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)
- 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.

Framework for Novel Mathematical Programming Reformulations
GAMS supports representation of a wide collection of established mathematical programming problems. New trends in research lead to models that have outgrown the traditional algebraic representation. GAMS provides new facilities for seamless integration of these new model types by means of an automatic reformulation framework.

Models with constructs listed below benefit from the new reformulation framework:
- conditional value at risk (CVaR)
- disjunctions
- extended non-linear programs
- indicator constraints
- stochasticity
- logic based optimization