Items of Interest for OR/MS Today Readers

- * TK Solver as a math modeling tool
 - Easy-to-use equation solver
 - Solves problems forward, backward, for any combinations of inputs
 - Optimizer determines min and max value
 - Supports multidimensional look-up tables with interpolation
 - Uniquely combines rule-based and procedural languages
 - Flexible units with automatic conversions
 - Plots line, bar, and pie charts

* TK Solver as a supporting language for Excel applications

- Links directly and dynamically
- End user does not need a TK license
- Gives Excel users access to TK's power features:
 - o Integration and differentiation
 - o Solutions to differential equations
 - o Curve-fitting and interpolation functions
 - o Unit conversions

* Integrators for solving differential equations

- Fast, accurate routines for handling stiff nonlinear differential equations
- Backsolvable for initial conditions or intermediate parameters
- Interpolation for any values within the domain of integration

* Efficient, low-cost tool for Monte Carlo simulations

- Works with any TK Solver math model
- Variety of distributions available, from Beta to Weibull
- Tools included for estimating output distribution parameters

* Queueing Theory Application

- Based on the well-respected textbook by Donald Gross and Carl Harris
- Starts with the basics Poisson, Erlang, and mixed exponential probabilities, Markov chains, ...
- Proceeds through 1 server, C servers, bulk queues, priorities, and networks
- Over 60 separate math models, all fully backsolvable within TK Solver

* Optional item for Excel users -- MathLook

- Converts Excel formulas into 2D notation, just like a text book
- Provides an easy to use grid for naming cells
- Expands formulas with dependencies on other cells
- Results paste directly into Excel, Word, and other software as graphics
- Low-cost tool to improve quality and documentation