Minimum Information About a Simulation Experiment (MIASE)

Toward the Repetition of Simulation Runs

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The aim of MIASE (aka MIRIAM2) is to provide all the information necessary to link a model (SBML sense) to a set of numerical results, in order to be able to reproduce the latter.

- curation of models made easier (biomodels)
- exchange of extra information provided by simulator proprietary format (COPASI)
- ... ?
MIASE – Project

• MI guidelines
  • textual description of the meta-data necessary to describe simulation runs (equivalent to MIAME)
  • satisfying rule 6 of MIRIAM's reference correspondence, “When instantiated, the model must be able to reproduce all results given in the reference description within an epsilon (algorithms, round-up errors).”

• Data Model
  • formal description of guidelines (equivalent to MAGE-OM)
  • data model representation in XML Schema, ... ? (equivalent to MAGE-ML ?)

• Simulation Algorithm Ontology for Biochemical Simulation Experiments (KiSAO)
  • main simulation algorithms and their classification
KiSAO – Kinetic Simulation Algorithm Ontology

The OBO Ontology Editor

Minimum Information About a Simulation Experiment
MIASE & the MIASE Data Model

MIASE should cover the minimum information about a simulation experiment, including:

- the simulation tool used
- time scale & iteration procedure
- the set of parameters to scan
- the sampling method
- ... ?

The MIASE-DM will provide a formal representation of the minimum information description.
We need help :)

- building the KiSA Ontology
- discussion about the MI content

online resources and information:
- [http://sourceforge.net/projects/miase](http://sourceforge.net/projects/miase)
- [http://www.ebi.ac.uk/compneur-srv/miase](http://www.ebi.ac.uk/compneur-srv/miase)

mailing list:
- miase-discuss@lists.sourceforge.net

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