



EXPERIENCE THE
WORLD'S LEADING
RISK AND DECISION
ANALYSIS SOFTWARE
AND SOLUTIONS

TABLE OF CONTENTS

	Our Mission	2–3
	100% Excel	4
	Applications of @RISK & the DecisionTools Suite	5
Palisade Software		7–37
	The DecisionTools Suite	7–33
	@RISK	13–20
	PrecisionTree	21–23
	TopRank	24–25
	NeuralTools	26–27
	StatTools	28–29
	Evolver	30–31
	RISKOptimizer	32–33
	@RISK for Project	34–35
	@RISK for Six Sigma	36–37
Palisade Services		38–45
	Palisade Training	38–39
	Conferences and Events	40–41
	Business Consulting	42–43
	Custom Development	44–45
	Palisade Academic Software	46–47
	Maintenance Plans	48
	Licensing Options	48

OUR MISSION

Palisade Corporation is committed to developing the world's most robust, innovative, and comprehensive software and solutions for risk analysis and decision making.

MAKE BETTER DECISIONS WITH RISK AND DECISION ANALYSIS SOLUTIONS

@RISK™ and the DecisionTools® Suite

Founded in 1984, Palisade Corporation is the maker of the market-leading risk and decision analysis software @RISK and the DecisionTools Suite. Virtually all Palisade software adds in to Microsoft Excel, ensuring flexibility, ease-of-use, and broad appeal across a wide range of industry sectors. Combined with Palisade training and consulting services, @RISK and the DecisionTools Suite are the most complete risk analysis solution available today.



100% EXCEL INTEGRATION

@RISK and the DecisionTools Suite integrate completely with your spreadsheet. Browse, define, analyze—while never leaving Excel.

Palisade software adds new functions to Excel that behave exactly as native Excel functions behave. Windows are all linked directly to cells in your spreadsheet, so changes in one place are carried out in the other. Graphs point to their cells via callout windows and pop-up as you browse through your spreadsheet. Drag-and-drop simplicity, context sensitive right-click menus and user-friendly toolbars make learning and navigating Palisade software an intuitive and straightforward process.

@RISK and DecisionTools Suite calculations are performed 100% within Excel, supported by Palisade sampling and statistics proven in over twenty years of use. Palisade does not attempt to rewrite Excel in an external recalculation to gain speed. A single recalculation from an unsupported or poorly reproduced macro or function can dramatically change your results. Where will it occur, and when?

In addition, Palisade harnesses the power of multiple CPUs and multi-core processors to give you the fastest calculations. Correct results—and fast—using @RISK and the DecisionTools Suite!

APPLICATIONS OF @RISK & THE DECISIONTOOLS SUITE

Palisade software is used to analyze risk and uncertainty in a wide variety of industries.

INDUSTRY SAMPLE APPLICATION

FINANCE AND SECURITIES Retirement planning
Currency valuation
Real options analysis
Discounted Cash Flow analysis
Value-at-risk
Portfolio optimization

INSURANCE / REINSURANCE Loss reserves estimation
Premium pricing

MANUFACTURING Six Sigma and quality analysis
New product analysis
Production siting
Plant shutdown
Product life cycle analysis

OIL / GAS / ENERGY Six Sigma and quality analysis
Exploration and production
Oil reserves estimation
Capital project estimation
Pricing
Regulation compliance

PHARMACEUTICALS / MEDICAL / HEALTHCARE New product analysis
R&D estimation
Disease infection estimation

ENVIRONMENT Endangered species preservation
Pollution cleanup and projections

GOVERNMENT AND DEFENSE Resource allocation
War games
Welfare and budgetary projections

AEROSPACE AND TRANSPORTATION Cost estimating
Highway planning and optimization
Supply chain distribution



“ DecisionTools is a superior brand of products directed at what I consider the gravest and most consequential activities of most American businesses, risk assessment and decision making.”

Mark Ploskunak, Project Manager, IBM

@RISK AND DECISIONTOOLS SUITE SOFTWARE IS USED BY OVER 93% OF FORTUNE 100 COMPANIES

“ @RISK is very powerful and I would recommend it to anyone who needs the ability to run simulations on differing risk profiles.”

Patrick Casey, Account Manager, AT&T Wholesale

The *complete risk and decision analysis toolkit* **DecisionTools** **Suite**



YOUR FIRST STEP TO BETTER DECISIONS...

The DecisionTools Suite is an integrated set of programs designed specifically to work together in Excel for optimum risk and decision analysis in a single package. There are two editions of the DecisionTools Suite – Professional and Industrial – each designed to meet different analytical needs.

DecisionTools Suite Professional includes Professional editions of all component products and provides a balance of robust analysis and point-and-click ease of use.

DecisionTools Suite Industrial includes Industrial editions of all components and adds RISKOptimizer and @RISKAccelerator. It is designed for larger models and more advanced analyses.

LEARN MORE: PALISADE.COM/DECISIONTOOLS_SUITE

THE DECISIONTOOLS SUITE BRINGS TOGETHER

Seven powerful analytical programs
that work together in Excel



@RISK

risk analysis using Monte Carlo simulation

@RISK shows you many possible outcomes in your Microsoft Excel spreadsheet – and tells you how likely they are to occur. This means you can judge which risks to take and which ones to avoid.



TopRank®

automated what-if sensitivity analysis

Define any output or “bottom line” cell or cells, and TopRank automatically finds and varies all input cells which affect the output. The end result is identification and ranking of all input factors which affect your bottom line.



PrecisionTree®

decision analysis using decision trees and influence diagrams

Decision trees let you visually map out complex, multi-layered decisions in a sequential, organized manner. This helps you identify all possible alternatives and choose the best option.



NeuralTools®

prediction using intelligent neural networks

NeuralTools imitates brain functions to “learn” patterns in your known data, and uses those patterns to make predictions from new, incomplete data. NeuralTools also automatically updates predictions live when input data changes, saving time and enabling more robust analyses.



RISKOptimizer®

optimization under uncertainty using genetic algorithms and Monte Carlo simulation

Take any optimization problem and replace uncertain values with @RISK functions that represent ranges of possible values. RISKOptimizer will try different combinations of adjustable cells to achieve the goal you define, while running Monte Carlo simulations on each trial solution to account for inherent uncertainty.

The result is the most robust, accurate solution possible. RISKOptimizer is available in the Industrial edition of the DecisionTools Suite.



StatTools®

time-series forecasting and advanced statistical analysis

StatTools replaces Excel’s built-in statistics functions with its own, more robust and accurate functions. StatTools covers the most common statistical analyses, and even allows you to build your own custom statistical procedures.



Evolver™

genetic algorithm-based optimization

Evolver is well-suited to finding the best overall global solution to nonlinear, complex problems where other solvers fail. Evolver’s genetic algorithms constantly try new, different solutions to arrive at the best answer possible.



TopRank, then **@RISK**

Run a “what if” analysis with TopRank to determine the most critical factors in your model. Then define those that are uncertain with @RISK probability distribution functions. Run a Monte Carlo simulation to see what the possible outcomes may be, and how likely they are to occur.



@RISK, then **RISKOptimizer**

After simulation, run RISKOptimizer on an existing @RISK model to maximize your profits, minimize your costs, or achieve a particular target. RISKOptimizer uses all the same functions as @RISK.



PrecisionTree, then **@RISK** and **TopRank**

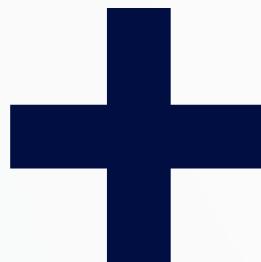
Create a decision tree with PrecisionTree to map out complex, multi-layered decisions. Add @RISK functions at chance nodes and payoff nodes to describe uncertain outcomes. Run a Monte Carlo simulation on your tree to quantify your risks. Bring in TopRank to quickly identify the most critical factors in your tree model.



Evolver, then **NeuralTools**

Optimize complex problems with Evolver. Set your target goal as the live predictive output for NeuralTools, and the cells for Evolver to adjust as the new inputs for NeuralTools. Then watch Evolver and NeuralTools work together to predict the optimal solution.

GREATER THAN THE SUM OF ITS PARTS



Each component of the DecisionTools Suite can perform a powerful analysis. When you combine these products, you can achieve more complete results than any single program can provide.

The possible combinations of analyses are endless. With the DecisionTools Suite, you can tackle any quantitative problem, regardless of industry or field.

Save Over 50% The DecisionTools Suite costs less than buying just two component products separately. In fact, you save over 50% versus buying all components individually. The best analyses at a great price—with the DecisionTools Suite.

CASE STUDY PROCTER & GAMBLE

@RISK and PrecisionTree in Manufacturing

Procter & Gamble Uses DecisionTools for Investment Analysis

Application: Production Siting, New Product Analysis,
Exchange Rate Analysis, Real Options

Industry: Manufacturing

"We've trained well over a thousand people throughout the company on @RISK," says Procter & Gamble's Bob Hunt, who went on to implement another DecisionTool, PrecisionTree. Hunt was Associate Director for Investment Analysis in P&G's Corporate Finance organization and served as a resource to the business units.

Long History of @RISK

P&G has been using @RISK since 1993 when Hunt first introduced it for modeling production siting decisions. The company was evaluating some cross-border siting options, and the decisions required them to take into account not only uncertainties involving the capital and cost aspects of plant location but fluctuations in exchange rates as well. The company has since come to rely on @RISK for its "entire range of investment decisions" including new products, extensions of product lines, geographical expansions into new countries, manufacturing savings projects, and production siting.

PrecisionTree for Real Options

More recently Hunt and his colleagues have been working with PrecisionTree. "Its attraction is its capacity to value complex decisions, which often involve multiple, sequential decision steps." They find it particularly valuable in evaluating real options. "We considered using financial option calculators to analyze the real options that are embedded in our complex decisions, but we found that they simply can't solve for the real option value in projects with multiple, sequential investment decisions. Decision trees are really the only tool that can correctly value multiple sequential decisions where uncertainty is private risk." Procter & Gamble is now in the process of rolling out PrecisionTree to all of its major business units around the world.

Better Decisions from Better Processes

Hunt also notes that a lot of the value derived from using PrecisionTree is realized during the process that the staff goes through in determining the probabilities, and laying out the decision sequence and the criteria for making those decisions. The combination of the different approach required to frame decisions, and the ease and effectiveness of the PrecisionTree software, says Hunt, "is really powerful for our company."

