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.

Wide Range of Model Types

GAMS allows the formulation of models in many different problem classes, including:

- Linear (LP) and Mixed Integer Linear (MIP)
- Quadratic Programming (QCP) and Mixed Integer QCP (MIQCP)
- Nonlinear (NLP) and Mixed Integer NLP (MINLP)
- Constrained Nonlinear Systems (CNS)
- Mixed Complementary (MCP)
- Programs with Equilibrium Constraints (MPEC)
- Conic Programming Problems
- Stochastic Linear Problems

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, including global nonlinear optimization solvers.

GAMS Announces Windows 64-bit Support

GAMS has recently added support for the x64 Edition of Windows XP Pro and Server 2003. We now offer 32- and 64-bit systems for both Windows and Linux. The licenses for each of these platforms enable the 32- and 64-bit systems at a single platform cost making the transition for GAMS applications from 32- to 64-bit hardware seamless. Advantages include:

- Flexibility: Integrate 64-bit GAMS applications and existing 32-bit environments using the Windows on Windows 64 (WOW64) x86 emulation layer
- Large Memory Support: The memory address space available to the GAMS base system and the 64-bit solvers is essentially unlimited. Solvers available in 32-bit mode only also benefit since addressable memory doubles from 2 GB to 4 GB on 64-bit Windows.

The generation of the matrix with 96 million nonzeros required about 8 GB of memory. The model originates from a customer in the mining sector and has been added to the GAMS model library.