



## Development of a SNOMED CT and Medicines Authoring tool

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### **Audience**

Anyone involved with the authoring of SNOMED CT extensions, particularly NRC's. And developers tasked with creating SNOMED CT authoring tools.

### **Objectives**

Share the experience of developing an authoring tool for an NRC, and demonstrate the product that has been developed.

### **Abstract**

The Australian Medicines Terminology (AMT) has a new concept model (V3). As part of the migration it was identified that new authoring functionality required, especially to support the introduction of concrete domains (for defining numeric properties such as strength and quantities).

The final solution was a greenfield development of a new authoring tool, name LINGO. The general design and build of the system is based on SNOMED CT authoring, with supplementary features dedicated to AMT authoring. The authoring of AMT is heavily focused on templates, where population of a single template can generate the 7 or more concepts that may be required. This template approach reduces the barriers to authoring and significantly increases the productivity of the authoring team.

Lingo is a JEE/Web based solution, with hardware requirements for authors being access to an web browser. Classification of the terminology uses the Snorocket classifier from CSIRO, and can be executed on demand as well as a defined schedule. Both the stated and inferred forms of the relationships are stored within the solution. Users are constantly notified of the presence of any equivalent concepts identified by the classifier.

The current work flow is based on a single expert authoring following by dual independent reviews. The tool provides an effective review process where Concepts are reviewed as a whole when any of their components (including descriptions and relationships) have not been reviewed. The presence of any questionable edits results in the whole concept being removed from the review process until the issue has been resolved for reviewer. An additional review workflow specifically for AMT, has been implemented where product (being a group of concepts) rather than a single concept are reviewed together.

Initial deployment was limited to the basic functionality to achieve required delivery times for AMT V3. Subsequent revisions with improved functionality are planned for and the project has been managed through a formal Agile process, with functional tooling available every 2 weeks. Additional features included authoring of simple and mapping reference sets.