“DecisionTools has been very useful in helping us break complex projects down into individual decision options, helping us understand the uncertainties, and ultimately helping us make superior decisions. **”**

– Bob Hunt, Procter & Gamble



Select Companies Using The DecisionTools

AT&T · Bank of America · Boeing · BP Amoco · Bristol-Myers Squibb
Centers for Disease Control & Prevention · Citigroup · Dow Chemical
Eastman Kodak · ExxonMobil · Fidelity Investments · Ford Motor Company
General Electric · Hewlett Packard · Hitachi · IBM · Merck · Microsoft
Mitsubishi Heavy Industries · Pemex · Petrobras · Procter & Gamble
Schlumberger · Shell · Westinghouse

CASE STUDY LOGION

DecisionTools Suite is Integral to Firm's Strategy and Competitive Position

“This software is really amazing. Palisade's software really makes it easier for me to do my work in less time and with much more fun, too!“

Rolf van Lingen, Logion



Applications of the DecisionTools

Retirement planning · Currency valuation · Real options analysis
Discounted Cash Flow analysis · Value-at-risk · Portfolio optimization
Loss reserves estimation · Pricing decisions · Six Sigma and quality analysis
Production siting · Plant shutdown · Product life cycle analysis
Exploration and production · Oil reserves estimation · Regulation compliance · R&D estimation · Disease infection estimation · Pollution cleanup and projections · Resource allocation · Cost estimating
Highway planning and optimization · Supply chain distribution

DecisionTools Streamlines Distribution Management from Hours to Minutes

Application: Distribution, and Inventory Management

Industry: Transportation

Logion is a Netherlands-based consultancy that specializes in transportation, distribution, and inventory management. Its consultants and implementation managers use decision support models to improve the effectiveness and efficiency of their clients' logistics operations. By slashing analysis time and enhancing model accuracy, Palisade's state-of-the-art DecisionTools Suite has become critical to the firm's strategy and competitive position.

"When I first read about Palisade's @RISK software," says Logion's Rolf van Lingen, "I simply had to have it. This software is really amazing. For some years I've been looking for a flexible product like this. No more stressful late nights working with static Excel spreadsheets in order to meet my clients' deadlines. Palisade's software really makes it easier for me to do my work in less time and with much more fun, too!"

Logion uses the Suite to optimize these typical client functions: transportation planning, new product introduction, set inventory levels, anticipation of supply chain lead times, back orders, and customer service activities

Logion has developed what it calls Activity Based Costing (ABC) models to improve their clients' transportation and warehousing operations, both in terms of efficiency and smooth workflow. These models can contain up to 75 input variables each. Among the important bottom-line output variables are operating expenses, total labor expenses, costs per product, and costs per client. Traditional single point estimates and deterministic modeling techniques are not appropriate.

Van Lingen uses TopRank to determine which input parameters affect efficiency the most and ranks them in order of importance. Then, because static modeling environments are not well suited for dynamic logistic processes, van Lingen uses distribution fitting in @RISK to determine the probability distributions that most accurately describe the comings and goings of freight, trucks, etc. "The first time I did this, I was shocked. This now takes only 3-5 mouse clicks, when it used to take hours!"

The next step is to simulate the process in @RISK, and van Lingen finds these models a big improvement over his earlier static models, especially those used for inventory planning and control. Here, the greater the degree of uncertainty in lead time and demand rate, the more stock will be needed to meet a required customer service level. Variations cannot totally be removed, and this creates a need for an acceptable simulation environment to model trade-offs between service levels and inventory holding costs.

According to van Lingen, Palisade's software has become invaluable for Logion's business. By allowing models to dynamically represent uncertainty, DecisionTools has enabled Logion to provide a much more realistic picture of possible outcomes. And, by systematically crunching the numbers for thousands of scenarios, Palisade software saves the company valuable time and human resources.



a new standard in risk analysis



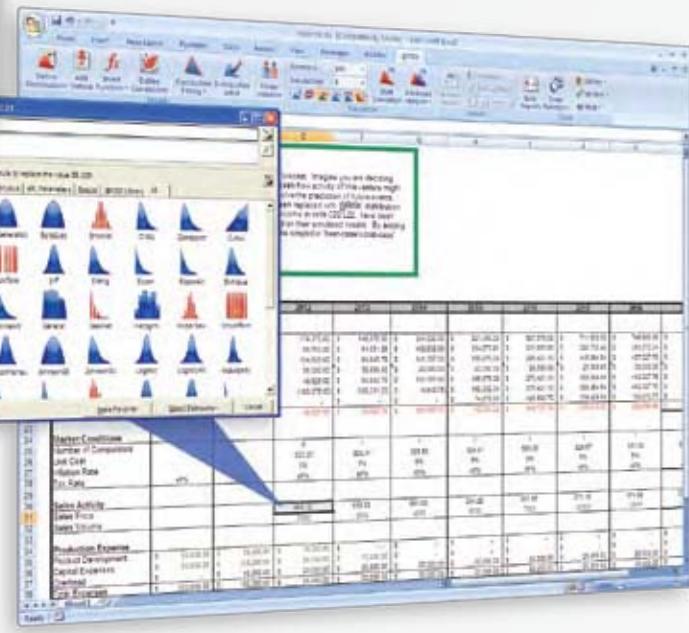
MANAGE THE FUTURE

@RISK performs risk analysis using Monte Carlo simulation to show you many possible outcomes in your Microsoft Excel spreadsheet or Microsoft Project schedule—and tells you how likely they are to occur. This means you can judge which risks to take and which ones to avoid. With @RISK, you can answer questions like, “What is the probability of profit exceeding \$10 million?” or “What are the chances of meeting this project deadline?”



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/RISK



@RISK is available for Microsoft Excel or for Microsoft Project.

@RISK for Excel can be purchased by itself or included with the DecisionTools Suite. There are three editions of @RISK for Excel—Standard, Professional, and Industrial—each designed to meet different analytical needs. @RISK for Project has two editions—Standard and Professional.

For additional information specific to @RISK for Project, see p. 34.

RISK ANALYSIS IN EXCEL

MODEL

Set Up Your Model Start by replacing uncertain values in your spreadsheet or project schedule with @RISK probability distribution functions (like Normal or Uniform) that represent a range of different possible values that a cell could take instead of limiting it to just one case. @RISK comes with over 40 distribution functions. These are true Excel functions, so you can enter, edit, and copy them just like any Excel formula. Then, select your outputs – the “bottom line” cells whose values interest you.

All versions of @RISK for Microsoft Excel contain these powerful features to make analyzing risk easy.

Set Up Your Model With...

A thumbnail gallery of probability distributions, distribution graph overlays for comparison, and percentile definition of distribution parameters.

Correlation of input distributions and correlation time series.

The Compound function.

This Lets You...

Describe uncertain factors using multiple graphical ways.

Represent dependency between related variables for accurate modeling.

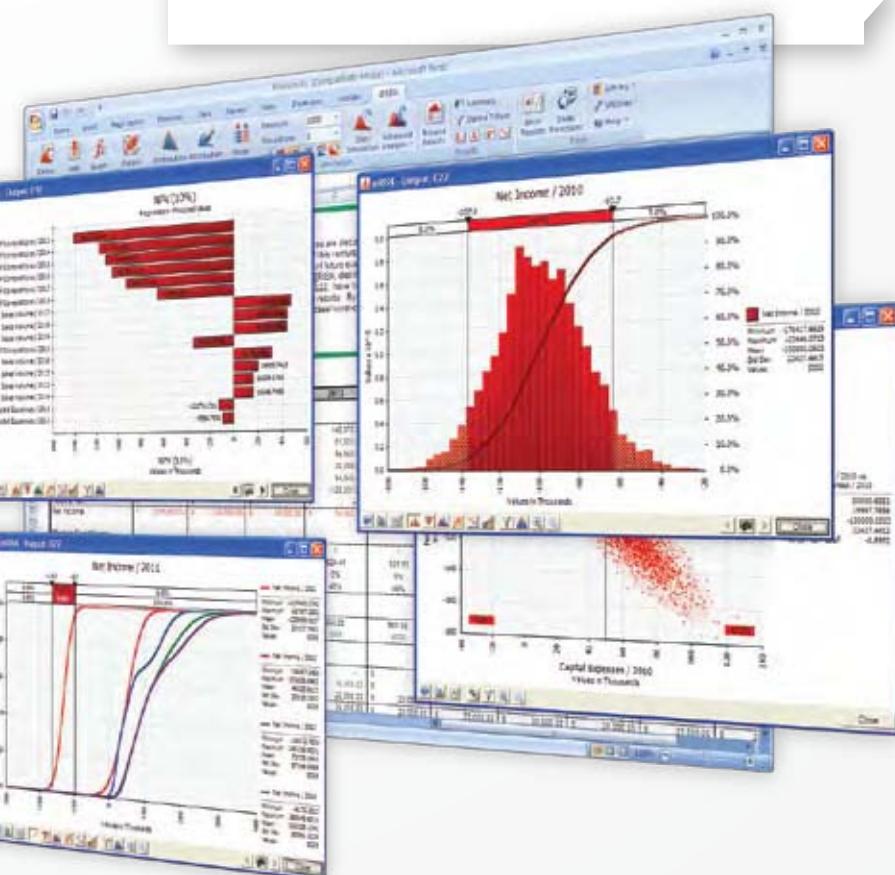
Combine frequency and severity distributions into one to streamline insurance or other large models.

SIMULATE

Run a Monte Carlo Simulation Click the Simulate button and watch. @RISK recalculates your spreadsheet model thousands of times. Each time, @RISK samples random values from the @RISK functions you entered, places them in your model, and records the resulting outcome.

UNDERSTAND

Understand Your Risks The result of a simulation is a look at a whole range of possible outcomes, including the probabilities they will occur. A wide variety of graphs, reports, and analyses helps you understand the risks you face and communicate those risks to others.



Run Your Monte Carlo Simulation With...

