

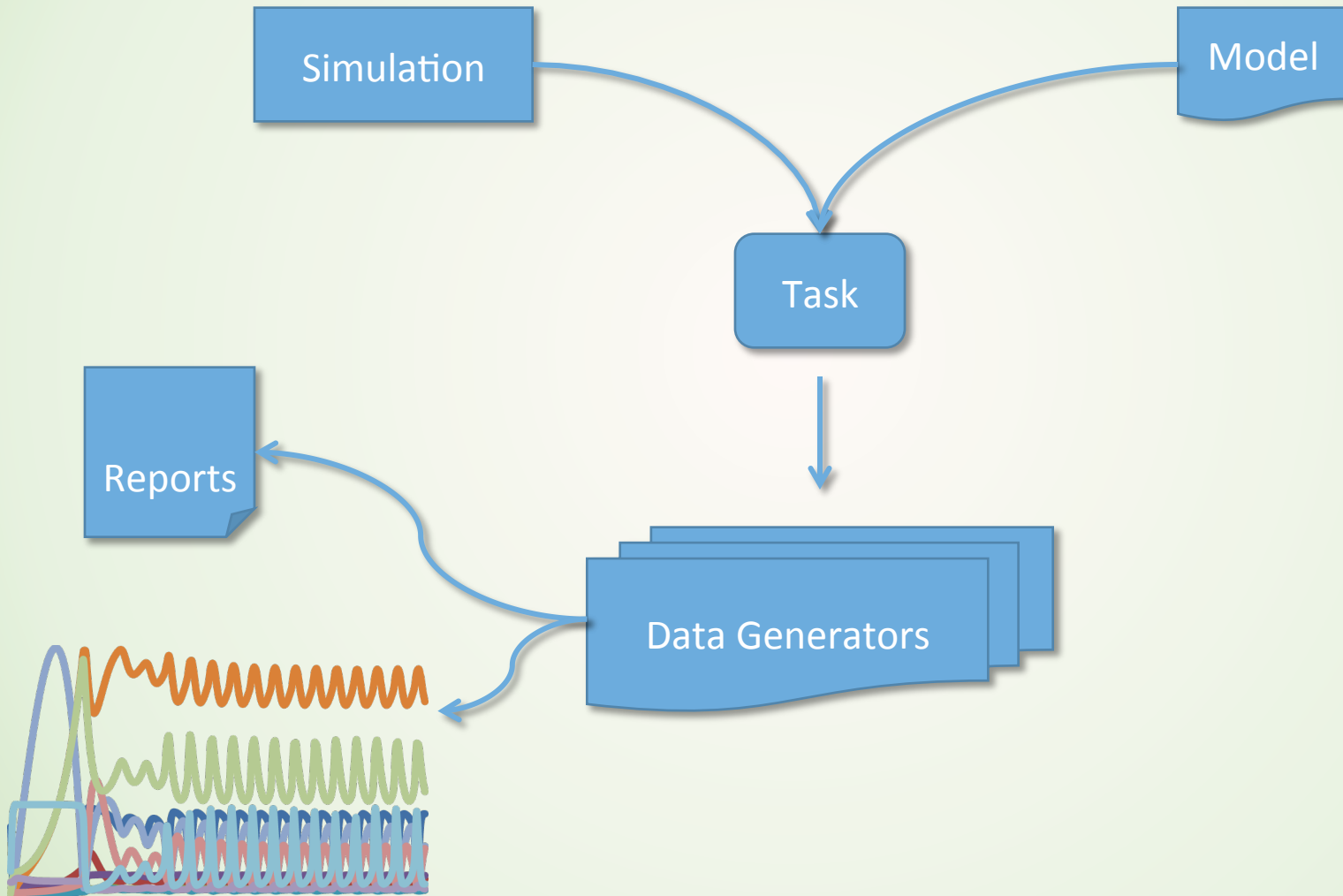
# Data Presentation & Use



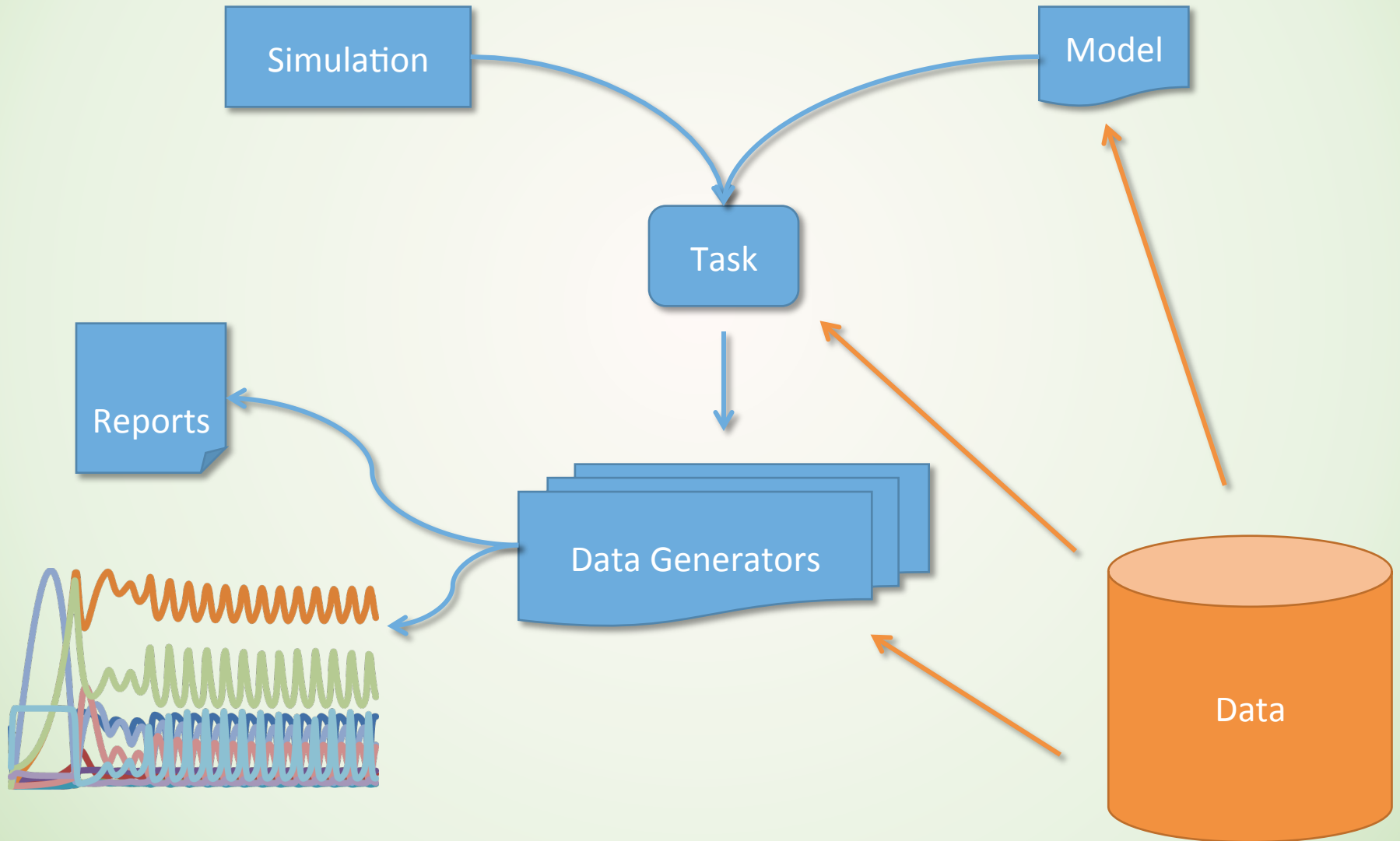
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# SED-ML: Repeatable simulation experiments



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# The Story so far ...

- 2008: SBRML Presented at Gothenburg ICSB,
- 2011: COMBINE, Heidelberg
  - Separation of NuML from SBRML
  - Plan on use it in SED-ML to reference data
- 2012: SED-ML Workshop, Rostock
  - Brain storming on how to encode parameter estimation, and reference data using NuML
- 2013: HARMONY, UCHC
  - Decision \*all\* data to be stored with SED-ML to be in NuML format
    - That way no endless list of formats to support, and mapping of data guaranteed

# Agenda

- Joseph Data: Numerical Markup Language & libNuML
- Maciej Swat: Data in PharmML
- General Discussion

<http://tinyurl.com/sed-ml-data-use>

# Data ...

```
<dataDescription id="data2" source="URI" type="num1">
  <dimensionDescription>
    <compositeDescription name="time" indexType="int">
      <compositeDescription name="columnId" indexType="string">
        <atomicDescription name="Concentration" valueType="double" />
      </compositeDescription>
    </compositeDescription>
  </dimensionDescription>
  <listOfDataSources>
    <dataSource id = "col1">
      <slice name="columnId" value="MKK"/>
    </dataSource>
  </listOfDataSources>
</dataDescription>
```

# More information ...

- NuML
  - <http://code.google.com/p/numl/>
- SBRML
  - <http://www.comp-sys-bio.org/tiki-index.php?page=SBRML>
- .Net library
  - <http://sbrml.sf.net>