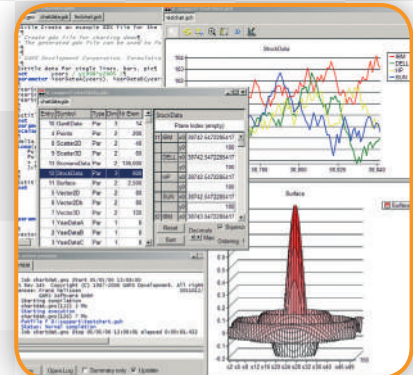


## High-Level Modeling

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.



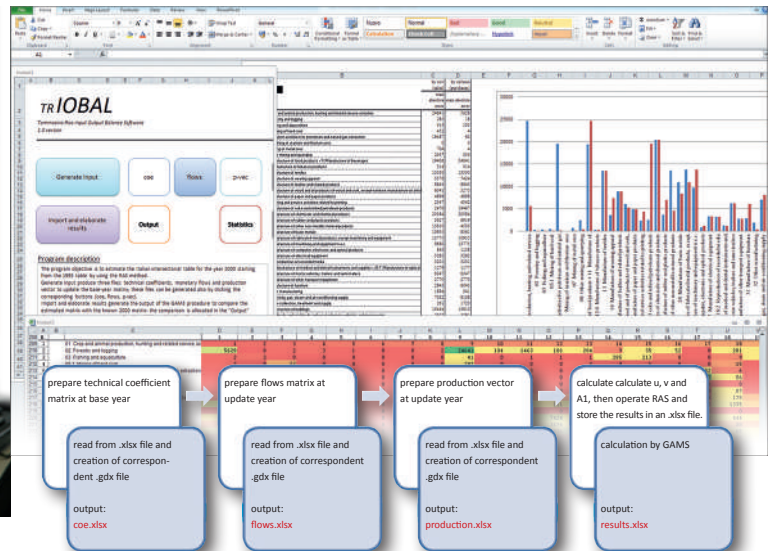
GAMS Integrated Developer Environment for editing, debugging, solving models, and viewing data.

## 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.

## Tommasino-Rao Input Output Balance Software (TRIOBAL)

TRIOBAL is an easy-to-use tool for didactic purposes that combines Microsoft Excel and GAMS to implement an iterative procedure for supply and demand balancing (RAS method) introduced by Richard A. Stone. It was developed at the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) and teaches students how to work with the input-output matrix of a country. The tool was tested using Italian economic data and can be applied to data from other countries as well. The model and the Excel interface are included in the GAMS model library as part of every GAMS distribution (data utilities models, triobal). This open access to the model makes it easy to experiment with the application, and even to extend it (e.g. measuring economic activity through a Social Accounting Matrix).



For more information about this application please contact [Marco.Rao@enea.it](mailto:Marco.Rao@enea.it) or [Cristina.Tommasino@enea.it](mailto:Cristina.Tommasino@enea.it)