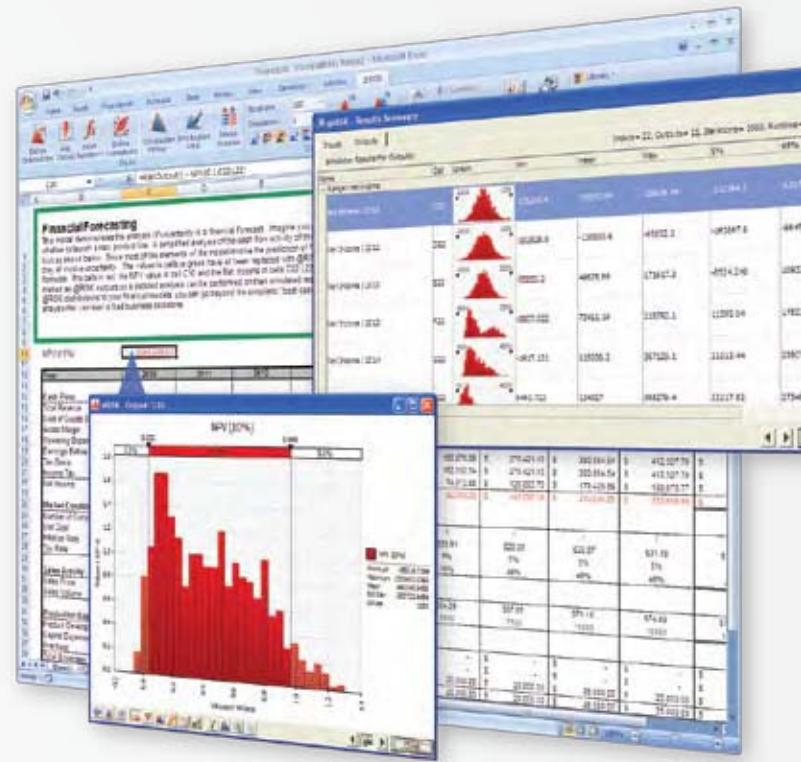
High speed, 100% Excel-integration simulation engine.

Real-time updating of graphs and charts during simulation in Demo Mode.

This Lets You...

Get accurate results quickly.

Explain Monte Carlo simulation to others.



Analyze Results With...

Histograms, area, line, cumulative, summary, box plot, and overlay graphs.

Tornado charts and scatter plots.

Sensitivity and scenario analysis.

Six Sigma functions.
(see p. 36)

This Lets You...

Understand and communicate insights using a variety of graphing and charting options.

Visually identify critical factors and identify trends.

Identify input distributions and combinations of inputs that had the most impact on results.

Report process capability metrics like Cp, Cpk, DPM, and more for Six Sigma analysis.

Share Your Models With...

@RISK Function Swap.

The ability to save @RISK results directly in your Excel workbook.

Backward compatibility.

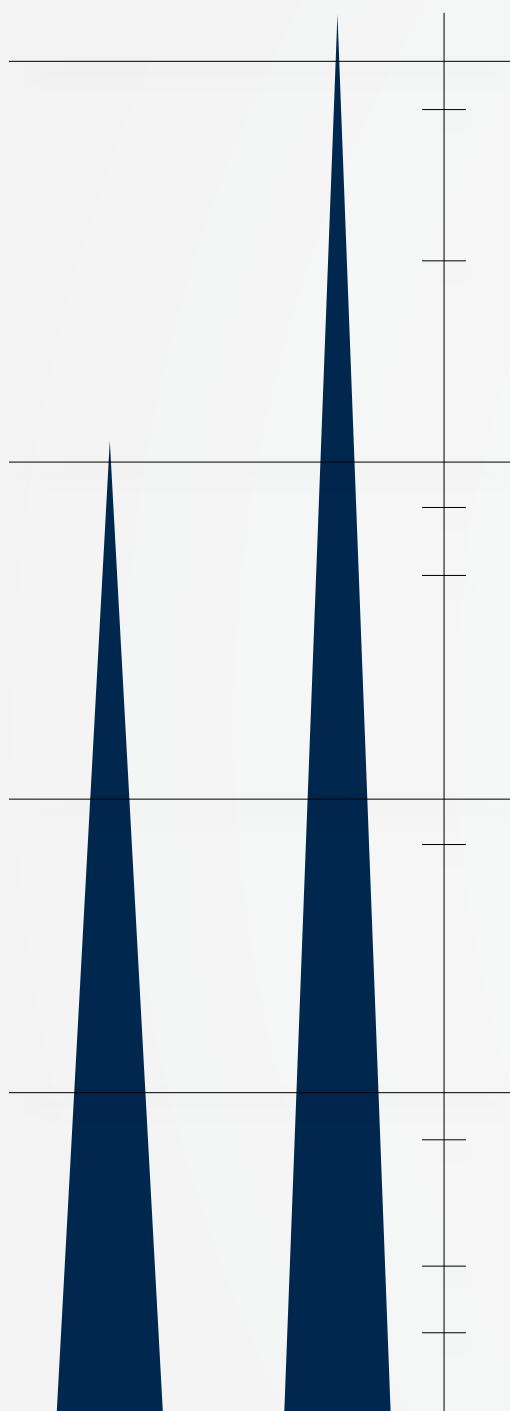
This Lets You...

Remove and restore @RISK functions to share models with non-@RISK users.

Share model and results in a single file.

Run previous @RISK models in latest version – and vice versa.

@RISK PROFESSIONAL AND INDUSTRIAL



Professional Industrial

Take Your Analysis To The Next Level With...

RISKOptimizer.
(Industrial edition only)

Integrated @RISK Accelerator.
(Industrial edition only)

Set Up Your Model With...

Distribution fitting to define distribution functions.

The Excel Developer Kit (XDK).

Share Your Models With...

The @RISK Library.

Run Your Monte Carlo Simulation With...

Stress Analysis.

Advanced Sensitivity Analysis.

@RISK Goal Seek.

This Lets You...

Combine Monte Carlo simulation with genetic algorithm-based optimization to find the best combination of factors that lead to a desired result under uncertain conditions.

Speed up large simulations with parallel processing by using unlimited multi-core processors or CPUs within a single machine.

This Lets You...

Use historical or industry data to define uncertain factors.

Automate and customize @RISK through a complete library of commands and functions that let you control nearly every aspect of @RISK in Excel.

This Lets You...

Store and share @RISK distributions consistently across a group via a built-in SQL database. It also stores multiple simulation results for sharing, auditing, or for use as inputs in subsequent simulations.

This Lets You...

Control the range that is sampled from a distribution function, enabling you to see how different scenarios affect your bottom line without changing your model.

See how changes in any input – distributions or regular values – affect simulation results.

Use multiple simulations to find an input value that achieves a target simulation result you specify.

Beyond features in the Standard version, advanced editions of @RISK add more ease-of-use and robust modeling features.

CASE STUDY MERCK

@RISK in Value-at-Risk Exchange Rate

@RISK

Merck Uses @RISK for Value-at-Risk

Application: Value-at-Risk of Exchange Rates

Industry: Pharmaceuticals

For a company the size of Merck, the multinational pharmaceutical giant based in Whitehouse Station, New Jersey, awareness of value-at-risk (VAR) is crucial to the performance of its risk management programs. And of course, foreign exchange rates are one of the most volatile forces at work in any assessment of value-at-risk.

Art Misyan, Director of Foreign Exchange at Merck, is responsible for the company's ongoing surveillance of its currency risks. He has been using @RISK for years. "We love it because it incorporates distributions fitting and gives us the flexibility to evaluate alternative distributions on screen." He also finds it useful for presentations to Merck's senior managers, who are quite conversant with probability and risk analysis.

VAR analyses have never been simple, and Art points out that in the last few years they have needed to be increasingly sophisticated. "We are managing currency risk in both the balance sheet and in future revenues." Merck's currency exposures span at least 30 countries, and while simulating hedged currency risks on the balance sheet is relatively straightforward, he says, simulating hedged cash flow currency risk is not.

"Simple VAR analysis is not good enough," he says, and this is because of the FAS 133 accounting standard for derivative investments. New approaches to assessing hedging strategies have also created the need for more sophisticated analyses. Earlier methods of evaluating hedging strategies predicted economic value at inception and completion. Now, current practice is to project both economic and accounting hedge performance through time, looking prospectively and retrospectively. This adds significantly to the number of variables, a task to which @RISK is well-suited. Art says that a typical simulation now includes analysis of option time decay and the volatility of the option's price components.

As ways of thinking about VAR at Merck evolve from complex to downright complicated, @RISK remains Merck's analytic tool of choice.

“We love [@RISK] because it incorporates distribution fitting and gives us the flexibility to evaluate alternative distributions on screen. **”**

Art Misyan, Merck

	CHINA	CNY	7.3169	6.091
	EURO	EUR	0.6644	0.610
	JAPAN	JPY	109.00	102.00

Applications of @RISK

Cost estimating · Troop deployment and resource allocation
Endangered species preservation · Pollution projections · Retirement planning · Currency valuation · Real options analysis · Discounted Cash Flow analysis · Welfare and budgetary projections · Loss reserves estimation · Six Sigma and quality analysis · Production siting · Plant shutdown · Product life cycle analysis · Disease infection estimation · Oil reserves estimation · Capital project estimation · Pricing · Regulation compliance · R&D estimation · Value-at-risk · Portfolio optimization · Investment prediction · Highway planning and optimization · Supply chain distribution

@RISK 日本語版

モンテ カルロ シミュレーションを用いたリスク分析のためのソフトウェア、@RISK には日本語版もあります。日本語版では @RISK のメニュー や ダイアログはもちろんのこと、出力されるレポートやヘルプ ファイル、チュートリアルもすべて日本語化されています。@RISK が提供する優れた機能性は、皆様の得意とする言語でご利用いただくことができます。

@RISK en Español

@RISK, el programa para el análisis de riesgo que usa la simulación Monte Carlo está disponible en español. Todos los menús, cajas de diálogo, informes de salida, archivos de ayuda y tutoriales de @RISK han sido traducidos cuidadosamente. Así consigue la misma excelente funcionalidad en un idioma más cercano.

COMPREHENSIVE LANGUAGE SUPPORT

@RISK is available in English, Spanish, Portuguese, German, French, and Japanese.

All @RISK menus, dialogs, output reports, help files and tutorials have been carefully translated. You get the same great functionality in a language that's closer to home.

@RISK auf Deutsch

@RISK, die Software zur Risikoanalyse mittels Monte Carlo-Simulation, ist deutschsprachig erhältlich. Alle @RISK-Menüs, Dialogfelder, Ausgabeberichte, Hilfedateien und Lernprogramme sind sorgfältig übersetzt worden. Sie erhalten auf diese Weise die gleiche hervorragende Funktionalität in einer ihnen vertrauten Sprache.

@RISK en Français

@RISK, le logiciel d'analyse du risque par simulation Monte Carlo, est disponible en français. Tous les menus, boîtes de dialogue, rapports de sortie, fichiers d'aide et didacticiels @RISK ont été soigneusement traduits. Vous bénéficiez ainsi de la même fonctionnalité supérieure dans une langue qui vous est plus familière.

@RISK em Português

@RISK, o software para análise de risco usando Simulação de Monte Carlo, está disponível em Português. Todos os menus, diálogos, relatórios de saída e tutoriais foram traduzidos cuidadosamente. Você obtém a mesma ótima funcionalidade na sua própria língua nativa!

