

2016-11-09 - SLPG Meeting

Date & Time

20:00 UTC Wednesday 9th November 2016

GoToMeeting Details

[Click here to see GoToMeeting joining information](#)

Attendees

- Chair: [Linda Bird](#)
- Project Group: [Michael Lawley](#), [Alejandro Lopez Osornio](#), [Brian Carlsen](#), [Ed Cheetham](#), [Harold Solbrig](#)

Goals

- To discuss Compositional Grammar document migration and feedback
- To report on progress with Expression Constraint Language v1.1
- To discuss outcomes of SNOMED URI discussions in Wellington
- To progress SNOMED Template Syntax

Apologies

- [Daniel Karlsson](#)

Observers

- [Andrew Perry](#)

Agenda and Meeting Notes

Description	Owner	Notes
Welcome, introductions and apologies	Linda Bird	
Agenda review	Linda Bird	Review agenda for today's meeting
Compositional Grammar	Linda Bird	- Document migration to http://snomed.org/scg - Feedback numericValue = decimalValue / integerValue integerValue = (["-" / "+"] digitNonZero * digit) / zero decimalValue = integerValue "." 1*digit - How to represent -0.5 - Solution A (which allows "+0" and "-0.00") numericValue = ["-" / "+"] (decimalValue / integerValue) integerValue = (digitNonZero * digit) / zero decimalValue = integerValue "." 1*digit - Solution B (which does not allow "+0" and "-0.00") numericValue = decimalValue / integerValue integerValue = (["-" / "+"] digitNonZero * digit) / zero decimalValue = (integerValue "." 1*digit) / (["-" / "+"] zero "." *zero digitNonZero *digit) - Outcome - The group decided to go with Solution A - Requires parser update (http://apg.ihtsdotools.org) and github update (parser)
Expression Constraint Language v1.1	Linda Bird	- Published to http://snomed.org/ecl - Announcement for ECL v1.1 made - Patch required for concrete values (as above) - v1.1.1 - Requires parser update (http://apg.ihtsdotools.org) and github update (parser and examples)

URI Standard	Linda Bird	URIs for SNOMED syntaxes ◦ SCG - SNOMED Compositional Grammar (with version option) ▪ http://snomed.info/syntax/scg ▪ http://snomed.info/syntax/scg/version/2.1 ◦ ECL - Expression Constraint Language (with version option) ▪ http://snomed.info/syntax/ecl ▪ http://snomed.info/syntax/ecl/version/1.1.1 ◦ QRL - SNOMED Query Language (with version option) ▪ http://snomed.info/syntax/qrl ▪ http://snomed.info/syntax/qrl/version/1.0 ◦ STS - SNOMED Template Syntax (with version option) ▪ http://snomed.info/syntax/sts ▪ http://snomed.info/syntax/sts/version/1.0 ◦ ETL - Expression Template Language (with version option) ▪ http://snomed.info/syntax/etl ▪ http://snomed.info/syntax/etl/version/1.0 ◦ CTL - Expression Constraint Template Language (with version option) ▪ http://snomed.info/syntax/ctl ▪ http://snomed.info/syntax/ect/version/1.0 ◦ QTL - Query Template Language (with version option) ▪ http://snomed.info/syntax/qtl ▪ http://snomed.info/syntax/qtl/version/1.0 URIs for SNOMED syntax instances ◦ ID - Expression (either precoordinated or postcoordinated) ▪ http://snomed.info/id/404684003 - the concept "404684003 Clinical finding " ▪ http://snomed.info/id/404684003%3A47429007%3D79654002 - the expression "404684003 Clinical finding : 47429007 Associated with = 79654002 Edema " ◦ ECL - Expression Constraint ▪ http://snomed.info/ecl/%3C404684003%3A%3C%3C47429007%3D%3C%3C79654002 - the expression constraint "< 404684003 Clinical finding : < 47429007 Associated with = < 79654002 Edema " ◦ QRL - Query ◦ ETL - Expression Template ◦ CTL - Expression Constraint Template ◦ QTL - Query Template URIs for SNOMED syntax instances - with versioning ◦ SNOMED syntax instance using versioned edition ▪ ID (pre) - http://snomed.info/sct/900000000000207008/version/20160731/id/404684003 ▪ ID (post) - http://snomed.info/sct/900000000000207008/version/20160731/id/404684003%3A47429007%3D79654002 ▪ ECL - http://snomed.info/sct/900000000000207008/version/20160731/ecl/%3C404684003%3A%3C%3C47429007%3D%3C%3C79654002 ◦ SNOMED syntax instance using syntax version ▪ ID (pre) - http://snomed.info/id/404684003/syntax/scg/version/2.0 ▪ ID (post) - http://snomed.info/id/404684003%3A47429007%3D79654002/syntax/scg/version/2.0 ▪ ECL - http://snomed.info/ecl/%3C404684003%3A%3C%3C47429007%3D%3C%3C79654002/syntax/ecl/version/1.1 ◦ SNOMED syntax instance using versioned edition and syntax version ▪ ID (pre) - http://snomed.info/sct/900000000000207008/version/20160731/id/404684003/syntax/scg/version/2.0 ▪ ID (post) - http://snomed.info/sct/900000000000207008/version/20160731/id/404684003%3A47429007%3D79654002/syntax/scg/version/2.0 ▪ ECL - http://snomed.info/sct/900000000000207008/version/20160731/ecl/%3C404684003%3A%3C%3C47429007%3D%3C%3C79654002/syntax/ecl/version/1.1
--------------	------------	---

