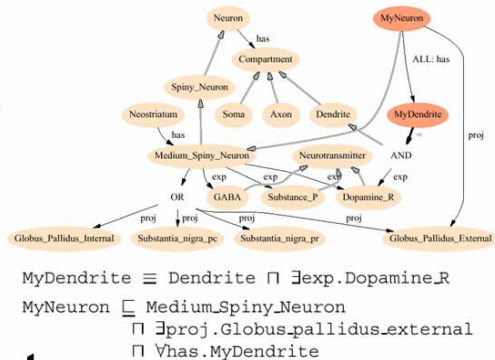
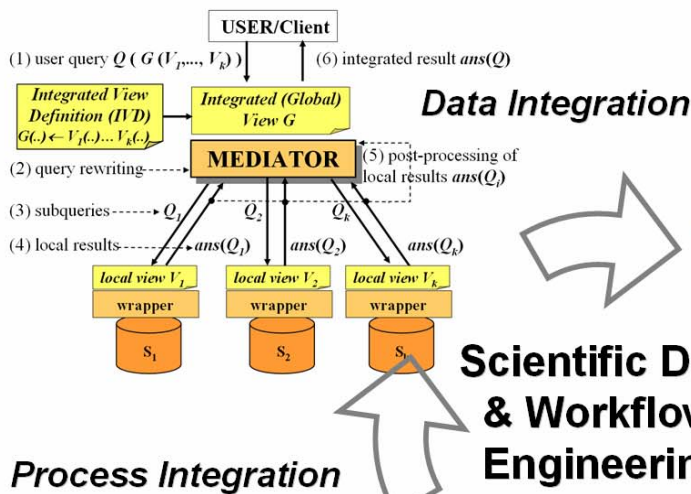


ECS 289F – Special Topics in Databases: Scientific Data & Workflow Management

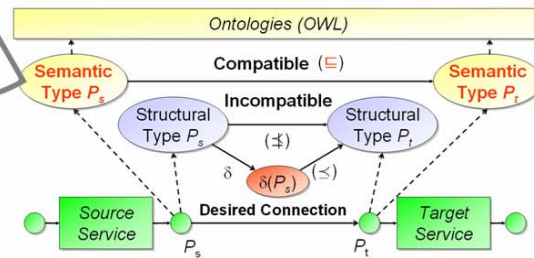
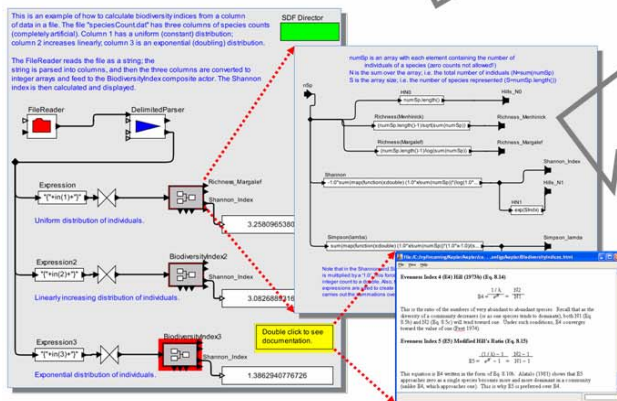
Instructor: Bertram Ludaescher (ludaesch@cs.ucdavis.edu)
 Date and Time: see CS course listings
 Location: see CS course listings



Process Integration

Scientific Data & Workflow Engineering

Knowledge Representation



What is a **database mediator** and how does it perform data integration? What are **ontologies** and how do they facilitate **data & process integration**? How can data analysis and data transformation steps be composed into **scientific workflows**? How can 3rd party **web services** be harvested and integrated into such workflows?

In this class we will give an overview of selected topics in scientific data and workflow management, and address these and related questions. Sample topics include: *data integration* and *query rewriting*, theory and practice of *ontologies* for scientific knowledge representation, and theory and practice of *scientific workflow systems*. For CS students ECS165A (or equivalent) is required. This is a research oriented class in which you are expected to read and present research papers and report on a project (projects can be done in teams of 2-3).

Grading will be based on project work, paper/project presentation, class participation, and homework (as applicable). Projects will be either *hands-on* scientific workflow projects (requires Java programming) or *basic database research* projects (data integration, knowledge representation).

Preliminary class page: <http://www.sdsc.edu/~ludaesch/ECS289F-W05.html> (under construction).