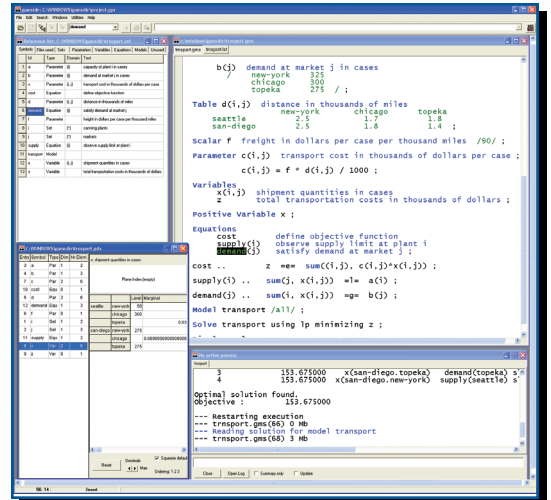# GAMS

Optimization
www.gams.com

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

GAMS Integrated Developer Environment for editing, debugging and solving models and viewing data.

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.
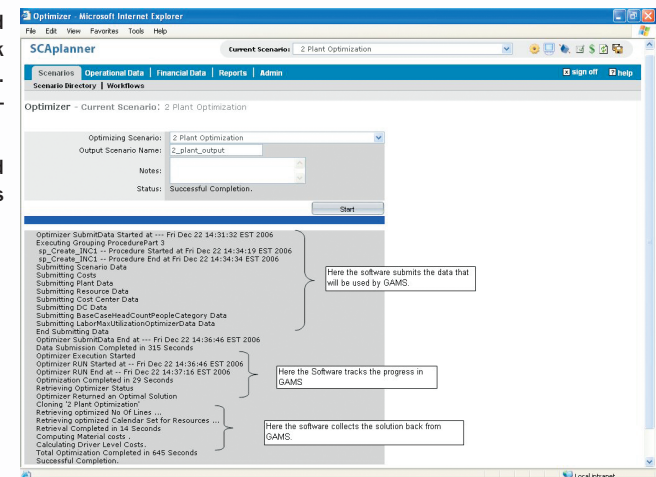
SCAplanner Interacting With GAMS

SCA Technologies offers Cost Analysis and Business Planning solutions to create a framework for better business planning and decision making. This is accomplished with their SCAplanner predictive operations cost modeling software.

Through SCAplanner technology, Finance and Operations come together into one platform! This helps in several ways including:

- Product Cost Optimization through understanding of your actual product costs, intermediates and associated activities
- Budgeting, Forecasting & Planning driven by ABC constraints. Allows rapid response to ongoing changes such as those in production
- Operational Decision Support on concerns like Make/Buy, Restructuring Plants or DC's, Shutdowns, Outsourcing, etc.

This integrated view of a business allows managers to execute alternative "what-if" scenarios and see their impact on the items mentioned above. This is achieved by bringing together concepts of Activity Based Costing, Operations Modeling and Optimization. Put simply, with SCAplanner software, you see and understand the true P&L impact on operational changes beforehand, and therefore the consequences of these decisions!

SCA Technologies LLC
Intelligent Cost Management Solutions

www.sca-tech.com