Accelerate Your @RISK Simulations

@RISK Accelerator is designed to handle large, time-consuming @RISK simulations quickly and efficiently by maximizing the use of available CPUs over a network. By using @RISK Accelerator in conjunction with @RISK for Excel, large models can be run in a timely fashion, generating the critical information needed for real-time decision making!

@RISKACCELERATOR NETWORK EDITION

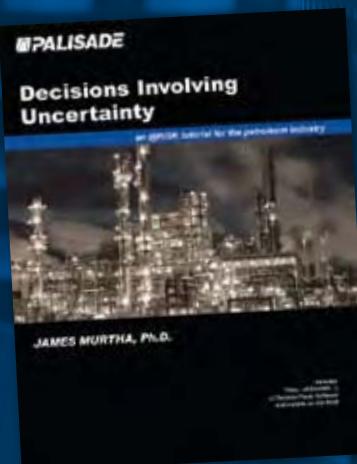
How @RISK Accelerator Works

@RISK Accelerator uses the technique of "parallel processing" for speeding up simulations. @RISK Accelerator "splits up" a single @RISK simulation and sends it out to available computers and CPUs. Each computer runs its portion of the simulation concurrently with the others, sending results back as they are completed. When the entire simulation is completed, all results are merged back together and the results are displayed just as they are in a standard single-processor version of @RISK. All this happens transparent to the user, with all routing and scheduling handled by @RISK Accelerator.

With @RISK Accelerator, the speed of some simulations increase almost linearly with the number of equivalent CPUs used. For example, if 8 CPUs are used for a single simulation, the simulation may run nearly 8 times faster than it currently does in an existing copy of @RISK for Excel on a single CPU PC.

LEARN MORE: PALISADE.COM/RISK/RISKACCELERATOR.ASP

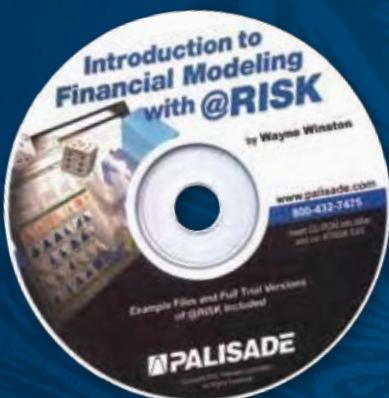
BOOKS AND CDS



Decisions Involving Uncertainty

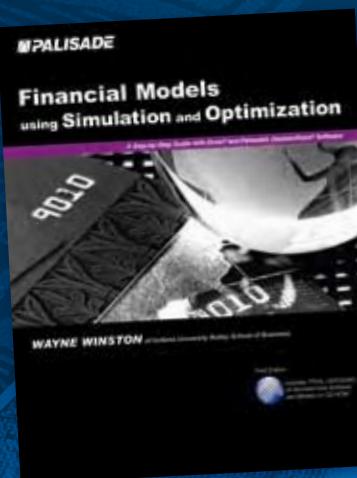
BY JAMES MURTHA

A great extension of Jim Murtha's successful seminar series, this book first debuted in 1994 and has been a staple risk analysis text for oil and gas companies worldwide ever since. Petroleum engineers and others benefit from examples in topics ranging from volumetric reserves to production forecasts.



Introduction to Financial Modeling with @RISK

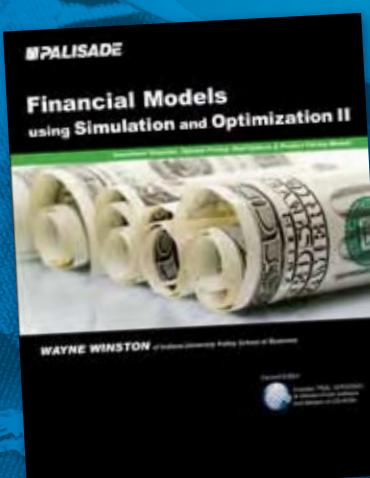
In this multimedia CD-ROM, author Wayne Winston outlines how to use @RISK to solve a range of financial problems. As he speaks, he performs the keystrokes and constructs the models step-by-step. Topics covered include optimal ordering, sales forecasting, cash flows, and more.



Financial Models Using Simulation and Optimization

BY WAYNE WINSTON

This book is the most in-depth book ever written about using @RISK, Evolver, PrecisionTree, and TopRank to solve today's complex financial problems. Topics include portfolio optimization, acquisitions modeling, value-at-risk, and much more. Over 60 examples are included.



Financial Models Using Simulation and Optimization II

BY WAYNE WINSTON

Building on the success of Financial Models, Wayne Winston uses @RISK and Evolver to model stock prices, hedge interest rate risk, price options, minimize portfolio risk, value a firm, and much more. Over 65 chapters are included. New examples and techniques in financial analysis make this book a must-have.

PrecisionTree

visual decision analysis for spreadsheets



BETTER VISION FOR BETTER DECISIONS

PrecisionTree performs decision analysis in Microsoft Excel using decision trees and influence diagrams. Decision trees let you visually map out complex, multi-layered decisions in a sequential, organized manner. This helps you identify all possible alternatives and choose the best option. PrecisionTree can be purchased by itself or included with the DecisionTools Suite. There are two editions of PrecisionTree—Professional and Industrial—each designed to meet different analytical needs.



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/PRECISIONTREE

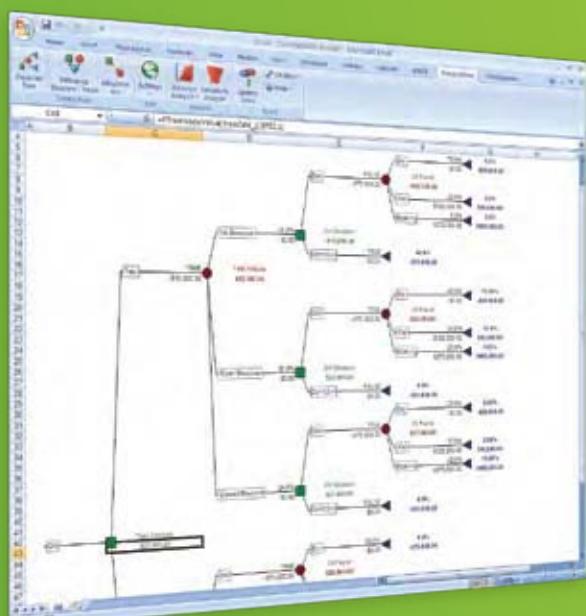
HOW PRECISIONTREE WORKS

Build a Decision Tree

Decision trees provide a formal structure in which decisions and chance events are linked in sequence from left to right. Decisions, chance events, and end results are represented by nodes and connected by branches. The result is a tree structure with the “root” on the left and various payoffs on the right. Probabilities of events occurring and payoffs for events and decisions are added to each node in the tree. With PrecisionTree, you’ll see the payoff and probability of each possible path through a tree.

Analyze Your Results

Once your decision tree is complete, PrecisionTree’s decision analysis identifies the best decision and compares it with alternative decisions. A variety of graphs and reports illustrate critical factors, probabilities of given outcomes, and more.



“ The combination of the approach required to frame decisions, and the ease and effectiveness of the PrecisionTree software is really powerful for our company. ”

Bob Hunt, Associate Director for Investment Analysis,
Procter & Gamble Corporate Finance

PRECISIONTREE FEATURES

Take Your Analysis To The Next Level With...

Policy Suggestion Report.
(Industrial edition only)

Strategy Region Graphs.
(Industrial edition only)

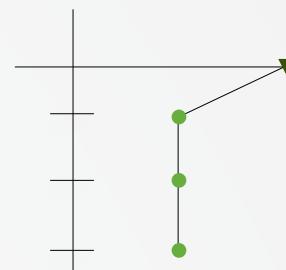
Unlimited Tree Nodes.
(Industrial edition only)

This Lets You...

See only optimal decisions and payoffs.

Display the value of decisions over ranges of 1 or 2 variables

Construct models for the most complex decisions.



Set Up Your Model With...

Decision nodes.

This Lets You...

Model points in the process where a decision is made, with associated payoffs.

Chance nodes.

Model points in the process where a chance event occurs, with associated probabilities and payoffs.

Payoff nodes.

Model the end result of a decision path, with cumulative total probabilities and payoffs.

Collapsible child nodes.

Collapse and restore branches to the right of a node for easier navigation and presentation.

Logic nodes.

Force PrecisionTree to select the optimum branch according to conditions you define.

Reference nodes.

Reference a sub-tree to simplify a large or repetitive model.

Linked trees.

Link branch values or nodes to cells in an Excel model external to the tree for complex calculations.

Payoff calculations made using custom VBA macros.

Drastically simplify your models.

Custom utility functions.

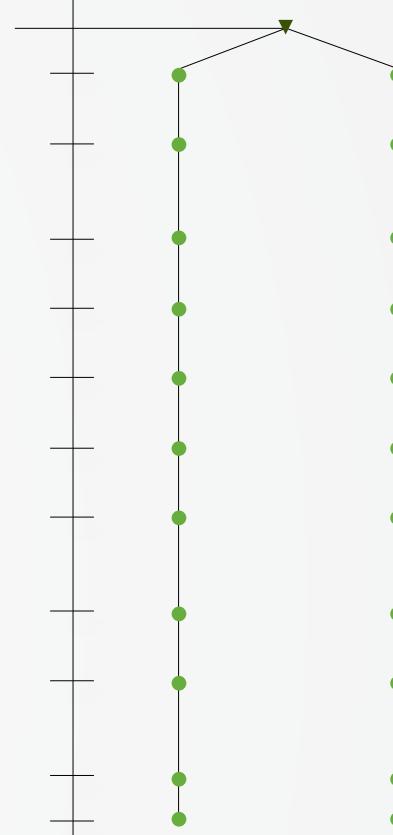
Account for the decision maker's attitude toward risk, which can affect the optimal decision choice.

Excel Developer Kit (XDK).

Automate PrecisionTree using Excel VBA.

Influence diagrams.

Summarize the general structure of a decision using nodes and arcs. Influence diagrams may be converted into decision trees.

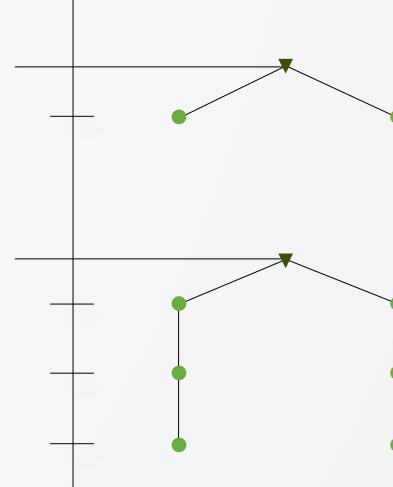


Run Your Decision Analysis With...

