

GAMS Newsletter

Number 8

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GAMS 20.3, 20.4, and 20.5 new releases

GAMS Corporation has recently released version 20.3 that renamed some solvers and expanded some capability. Release notes for 20.3 are on the GAMS web site (<http://www.gams.com/docs/release/release.htm>). In turn 20.4 and 20.5 followed as maintenance releases that fixed bugs but added no meaningful new features.

Solvers

A CONOPT3 manual (<http://www.gams.com/docs/conopt3.pdf>) is available. Main features are a sequential quadratic programming component, an improved scaling algorithm, and expanded capacity.

I have been told that PATHNLP contains new options that separate it from PATH but there is no write-up. However if you run PATHNLP with an option file containing the line

Output options yes

you get a list of all options. Perhaps experienced PATH users can read between the lines until someone comes up with a solver manual supplement.

A CONVERT manual (<http://www.gams.com/docs/contributed/convert.pdf>) is now available.

The solvers have been renamed for simplicity as discussed in the release notes (<http://www.gams.com/docs/release/release.htm#20.3>) in the version 20.3 section. Today a solver name by itself means that is the current solve version (CONOPT as opposed to CONOPT1, CONOPT2, CONOPT3). A solver name with a number or letters after it identifies alternative versions. GAMS is using these letters and numbers to make available five different sorts of things

1. old solvers that still may be good choices for some problems (e.g. MINOS5, CONOPT1, OSL1, MILESOLD)
2. beta test versions of existing solvers for experimentation (e.g. OSL3, CONOPT3)
3. versions with capabilities for special or different problem types (e.g. OSLSE, PATHNLP)

4. versions with special computing requirements (CPLEXPAR, XAPAR for parallel computers)
5. solvers that are the current version and are named with in GAMS terminology an alias for the core solver name (CONOPT2 is CONOPT, PATH is PATHC).

In addition named solvers may be beta test versions of new solvers not yet fully released (BARON) or solvers GAMS is experimenting with that are known names but are not available being resident for testing only (there are at least 4 of these but they are deeply hidden and not worth mentioning).

Interfacing with other programs

A number of new features have been added to the document on Interfacing GAMS with other applications (<http://www.gams.com/interface/interface.html>) by Erwin Kalvelagen. This includes materials on fitting spline functions, spawning from visual C, and an interface to Oracle for queuing jobs.

A program called GAMSMAP (<http://www.gams.com/contrib/gamsmap/index.htm>) is also available that outputs solution information in a GIS mapping program format.

Performance World

GAMS has added a performance world section to its <http://www.gamsworld.org> web site. "Performance World is a forum for discussion and dissemination of information and tools about all aspects of performance testing of mathematical programming problems. This world has been established in response to user demands for independent and reproducible performance results". See <http://www.gamsworld.org/performance/index.htm>.

Editor interface

For those using Emacs an interface that does GAMS customization is available through <http://park.zero.ad.jp/~zbc08106/gams/gams.html>

Courses offered

I teach Basic GAMS in May 13-16, 2002 and Advanced GAMS in College Station, Texas on November 18-21, 2002. Further information and other courses are listed on <http://www.gams.com/courses.htm>.

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