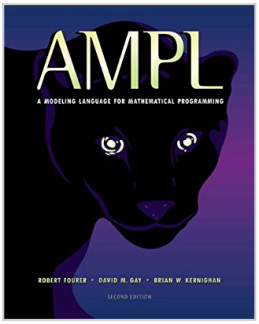

AMPL: A Modeling Language for Mathematical Programming

By Robert Fourer, David M. Gay, Brian W. Kernighan

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AMPL is a language for large-scale optimization and mathematical programming problems in production, distribution, blending, scheduling, and many other applications. Combining familiar algebraic notation and a powerful interactive command environment, AMPL makes it easy to create models, use a wide variety of solvers, and examine solutions. Though flexible and convenient for rapid prototyping and development of models, AMPL also offers the speed and generality needed for repeated large-scale production runs. This book, written by the creators of AMPL, is a complete guide for modelers at all levels of experience. It begins with a tutorial on widely used linear programming models, and presents all of AMPL's features for linear programming with extensive examples. Additional chapters cover network, nonlinear, piecewise-linear, and integer programming; database and spreadsheet interactions; and command scripts. Most chapters include exercises. Download free versions of AMPL and several solvers from www.ampl.com for experimentation, evaluation, and education. The Web site also lists vendors of the commercial version of AMPL and numerous solvers.

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Editorial Review

About the Author
Robert Fourer received his Ph.D. in operations research from Stanford University in 1980 and is an active researcher in mathematical programming and modeling language design. He joined the Department of Industrial Engineering and Management Sciences at Northwestern University in 1979 and served as chair of the department from 1989 to 1995.

David M. Gay received his Ph.D. in computer science from Cornell University in 1975, and was in the Computing Science Research Center at Bell Laboratories from 1981 to 2001. He is now CEO of AMPL Optimization LLC. His research interests include numerical analysis, optimization, and scientific computing.

Brian Kernighan received his Ph.D. in electrical engineering from Princeton University in 1969. He was in the Computing Science Research Center at Bell Laboratories from 1969 to 2000 and now teaches in the Computer Science department at Princeton. He is the co-author of several computer science books, including THE C PROGRAMMING LANGUAGE and THE UNIX PROGRAMMING ENVIRONMENT.

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