@RISK probability distribution functions.
(available with the DecisionTools Suite)

This Lets You...

Account for uncertainty and run Monte Carlo simulations to see more possible outcomes in your tree.



Analyze Results With...

Risk profile reports.

This Lets You...

See payoffs and risks of different decision options.

Sensitivity analysis with tornado, spider, and sensitivity graphs.

Identify the most influential variables that you chose to study.

TopRank.
(available with the DecisionTools Suite)

Identify all variables affecting your decision and rank them according to importance.

Industrial Professional

Professional and Industrial editions of PrecisionTree offer features to meet different needs.

TopRank

automated what-if analysis for spreadsheets



FIND CRITICAL FACTORS – FAST

TopRank performs automated “what if” sensitivity analysis on Microsoft Excel spreadsheets. Define any output or “bottom line” cell or cells, and TopRank will automatically find and vary all input cells which affect your output. The end result is a ranking in order of importance of all input factors which affect your bottom line. Results are presented in at-a-glance tornado diagrams and other reports.

TopRank is used for identifying critical factors in new product launches, capital projects, insurance projections, oil and gas production, environmental analyses, drug research, and much more. TopRank is available in two editions – Professional and Industrial – in the DecisionTools Suite.



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/TOPRANK

TOPRANK FEATURES

Set Up Your Model By...

- Automatically identifying inputs to vary.
- Identifying specific cells or ranges to vary.
- Browsing inputs with the Tab key.
- Changing related inputs at the same time.
- Specifying values to vary.
- Adjusting Application Settings.

This Lets You...

- Save time in performing analysis.
- Customize your analysis to particular inputs.
- Easily locate cells that will be varied.
- Save time defining categories.
- Control how cells are varied to reflect your situation.
- Define a wide range of default settings for all models.

Run Your Sensitivity Analysis By...

- Automatically varying input cells.
- Performing 2- or 3-Way What-If Analysis.
- Performing unlimited Multi-Way Analysis.
(Industrial edition only)
- Including @RISK functions.

This Lets You...

- Quickly see critical factors.
- Identify scenarios of multiple inputs affecting results.
- See unlimited combinations of input scenarios.
- Model variation in cell values much more accurately.

Analyze Results With...

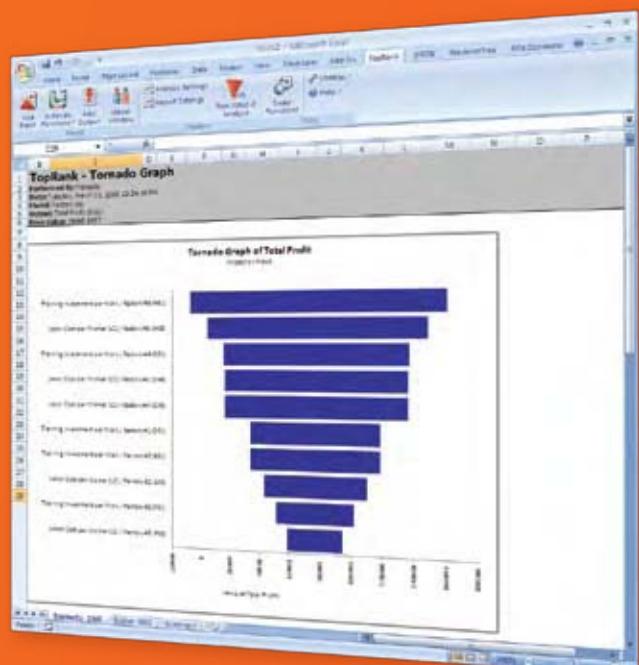
- Tornado, spider, and sensitivity graphs.
- Function Swap.
- Summary Reports.

This Lets You...

- Easily understand and identify critical factors and communicate to others.
- Remove and restore TopRank functions for sharing models with others.
- See inputs ranked by their effects on results.

“ I use TopRank to determine the critical factors affecting transportation efficiency. ”

Rolf van Lingen, Logion BV



NeuralTools

sophisticated neural networks for Excel



INTELLIGENT PREDICTIONS FROM A “THINKING” SPREADSHEET

NeuralTools brings a sophisticated new capability for forecasting and prediction in Microsoft Excel: neural networks.

You'll make new predictions based on the patterns in your known data with uncanny accuracy. NeuralTools imitates brain functions in order to “learn” the structure of your data. Once NeuralTools understands your data, it can take new inputs and make intelligent predictions. Your spreadsheet can “think” for you like never before.

NeuralTools is used for loan underwriting, credit scoring, medical diagnosis, call center planning, fraud detection, investment prediction, target identification, and much more. NeuralTools is available in two editions – Professional and Industrial – to meet different analytical needs.



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/NEURALTOOLS

NEURALTOOLS FEATURES

Set Up Your Model With...

An intelligent Data Set Manager.

Up to 1,000 cases per dataset.

Unlimited cases per dataset.

(Industrial edition only)

Categorical or numeric data.

Categorical data without dummy variables.

Data spanning multiple worksheets.

Variable matching.

Tagging of variables for training, testing, or predicting.

Application Settings.

This Lets You...

Save time structuring your data for analysis.

Analyze problems accurately.

Analyze large problems with highest accuracy.

Analyze a wide range of problems.

Save time and improve clarity.

Analyze more complex problems.

Concentrate on your analysis instead of worrying about giving variables the same names in different data sets.

Control how your data is analyzed.

Define a wide range of default settings for all models.

Run Your Neural Networks Analysis With...

One-step training, testing, and prediction.

Live Prediction.

(Industrial edition only)

This Lets You...

Save time and hassle while getting predictions fast.

Automatically update predictions when input data changes.

Analyze Results With...

Variable Impact Analysis.

Graphs and reports.

StatTools statistical analyses using the same Data Set Manager.

(available with the DecisionTools Suite)

This Lets You...

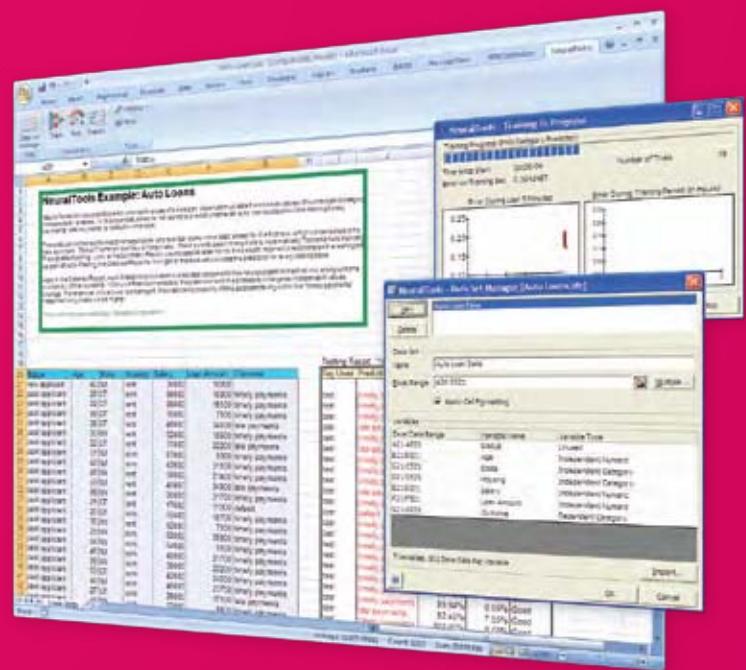
See input variables ranked by their effect on the prediction.

Quantify accuracy of the prediction, view training statistics, and more.

Combine analyses for greater insight.

“The software is very intuitive. In just an hour, I was able to complete a predictive analysis using my data.”

Jim Webre, Drexel University



StatTools

advanced statistical analysis for Excel



FORECASTING AND DATA ANALYSIS MADE EASY

StatTools performs time-series forecasting and statistical analysis in Microsoft Excel. It actually replaces Excel's built-in statistics functions with its own, more robust and accurate functions. StatTools covers the most common statistical analyses, and even allows you to build your own custom statistical procedures.

StatTools is used for sales forecasting, securities analysis, real options analysis, lending decisions, Six Sigma and quality control, life cycle analysis, and much more. StatTools is available in two editions – Professional and Industrial – to meet different analytical needs.



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/STATTOOLS

STAT TOOLS FEATURES

Set Up Your Model With...

Unlimited data points per variable.
(*Industrial edition only*)

An intelligent Data Set Manager.
Up to 10,000 data points per variable.
Data spanning multiple worksheets.
Excel data access.
Application Settings.
Excel Developer Kit (XDK) VBA programming interface.

This Lets You...

Analyze large problems with highest accuracy.

Save time structuring and defining your data for analysis.
Analyze problems accurately.
Analyze more complex problems.
Import data from virtually any source into Excel.
Define a wide range of default settings for all models.
Automate and define custom procedures in StatTools.

Run Your Analysis With...

New statistics in Excel.

Over 30 statistical procedures and 9 data utilities.
Nonparametric tests.

This Lets You...

Replace questionable Excel functions
and perform wide range of analyses.

Analyze a wide range of problems.
Make successful inferences when there is little available data.

Analyze Results With...

Live updating when input data changes.
Excel-based reporting and charting.
NeuralTools neural networks analyses
using the same Data Set Manager.
(available with the DecisionTools Suite)

@RISK functions built around time-series forecast results.
(available with the DecisionTools Suite)

Saved analyses in Excel workbooks.

This Lets You...

See statistical reports and charts that always reflect latest data.
Fully customize all StatTools reports and identify trends.
Combine analyses for greater insight.

