High-Level Modeling

The General Algebraic Modeling System (GAMS) is a high-level modeling system for mathematical programming problems. GAMS is tailored for complex, large-scale modeling applications, and allows you to build large maintainable models that can be adapted quickly to new situations. Models are fully portable from one computer platform to another.

State-of-the-Art Solvers

GAMS incorporates all major commercial and academic state-of-the-art solution technologies for a broad range of problem types.

ReMIND-R - A global energy economy climate model in a multi-regional setting

ReMIND-R provides a model framework developed for the implementation of energy-economic models in a multi-regional setting. The framework allows for the representation of energy carriers and conversion technologies with various techno-economic characteristics. The energy system part is coupled with a macroeconomic part represented by a nested CES production function with flexible structure. The regional models are implemented as optimal growth models linked by trade in energy carriers, tradeable permits and generic goods.

- 11 world regions and 7 types of traded products (incl. emission rights)
- Climate policy analysis: Business as usual and different climate policies
- Combines complex optimization and simulation models
- Developed by group of experts from different fields
- Model documentation - see http://www.pik-potsdam.de/research/research-domains/sustainable-solutions/models

REMIND-R has been developed and is being maintained by the ReMind Team at the Potsdam Institute for Climate Impact Research (PIK); for more information about this application please visit http://www.pik-potsdam.de/research/research-domains/sustainable-solutions/models/remind