GAMS is an acronym that stands for General Algebraic Modeling System, a high level Computer programming language for modeling and solving optimization problems - linear, nonlinear, and mixed integer. It is especially useful for handling large, complex, "one of a kind" problems, which may require many revisions of the model to get the formulation right. GAMS enables you to model problems in a natural way, so that you can easily change your formulation - even convert a model from linear to nonlinear with little trouble.

GAMS was developed primarily by optimization experts Dr. Anthony Brooke and Dr. Alexander Meeraus, formerly of The World Bank. Their goal was to create a powerful but easy-to-use computer programming language that would greatly simplify the modeler's task of formulating and solving complex optimization problems. Recognizing the excellence of GAMS, the Computer Science Technical Section of the Operations Research Society of America awarded its 1987 prize to The World Bank's GAMS development team. Previous versions of GAMS are widely used by academic institutions and industry around the world.

Documentation that accompanies the CD ROM containing the software explains in detail with examples how to make best use of the several algorithms available. Some of the well known codes are MINOS, CONOPT (two versions), DICOPT (for mixed integer problems), OLS (an IBM code), and MILES (for systems of nonlinear equations). CACHE provides a code for PCs running under DOS, Windows 3.1, Windows 95, and Windows NT.

GAMS is designed to use machine resources in a flexible way, and acquires memory as needed to store your data structures. Therefore, it is not possible to specify precise limits for "what will fit". There are some fixed limits built into GAMS and the solvers, but they are large and generally will not interfere with the user.

GAMS software comes with a 286 page manual *GAMS: A User's Guide*, written by the principal authors of GAMS, along with *GAMS - The Solver Manuals* that provides full documentation of the GAMS programming language and solvers: 18 chapters, 6 appendices, glossary, bibliography, and index.

Also included in the manual is an in-depth but easy-to-follow tutorial, which covers the major features of GAMS, using examples from an actual model that comes with the software.

This new version of GAMS is now available from the CACHE office. The cost for Process Design Case Study No. 6, along with GAMS: A User's Guide, and GAMS - The Solver Manuals, and a CD-ROM is $65 per CACHE supporting departments, and $100 per non-CACHE supporting departments.

For more information on GAMS please refer to CACHE web site http://www.che.utexas.edu/cache

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