



# SNOMED CT URI Standard

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## Amendment History

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0.03	2012 10 02	Michael Lawley	Revised to address feedback from Technical Committee
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0.06	2013 04 30	Michael Lawley	Revised following QA review feedback. This included a statement of who should read this document, clarification that it defines a standard and is not a guideline, and a clarification that the "Additional URIs" of section 5 can be more clearly characterised as "URIs for Properties".
0.07	2013 11 05	Michael Lawley	Revised following CoP feedback. Version-relative URIs are now part of the Standard.
0.08	2013 12 03	Michael Lawley	Merged in relevant content from draft Guide document to form a single self-contained document.
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## Review Timetable

This section is populated once final approval is received to indicate when the content will be formally reviewed – date is agreed by Management Board

Review date	Responsible owner	Comments
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# 1 Introduction

## 1.1 Purpose of document

This document defines a standard format of URIs for identifying various SNOMED CT artefacts including Components and RF2-based releases. As a specific sub-case this includes URIs for formally identifying the SNOMED CT International Edition, extension Editions, and any specific *Versions* thereof. It does not cover mechanisms or URIs for non-SNOMED CT based terminologies, nor does it cover RF1-based artefacts.

It provides guidance on using the SNOMED CT URI Standard in the context of key motivating use-cases, including resolvability of the URIs.

## 1.2 Who Should Use this Standard?

The intended audience for this document includes both technical professionals who are involved in the development or implementation of terminology systems or healthcare information systems that use SNOMED CT, as well as academics, researchers, and others who are using SNOMED CT in the context of OWL and other Semantic Web technologies. This standard should be used in cases where it is required to uniquely identify SNOMED CT Concepts and other Components in contexts where URIs are expected, or where the interpretation of a code as an SCTID may be ambiguous. It should also be used when an unambiguous interoperable (machine-readable) identifier for an Edition (or a Version thereof) is required.

## 1.3 Scope of document

This document provides a specification for the format and usage of SNOMED CT URIs. Such a URI might identify "A clinical idea to which a unique Concept Identifier has been assigned"<sup>1</sup>. However, it does not specify or standardise any aspect of the representation of these things. Appropriate representations may vary greatly depending on use-case requirements and services utilising the URIs specified here are free to make their own choices. Sub-sections 1.4 and 3.1 have additional references and advice on this matter.

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<sup>1</sup> [www.snomed.org/tig?t=glstct\\_ss\\_Concept](http://www.snomed.org/tig?t=glstct_ss_Concept)



This specification relies on the semantics of SNOMED CT modules as defined in the Release Format 2 specification. Please see Section 5.4 *Release Format 2 – Core Component Guide*<sup>2</sup> in the separate document “SNOMED CT<sup>®</sup> Technical Implementation Guide” for additional information on this subject.

## 1.4 Motivating factors

The existing SCTID specification allows for the identification of a component across time (i.e., the rows in a table that represent the state of that component at a series of points in time). However, this is but one, low level, view of a component. There are other views of a component that are useful to be able to identify. These include, for example, a Concept including its Descriptions and Relationships in a given combination of SNOMED CT International and its Extensions, at a given point in time. Furthermore certain things, such as an Extension with all its dependent modules, are not themselves components, but also need a consistent identification mechanism. This not only includes the individual 6-monthly releases of the International version of SNOMED CT, but also specific national versions such as the Australian release, or the Swedish translation.

A number of groups have emphasised the need to come up with an approach that addresses the broad needs of implementers and offers the opportunities for use of a ubiquitous range of services using the URI as a common factor in the interfaces. This document describes a URI space that is intended to meet these requirements (and to evolve to meet others as they emerge) to avoid the proliferation of alternative conflicting schemes.

The URI space defined in this document uses the syntax defined in *IETF RFC6570 URI Templates*<sup>3</sup>. In addition, principals of good URI design were drawn from the W3C document *Cool URIs for the Semantic Web*<sup>4</sup>, and *Designing URI Sets for the UK Public Sector*<sup>5</sup>.

