introductions	2	<a href="#">Peter G. Williams</a>  <a href="#">Rob Hausam</a>	Recording, notes & attendance.																		
2	Summary of previous week and previous fortnight	5	<a href="#">Peter G. Williams</a>  <a href="#">Rob Hausam</a>	<ul style="list-style-type: none"><li>• <a href="#">2020-07-07 - SNOMED on FHIR Meeting (TB + TS)</a></li><li>• <a href="#">2020-06-30 - SNOMED on FHIR Meeting (TS)</a></li></ul>																		
3	Other Meetings	10	<a href="#">Peter G. Williams</a>	<p><b>Upcoming events:</b></p> <p>HL7 Baltimore Sept 19 - 25. Confirmed fully virtual event. Connectathon Sept 9 - 11 (two weeks earlier)</p> <p>SI Business + Expo October <del>Lisbon</del>. Confirmed fully virtual event. SNOMED on FHIR Presentation + usual call on Tuesday 6 October.</p> <p><input checked="" type="checkbox"/> <a href="#">Peter G. Williams</a> Submit abstract</p> <p>November FHIRLY Dev Days expected - also virtual.</p> <p>August Holidays - has more effect on the TB group? PW out 2 - 21 August - will pre-create all agenda.</p>																		
4	R4A Position	15	<a href="#">Rob Hausam</a>	<p>R4A probably not going to happen in the previously proposed form. More likely now to be an interim release of R5.</p> <p>Continued discussion around the direction semantics for maps. Current state:</p> <table><tr><th>Lvl</th><th>Code</th><th>Display</th></tr><tr><td>0</td><td><a href="#">related-to</a></td><td>Related To</td></tr><tr><td>1</td><td><a href="#">equivalent</a></td><td>Equivalent</td></tr><tr><td>1</td><td><a href="#">source-is-narrower-than-target</a></td><td>Source Is Narrower Than Target</td></tr><tr><td>1</td><td><a href="#">source-is-broader-than-target</a></td><td>Source Is Broader Than Target</td></tr><tr><td>0</td><td><a href="#">not-related-to</a></td><td>Not Related To</td></tr></table> <p><b>Update 14 July:</b> Anticipating "R4B" release which is an initial release of R5.</p>	Lvl	Code	Display	0	<a href="#">related-to</a>	Related To	1	<a href="#">equivalent</a>	Equivalent	1	<a href="#">source-is-narrower-than-target</a>	Source Is Narrower Than Target	1	<a href="#">source-is-broader-than-target</a>	Source Is Broader Than Target	0	<a href="#">not-related-to</a>	Not Related To
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5	Post Coordination	30	Michael Lawley	<p>Post coordination - primitive &lt;&lt;&lt; syntax, what does this mean in practice, in context of use.</p> <p>The problem is that, without FSNs, any two concepts with lexically identical structures must be assumed to be siblings because we can't detect equivalence. Eg two concepts both defined as &lt;&lt;&lt; 64572001 [Disease (disorder)]</p> <p>How do these behave with \$subsumes (answer: you say they're not related) and \$closure (trickier, you want to indicate that they're distinct but there are no identifiers to make this apparent).</p> <p>Is this a case of - in practice - the client needing to check if an expression already exists and then making a decision if they can reuse that one, or need to create a new one. But given that we can't tell them apart without another identifier, how would that be useful. Upshot of this is that primitive PCEs are not terrible useful to use in an EHR. Use SD instead === the symbols here are optional and taken as the default when not present.</p> <p>Could we make use of the display field in this situation? The end user <i>will</i> have some idea in mind when they create the expression. PCEs are often advertised as a way to allow existing/new medical concepts to be entered into systems at runtime.</p> <p><b>TODO</b> Discuss how should PCE Libraries be represented in FHIR? For example, do we include them in a ValueSet expansion? Surely yes, but possibly not by default. CodeSystem supplement?</p>
