

3.2 URI Use-Cases

The Owl Representation of SNOMED CT

The OWL representation of SNOMED CT makes use of URIs for identifying Concepts, the previously-implicit grouping role, and the ontology itself (i.e. the set of axioms).

The old pattern used for Concepts was

http://www.snomed.org/SCT_{sctid}

which is now replaced by

<http://snomed.info/id/{sctid}>

The grouping role URI was

<http://www.snomed.org/RoleGroup>

and is now

<http://snomed.info/id/609096000>

For the OWL XML representation, the URI was unspecified (the empty string), while for the OWL Functional Syntax representation the URI was (via RDF:about)

<http://www.snomed.org/sct.owl>

and now includes explicit version information

<http://snomed.info/sct/{sctid}/version/{timestamp}>

When representing SNOMED CT ontologies using OWL 2, both an ontologyURI and a versionURI should be included using the following forms respectively¹:

<http://snomed.info/sct/{sctid}>

<http://snomed.info/sct/{sctid}/version/{timestamp}>

The CTS2 Specification

The CTS2 specification requires that all resources be identified using URIs. This section lists, where such a thing exists, SNOMED International standard URIs for the resources that require URIs in the CTS2 implementation. This omits URIs for things such as External Code Systems and Value Sets since they are outside the scope of the SNOMED CT URI Standard. Note, however, that a Reference Set is the SNOMED CT mechanism for identifying an arbitrary set of Concepts, which is analogous to a Value Set. Thus the Reference Set URI would be the appropriate thing to use as the Value Set identifier.

Resource	URI	Example
SNOMED CT Edition	http://snomed.info/sct/{moduleId}	http://snomed.info/sct/900000000000207008 SNOMED CT International Edition
SNOMED CT Version	http://snomed.info/sct/{moduleId}/version/{effectiveTime}	http://snomed.info/sct/900000000000207008/version/20120131 SNOMED CT International January 2012 Version
Module	http://snomed.info/module/{moduleId}	http://snomed.info/module/900000000000207008 SNOMED CT Core Module (only)
A specific release of a Module	http://snomed.info/module/{moduleId}/time/{timestamp}	http://snomed.info/module/900000000000207008/time/20120131 SNOMED CT Core Module (only) with respect to the timestamp 20120131
SCTID	http://snomed.info/id/{sctid}	http://snomed.info/id/449650002
UUID	http://snomed.info/id/{uuid}	http://snomed.info/id/00000692-31c5-81a8-2e54b488c824
Table Field	http://snomed.info/field/{table name}.{field name}	http://snomed.info/field/Relationship.characteristicTypeId

Map	http://snomed.info/id/{map sctid}	http://snomed.info/id/900000000000498005 A map is just a reference set in a specific format
Map version	http://snomed.info/sct/{moduleId}/version/{effectiveTime}/id/{map sctid}	http://snomed.info/sct/900000000000207008/version/2012013/id/900000000000498005
Refset	http://snomed.info/id/{refset sctid}	http://snomed.info/id/900000000000498005
Refset version	http://snomed.info/sct/{moduleId}/version/{effectiveTime}/id/{refset sctid}	http://snomed.info/sct/900000000000207008/version/2012013/id/900000000000498005
Role Group	http://snomed.info/id/609096000	http://snomed.info/id/609096000

Identifying SNOMED CT Versions in HL7

Traditionally, HL7 has used OIDs to identify Code Systems. The OID for SNOMED CT is 2.16.840.1.113883.6.96. This is the OID that should be used for all versions of SNOMED CT and related terminologies (such as the Australian Medicines Terminology) because it identifies the **system**, i.e. the set of rules for interpreting SCTIDs. Under these rules, any specific SCTID is either defined with respect to a particular SNOMED CT Version, or it is undefined (i.e. not included/mentioned in that version). Furthermore, any given SCTID always identifies the *same thing* in all versions in which it is defined.

The HL7 specification says: *the interpretation of version strings is defined by the Code System* (and not by HL7). This means we can use the URI for a Version (versioned Edition) as the version code:

<http://snomed.info/sct/{sctid}/version/{timestamp}>

For example, here is how an element of Data Type CD might appear in a CDA document with:

```
<xyz code="78835011000036104" codeSystem="2.16.840.1.113883.6.96" codeSystemName="Australian Medicines Terminology (AMT)"
codeSystemVersion="http://snomed.info/sct/900062011000036108/version/20121231" displayName="GANFORT 0.03% / 0.5% eye drops:
solution, 3 mL"/> </xyz>
```

Identifying SNOMED CT Versions in HL7 FHIR

Fast Healthcare Interoperability Resources (FHIR™)² defines a set of 'resources' to represent health and healthcare administration-related information. Rather than OIDs, FHIR uses URIs to identify code systems, usually along with an associated version string. The code system is intended to characterise the set of valid codes, hence the recommended URI to use for this is:

<http://snomed.info/sct>

and the recommended string template to use for the associated version, substituting in the appropriate module sctid and effective time, is:

<http://snomed.info/sct/{sctid}/version/{timestamp}>

Footnotes

RefNotes

- ¹ See OWL 2 Web Ontology Language Structural Specification and Functional-Style Syntax http://www.w3.org/TR/owl2-syntax/#Ontology_IRI_and_Version_IRI
- ² See <http://hl7.org/fhir>