11.4 Versioning

A new version of the International Edition of SNOMED CT is regularly released (currently every month). The release of National extensions typically follows their own release cycle and have processes established to align with the version of the International Edition on which it depends.

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. For each new version of the SNOMED CT International Edition (released in Release Format 2 -RF2), 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). From these files, implementers can choose to create a delta view to support the incremental adaption 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. For more information, please refer to 5.2.5.1 Historical Association Reference Sets.
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 over time. However when it does, any attributes that are retired are retained as inactive concepts in the Snapshot and Full releases of SNOMED CT. In addition a complete Machine Readable Concept Model (MRCM) of SNOMED CT has now been published, and the MRCM is versioned in a manner that is consistent with other RF2 components. For more information about the MRCM, please refer to the MRCM Specification and the MRCM Browser.