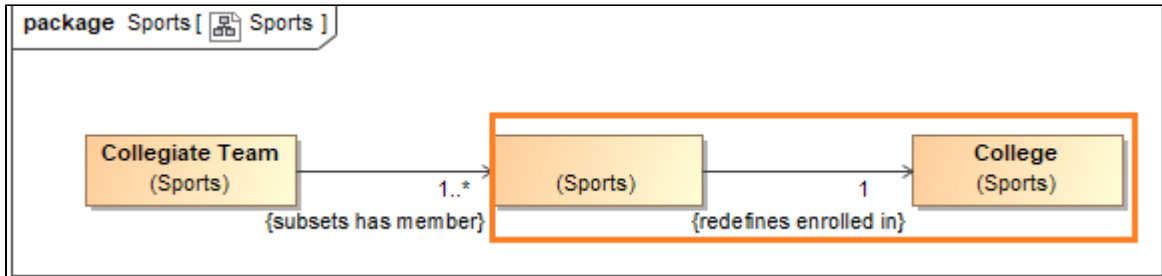


# Cascading restrictions

## Anonymous Restrictions

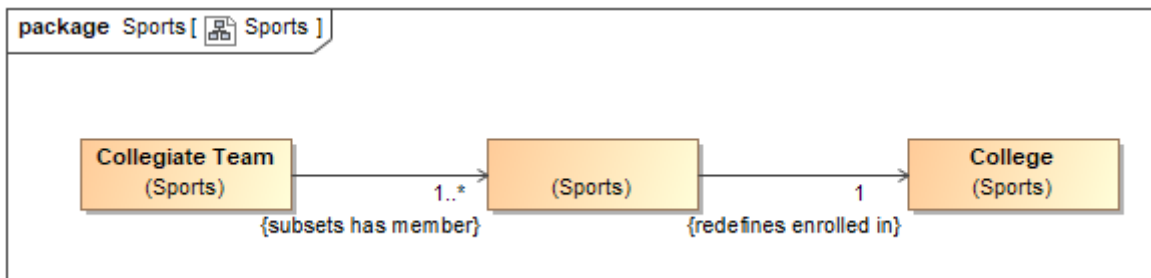
Think of anonymous restrictions as an anonymous class with a restriction coming out of it, as shown in the figure below.



Showing the restriction coming out of the Anonymous class and going into the class *College*.

## Cascading Restrictions

A cascading restriction, as shown in the figure below, is a chain of property restrictions emanating from one anonymous class and terminating at one or more classes. In other words, cascading restrictions depend on anonymous restrictions. Each property restriction in the cascade is an unnamed sub-setting or redefining property. All classes between a source and a named target class is an anonymous class expression.



A cascading restriction showing anonymous property restrictions and unnamed class expression between the source and named target class.

## Importing and Exporting Cascading Restrictions

The modeling tool supports importing and exporting cascading restrictions. The list below shows some cases that are supported for import and export.

- Simple cascading restrictions with one restriction class
- Simple cascading restrictions with one restriction class and cardinalities
- Restriction class with both the universal and existential restrictions for above listed cases
- Restriction class with sufficient restriction for above listed cases
- Cascading restrictions with more than one restriction class
- Cascading restrictions with more than one restriction class that includes restriction(s) that has more than one restriction of its own
- Cascading restrictions with more than one restriction class that includes restriction(s) that has more than one restriction of its own of both the universal and existential types
- Cascading restrictions on anonymous union classes used in all of the test cases above
- Cascading restrictions with anonymous union class as type of a property

### Sufficient Restrictions

Sufficient restrictions is not supported in cascading restrictions. This is because the 'Sufficient' restriction is not meaningful in the context of anonymous restriction.

## Merging Cascading Restrictions

If an ontology being imported has updates to the cascading restrictions, the modeling tool will merge identical restrictions.

## Related pages

- [Property restrictions](#)
- [Concept Modeling Semantics](#)