

Hierarchical Modeling

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National Resource for
Cell Analysis and Modeling

Brief History

Model Composition Workshop:
September 9-10 at NRCAM (UCHC) Farmington, Ct

Prior Proposals:

- ▶ Andrew Finney's proposal of Oct. 2003.
- ▶ Martin Ginkel's proposal of June 2002.

<http://ntcnp.org/twiki/bin/view/VCell/CompositionSBMLWorkshop>

Goals & Scope

Goals

- ▶ Facilitate the reuse of existing models.
- ▶ Manage complexity when building large models.

Scope

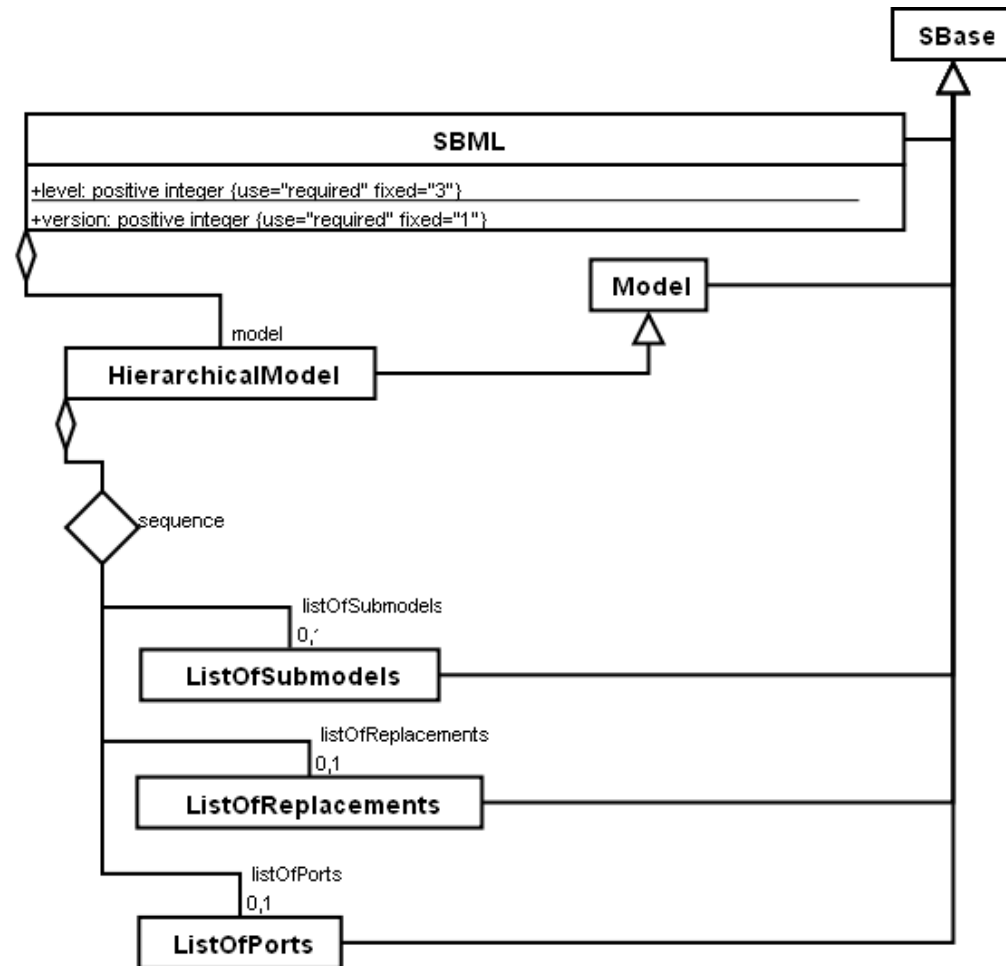
- ▶ Building models based on complete models, not model fragments.

