

7.7 Classifying

In order to automatically understand the inferred relationships between SNOMED CT expressions and/or precoordinated concepts, the expressions should be classified using a semantic reasoner. A number of reasoners exist, such as Snorocket, ELK and FACT++, which can classify and reason over OWL 2 EL.

Before a SNOMED CT compositional grammar expression can be classified using one of these reasoners, it must first be parsed (as described in [section 7.2](#)), normalised and then translated into OWL 2 EL. The specific normalisation transformations that are required prior to translation into OWL include:

- Grouping all ungrouped attributes with a relationship type that is allowed to be grouped, and
- Transforming expressions to ensure that they conform to the concept model – in particular, where a laterality refinement has been applied to a focus concept that is not subsumed by 123037004 |Body structure| , apply this laterality to all lateralisable finding sites within the definition of this focus concept.

The translation into OWL can then be performed in a variety of programming languages, including Perl.