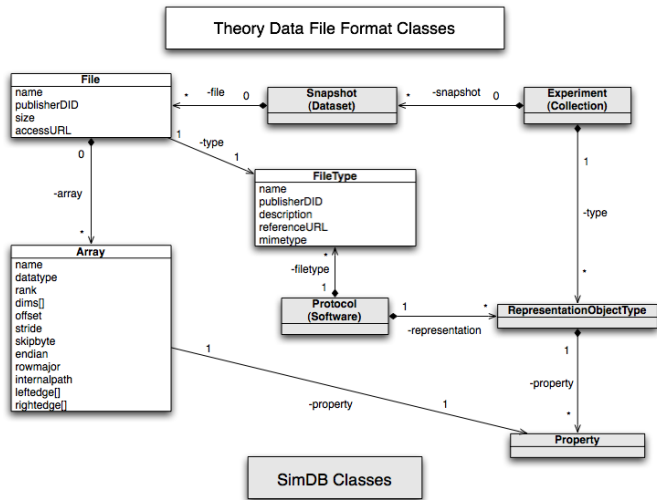# Nested RESOURCE Elements

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May 28, 2009

Hierarchical Structure of Simulation Data

Describing in VOTable

Theory data has many nested structures

- Simulations
  - Snapshot/Dataset
    - Files

Internal structure of files can also be nested

- File
  - Grid
    - Array/Property

Use Case

- We need a way to describe *simple* internal file formats.
- Choices seem to be:
    - Relational TABLEDATA
    - Nested RESOURCEs (Preferred)

- `RESOURCE utype="SimDB.Snapshot"`
- . . . Snaphot metadata . . .
    - `RESOURCE utype="TDFF.File"`
    - . . . File metadata, access reference . . .
        - `TABLE utype="TDFF.Array"`
        - . . . Table of arrays metadata . . .

Questions & Comments

- Is this trivial? Can I sit down now?
- The VOTable Schema permits this,but:
    - Very different from other services
    - Requires more client knowledge
    - This is OK for us, since we have to write the tools anyways
- I've heard of other use cases (VOSpace)
- This could be a general means for serializing data models in VOTable
    - Map classes to RESOURCE
    - Map attributes to PARAM or TABLEDATA