Structure

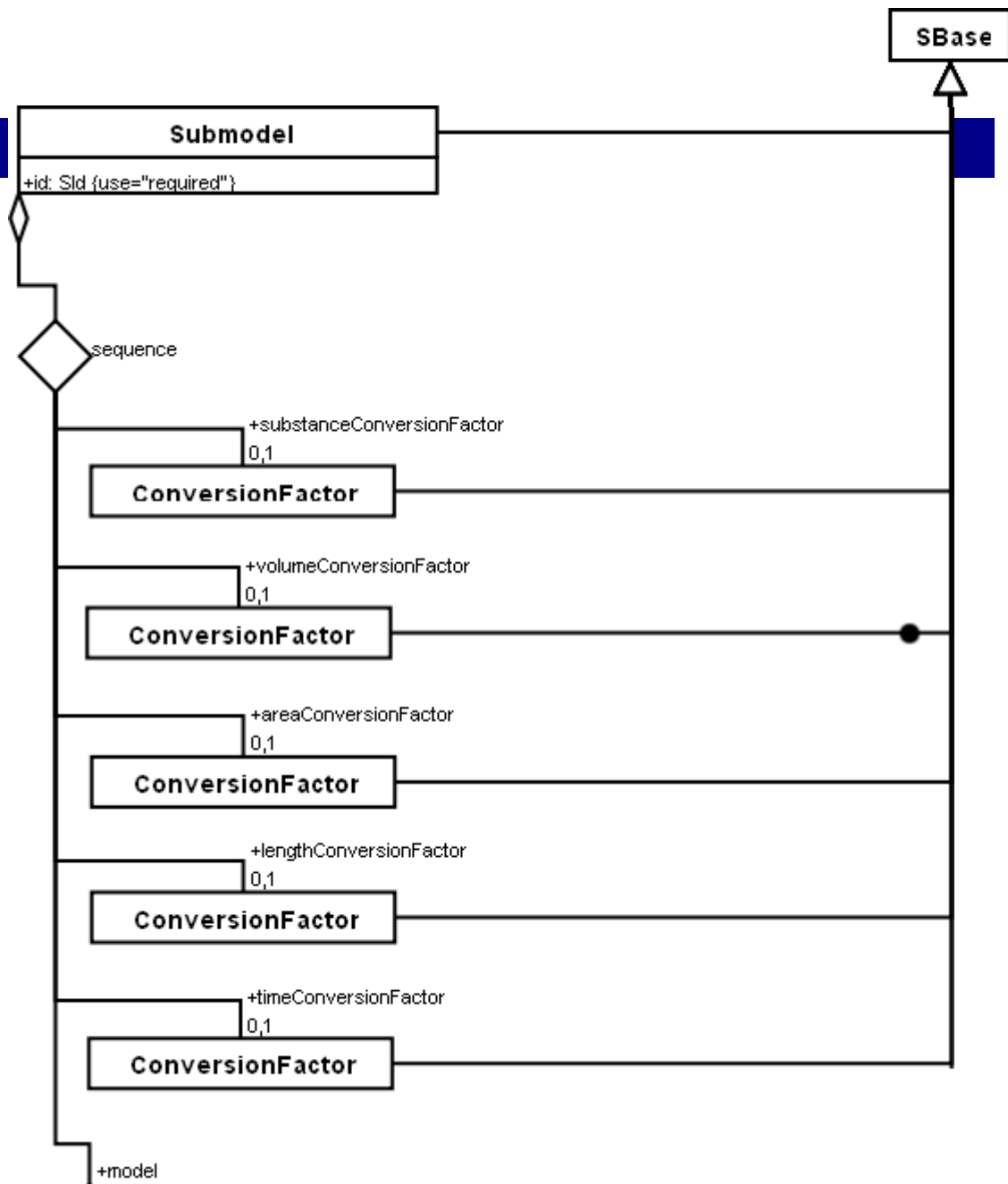
The hierarchical model is an extension of the SBML core model.

