Importing OWL

This section is dedicated to explaining exactly what the modeling tool imports.

Complex, nested class expressions

Importing or exporting complex, nested class expressions involving unions, intersections, complements, and restrictions no longer results in a loss of fidelity.

Constructs

The Magic Concept Modeler supports importing the following constructs: Class, Datatype, Datatype Property, Object Property, Object Property Chains, Class Generalization, Class Equivalence, Class Disjoint Relation, Annotation Property, Object Property Generalization, Object Property Equivalence, Datatype Property Generalization, Class Restriction, Named Individual, Named Individual Property, and Annotations.

Superclass Intersections

OWL Classes that have no superclasses and are equivalent to intersections of Classes will be stereotyped as «Superclass Intersection». More about the stereotype can be found here: Working with superclass intersection.

If you would like to learn about the applications of Superclass Intersections, please peruse Working with intersection and Intersection.

Property Restrictions

The Magic Concept Modeler will import each property restriction as a unidirectional association between the two concepts.

Aristotelian Definitions

The Magic Concept Modeler supports importing Aristotelian definitions. More information about this is found in the Conditions page.

IRI/URI

When you import an OWL ontology file, the Magic Concept Modeler **preserves** the URI/IRI for every OWL class and property and imports it as a tagged value of the corresponding UML class or property. The tagged value, called IRI, is part of a «Resource» stereotype applied to each UML element.

Magic Concept Modeler supports importing classes, properties, and packages that have the same label by assigning each of them a different URI.

Round-tripping

Magic Concept Modeler imports OWL ontology as UML package stereotyped as «Magic Concept Modeler». The modeling tool allows you to edit classes and properties and their relations, and export it back to an OWL ontology. This round-trip (Import then Export) preserves the class and property IRIs. The imported OWL ontology updates any corresponding UML elements instead of deleting and adding entire corresponding UML models.

Annotations

An OWL ontology may have one or more annotations added to itself. Magic Concept Modeler can import the annotations as annotations on a concept model. If there is only one annotation on the OWL ontology, it will show u p in the concept model's Documentation pane in MagicDraw upon import. When there are more than one annotations imported, they will not show up automatically in the Documentation pane. You need to specify which one gets to be displayed as the package's default documentation by selecting it from the Preferred annotation property option in the Project Options dialog. The rest of the annotations will become the package owned comments (UML comments tagged as Annotation).

Related Pages

- Concept Modeling Semantics