



GAMS

OBJECT-ORIENTED APPLICATION PROGRAMMING INTERFACES

The object-oriented GAMS APIs allow the smooth integration of GAMS into other programming environments by providing appropriate classes for the interaction with GAMS.

- The **GAMSDatabase** class provides in-memory representation of data for convenient exchange of input data and model results.
- The **GAMSJob** class executes GAMS models.
- The **GAMSOPTIONS** class customizes GAMS models through the API.
- The **GAMSModelInstance** class solves sequences of closely related model instances in the most efficient way.
- Available for **.NET, Java, Python**, and (new) **C++** (open source)

For more information, technical documentation, and examples see www.gams.com/latest/docs/apis

WHAT CUSTOMERS THINK ABOUT THE APIS

“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](#)

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