New Elements:

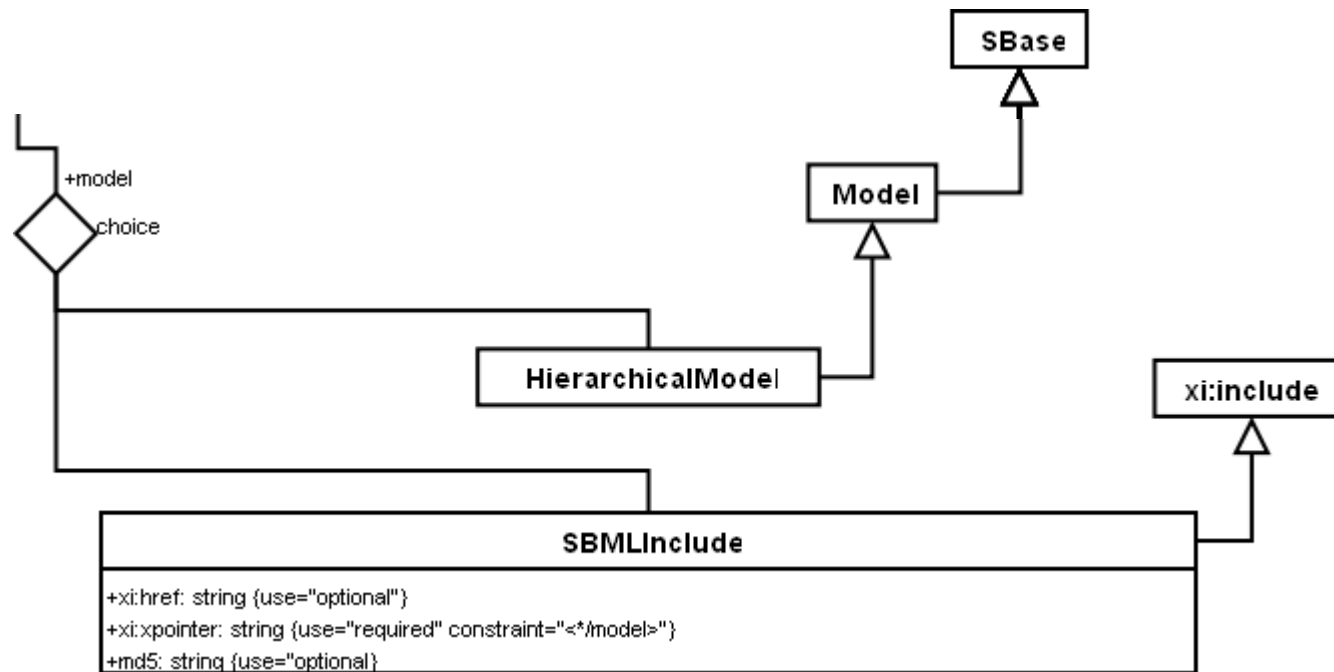
- ▶ ListOfSubmodels
- ▶ ListOfReplacements
- ▶ ListOfPorts



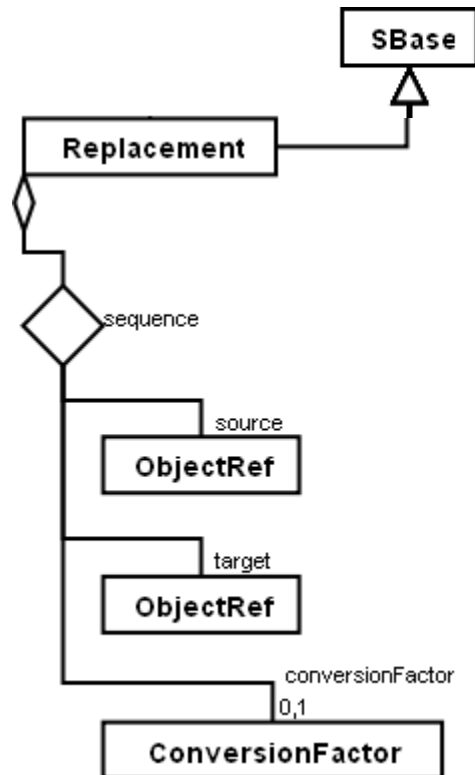
Submodel



Instantiation of a Submodel



Replacement



Ports

