

SBML to CellML translation

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Overview

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- CellML has a very general and flexible syntax
- SBML's syntax is specific to pathway modelling
- SBML's functionality is principally a subset of CellML's

SBML -> CellML

- Relatively simple
- Biggest obstacle is infix -> MathML
 - This prevents a pure XSLT translation
- Some information may be lost
 - Fast reactions

CellML -> SBML

- Only specific classes of models can be translated – i.e., pathway models
- It is not possible to determine if a model may be translated purely by inspection
- Reactions may be stored in a number of ways in CellML, and in a number of styles
- Conversion of differential equations to infix “implied” differentials

Recommended Approach

- Writing SBML or CellML is easy, reading is hard!
- Use SBML compliant software to translate SBML to CellML
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- Can use XSLT with extensions to translate SBML to CellML