6	Leaf nodes	20	Peter Jordan	<p>Not necessarily specific to SNOMED, but how do I get just the leaf nodes in a valueset definition? Solution is to use the child property in a ValueSet compose elements and say "child.exists = false". Asking for child properties in a CodeSystem \$lookup where no child property is returned will tell you if a concept is a leaf node or not. A child or descendant count would be useful here, and more generally useful than suggesting that we'd want a boolean isLeafNode property.</p>
7	SNOMED Modules in FHIR	20	Rob Hausam	<p>VSD - ValueSet Compliance discussion (targeting a profile), notion of code system partitions which seems to come from SNOMED having modules and this being seen as possibly useful. Could be expressed as Code System Fragments. ML "GPS is a good example of a useful SNOMED fragment / partition". Difficulties:</p> <ul style="list-style-type: none"> <li>• SNOMED is quite strict about module dependencies which would probably need to be represented if we wanted to split any given code system into 'partitions'.</li> <li>• In SNOMED modules we can describe things other than concepts - eg descriptions in one module and alternative modeling in another.</li> <li>• What version would I give for a fragment?</li> <li>• Modules are capable of inactivating components!</li> </ul> <p>Modules exist for a small number of reasons: 1. To allow content to be developed by multiple parties, both in terms of decoupling and identifying ownership and 2. To keep SNOMED 'light' so that implementers only consider the modules that they need to. ML suggests not to equate a partition with a module.</p> <p><a href="http://www.hl7.org/documentcenter/public/standards/dstu/HL7_SPEC_VALUESETDEF_R1_STU_2016JUN.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/HL7_SPEC_VALUESETDEF_R1_STU_2016JUN.pdf</a></p>
8	\$translate with version	30	Peter G. Williams Jon Zammit	<p>In the case of SNOMED, the system will as always be just <a href="http://snomed.info/sct">http://snomed.info/sct</a></p> <p>PWI advised that the crucial factor is the location of the map. The edition of the source and target is not important, so the use of the version parameter is prohibited. eg url=<a href="http://snomed.info/sct/731000124108/version/20200301?fhir_cm=6011000124106">http://snomed.info/sct/731000124108/version/20200301?fhir_cm=6011000124106</a></p> <p>ML says Ontoserver uses conceptMapVersion for this as well because concept maps that do not use a url in this way also need to be able to specify a version. Suggestion that the version parameter might be used if the conceptMapVersion is not specified.</p> <p><input type="checkbox"/> Peter G. Williams write up in IG</p>
9	Use of effective time parameter in \$lookup	15	Michael Lawley	<p>Suggestion that effectiveTime be added as a SNOMED specific property in the specification, raised by Peter Jordan in <a href="https://ira.hl7.org/browse/FHIR-26555">https://ira.hl7.org/browse/FHIR-26555</a></p> <p>The effective time of the concept (as represented in the concept file) does not necessarily capture when it came into its current state since relationships (inferred or stated) could change independently. Arguably we should use the most recent change to any of concept, relationships, descriptions. And what would we expect to happen in the case of filtering. ML: Ontoserver uses the date in the concept file because it's not possible to know what the enquirer's use case is.</p> <p><b>Update 14 July:</b> Recommendation of this group is that that item is added as a SNOMED specific property. Use case: In general, all properties should be filter-able. More specifically users may be interested to know which concepts were created (not perfect) or retired in the current release.</p>
