VCML and SED-ML

- Specific and generic implementation -

http://vcell.org
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VCML - SBML - SEDML Mappings

BioModel

Application

ParamOverrides

Simulation

SolverTaskDescription

SBML

Model

Task

Simulation

DataGenerator

ResultSets + Observables

Output

View/Export Panel
SED-ML – what to implement?

► DOM functionality (libSEDML?)
  - Read XML
  - Validate
  - Edit/modify objects
  - Write XML

► Run functionality
  - Execute tasks
  - Produce data output
  - Produce graphic output

► VCell integration
  - “Native” VCell client support
  - VCML internal mappings
SED-ML – what to support?

► DOM functionality – generic...
  - Validation: on demand? live?
  - Editing: add GUI? add scripting support?

► Run functionality – partially specific...
  - Model languages: SBML, VCML, others?
  - Simulators (solvers): VCell, Copasi, others?
  - Post-processing: interpolation, normalization, other?
  - Plotters: VCell, GnuPlot, others?

► VCell integration – specific...
  - BioModel vs. MathModel
  - FieldData, MergeData