Special Characters (not for ".", "-", "_", "~")

- **Hexidecimal**
 - " " %20
 - "!" - %21
 - "" "" %22
 - "#" %23
 - "\$" %24
 - "%" %25
 - "&" %26
 - "" "" %27
 - "(" %28
 - ")" %29
 - "*" %2A
 - "+" %2B
 - "," %2C
 - "/" %2F
 - ":" %3A
 - "," %3B
 - "<" %3C
 - "=" %3D
 - ">" %3E
 - "?" %3F
 - "@" %40
 - "[" %5B
 - "\" %5C
 - "]" %5D
 - "^" %5E
 - "" "" %60
 - "{" %7B
 - "|" %7C
 - "}" %7D

Upgrade "SNOMED URI Standard" to "SNOMED IRI Standard"?

- URIs work with ASCII characters
- IRIs work with Unicode character sets
- [Wikipedia \(IRI\)](#)
- The **Internationalized Resource Identifier (IRI)** was defined by the [Internet Engineering Task Force \(IETF\)](#) in 2005 as a new internet standard to extend upon the existing [Uniform Resource Identifier \(URI\)](#) scheme.^[1] The new standard was published in [RFC 3987](#). While URIs are limited to a subset of the ASCII character set, IRIs may contain characters from the [Universal Character Set \(Unicode/ISO 10646\)](#), including Chinese or Japanese [kanji](#), [Korean](#), [Cyrillic](#) characters, and so forth.

Template
Syntax

[Linda
Bird](#)

Remove slots and replace slots

- **Remove slot:** `[[ 1..1 ]], [[ 1..1 @slotName ]]`
- **Replace slot:** `[[+id (<< 138875005 |SNOMED CT concept)]], [[+id]], [[+]], [[+id(<<138875005 |SNO
MED CT concept) @slotName $valueReference]]`
- **Example:** `CT of X`
`71388002 |Procedure| : [[1..1 @roleGroup1]]`
`{ 260686004 |Method| = 312251004 |Computed tomography imaging action|,`
`405813007 |Procedure site - Direct| = [[+id (<<442083009 |Anatomical or acquired body structure|)]`
`@site] }`

