

This talk is concerned with the requirements-driven development of optimization based Decision Support Systems (DSS).

We will concentrate on the central task of modeling a decision problem as a mathematical optimization problem. The development and solution of mathematical optimization models in a business environment is characterized by an interaction of different roles. To allow for project documentation and separation of concerns, requirements have to be specified. After a short embedding into subproject C3, we will present an approach based on a markup language for specifying model and data requirements. The approach allows for a separated development with a declarative statement of requirements coverage. Strict versioning and the specification of conceptual data., esp. the explicit statement of units of measurement for both model inputs and outputs, allow for matching and validity checking in a target service environment, where data services, model repositories, instance generators and solver services interact with a core DSS as a central hub.