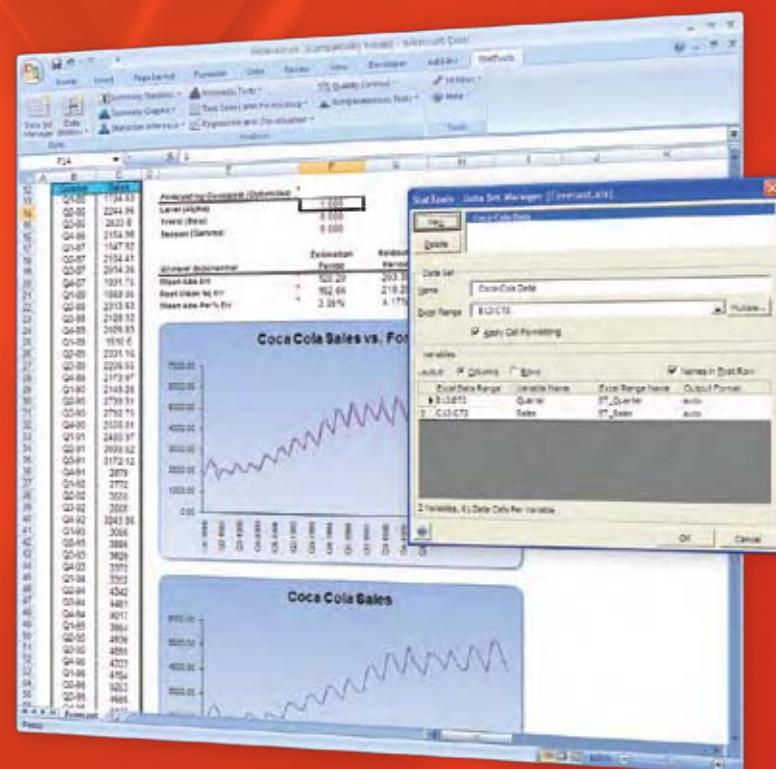
Forecast with greater accuracy.

Share StatTools reports with any Excel user, even if they
don't have StatTools

Learning Statistics with StatTools

BY S. CHRISTIAN ALBRIGHT

Included with your StatTools purchase, this book is written to help you get the most out of StatTools in a practical, straightforward manner. Much more than a software manual, this book shows you how to apply statistics to real-world problems you face. Each chapter discusses a set of statistical procedures, grouped as they are in the StatTools menu structure. Example models are also included.



Evolver

genetic algorithm-based optimization



INNOVATION SOLUTIONS FOR COMPLEX PROBLEMS

Evolver performs genetic algorithm-based optimization in Microsoft Excel. It is especially well-suited to finding the best overall global solution to nonlinear, complex problems where other solvers fail. Evolver's genetic algorithms constantly try new, different solutions to arrive at the best answer possible. This helps Evolver find the best "global" solution to a problem, rather than a substandard "local" solution.

Evolver is used to solve problems in finance, distribution, scheduling, resource allocation, budgeting, and much more. There are two editions of Evolver – Professional and Industrial – to meet different needs.



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/EVOLVER

EVOLVER FEATURES

Set Up Your Model With...

- Unlimited adjustable variable cells.
(Industrial edition only)
- Ranges for adjustable cells and constraints.
- Up to 250 adjustable variable cells.
- Six different solving methods.
- Constraints and boundary conditions.
- Application Settings.
- Excel Developer Kit (XDK) VBA programming interface.

Run Your Optimization With...

- Progress window and Evolver Watcher.
- Genetic algorithms.
- Convergence monitoring and genetic operators.

Analyze Results With...

- Original, Best, Last model updating.
- Reports in Excel.

This Lets You...

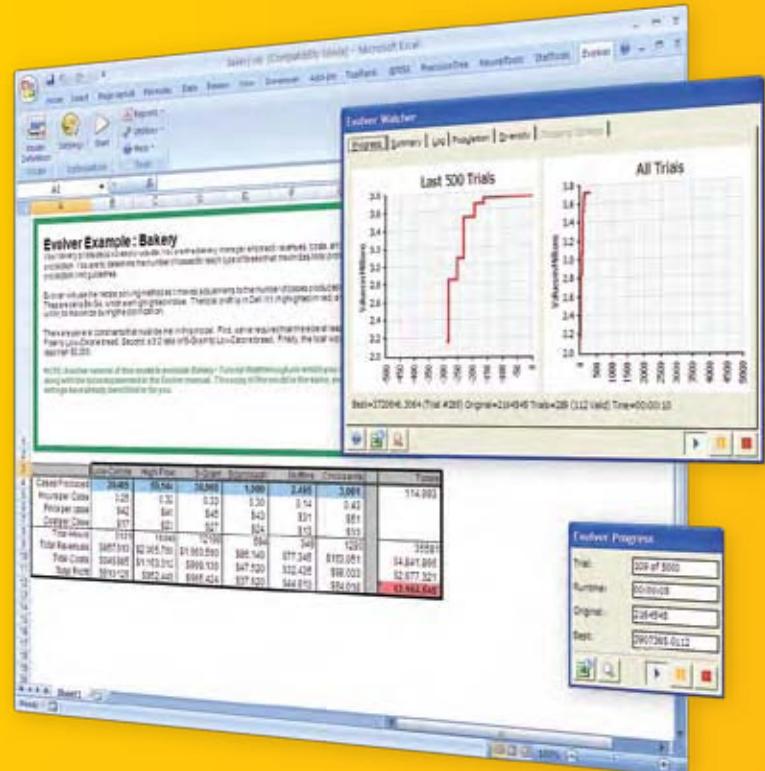
- Model very large and complex problems.
- Streamline model setup and editing.
- Model large problems with many factors you can control.
- Always pick the best method for different types of problems.
- Create models that accurately reflect real-life situations.
- Define a wide range of default settings for all models.
- Automate and customize Evolver analyses.

This Lets You...

- Monitor optimization progress toward best solutions.
- Find the best global solution while avoiding getting caught in local, "hill-climbing" solutions.
- Get optimization results fast.

This Lets You...

- Instantly see the effects of solutions on your entire model.
- Save and share optimization and simulation data.

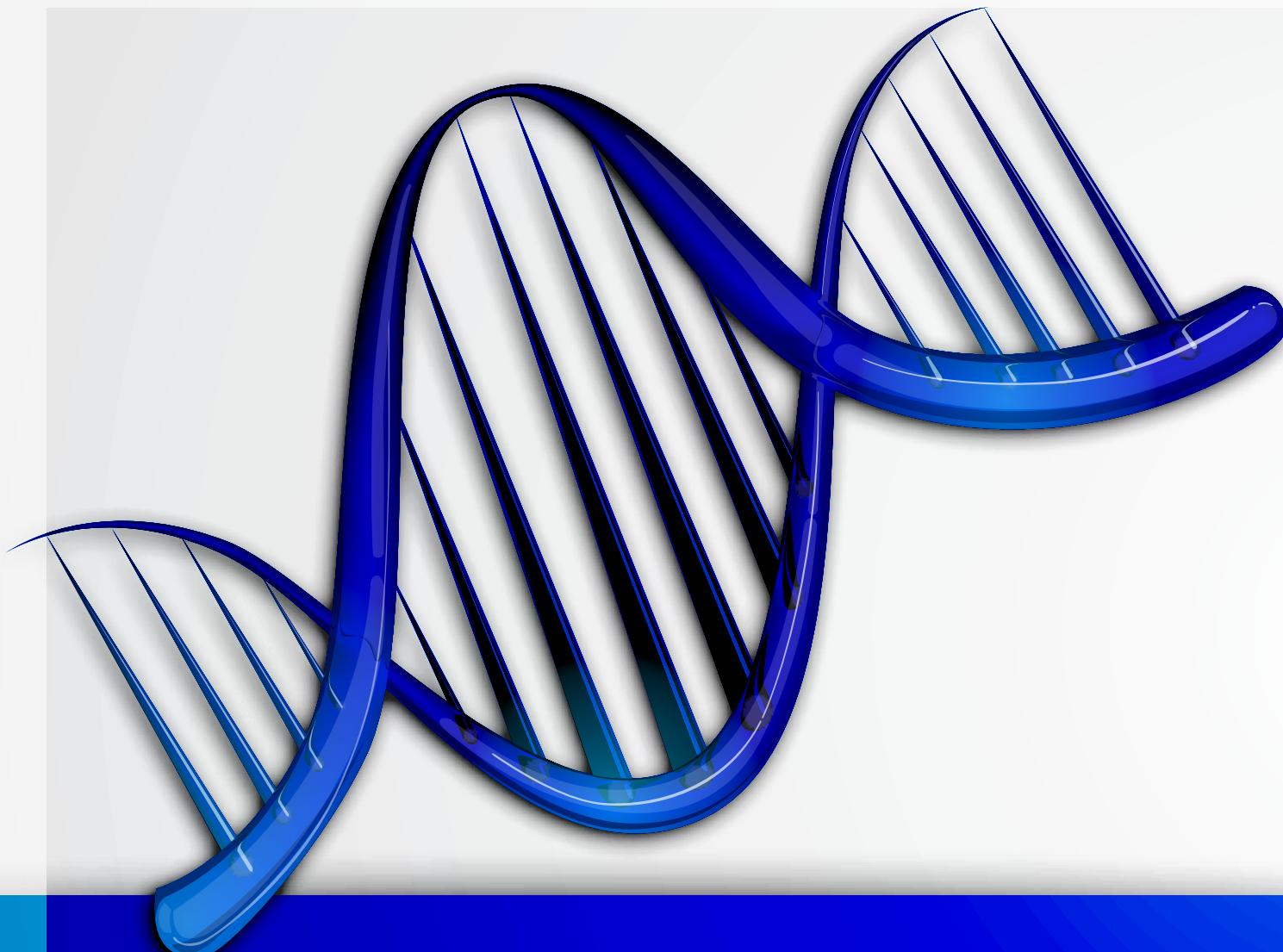


I've checked Evolver's accuracy by comparing its solutions to problems with closed-form analytical solutions, and the agreement is very close. Evolver can even solve mathematically singular stacking sequences, which are literally impossible to converge upon using gradient-based methods.

In short, I'm pleased!

RISKOptimizer

optimization under uncertainty



OPTIMIZATION MEETS SIMULATION

RISKOptimizer combines optimization with Monte Carlo simulation to solve optimization problems under uncertainty. Take any optimization problem and replace uncertain values with @RISK functions that represent ranges of possible values. RISKOptimizer will try different combinations of adjustable cells to achieve the goal you define, while running Monte Carlo simulations on each trial solution to account for inherent uncertainty. The result is the most robust, accurate solution possible.

RISKOptimizer is used to solve problems in yield management, job shop scheduling, portfolio balancing, product mix, and much more. RISKOptimizer is available in @RISK Industrial and DecisionTools Suite Industrial.



Part of the
DecisionTools Suite

LEARN MORE: PALISADE.COM/RISKOPTIMIZER

RISKOPTIMIZER FEATURES

Set Up Your Model With...

- Ranges for adjustable cells and constraints.
- 38 built-in probability distribution functions.
- Unlimited adjustable variable cells.
- Six different solving methods.
- Constraints and boundary conditions.
- Application Settings.
- Excel Developer Kit (XDK) VBA programming interface.

Run Your Optimization With...