Replace slots - Type of replacement

- **Replace with precoordinated expression (ie concept):** `[[ +id ]] ?? [[ +cpt ]] ??`
- **Replace with any expression:** `[[ +id ]]`
- **Replace with an expression constraint:** `[[ +ecl ]]`
- **Replace with a character string:** `[[ +str ]]`
 - Use cases include replacing comparison operators "=" and "!="
- **Example 1: MRCM domainTemplateForPrecoordination** (Finding with explicit context)
 - `[[+id(<< 243796009 |Situation with explicit context (situation): [0..0] 408730004 |Procedure context| = *, [0..0] 363589002 |Associated procedure| = *)]]:`
`[[0..*]] { [[1..*]] 408729009 |Finding context| = [[+id(<< 410514004 |Finding context value (qualifier value))]]],`
`[[1..*]] 408731000 |Temporal context| = [[+id(<< 410510008 |Temporal context value (qualifier value))]]],`
`[[0..*]] 246090004 |Associated finding| = [[+id(<< 404684003 |Clinical finding (finding)| OR << 272379006 |Event (event))]]],`
`[[0..*]] 408729009 |Finding context| = [[+id(<< 410514004 |Finding context value (qualifier value))]]],`

`[[0..*]] 408732007 |Subject relationship context| = [[+id(<< 125676002 |Person (person))]]],`
`[[0..*]] 408731000 |Temporal context| = [[+id(<< 410510008 |Temporal context value (qualifier value))]] ]`
- **Example 2: MRCM domainTemplateForPostcoordination** (Finding with explicit context)
 - `[[+id(<< 243796009 |Situation with explicit context (situation): [0..0] 408730004 |Procedure context| = *, [0..0] 363589002 |Associated procedure| = *)]]:`
`[[0..*]] { [[1..*]] 408729009 |Finding context| = [[+id(<< 410514004 |Finding context value (qualifier value))]]],`
`[[1..*]] 408731000 |Temporal context| = [[+scg(<< 410510008 |Temporal context value (qualifier value))]]],`
`[[0..*]] 246090004 |Associated finding| = [[+scg(<< 404684003 |Clinical finding (finding)| OR << 272379006 |Event (event)| OR << 363787002 |Observable entity (observable entity)|`
`OR << 416698001 |Link assertion (link assertion)| OR << 71388002 |Procedure (procedure))]]],`
`[[0..*]] 408729009 |Finding context| = [[+scg(<< 410514004 |Finding context value (qualifier value))]]],`
`[[0..*]] 408732007 |Subject relationship context| = [[+scg(<< 125676002 |Person (person))]]],`
`[[0..*]] 408731000 |Temporal context| = [[+scg(<< 410510008 |Temporal context value (qualifier value))]] ]`

Cardinality

- **Cardinality of relationship group**
 - Pattern: `[[ 1..* ]]` { .. }
 - Default operator between repeats: ", " / "AND"
 - **Example: CT of X**
`71388002 |Procedure| : [[1..1 ]`
`{ 260686004 |Method| = 312251004 |Computed tomography imaging action|,`
`405813007 |Procedure site - Direct| = [[+id (<<442083009 |Anatomical or acquired body structure|)] @site] }`
- **Cardinality of attribute value pair**
 - Pattern: `[[ 1..* ]]` 123345 |Attribute| = 234456 |Value|
 - Default operator between repeats: ", " / "AND"
 - **Example: CT of X**
`71388002 |Procedure| :`
`{ 260686004 |Method| = 312251004 |Computed tomography imaging action|,`
`[[ 1..1 ] 405813007 |Procedure site - Direct| = [[+id (<<442083009 |Anatomical or acquired body structure|)] @site] }`
- **Cardinality of focus concepts**
 - Pattern: `[[ +() 1..* ]]`
 - Default operator between repeats: "+" / "AND"
 - How would we achieve an operator of "OR" in an Expression Constraint? - e.g. `[[+ecl 1..* ]]` A OR B OR C
 - **Example:**
`[[+id(<< 404684003 |Clinical finding)| 1..* ]]`
- **Other types of cardinalities?**

Other Topics raised by Ed

- The fact that a template processor would need to 'clean-up' any left over characters, such as ":", ". I suggest that we try to document the steps that a template processor should follow to turn a template into an expression, constraint etc.

Confirm next meeting date /time	Linda Bird	Next meeting to be held at 20:00 UTC on Wednesday 7th December
---------------------------------	----------------------------	--

Meeting Files

File	Modified
No files shared here yet.	