

TOMLAB /OQNLP is a multistart heuristic algorithm designed to find global optima of smooth constrained nonlinear programs (NLPs) and mixed-integer nonlinear programs (MINLPs), developed in cooperation with Optimal Methods, Inc. TOMLAB /OQNLP is available for 32-bit Windows and Linux.

The multistart feature calls an NLP solver with a different set of initial values and return the feasible solutions as well as the optimal point. The starting points are calculated from scatter search algorithm. The user may also choose to use uniformly distributed initial values. Neither of the two options guarantee that a global optimum is obtained, however the likelihood is high.

The OQNLP solver has a built in feasible path GRG solver, LSGRG2.

The main advantage with OQNLP for smooth problems is that good local solutions are easily obtained, and that integer variables are handled.

For more information about TOMLAB /OQNLP see the TOMLAB /OQNLP User's Guide.