- Progress window and RISKOptimizer Watcher.
- Genetic algorithms.
- Monte Carlo simulation.
- Convergence monitoring and genetic operators.

Analyze Results With...

- Original, Best, Last model updating.
- Reports in Excel.

This Lets You...

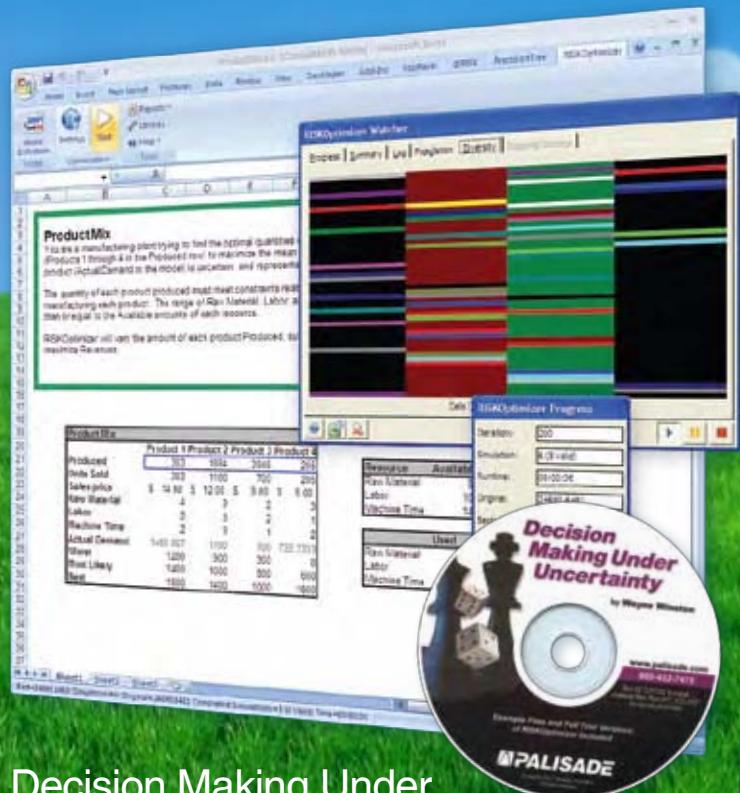
- Streamline model setup and editing.
- Represent virtually any uncertain factor for accurate modeling.
- Model very large and complex problems with many factors you can control.
- Always pick the best method for different types of problems.
- Create models that accurately reflect real-life situations.
- Define a wide range of default settings for all models.
- Automate and customize RISKOptimizer analyses.

This Lets You...

- Monitor optimization progress toward best solutions.
- Find the best global solution while avoiding getting caught in local, "hill-climbing" solutions.
- Simulate many different outcomes for every trial solution.
- Get optimization results fast.

This Lets You...

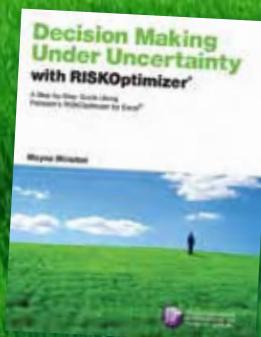
- Instantly see the effects of solutions on your entire model.
- Save and share optimization and simulation data.



Decision Making Under Uncertainty with RISKOptimizer

BY WAYNE WINSTON

This book uses Excel and RISKOptimizer to solve many previously unsolvable real-world business problems. Wayne Winston teaches by example using clear concise language. Packed with over 30 examples, topics include: product mix decisions, yield management, scheduling production, retirement planning, and much more.



Decision Making Under Uncertainty with RISKOptimizer

Use this multimedia CD-ROM to see how to solve a wide range of problems using RISKOptimizer. Taking examples from the book of the same title, the instructor demonstrates step-by-step how to solve problems ranging from manpower scheduling to value-at-risk of a portfolio.

@RISK for Project

advanced risk analysis for project management



CONQUER PROJECT RISK

@RISK for Project brings Monte Carlo simulation to Microsoft Project. Any cost, resource, duration, date, or other numeric field in your Microsoft Project model can be represented with an @RISK probability distribution function to describe its uncertainty. Discover the probabilities of meeting your project budgets and deadlines, and communicate them to others with a variety of reports and charts. There are two editions of @RISK for Project – Standard and Professional – to meet different analytical needs.

LEARN MORE: PALISADE.COM/RISKPROJECT

@RISK FOR PROJECT FEATURES

Take Your Analysis To The Next Level With...

Probabilistic branching.
(*Professional edition only*)

IF/THEN conditional modeling.
(*Professional edition only*)

Probabilistic calendars.
(*Professional edition only*)

Global variables.
(*Professional edition only*)

Set Up Your Model With...

100% Microsoft Project integration.

A thumbnail gallery of probability distributions and distribution graph overlays for comparison.

Risk categories.

Correlation of input distributions.

Distribution fitting.

Parameter entry tables.

Developer Kit.

Run Your Monte Carlo Simulation With...

Real-time updating of graphs and charts during simulation.

Backward compatibility.

Analyze Results With...

Histograms, area, line, cumulative, summary, and overlay graphs.

Tornado charts.

Sensitivity and scenario analysis.

Risk results in Gantt chart.

Critical indices.

This Lets You...

Account for chance events by allowing a project to branch from one task to any number of other tasks during simulation.

Change a project value or branch to another task if a condition is met during simulation.

Model probabilities of work stoppages due to weather, strike, or other events.

Hold values for the project as a whole that can be referenced during simulation.

This Lets You...

Perform risk analysis where you work – in Project – without having to export to other applications.

Describe uncertain factors using multiple graphical ways.

Assign risks across sets of tasks or resources.

Represent dependency between related variables for accurate modeling.

Use historical or industry data to define distribution functions.

Quickly add or change parameters for multiple @RISK functions.

Automate and customize @RISK through a complete library of commands and functions that let you control every aspect of @RISK in Project using VBA.

This Lets You...

Explain Monte Carlo simulation to others.

Previous @RISK models work in latest version.

This Lets You...

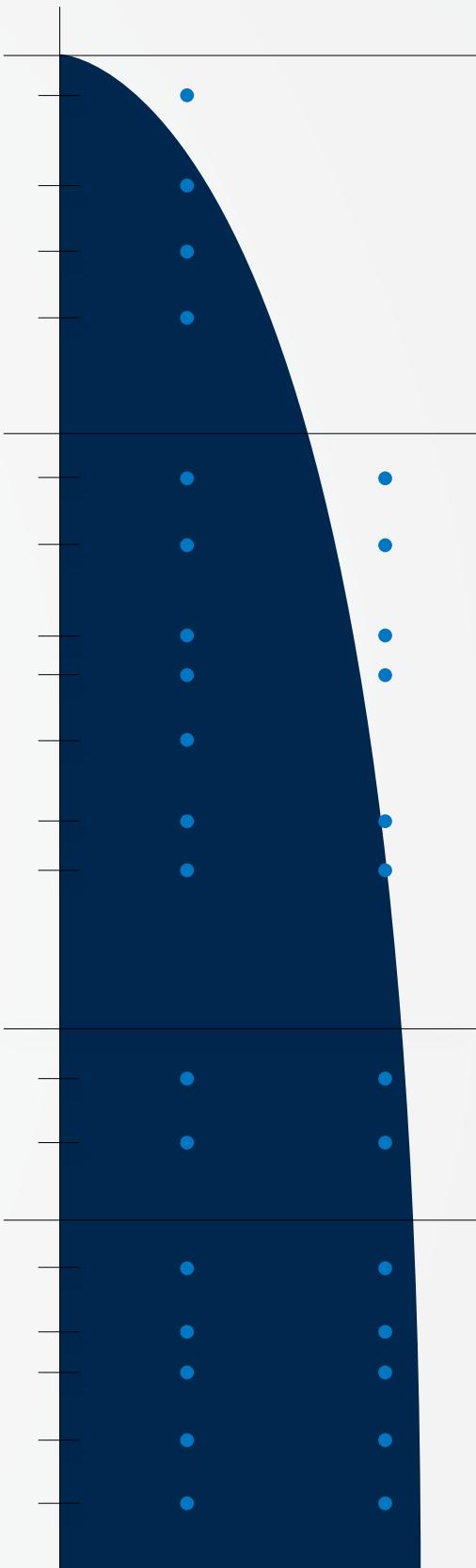
Understand and communicate insights using a variety of graphing and charting options.

Visually identify critical factors and identify trends.

Identify input distributions and combinations of inputs that had the most impact on results.

See the true critical path so you can manage resources effectively.

See the percentage of time a task is on the critical path.



Professional Standard

Professional and Standard editions of @RISK for Project offer features to meet different needs.

@RISK for Six Sigma



A key application of @RISK is Six Sigma and quality analysis. Industries ranging from engine manufacturing to precious metals to airlines and consumer goods are using @RISK every day to improve their processes, enhance the quality of their products and services, and save money.

Whether it's in DMAIC, Design for Six Sigma (DFSS), Lean projects, Design of Experiments (DOE), or other areas, uncertainty and variability lie at the core of any Six Sigma analysis. @RISK uses Monte Carlo simulation to identify, measure, and root out the causes of variability in your production and service processes and designs.

PROCESS CAPABILITY METRICS IN @RISK

@RISK allows you to define Upper and Lower Specification Limits and Target values for each output, and comes complete with a wide range of Six Sigma statistics and capability metrics on those outputs, like Cpk, Dppm (or Dpm), Sigma level, and much more. These metrics can be placed directly in your spreadsheet model, or appear in the @RISK Results Summary window. Output graphs show markers for LSL, USL, and Target values. The Industrial edition of @RISK adds RISKOptimizer to your Six Sigma analyses for optimization of project selection, resource allocation, and more.

@RISK generates the following capability metrics.

RiskCp	Calculates Process Potential	RiskPNCLower	Percent Nonconforming below Lower Spec Limit
RiskCpm	Can be used when a target value other than the center of the specification spread has been designated as desirable	RiskPNCUpper	Percent Nonconforming above Upper Spec Limit
RiskCpk	Calculates Process Capability	RiskPPMLower	Defective Parts per Million below Lower Spec Limit
RiskCpkLower	Calculates Process Capability - Upper Spec Limit	RiskPPMUpper	Defective Parts per Million above Upper Spec Limit
RiskCpkUpper	Calculates Process Capability - Lower Spec Limit	RiskSigmaLevel	Process Sigma Level
RiskDPM	Defective Parts per Million	RiskUpperXBound	Upper X-value for a specified number of standard deviations from the mean
RiskK	Measure of Process Center	RiskYV	Yield Value
RiskLowerXBound	Lower X-value for a specified number of standard deviations from the mean	RiskZlower	Z-Score for Lower Spec Limit
RiskPNC	Total Percent Nonconforming	RiskZMin	Process capability when special factors are removed and the process is properly centered
		RiskZupper	Z-Score for Upper Spec Limit

LEARN MORE: PALISADE.COM/RISK/SIXSIGMA/

CASE STUDY CUMMINS INC.