It should be further noted that, consistent with the advice of Tim Berners-Lee<sup>6</sup>, the `http` scheme is used for these URIs. Furthermore, to be consistent with the W3C's TAG resolution of *ISSUE-14*<sup>7</sup>,

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<sup>2</sup> [http://www.snomed.org/tig?t=trg2main\\_title](http://www.snomed.org/tig?t=trg2main_title) Section number relative to July 2012 version.

<sup>3</sup> <http://tools.ietf.org/html/rfc6570>

<sup>4</sup> Specifically the section *URIs for Real-World Objects* <http://www.w3.org/TR/cooluris/#semweb>

<sup>5</sup> <http://www.cabinetoffice.gov.uk/sites/default/files/resources/designing-uri-sets-uk-public-sector.pdf>

<sup>6</sup> Linked Data <http://www.w3.org/DesignIssues/LinkedData.html>

<sup>7</sup> ISSUE-14 <http://www.w3.org/2001/tag/group/track/issues/14>



since the URIs defined in this document identify *real-world objects* and not *information resources*, resolving these URIs should **not** result in an HTTP response code of 200 ("OK") but rather, if anything at all, result in an HTTP response code of 303 ("See Other") to redirect to another URI that identifies a representation of the identified component. The intuition here is that it is not possible to return a real-world object (e.g., "The Eiffel Tower"), but only a representation of it (a picture, a geo-location, a Wikipedia page, etc.). In the same manner, it is only possible to return a representation of the identified SNOMED CT component, and not the component itself. Further discussion around this issue can be found in Section 4.4 *Choosing between 202 and Hash*<sup>8</sup> of the aforementioned W3C document *Cool URIs for the Semantic Web*.

## 1.5 Use cases for URIs

The following use cases have guided the specification detailed in this document:

1. The OWL representation of the stated form of SNOMED CT requires URIs to identify Concepts and Object Properties (Attributes). It has historically used its own de facto URI space for this purpose, and has not directly addressed the issues of a URI to identify the ontology itself or versioning.
2. The CTS2 specification requires all Resources to be identified using URIs. It too has a proposed approach with a narrower scope, relative to SNOMED CT, than we have here.
3. Within the HL7 community there is a need for a consistent mechanism to identify "versions" of SNOMED CT. An appropriate URI space could simply address this need in an extensible fashion.

While a register of canonical names for each Edition could be compiled and maintained, the module system developed for Release Format 2 already provides the required machinery to support unique naming of Editions and, in conjunction with a timestamp, specific versions of an Edition.

Section 5.4.1.4. *Identification of Source Module*<sup>9</sup> of the Technical Implementation Guide says the following:

A *moduleId* field, assigned to each component, helps identify the origin of content and dependencies in a release. This enables Release Centres to

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<sup>8</sup> Choosing between 303 and Hash <http://www.w3.org/TR/cooluris - choosing>

<sup>9</sup> [http://www.snomed.org/tig?t=trg2main\\_gen\\_idsource](http://www.snomed.org/tig?t=trg2main_gen_idsource) Section number relative July 2012 version.



compose a unified release from a number of different modules, yet still identify the origin of content within the release. For example, module ids may be used to differentiate *SNOMED CT* International content, Australian Medicines terminology and Pathology content within the Australian national release.

The module dependency reference set is used to track dependencies between (versioned) modules. Thus, by tracing the set of module dependencies from a specified (versioned) moduleId, one is able to identify all the content relevant to that (versioned) moduleId. Hence, a (versioned) moduleId can be used to uniquely identify a (versioned) Edition.<sup>10</sup>

## 1.6 A note on Releases, Editions and Versions

In this document we capitalise the terms *Release*, *Edition*, and *Version* to indicate that they are being used with the following specific meanings:

### **Release**

This is used to mean a concrete set of files that is published by a Release Centre (including the IHTSDO). This may include any combination of RF2 files, be they full, snapshot or delta, as well as documentation, cross-map files, alternate identifiers, and so forth. It may even be just the content that is additional to the *SNOMED CT* International Edition.

