

## Bruce McCarl's GAMS Newsletter Number 24

### Beta of GAMS 22.7

GAMS has just made available a beta version of the next release GAMS 22.7. They caution that it should be used by experienced users for testing only and not in a production environment. The beta system will run with an expired license file and allow you to try out the latest features of GAMS for 2 months. Notable developments in this are

- GAMS command line can include the Keep and CurDir parameters.
- GAMS can have up to 20 dimensions on a parameter, variable equation, set, etc., plus up to 63 characters in a set element. GDX files can accommodate this
- A New directory gdxapi contains the documentation for the GDX API that allows one to interface other programs with GDX files. Copying the file gdxioapi.chm from the directory C:\Program Files\GAMS22.7\gdxapi to the directory C:\Program Files\GAMS22.7\docs makes this one of the choices under the IDE help menu.
- GDX files can store
  - Items with up to 20 dimensions
  - Identifiers and labels can have up to 63 characters
  - Domain information for a symbol
  - An aliased set
- GDXDUMP writes now data for variables and equations
- MDB2GMS allows writing of an empty symbol
- Model libraries are directly accessed through the menu
- GAMSIDE now can read an optional file, cfgide.ini that can be used to initialize the IDE with
  - Instruction to open a html document
  - Names of user model libraries to allow users to access
  - Display of an image in the process window
- The Expanded GAMS user guide is included by myself and the GAMS staff. One can add it to previous versions by coping all the files from C:\Program Files\GAMS22.7\docs\bigdocs\gams2002 to the corresponding directory in older releases like C:\Program Files\GAMS22.6\docs\bigdocs\gams2002.
- A bug was fixed with \$ifthen to make it work without the presence of a \$else
- Two new experimental solvers are included: CPLEXD and CONOPTD. They are similar to CPLEX and CONOPT but lack some functionality (e.g. CPLEXD does not solve QCP models). They offer in-core communication between GAMS and the solver where model scratch files are not needed and this speeds up generation and model reading time. In-core execution is activated by setting "<modelname>.solvelink=5;" before the solve statement. GAMS plans to offer this functionality for all solvers in the foreseeable future. Users are encouraged to try these out.

The beta can be downloaded through <http://beta.gams-software.com/> .

### Put Utility

I prepared a small put utility document. This feature allows one to do some things like read from multiple spreadsheets and gdx files as controlled by a loop over the file names. The document is available at <http://www.gams.com/mccarl/pututility.pdf> .

**New stuff from Tom Rutherford**

Tom Rutherford's web page <http://mpsgc.org/inclib/tools.htm> shows he has released utilities that do the following

- Copy non-blank cells from Excel into Word as a Windows metafile graphical image (retaining Excel formatting).
- Tools for Systematic Sensitivity Analysis with GAMS and Excel

#### **New stuff from Uwe Schneider**

Uwe Schneider has interfaces to several items that are available at his web page [http://www.uni-hamburg.de/Wiss/FB/15/Sustainability/schneider/Uwe\\_A\\_Schneiders\\_GAMS\\_Tools.htm](http://www.uni-hamburg.de/Wiss/FB/15/Sustainability/schneider/Uwe_A_Schneiders_GAMS_Tools.htm)

These are

- GAMS to Gnuplot
- GAMS to Gnuplot / Shademap to PowerPoint
- GAMS to ShadeMap
- STATA to GAMS

#### **Courses offered**

I teach Basic GAMS June 10-13, 2008 (3 1/2 days) in the Colorado mountains at Frisco (near Breckenridge). The course is designed for those without GAMS usage experience but has also proved useful for those with up to a years experience.

Advanced large scale GAMS modeling with an emphasis on agriculture, forestry and the environment - May 5-8, 2008 (3 1/2 days) at the IIASA facility near Vienna (in Laxenburg), Austria. The course is designed for those interested in applying GAMS modeling to large scale modeling and will draw on case studies from my experiences in agricultural and forestry sectoral analysis largely in the climate change arena.

Advanced GAMS class Aug 5-8, 2008 (3 1/2 days) in the Colorado mountains at Frisco (near Breckenridge). The course covers such diverse topics as links to other programs like spreadsheets, speeding up GAMS, scaling, debugging, improving output and advanced basis use along with many other topics.

Further information and other courses are listed on <http://www.gams.com/courses.htm>.

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April 16, 2008