Frontline Solvers Optional Plug-in Solver Engines for Platform-Level Products

(See by-engine descriptions on www.solver.com for full range of problems each engine will solve)

By Solver Engine					By Problem Type		
	Bits	**Limits**	**Especially Suited For**			**Best Choice(s)**	**Alternative Choice**
	(32-bit/64-bit)	(Var x Const)					
Large Scale LP/QP Solver					**Linear/MIP**	Gurobi, XPRESS, LS LP/QP	MOSEK
Standard Version	Both	32000 x 32000	LP/QP/MIP				
Extended Version	Both	Unlim x Unlim	LP/QP/MIP		**Quadratic**		
					QP Convex	Gurobi, XPRESS, LS LP/QP	MOSEK
Large Scale GRG Solver					QP Non-convex	LS SQP, KNITRO, LS LP/QP	LS GRG
Standard Version	Both	4000 x 4000	Smooth nonlinear				
Extended Version	Both	12000 x 12000	Smooth nonlinear		**Quadratically Constrained**		
					QCP Convex	MOSEK, KNITRO, LS GRG	LS SQP
Large Scale SQP Solver	Both	Unlim x Unlim	Smooth nonlinear, non-smooth		QCP Non-convex	KNITRO, LS GRG, LS SQP	
					QCP (unknown convexity)	KNITRO, LS GRG, LS SQP	
KNITRO	Both	Unlim x Unlim	Smooth nonlinear				
					Second Order Cone	MOSEK, KNITRO, LS GRG	LS SQP
MOSEK							
Standard	Both	32000 x 32000	LP/QP, QCP and SOCP		**Smooth Nonlinear**		
Extended	Both	Unlim x Unlim	+ convex nonlinear		NLP Convex	KNITRO, LS GRG, LS SQP	MOSEK
					NLP Non-convex	KNITRO, LS GRG, LS SQP	
Gurobi					NLP (unknown convexity)	KNITRO, LS GRG, LS SQP	
LP/MIP	Both	Unlim x Unlim	LP/MIP				
LP/QP/MIP	Both	Unlim x Unlim	LP/QP/MIP		**Non-Smooth**	OptQuest, LS SQP	LS GRG
XPRESS					**Simulation Optimization**	OptQuest, LS SQP	LS GRG
LP/MIP	Both	Unlim x Unlim	LP/MIP				
LP/QP/MIP	Both	Unlim x Unlim	LP/QP/MIP				
OptQuest	32-bit	5000 x 1000	Non-smooth				

LS = Large-Scale