### **Edition**

An Edition is the complete logical or conceptual set of terminology component, independent of any specific version. Examples include the *SNOMED CT* International Edition and the *SNOMED CT-AU* Edition.

### **Version**

This is used to refer to the actual content of an Extension's modules and all the modules they depend on. That is, the *SNOMED CT* content that is conceptually managed within the versioning scheme of RF2 that is based on the moduleId and effectiveTime fields of the release files. In particular, this

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<sup>10</sup> In the case where a Release Centre has not organized what they consider to be an Edition to correspond to the transitive contents of a single moduleId, a single additional moduleId can be created that depends on the modules that comprise the Edition and then be subsequently used to identify that Edition. Note that it is non-conformant to release only part of a module.





includes content that pertains specifically to the meaning of Concepts and the contents of Reference Sets. Examples include the 20130731 version of the SNOMED CT International Edition and the 20130531 version of the SNOMED CT-AU Edition.

In some cases a Release comprises the union of two (or more) parts. For example, SNOMED CT with the addition of medication terminology. In the case that these parts are truly distinct, then distinct URIs can be used to identify them individually. In the case that they are not distinct (that is, there is a dependency with respect to their content), or one part should only be used in conjunction with the other, then this logical dependency should be explicitly managed. The Module (Version) Dependency Reference Set<sup>11</sup> (see Section 1.5) is an appropriate mechanism for doing this and the SNOMED CT URI Guide contains additional discussion of this topic.

## 1.7 Statement of Impact

This Standard builds on a number of other elements of the IHTSDO SNOMED CT ecosystem. In particular its semantics are dependent on those of RF2 and the module and versioning mechanism.

This Standard defines a standard set of identifiers in the form of URIs. In order to maintain the integrity of the associated URI space, it is highly desirable for the IHTSDO to maintain ownership of the **snomed.info** DNS domain. While not a requirement of this specification, it would be useful if the URIs defined by this specification, with respect to SNOMED CT Core, were resolvable.

The Perl script that generates OWL (and other) representations of SNOMED CT that name things with URIs should use URIs conforming to this specification. It is important to understand that the URIs in this specification do not identify the representation of an entity, but rather identify the entity itself. Section 3.1, Resolving SNOMED CT URIs, covers this issue in more detail.

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<sup>11</sup> 900000000000534007 | Module dependency reference set |



## 2 SNOMED CT URI Space

### 2.1 URIs for Editions and Versions

A SNOMED CT Edition logically consists of the complete set of members of one or more Modules.<sup>12</sup> Since the Module Dependency Reference Set<sup>13</sup> (MDRS) tracks the explicit dependencies between a version of a Module and all the versioned Modules it depends on, a Module Id<sup>14</sup> is a natural identifier for an Edition. When combined with a Timestamp corresponding to a sourceEffectiveTime appearing in the MDRS, this unambiguously identifies a Version of an Edition.

The URIs that identify (unversioned) Editions and Versions (i.e., versioned Editions) take the following respective forms:

```
http://snomed.info/sct/{sctid}
```

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

Note, while it would be possible to extend this pattern to support multiple root Modules, each with their own sourceEffectiveTime, this introduces non-trivial complexities. For example, the Modules they each depend upon may themselves overlap but have different versions (targetEffectiveTime) in which case the implied content would be inconsistent. The SNOMED CT URI Guide contains additional discussion and guidance on this topic.

#### Examples

SNOMED CT International Edition	<code>http://snomed.info/sct/900000000000207008</code>
SNOMED CT International Edition, 20130731	<code>http://snomed.info/sct/900000000000207008/version/20130731</code>

<sup>12</sup> While there may be additional files associated with a release, it is only the Module content which affects the computable meaning of a Concept (i.e., the inferable relationships and subsumption between post coordinated expressions).

