



OPTIMIZATION www.gams.com

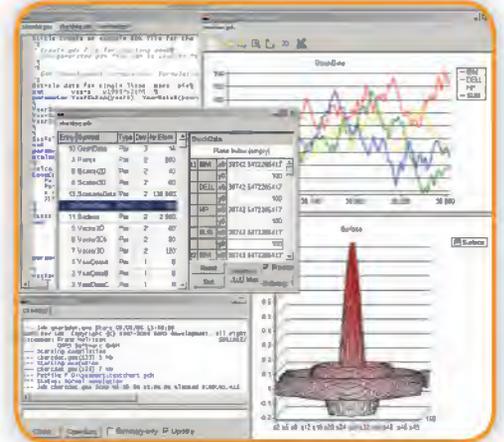


High-Level Modeling

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.

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.



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

Object-Oriented GAMS Application Programming Interfaces

The object-oriented GAMS API allows the smooth integration of GAMS into applications by providing appropriate classes for the interaction with GAMS:

- Seamless integration of the GAMS system into other programming environments (.NET, Java, Python).
- The GAMSDatabase class for in-memory representation of data can be used for convenient exchange of input data and model results.
- The GAMSJob class executes models written in GAMS.
- The GAMSModelInstance class solves sequences of closely related model instances in the most efficient way.

"GAMS API is a very good way to encapsulate GAMS models inside programming languages. This API allows to have a dynamic link between the GAMS model and our applications. It is very robust and efficient. Moreover it includes a new feature that allows to solve several close instances of a same problem very fast. With this feature, we implemented very efficient sensitivity analysis of our models."

Dimitri Tomanos, Modeller analyst, GDF-Suez

"With the GAMS .NET API we were able to implement some complex recursive MIP-based algorithms we could not easily express in the GAMS language itself. One advantage of the GAMS API was that we could reuse large parts of database access and data manipulation steps implemented in GAMS."

Erwin Kalvelagen, Amsterdam Optimization Modeling Group

"Thanks to the new GAMS .Net API we are able to benefit from the richness of the GAMS language in complex .Net softwares. Our expectations for this new version were: simplicity of the code, efficiency of the data binding and ability to fully configure GAMS from C#. We've been collaborating with GAMS's team to achieve this and we're very satisfied with the result."

Alexandre Moyrand, Optimization Engineer, GDF SUEZ

"Our INTEGRATION software helps engineers optimize the energy use in complex industrial facilities. INTEGRATION is a .NET application that combines interactive graphical interfaces with powerful models and optimization capabilities developed using GAMS. The object-oriented GAMS API is a very good product that allows easy data exchange between the .NET and the GAMS parts of INTEGRATION. It saved a lot of time to our development team and the technical support from the GAMS team was excellent."

Philippe Navarri, Senior project Manager, CanmetENERGY, Natural Resources Canada



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For more information, technical documentation, and examples please visit:
<http://www.gams.com/dd/docs/api/>