Frontline Solvers SDK Tools for Developers Comparison Chart

(Visit www.Solver.com to download a free trial, learn more about our SDK tools, and see a more detailed comparison chart)

	Solver SDK Pro	Solver SDK Platform
Product Scope	• Conventional Optimization • Monte Carlo Simulation • Simulation Optimization	• Conventional Optimization • Monte Carlo Simulation • Simulation Optimization • Stochastic Optimization (using Excel Workbooks)
Overview		
Platforms	Windows/Linux	Windows/Linux
Languages	C/C++, COM, .Net, Java, MATLAB	C/C++, COM, .Net, Java, MATLAB
32-bit/64-bit and concurrent multi-user/multi-threaded application support	Yes	Yes
Ability to deploy on desktops, servers, or in the cloud	Yes	Yes
Ability to load and solve Excel workbooks		Yes
Built-in Solver Engines		
Evolutionary	Yes	Yes
Linear and Quadratic	Yes (LP)	Yes (LP/QP)
Nonlinear	Yes (GRG)	Yes (LSGRG)
SOCP Barrier		Yes
Optional Plug-in Solver Engines		
Accepts plug-in engines (including: Mosek, Gurobi, XPRESS, KNITRO, OptQuest, and others)		Yes
Ease of Use		
Code examples across multiple languages	Yes	Yes
Object Oriented and Procedural APIs	Yes	Yes
Optimization Problem Types and Sizes		
Solves LP, MIP, NLP, and NSP problem types	Yes	Yes
Special solvers for QP, QCP, SOCP problem types		Yes
Linear Variables x Constraints	2000 x 8000	8000 x 8000
Nonlinear and Non-Smooth Variables x Constraints	500 x 250	1000 x 1000
Integer Variables	1000	2000
Optimization Variables x Constraints using optional plug-in solver engines		Unlimited x Unlimited
Simulation Optimization Variables and Constraints	500 x 250	1000 x 1000
Monte Carlo Simulation Uncertain Variables and Uncertain Functions	2000 x 8000	Unlimited x Unlimited
Constraints		
Normal, Integer, Binary, Semi-Continuous, Alldifferent Constraints	Yes	Yes
Second Order Cone, Probabilistic, and Chance Constraints	Yes (in code)	Yes (more flexible)
Advanced Stochastic Optimization (when using Excel workbooks)		
Solve stochastic programming deterministic equivalent model		Yes
Solve robust counterpart model for stochastic LP problems		Yes
Automatic adjustment of chance constraints in robust optimization		Yes
Simulation and Simulation Optimization		
Full Monte Carlo simulation and simulation optimization capabilities	Yes	Yes
Over 50 distributions and over 30 statistics and risk measures built-in	Yes	Yes
Full support for fitting distributions and correlating uncertain input distributions	Yes	Yes