<sup>13</sup> [http://www.snomed.org/tig?t=trg2rfs\\_spec\\_module\\_depend](http://www.snomed.org/tig?t=trg2rfs_spec_module_depend)

<sup>14</sup> This is the identifier of the Module Concept, as would be used in the Module Dependency Reference Set. It is not acceptable to use the identifier of a Description associated with a Module.



SNOMED CT-AU	<a href="http://snomed.info/sct/32506021000036107">http://snomed.info/sct/32506021000036107</a>
SNOMED CT-AU, 31 May 2013	<a href="http://snomed.info/sct/32506021000036107/version/20130531">http://snomed.info/sct/32506021000036107/version/20130531</a>
SNOMED CT-AU, 30 Nov 2012	<a href="http://snomed.info/sct/32506021000036107/version/20121130">http://snomed.info/sct/32506021000036107/version/20121130</a>
SNOMED CT-SE	<a href="http://snomed.info/sct/45991000052106">http://snomed.info/sct/45991000052106</a>

## 2.2 URIs for Components and Reference Set members

A *Component* is any item identified by an SCTID<sup>15</sup> such as Concept, Relationship, or Description. The partition-identifier can be used to distinguish the Component type. Furthermore, a Reference Set member is identified by a UUID rather than an SCTID.

URIs for Components, based on the corresponding SCTID, take the following form:

```
http://snomed.info/id/{sctid}
```

URIs for members of a Reference Set, based on the corresponding UUIDs, take the following form:

```
http://snomed.info/id/{uuid}
```

For simplicity of presentation, this document refers to either of the above forms as a *Component URI*.

## 2.3 Version-relative Component URIs

Version-relative URIs are useful to identify version-specific characteristics of, for example, a Component. Conceptually, they build on the idea of what one Resource (i.e., the Version) says about another (e.g., a Component).

Version-relative URIs for Components take the following form:

```
http://snomed.info/sct/{moduleid}/version/{time}/id/{sctid}
```

Version-relative URIs for Reference Set members take the following form:

```
http://snomed.info/sct/{moduleid}/version/{time}/id/{uuid}
```

<sup>15</sup> [http://www.snomed.org/tig?t=trg\\_app\\_sctid](http://www.snomed.org/tig?t=trg_app_sctid)



## Examples

Appendicitis (74400008) in SNOMED CT International Edition, 1 January 2013

```
http://snomed.info/sct/900000000000207008/version/20130131/id/74400008
```

When the Component SCTID is that of a Reference Set, for example, this allows the identification of a specific version of that Reference Set. Here, 900000000000509007 is the SCTID of the US English language Reference Set.

```
http://snomed.info/sct/900000000000207008/version/20120131/id/900000000000509007
```

The November 30, 2012 version of the Australian *Emergency department findings in presenting problem Reference Set* is identified by:

```
http://snomed.info/sct/32506021000036107/version/20121130/id/32570501000036104
```

## 2.4 URIs for Modules

Section 2.1 defined URIs effectively identifying the transitive contents of a Module and all the Modules it depends on (with respect to module version dependencies). This section defines URIs identifying the content of a single specified Module only. As before, these URIs come in two forms:

```
http://snomed.info/module/{sctid}
```

```
http://snomed.info/module/{sctid}/time/{timestamp}
```

Note, in this case the timestamp is merely referencing a point in time and the contents of a single Module is just a fragment of one or more Editions, hence the timestamp is not considered to be necessarily identifying a Version.

## 2.5 URIs for Properties

There are additional aspects of SNOMED CT that do not have SCTIDs but still need a URI for use cases such as an OWL representation of SNOMED CT (to identify certain annotations) and for parts of CTS2 such as `characteristicTypeId`. To address these needs we define a general set of URIs identifying the RF2-based properties of Components.

The URI space for these properties follows the pattern:

```
http://snomed.info/field/{tableName}.{fieldName}
```



Valid table names are as described for Data Files with respect to the *ContentType element*<sup>16</sup> in the File Naming Conventions for RF2. Note, these URIs identify the property itself, not the value or values that may be associated with the property.

