

Solver Software Information

The ability to formulate models as either simulation or linear programming (LP) models has always set Woodstock apart among forest modeling software packages. And this LP functionality necessitates the use of solver software.

As our customer-base expands and Woodstock is used for a more diverse range of planning issues, we are asked by users to add new solver support.

Interior point versus simplex solvers

Solvers fall into two categories - interior point (or barrier) and simplex solvers - which essentially differ based on how they navigate (and solve) matrices.

Solvers which use the interior point method (such as XA), traverse the interior of the solution space to get to the optimal solution, while simplex solvers (like CWHIZ) navigate a matrix by visiting every corner point before finding an optimal solution.

Some solvers such as MOSEK are capable of using either method.

Which solver?

The choice of which solver to use, depends on your needs, the size of your model (number of non-zeros, rows and columns, etc.), the planning issue being addressed, your budget and personal preference.

The following is a list of LP solvers that Woodstock supports – please contact the supplier to determine which one is right for your application.

Solvers supported by Woodstock:

CPLEX

ILOG, Inc.

1080 Linda Vista Ave.

Mountain View, CA 94043

Tel: 650-567-8000 / Toll free: 800-FOR-ILOG (800-367-4564)

E-mail: info@ilog.com

Website: <http://www.ilog.com/products/cplex/>

CWHIZ

KETRON DIVISION OF THE BIONETICS
CORPORATION

KETRON MANAGEMENT SCIENCE

2001 Jefferson Davis Highway, #1211

Arlington, Virginia 22202-3619

E-mail: info@ketronms.com

Website: <http://www.ketronms.com/cwhiz.shtml>

LINDO & LINGO

LINDO Systems, Inc.

1415 North Dayton Street

Chicago, IL 60622

E-mail: webinfo@lindo.com

Website: <http://www.lindo.com/>

LPABO

Operations Research Laboratory

Intek OlympicParkView 1205

Bang-i Dong, Song-pa Gu

Seoul, Korea, 138-050

E-mail: soondal@kornet.net

Website:

<http://www.orlab.org/software/lpabo/index.html>

LP_SOLVE

Michel Berkelaar

Eindhoven Univ. Technology

Design Automation Section

P.O. Box 513

NL-5600

MB Eindhoven, Netherlands

MOSEK

MOSEK ApS

C/O Symbion Science Park

Fruebjergvej 3, Box 16

2100 Copenhagen Ø - Denmark

E-mail: info@mosek.com

Website: <http://www.mosek.com/>

XA

Sunset Software Technology

1613 Chelsea Road, Suite 153

San Marino, CA 91108 USA

E-mail: jim@sunsetsoft.com

Website: <http://www.sunsetsoft.com/>