OptWorks:
ModelCenter®

version 1.1

A Suite of Optimization Components for Use in Phoenix Integration's ModelCenter® Collaborative Design Environment

INCLUDED COMPONENTS:

Genetic Algorithm

Auto Genetic Algorithm

Simulated Annealing

Auto Simulated Annealing

Random Walk

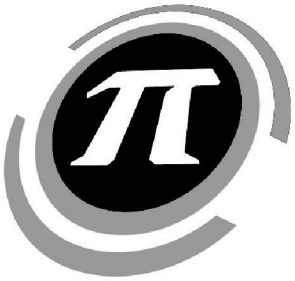
Coordinate Pattern Search

Random Search

Grid Search

COLLABORATIVE DESIGN OPTIMIZATION

OptWorks: ModelCenter® is a suite of eight non-gradient optimizer components designed for use as drag-and-drop drivers within Phoenix-Integration's ModelCenter® collaborative design environment. Drivers include a Genetic Algorithm, simulated annealing, and coordinate pattern search. Pi Blue's OptWorks components are written in Java, allowing them to be easily integrated into multiple pxc models from a single Analysis Server installation. ModelCenter® is required.



PiBlue

www.piblue.com

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OptWorks: ModelCenter® is a suite of non-gradient-based optimization tools for use within Phoenix Integration's ModelCenter® collaborative optimization framework. 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 ModelCenter®, and are useful for a variety of complex optimization problems in which the design space may be non-smooth or discontinous or in which some or all of the independent variables may be integer instead of continuous variables. Each of the algorithms in the suite is coded as a Java component and can be dragged-and-dropped into a ModelCenter® project file from a local and/or remote Analysis Server®.

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: ModelCenter® Java components run in any environment that supports Phoenix Integration's Analysis Server® 2.x or greater.

ORDERING AND PRICING

Phoenix-Integration, Inc. serves as the primary reseller for Pi Blue's Optworks: ModelCenter® and ProbWorks: ModelCenter® products. For sales and pricing info, please contact sales@phoenix-int.com or call Phoenix Integration at 1.800.500.1936. Individual and discounted division-wide licenses with annual maintenance plans are available. Individual-user licenses are priced at $1999.00 (one-time charge).

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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