10	Use of system and version parameters in Lookup and Subsumes	15	Jon Zammit	<p>Clarification that system parameter is the "class" of the code system and so is always <a href="http://snomed.info/sct">http://snomed.info/sct</a> in our case. The instance of the code system ie a specific extension and effectiveTime should be supplied in the version parameter. Snowstorm and Ontoserver are aligned in this regard.. In the case of SNOMED CT we use a URI to declare our instance and so the system is entirely redundant in our specific case and the decision was made to not insist in it's use for Snowstorm.</p> <p><a href="https://temp-snowstorm.ihtsdotools.org/fhir/CodeSystem/\$lookup?version=http://snomed.info/sct/900000000000207008&amp;code=84053906">https://temp-snowstorm.ihtsdotools.org/fhir/CodeSystem/\$lookup?version=http://snomed.info/sct/900000000000207008&amp;code=84053906</a></p> <p><input type="checkbox"/> Peter G. Williams put this explicitly in the implementation guide.</p> <p><b>DK:</b> FSH apparently has no way of specifying the version of a CodeSystem. Daniel checking the ANTLR spec. <a href="https://github.com/FHIR/sushi/issues/473">https://github.com/FHIR/sushi/issues/473</a></p>
11	GPS and FHIR value set url(s)	15	Rob Hausam Peter Jordan	<p><a href="https://chat.fhir.org/#narrow/stream/179202-terminology/topic/Indicating.20in.20a.20ValueSet.20.20SNOMED.20CT.20GPS.20.20Codes">https://chat.fhir.org/#narrow/stream/179202-terminology/topic/Indicating.20in.20a.20ValueSet.20.20SNOMED.20CT.20GPS.20.20Codes</a></p> <p><input checked="" type="checkbox"/> Peter G. Williams follow up on GPS as a published reference set to allow for simple definition as a ValueSet using the memberOf operator. Answer: Yes we will do this when the GPS is next updated. TODO: Check publishing plans with Andrew Atkinson</p>
12	What module(s) to use for the Canadian Edition	10	Peter G. Williams	<p>List of SNOMED CT Edition URIs replaced with 4.4.2 Edition URI Examples</p> <p>TODO: Check UK Modules in <a href="#">4.4.1 National Editions</a></p>

13	Working with unversioned content	15	<a href="#">Peter G. Williams</a> <a href="#">Daniel Karlsson</a>	<p>Proposed example: <a href="http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct/45991000052106/version/UNVERSIONED?fhir_vs=isa/27624003&amp;designation=sv">http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct/45991000052106/version/UNVERSIONED?fhir_vs=isa/27624003&amp;designation=sv</a></p> <p>ML makes the case that unpublished content is not legitimate SNOMED and suggested using a not-SNOMED URI eg <a href="http://snomed.info/xsct/45991000052106">http://snomed.info/xsct/45991000052106</a> in this case the code system would still be <a href="http://snomed.info/xsct">http://snomed.info/xsct</a></p> <p>Outstanding question: our pre-release (alpha + beta) packages <i>do</i> have a version as a future date in them, and continue to exist (although unpublished) even after the official release has shipped.</p> <p>How would this look in a ValueSet expansion? Should we specify systemVersion or forceVersion in this case?</p> <p><b>Update 2 June:</b> LOINC have a similar issue with "Pre-release" identifiers - current release 2.6.7. Version 2.6.8PRE will contain the pre-release content. "To be useful they need to be considered part of the code system"</p> <p>However in the case of SNOMED CT we would NOT condone unpublished identifiers being used in production systems. In the case of the COVID-19 concepts an interim release was done as an official release for 20200309. The use case here is for producers of SNOMED CT to reference concepts internally - as a work in progress.</p>
14	FHIR Roadmap	5	<a href="#">Peter Jordan</a>	R5 being pushed back. GG seeking opinion on 4.1.0 - an opportunity to clean up some descriptions.
15	FHIR Server Federation	10	<a href="#">Michael Lawley</a>	Use case for fall back lookup when server does not know the answer to any particular question eg a façade server which has knowledge of all services it could potentially delegate to.