## 2.6 Comparing URIs for equality of reference

Any two URIs from the <http://snomed.info/id/>, <http://snomed.info/module/>, and <http://snomed.info/sct/> URI spaces identify the same thing if, after syntax-based normalisation as described in section 6.2.2 of *IETF RFC3986 Uniform Resource Identifier (URI): Generic Syntax*<sup>17</sup>, they are equal when treated as character strings. The syntax-based normalisation includes case normalization, percent-encoding normalization, and removal of dot-segments. Scheme-based and protocol-based normalisation should not be required since any URIs that would be affected by them (e.g., by including explicit port numbers or trailing slashes) fall outside of the URI space defined by the standard.

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<sup>16</sup> [http://www.snomed.org/tig?t=fng\\_contentType](http://www.snomed.org/tig?t=fng_contentType)

<sup>17</sup> Uniform Resource Identifier (URI): Generic Syntax <http://tools.ietf.org/html/rfc3986#section-6>



## 3 SNOMED CT URIs in use

### 3.1 Resolving SNOMED CT URIs

Section 2 above defines a set of URI spaces that are used to **identify** a variety of SNOMED CT resources, but it does not talk about resolving these URIs. The URIs in the standard use the `http` scheme and the domain name `snomed.info`, which is owned by the IHTSDO. This means that the IHTSDO is in control of whether or not these URIs, when treated as URLs and resolved, will result in a document being available, a 404 ("Not Found") error, or something else.

However, a Release Centre or other service provider may also want to support the resolution of these URIs. A general approach to this involves deploying a resolving service with an endpoint URL such as

```
http://myservice.example.com/
```

which is configured to resolve URLs that embed SNOMED CT URIs. Continuing the example, a URL of the following form

```
1. http://myservice.example.com/?url=http://snomed.info/{...}
```

might be redirected with an HTTP response code of 303 to

```
2. http://myservice.example.com/snomed/{...}
```

which in turn resolves and returns an appropriate document. Conceptually, we can think of the original URL (1) as identifying what the *MyService* endpoint knows about the identified SNOMED CT resource, and the returned document, identified by the second URL (2), as being a representation of that knowledge.

What might such a document look like? Let us consider the example URL

```
http://myservice.example.com/?url=http://snomed.info/id/900000000000498005
```

The document ultimately returned by the service might be in JSON or XML or HTML or plain text format and contain information indicating that the SCTID is valid, and refers to a non-extension Concept<sup>18</sup>. It might also indicate that the service knows about one or more Editions or Versions in which this Concept is defined. It might further supply the Fully Specified Name for the Concept as given in the Version with the most recent effectiveTime. Note that the exact nature of what the service

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<sup>18</sup> This information is directly discernable from the SCTID itself.



says about the Concept is up to the service itself. One service may offer a RESTful API that allows detailed querying down to the primitive/fully defined status of a versioned Concept, while another may return a representation of properties of a versioned Concept that then needs to be parsed to determine its primitive/fully defined status.

## 3.2 URI use-cases

### 3.2.1 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.ihtsdo.org/SCT_{sctid}
```

which is now replaced by

```
http://snomed.info/id/{sctid}
```

The grouping role URI was

```
http://www.ihtsdo.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.ihtsdo.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 respectively<sup>19</sup>:

```
http://snomed.info/sct/{sctid}
```

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

### 3.2.2 The CTS2 Specification

The CTS2 specification requires that all resources be identified using URIs. This section lists, where such a thing exists, the IHTSDO 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.

