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.

University course time tabling at the School of Economics and Management at Leibniz University Hannover

Close cooperation between administrative and academic staff at the School of Economics and Management at Leibniz University Hannover led to a custom-tailored decision support system to schedule approximately 200 courses for more than 2500 students each semester in different study programs:

- High-quality time tables give students many attractive choices with only minimal conflicts.
- The academic staff has individual schedules that reflect personal objectives and constraints. Teachers appreciate objective values around 1.3 on a scale from 1 (best) to 5 (worst).
- Each semester a completely new schedule is developed.
- The administrative effort of the time-tabling process has been reduced dramatically.
- The model is being used by the Deans’ Office since 2005 and was published in OR Spectrum (29) 2007, p. 783-803.

For more information about this application please contact Katja Schimmelpfeng <Katja.Schimmelpfeng@tu-cottbus.de> or Stefan Helber <stefan.helber@prod.uni-hannover.de>.