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.

The Network Enabled Optimization System

The Network Enabled Optimization System (NEOS) started at the Argonne National Laboratory in the 1990s. Since 2010, it has been hosted at the University of Wisconsin in the Wisconsin Institutes for Discovery. The NEOS server (www.neos-server.org) is on the cutting-edge of optimization software, and allows optimization problems to be solved automatically with minimal input from the user.

- The site hosts both academic and commercial solvers. Problems can be submitted from modeling systems such as GAMS and AMPL, and also described using a number of other input formats.
- Drawing from computational resources from CHTC (chtc.wisc.edu), NEOS has completed more than 100,000 jobs in the first four months of 2012 alone.
- The system also has a NEOS Guide (www.neos-guide.org) containing information about solvers and optimization software, and a growing collection of optimization case studies.

Users are encouraged to help the NEOS team to enhance this educational outreach activity. For more information please visit: http://www.neos-server.org