

OptWorks: Excel®

version 1.1

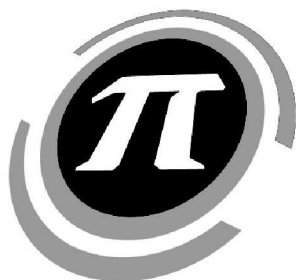
A Suite of Optimization Components for Use in
Microsoft Excel®

INCLUDED COMPONENTS:

Genetic Algorithm
Auto Genetic Algorithm
Simulated Annealing
Auto Simulated Annealing
Random Walk
Coordinate Pattern Search
Random Search
Grid Search

 **COLLABORATIVE DESIGN OPTIMIZATION**

OptWorks: Excel® is Pi Blue's newest release of our flagship OptWorks product. Designed as an add-in product to Microsoft Excel®, OptWorks: Excel® is easily accessed from either the Excel toolbar or pull-down tools menu. The Windows version is currently shipping. A Mac OS X version is coming soon. Microsoft Excel® is required



PiBlue

www.piblue.com

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OptWorks: Excel[®] is a suite of non-gradient-based optimization tools for use within Microsoft Excel[®]. Each driver component has a particular benefit or utility to a different class of problems. The optimization algorithms in the OptWorks suite complement the built-in gradient-based optimizer in Excel[®], and are useful for a variety of complex optimization problems in which the design space may be non-smooth or discontinuous or in which some or all of the independent variables may be integer instead of continuous variables.

| COMPONENT NAME | CAPABILITY |
|----------------------------------|--|
| OptWorks_GeneticAlgorithm | Utilizes properties of natural selection found in biological evolution |
| OptWorks_AutoGA | Same as above but with pre-defined setup parameters for novice users |
| OptWorks_SimulatedAnnealing | Domain spanning search method based upon metallurgical processes |
| OptWorks_AutoSA | Same as above but with pre-defined setup parameters for novice users |
| OptWorks_RandomWalk | Search along randomly determined direction for next movement |
| OptWorks_CoordinatePatternSearch | N-orthogonal search able to handle discontinuities but not multiple local minima |
| OptWorks_RandomSearch | Domain spanning method with random determination of analysis point within design space |
| OptWorks_GridSearch | Exhaustive search of design space with auto resolution refinement |

SYSTEM REQUIREMENTS

OptWorks: Excel[®] components run in any environment that supports Microsoft Excel[®].

ORDERING AND PRICING

The full version of OptWorks: Excel[®] is available for immediate download via on-line purchase or as a boxed product with an installation CD and manual. Full, single-user, single installation versions of OptWorks: Excel[®] are available for \$199.00 U.S. (one-time fee). A problem size-limited academic version is available for current students, teachers, faculty, and staff for educational purposes. A reduced functionality 30-day demo is available for free download.

OTHER PI BLUE SOFTWARE PRODUCTS

Pi Blue Software, Inc. develops software products targeted at professionals and students in the engineering, financial, accounting, logistics, statistics, mathematics, and science fields. Our current products include the OptWorks suite of domain-spanning optimization algorithms and the ProbWorks suite of tools for risk-based analysis.

TRAINING AND CONSULTING

Pi Blue Software, Inc. offers specialized training related to installation and setup of the suite of components as well as consulting services for subsequent application to systems engineering related problems.

TECHNICAL SUPPORT

Pi Blue Software, Inc. offers selected on-line technical support for all products. These include FAQs, white papers, and an online support center.

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