11.4 Versioning

A new version of the International Edition of SNOMED CT is released twice a year (in January and July). National extensions mostly follow this cycle (albeit typically with a three month delay). However, some extensions (notably those including medication related concepts) are released more frequently.

When a longitudinal health record is populated with clinical data over a number of years, it is quite possible that the following may occur:

1. SNOMED CT concepts that were active at the time of recording have since been made inactive
2. SNOMED CT concepts that were primitive at the time of recording have since been defined
3. Reference sets that were used to populate pick lists may have changed
4. The SNOMED CT Concept Model that was used to construct expressions may have changed

To mitigate these versioning issues, SNOMED CT provides the following:

1. Each new version of the SNOMED CT International Edition that is released (in Release Format 2 -RF2) includes a set of Delta files (containing all changes to the content since the last release), a set of Snapshot files (containing the most recent version of every component that has ever been released in SNOMED CT), and a set of Full files (containing every version of every component that has ever been released in SNOMED CT). These files allow implementations to either incrementally adapt to new versions of SNOMED CT, or alternatively load a complete current snapshot of SNOMED CT content (with or without old versions). When longitudinal clinical records containing inactive concepts are queried, all prior descriptions and relationships of these inactive concepts can still be queried using these snapshot files.

SNOMED CT's RF2 distribution files also record the reason that each inactive component was inactivated, using 'historical association' reference sets (see 5.2.3.3.R Historical Association Reference Sets for more details).

2. SNOMED CT is maintained on the principle that every SNOMED CT concept identifier should retain its semantic integrity over time, even when its logical definition changes. The semantics of a SNOMED CT concept is established through its Fully Specified Name, and all changes to a concept's defining relationships are intended to improve the machine-readable processing of these semantics. That said, it is possible if required to determine what the logical definition of a concept was at any prior point in time using a Full release of SNOMED CT.

3. SNOMED CT's reference sets and their members are all fully versioned in SNOMED CT's RF2. A Snapshot release of a reference set includes the current version of every row that has ever been released (including both active and inactive rows). A Full release of a reference set includes every version of every row that has ever been released. Using this information, it is possible to adapt queries to consider both current and former members of any given reference set.

4. The SNOMED CT Concept Model changes very rarely. When it does, however, any attributes that are retired are retained as inactive concepts in the Snapshot and Full releases of SNOMED CT. It is expected that a complete Machine Readable Concept Model (MRCM) of SNOMED CT will be published in the future, and that this MRCM will be versioned in a manner that is consistent with other RF2 components.