

Now Available!

Multi-Threaded

Thread-safe Execution

Sparse Matrices

Large Scale Problems

MPS Formatted Files

 **The GAUSS LPMT 4.0 Module solves the standard linear programming problem with the following NEW and CUTTING-EDGE features:**

• **Thread-safe Execution:**

Control variables are model matrices are contained in structures allowing thread-safe execution of programs.


• **Sparse Matrices:**

Linear Programming MT exploits sparse matrix technology permitting the analysis of problems with very large constraint matrices.

The size of a problem that can be analyzed is dependent on the speed and amount of memory on the computer, but problems with two to three thousand constraints and more than six thousand variables have been tested on ordinary PC's.

• **MPS Files:**

Procedures are available for translating MPS formatted files.

 **Designed to solve small and large scale linear programming problems.**

Features:

- Upper and lower finite bounds can be provided for variables and constraints
- Problem type (minimization or maximization)
- Constraint types (\leq , \geq , $=$)
- Choice of tolerances
- Pivoting rules

- Can generate iterations log and/or final report, if requested

LPMT can be initialized with a starting value, such as the solution to a previous problem which is similar to the one being solved. This feature can dramatically reduce the number of iterations required to find a feasible starting point.

Computes:

- The value of the variables and the objective function upon termination, and returns the dual variables
- State of each constraint
- Uniqueness and quality of solution
- Multiple optimal solutions if they exist
- Number of iterations required
- A final basis

Requirements:

Requires GAUSS Mathematical & Statistical System (GAUSS) Version 4.0 or the GAUSS Engine/GAUSS Engine Pro/GAUSS Engine for Workgroups/GAUSS Enterprise Engine v 4.0.

Platforms:

Available for Windows, LINUX and UNIX.

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