16	Language Reference Sets in FHIR	45	All	<p><a href="#">Mechanisms for working with Languages</a></p> <p><a href="#">Designation extension</a></p> <p><b>Update 19 May:</b> Suggestion that we work an example for SNOMED to discuss with Regenstrief (LOINC)</p> <p><b>Update 2 June:</b> Started worked example <a href="#">Designation Extension Example</a></p>
17	SNOMED Family of Languages	10	<a href="#">Peter Jordan</a> <a href="#">Michael Lawley</a>	Impact of proposed changes (eg text searching in ECL) on FHIR. Questions around which language reference sets to use when there are multiple, especially partial/overriding context (referred to MAG for discussion)
18	SNOMED FHIR Implementation Guide	60	<a href="#">Peter G. Williams</a>	<p><a href="#">Implementation Guide for using SNOMED CT with FHIR.</a></p> <p><b>Update 10 Dec:</b> DK - main problem is URI/Ls which publisher has fixed ideas about. Publisher does not examine all folders - looks in profiles but not subfolders and doesn't seem to look in ValueSet folder.</p> <p><b>Update 21 Jan:</b> DK and RH have merged commits and these can be seen in the HL7 server build: <a href="http://build.fhir.org/ig/IHTSDO/snomed-ig/branches/new-template/">http://build.fhir.org/ig/IHTSDO/snomed-ig/branches/new-template/</a> and build errors here: <a href="http://build.fhir.org/ig/IHTSDO/snomed-ig/branches/new-template/qa.html">http://build.fhir.org/ig/IHTSDO/snomed-ig/branches/new-template/qa.html</a></p> <p><b>Update 11 Feb:</b> Grahame said that he'd show us how to set the URI so that it doesn't have to follow the base URI. Next person to try that can we fire a Zulip off to ask about it?</p> <p><b>Update 16 June:</b> DK wondered about moving everything to FSH (FHIR Short Hand) as it's so much easier to maintain. ML: Conversion available, but round trip problematic. DK page <a href="#">Re: snowstorm FHIR requirements, issues, etc.</a></p> <p>IG Documentation: <a href="http://build.fhir.org/ig/FHIR/ig-guidance/index.html">http://build.fhir.org/ig/FHIR/ig-guidance/index.html</a></p> <p>Also look at the sample IG <a href="https://github.com/fhir/sample-ig">https://github.com/fhir/sample-ig</a> see build <a href="http://build.fhir.org/ig/FHIR/sample-ig/">http://build.fhir.org/ig/FHIR/sample-ig/</a></p> <p><input type="checkbox"/> <a href="#">Rob Hausam</a> to speak to Lloyd about extending the base template as per <a href="http://build.fhir.org/ig/FHIR/ig-guidance/template.html">http://build.fhir.org/ig/FHIR/ig-guidance/template.html</a> Update 24 March: Documentation on this is "TODO"</p> <p><input type="checkbox"/> <a href="#">Peter G. Williams</a> FHIR core content to be copied over to Snowstorm instance.</p>
19	Any other business			<b>Next time:</b> ML Terminology Capabilities: Default SNOMED Edition for a Server. Suggestion to invite Graham for a wider discussion. Resource is still at maturity 0.

## Potential Items for Discussion

Description	Owner	Notes & Actions
API for FHIR Resource Post coordinated expression mapping	<a href="#">Peter G. Williams</a>	<p><a href="#">API for FHIR Resource to SNOMED Expression</a></p> <p><input checked="" type="checkbox"/> Daniel Karlsson Thought there might be some documentation from CIMI on this. Also notes from DMarkwell about constructor bindings.</p> <p><input checked="" type="checkbox"/> Peter G. Williams Pull these notes into confluence - can we mention it in the IG?</p>

Looking up an SCTID in an unknown module		<a href="#">Peter G. Williams</a>	<p>Problems when dependencies do not align. Multiple code system resources represent multiple editions / versions.</p> <p>ML: See code parameter to code system search. Should return code systems (ie versions) where that code is defined. International concepts would appear in every edition known to the server.</p> <p>eg /CodeSystem?system=<a href="http://snomed.info/sct&amp;code=12345678&amp;_elements=version">http://snomed.info/sct&amp;code=12345678&amp;_elements=version</a></p> <p><input checked="" type="checkbox"/> Peter G. Williams Ticket implementing this lookup. Note that this could be implemented more generally for lookups of <a href="http://snomed.info/id/&lt;SCTID&gt;">http://snomed.info/id/&lt;SCTID&gt;</a> where the SCTID exists in an extension. Done - see STORM-262.</p>
