4.6. Enabling Versioned Views

As noted in 4.2. Release Type Options, SNOMED CT data can be imported into database tables from snapshot release files, from full release files or from both these sets of release files. The objective of importing the data into the database is to provide effective access to useful views of that data. In practical terms this means facilitating access to some or all of the views summarized in Table 4.6-1.

Table 4.6-1: Summary of Versioned Views of SNOMED CT Components and Reference Set Members

<table>
<thead>
<tr>
<th>View</th>
<th>Content Description</th>
<th>Use Cases</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Snapshot</td>
<td>The most recent version of each SNOMED CT component and reference set member.</td>
<td>• All practical uses of the current version of SNOMED CT</td>
<td>Essential for any use of SNOMED CT</td>
</tr>
<tr>
<td>Retrospective Snapshot</td>
<td>The most recent version of each SNOMED CT component and reference set member released prior to a specified earlier snapshot time.</td>
<td>• A baseline against which to review of changes to SNOMED CT during or after installing a new release.</td>
<td>Valuable</td>
</tr>
<tr>
<td>Most Recent Delta View</td>
<td>The latest version of each SNOMED CT component and reference set member added, changed or inactivated in the most recent release. Typically, all these items with have an effectiveTime equal to the most recent release date. However, in cases where interim releases are made available between releases, the most recent delta view may be specified as including all items with an effectiveTime after the previous major release date.</td>
<td>• Identification of changes to SNOMED CT arising from the most recent release.</td>
<td>Valuable as an indicator of recent changes</td>
</tr>
<tr>
<td>Other Delta Views</td>
<td>The versions of each SNOMED CT component and reference set member added, changed or inactivated after a specified delta start time and at or before a specified delta end time.</td>
<td>• Identification of changes to SNOMED CT over a period of time.</td>
<td>Useful for longer term monitoring of changes.</td>
</tr>
<tr>
<td>Delta Views with Details of Changes</td>
<td>The content of a specified delta view combined with the retrospective snapshot view of SNOMED CT components and reference set members in the delta view at the specified delta start time.</td>
<td>• Reviewing full details of changes to SNOMED CT between two releases or over a period of time.</td>
<td>Required for effective change management</td>
</tr>
</tbody>
</table>

Table 4.6-2 summarizes the way in which different release type options affect the ability to access particular snapshot and delta views of SNOMED CT data. Importing the snapshot release supports direct access to the current snapshot view and query access to the most recent delta view. The full release provides access to all snapshot and delta views but is likely to perform slightly less well with the current snapshot view. Importing both full and current snapshot releases offers all the advantages of importing the full release and also provides direct access to the current snapshot view. This combined option requires more storage capacity but may be worthwhile because the current snapshot is likely to be the most commonly used view.

Table 4.6-2: Summary of Versioned View Access Capabilities Depending on Release Types Imported
### Views Supported

<table>
<thead>
<tr>
<th>Views Supported</th>
<th>Current Snapshot View</th>
<th>Full</th>
<th>Full &amp; Current Snapshot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Snapshot View</td>
<td>Direct</td>
<td>Query</td>
<td>Direct</td>
</tr>
<tr>
<td>Retrospective Snapshot Views</td>
<td>Not supported</td>
<td>Query</td>
<td>Query</td>
</tr>
<tr>
<td>Most Recent Delta View</td>
<td>Query</td>
<td>Query</td>
<td>Query</td>
</tr>
<tr>
<td>Other Delta Views</td>
<td>Not supported</td>
<td>Query</td>
<td>Query</td>
</tr>
<tr>
<td>Delta Views with Details of Changes</td>
<td>Not supported</td>
<td>Query</td>
<td>Query</td>
</tr>
</tbody>
</table>

The following subsections explore specific mechanisms that can be used to deliver these views in a relational database.

- 4.6.1. Versioned View Queries
- 4.6.2. Versioned Database Table Views
- 4.6.3. Optimizing Versioned Table Views

See also Appendix C: Release Types and Versioned Views