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<sup>19</sup> See OWL 2 Web Ontology Language Structural Specification and Functional-Style Syntax  
[http://www.w3.org/TR/owl2-syntax/#Ontology\\_IRI\\_and\\_Version\\_IRI](http://www.w3.org/TR/owl2-syntax/#Ontology_IRI_and_Version_IRI)





Resource	URI	Example
SNOMED CT Edition	<a href="http://snomed.info/sct/{moduleId}">http://snomed.info/sct/{moduleId}</a>	<a href="http://snomed.info/sct/900000000000207008">http://snomed.info/sct/900000000000207008</a> SNOMED CT International Edition
SNOMED CT Version	<a href="http://snomed.info/sct/{moduleId}/version/{effectiveTime}">http://snomed.info/sct/{moduleId}/version/{effectiveTime}</a>	<a href="http://snomed.info/sct/900000000000207008/version/20120131">http://snomed.info/sct/900000000000207008/version/20120131</a> SNOMED CT International January 2012 Version
Module	<a href="http://snomed.info/module/{moduleId}">http://snomed.info/module/{moduleId}</a>	<a href="http://snomed.info/module/900000000000207008">http://snomed.info/module/900000000000207008</a> SNOMED CT Core Module (only)
A specific release of a Module	<a href="http://snomed.info/module/{moduleId}/time/{timestamp}">http://snomed.info/module/{moduleId}/time/{timestamp}</a>	<a href="http://snomed.info/module/900000000000207008/time/20120131">http://snomed.info/module/900000000000207008/time/20120131</a> SNOMED CT Core Module (only) with respect to the timestamp 20120131
SCTID	<a href="http://snomed.info/id/{sctid}">http://snomed.info/id/{sctid}</a>	<a href="http://snomed.info/id/449650002">http://snomed.info/id/449650002</a>
UUID	<a href="http://snomed.info/id/{uuid}">http://snomed.info/id/{uuid}</a>	<a href="http://snomed.info/id/00000692-31c5-81a8-2e54b488c824">http://snomed.info/id/00000692-31c5-81a8-2e54b488c824</a>
Table Field	<a href="http://snomed.info/field/{table name}.{field name}">http://snomed.info/field/{table name}.{field name}</a>	<a href="http://snomed.info/field/Relationship.characteristicTypeId">http://snomed.info/field/Relationship.characteristicTypeId</a>
Map	<a href="http://snomed.info/id/{map sctid}">http://snomed.info/id/{map sctid}</a>	<a href="http://snomed.info/id/900000000000498005">http://snomed.info/id/900000000000498005</a> A map is just a reference set in a specific format
Map version	<a href="http://snomed.info/sct/{moduleId}/version/{effectiveTime}/id/{map sctid}">http://snomed.info/sct/{moduleId}/version/{effectiveTime}/id/{map sctid}</a>	<a href="http://snomed.info/sct/900000000000207008/version/2012013/id/900000000000498005">http://snomed.info/sct/900000000000207008/version/2012013/id/900000000000498005</a>
Refset	<a href="http://snomed.info/id/{refset sctid}">http://snomed.info/id/{refset sctid}</a>	<a href="http://snomed.info/id/900000000000498005">http://snomed.info/id/900000000000498005</a>
Refset version	<a href="http://snomed.info/sct/{moduleId}/version/{effectiveTime}/id/{refset sctid}">http://snomed.info/sct/{moduleId}/version/{effectiveTime}/id/{refset sctid}</a>	<a href="http://snomed.info/sct/900000000000207008/version/2012013/id/900000000000498005">http://snomed.info/sct/900000000000207008/version/2012013/id/900000000000498005</a>
Role Group	<a href="http://snomed.info/id/609096000">http://snomed.info/id/609096000</a>	<a href="http://snomed.info/id/609096000">http://snomed.info/id/609096000</a>



### 3.2.3 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 a CDA document with an element of CD Data Type might appear:

```
<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>
```

It should be noted that, because the URIs for identifying a specific Version of an Edition can be used to unambiguously determine its content, using these URIs as version numbers works regardless of whether a single OID is used to identify SNOMED CT as a "system" or individual OIDs are assigned for different Editions.

### 3.2.4 Identifying SNOMED CT versions in HL7 FHIR

Fast Healthcare Interoperability Resources (FHIR™)<sup>20</sup> 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
```

---

<sup>20</sup> See <http://hl7.org/fhir>



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}
```