GPS			See <a href="#">Discussion on Global Patient Set (GPS)</a>
FHIR Shorthand		<a href="#">Michael Lawley</a>	<p><a href="https://github.com/HL7/fhir-shorthand/wiki">https://github.com/HL7/fhir-shorthand/wiki</a></p> <p><a href="https://build.fhir.org/ig/HL7/fhir-shorthand/FSHQuickReference.pdf">https://build.fhir.org/ig/HL7/fhir-shorthand/FSHQuickReference.pdf</a></p> <p>Tooling: <a href="https://github.com/FHIR/sushi">https://github.com/FHIR/sushi</a></p>
\$lookup operation - properties returned		<a href="#">Peter Jordan</a>	<p>Using <a href="http://ontoserver.csiro.au/vstool/">http://ontoserver.csiro.au/vstool/</a> I noticed that both Ontoserver and SnowStorm return a SNOMED CT \$lookup property for effectiveTime, which I don't see listed, as one of the SNOMED CT properties in the FHIR R4 specification at <a href="http://hl7.org/fhir/snomedct.html">http://hl7.org/fhir/snomedct.html</a>. Should we create a Jira Ticket to add this?</p> <p>Completed - <a href="https://jira.hl7.org/browse/FHIR-26555">https://jira.hl7.org/browse/FHIR-26555</a></p>
Use of url parameter	15	<a href="#">Peter G. Williams</a>	<p>CodeSystem "class vs instance" in url parameter between CodeSystem and ValueSet operations.</p> <p>CodeSystem is understood.</p> <p>In ValueSet, url is the ValueSet url for example url = <a href="http://snomed.info/sct?fhir_vs=">http://snomed.info/sct?fhir_vs=</a> allows for the version URI to be used as stated in <a href="https://build.fhir.org/snomedct.html">https://build.fhir.org/snomedct.html</a> The base URL is either <a href="http://snomed.info/sct">http://snomed.info/sct</a> blocked URL, or the URI for the edition version, in the format specified by SNOMED International in the <i>SNOMED CT URI Specification</i>.</p> <p>The ValueSet version valueSetVersion is just some string identifier eg a timestamp or 0.1.0</p>
ECL in the ValueSet Expression Extension	10	<a href="#">Rob Hausman</a>	<p>Check whether SNOMED ECL is (or should be) registered as a MIME type (as per RFC 4289/BCP 13), or alternatively added to the expression-language code system and value set, for use in the valueset-expression extension used with the ValueSet resource.</p> <p>For example, HL7 have registered application/json+fhir</p> <p>This is useful for a ValueSet extension which allows any language to be used to define the selection criteria for an intensional definition using a MIME type. This group has no current reason to use that extension given the existing core specification support for implicit ValueSet definition and the support within the compose element.</p> <p>RDF community may have an interest.</p> <p><b>Update 2 June RH:</b> Existing small valueset extended in BCP13 (existing known codes could be published as a CodeFragment). Vocab Working Group discussion ongoing.</p>
Behaviour on Lookup	10		<p>What properties are returned?</p> <p>Discussion: Both Ontoserver and Snowstorm are returning EffectiveTime which is not listed here (unlike other SNOMED specifics): <a href="https://build.fhir.org/snomedct.html">https://build.fhir.org/snomedct.html</a></p> <p><input checked="" type="checkbox"/> Peter Jordan to raise a Jira ticket to ask for this to be returned - completed <a href="https://jira.hl7.org/browse/FHIR-26555">https://jira.hl7.org/browse/FHIR-26555</a></p> <p>Point of interest: Grahame's server returns a copyright property.</p> <p><b>Update 7 April</b> - Question about whether this is required / desirable?</p>

## Meeting Files

File	Modified
PNG File image2020-6-30_21-16-3.png	2020-Jul-14 by Peter G. Williams