@RISK in Design For Six Sigma

At Cummins Inc. @RISK is Standard for Six Sigma

Application: Design For Six Sigma

Organization: Cummins Inc.

In an era when takeovers and mergers are common, Cummins, Inc., the world's leading designer and manufacturer of engines and related systems, has remained a strong, independent, global power leader committed to the development of not only its products but its people. According to Cummins' Ernest Lifferth, Director of Design for Six Sigma, the company's Six Sigma program has a lot to do with this success, and @RISK has a lot to do with the success of their Design for Six Sigma (DFSS) program. The Design for Six Sigma initiative is used in new product introduction. According to Ernest, Design for Six Sigma has realized hundreds of millions of dollars in cost savings for Cummins.

"Essentially what we are trying to do with the Six Sigma program is to cultivate an atmosphere of discipline in decision making that relies on data," Ernest says. "It's data driven." And of course, that's where @RISK has proven itself. One Green Belt candidate not only learned how to use the program in his decision analysis but eventually developed a methodology for managers of new product teams that incorporated @RISK to reduce error in forecasting. "We aren't necessarily interested in turning our engineers into statisticians, but we are interested in enabling engineers to use statistics—and @RISK is a great tool for this."

Cummins has standardized its Six Sigma decision analysis training to use @RISK throughout the corporation, and more than 400 people in Cummins's worldwide operations have been trained on @RISK. Because of the launch system of training—thirty or more students work through projects as Green Belts—that 400 figure will increase with every new launch. The longevity of both the Six Sigma program and the tools it introduces are built into the program. Referring back to the Cummins mission, Ernest says, "This is a structured, team-based method to achieve customer objectives of cost, quality, and delivery."

“We've trained over 400 people on @RISK in our Six Sigma training program.**”**

Ernest Lifferth, Cummins, Inc.



Six Sigma Applications of @RISK

DMAIC · Design For Six Sigma · Design of Experiments · Lean Six Sigma
Project selection · Process optimization · Value stream mapping
Identify CTQs

Palisade Training

making risk and decision analysis accessible



When performing risk and decision analysis, how you apply your software tools is just as important as which tools you choose. Palisade Training services show you how to apply @RISK and the DecisionTools Suite to real-life problems, maximizing your software investment.

LEARN MORE: PALISADE.COM/TRAINING

On-Site Training

With Palisade On-Site Training, you get a customized course designed around your organization's needs. You benefit not only from your instructor's expertise, but the experience of the team of consultants working to design your class. Training is delivered at your company site, saving you travel time and cost.

Regional Seminars

Palisade Regional Seminars are professional, public two- and three-day courses.

The training is hands-on, and includes a course notebook and example files.

Palisade Regional Seminars have been accredited by a number of industry groups, enabling professionals in those industries to earn continuing education credits.

Lunch and breaks are also provided, giving you a great opportunity to network with other professionals.

Live Web Training

Live Web Training courses are hands-on and include electronic course notes and example files. Live Web Training is delivered by an expert instructor via an interactive web session and telephone conference. With online training you can avoid travel time and costs while still interacting with the instructor and group.

Learn Direct from the Source

All Palisade trainers and consultants have firsthand knowledge of and access to the latest software versions and developments. This enables them to provide unique insights to the latest techniques to address your real-world problems. Possessing a range of background experience – from utilities to finance, oil and gas to environmental engineering – Palisade's consultants are well-positioned to teach you and your staff what you need to know to make the best possible decisions.

“ Risk analysis within Fluor has moved up to a different level because of Palisade training on the software.”

Waymon Lofton, Fluor Corporation

Conferences and Events



Palisade holds a variety of conferences, symposia, and Web events around the world. In addition, you can find us at trade shows and industry events worldwide.

Palisade Conferences & Forums

Palisade Risk & Decision Analysis Conferences are two-day, multi-track events featuring user case studies, hands-on software training, and presentations of the latest DecisionTools software. Hundreds of decision makers in all industries attend these Conferences each year in Europe, North America, Latin America, and Australia.

Palisade also offers one-day, focused forums featuring case studies and training content tailored for specific industries or for academia. These events are perfect for professionals seeking a short overview of analytical trends in their field.

**LEARN MORE AND SEE THE SCHEDULE:
PALISADE.COM/USERCONF**



Free Live Webcasts

Webcasts are free, 30- to 60-minute sessions delivered over the Web and teleconference that present the use of DecisionTools software on a variety of topics. Sessions are presented by users in the field as well as Palisade experts. Archived webcasts may also be viewed anytime free of charge.

SEE THE SCHEDULE: PALISADE.COM/SEMINARS/WEBCASTS.ASP

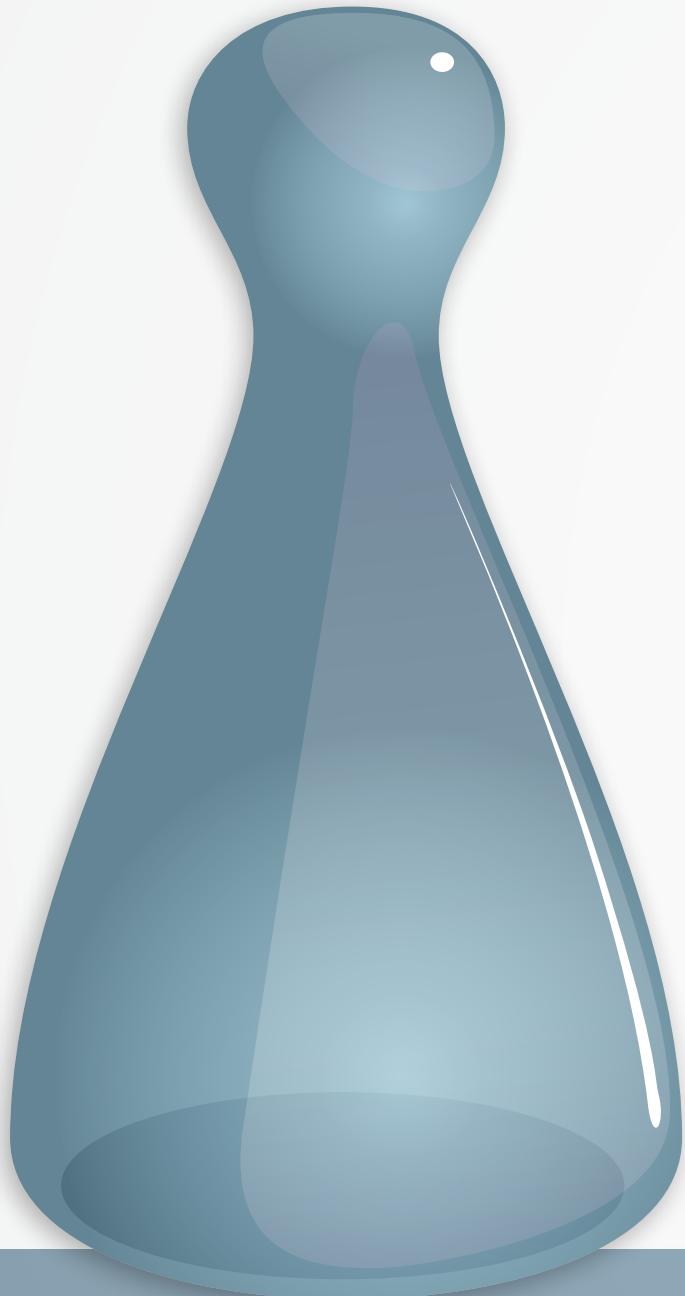
Trade Shows

Palisade maintains an active trade show presence, hosting booths and giving presentations at industry events around the globe. We participate at conferences in oil and gas, Six Sigma, operations research, cost estimation, project management, and more.

SEE THE SCHEDULE: PALISADE.COM/ABOUT/TRADE_SHOWS.ASP

Business Consulting

custom risk modeling and analysis



Palisade offers business consulting and model-building services in quantitative and risk analysis independently of the software side of our business. Clients range across all industries and functions, and include large and small corporations, private equity firms, and financial institutions.

LEARN MORE: PALISADE.COM/CONSULTING

Better Decisions from Quantitative Analytics

Our core expertise is the use of quantitative methods to support decision making. We offer a unique combination of powerful analytics, practical business experience, and customized solutions. We work in a highly focused way to achieve a clear basis for decision-making and to uncover opportunities to enhance shareholder value.

Consulting Applications

Our core expertise is the use of quantitative analytic methods to support decision making. We offer a unique combination of powerful analytics, practical business experience, and customized solutions. We work in a highly focused way to achieve a clear basis for decision-making and to uncover opportunities to enhance shareholder value.

Typical projects Palisade Business Consulting can help with include:

- Spreadsheet modeling
- Risk analysis
- Business planning and business case analysis
- Market entry analysis
- Valuation
- Resource allocation under uncertainty
- Deal and incentive structures, and negotiation support

Consulting Case Studies

Private Equity A private equity firm was contemplating the purchase of a major insurance entity. Palisade Business Consulting constructed a financial model to identify the drivers of risk and their impact on the business. The outputs included the funding requirements and cash generation profiles under different scenarios.

Fund Management A major fund manager was presented with a multi-million euro investment opportunity in the telecommunications industry. Palisade approached the problem by analyzing the competition as well as the outcomes of different strategies.

Consumer Products A large food manufacturer was considering constructing a large plant. Palisade Business Consulting developed a financial model to analyze the core business case, as well as a detailed assessment of all key risks in the project (such as labor, schedule, and foreign exchange) and their financial implications.

Custom Development

personalized risk solutions for your company

Palisade offers custom software development services as well as software developer kits to create your own applications integrating @RISK, RISKOptimizer, and other Palisade technology. We can also help automate Palisade software using VBA in Microsoft Excel or Project.



LEARN MORE: PALISADE.COM/DEVELOPMENT/

Software Development

Add @RISK and DecisionTools to Custom Applications

Palisade Custom Development can incorporate Monte Carlo simulation, probability distributions, distribution fitting, graphs, reports, and many other features of @RISK into any Windows-based application. In addition, we can integrate genetic algorithm-based optimization from RISKOptimizer or Evolver. This allows you to apply powerful, proven analytics to applications outside Excel. Applications can be run in a desktop, network, or Web environment.

Contact Us for Any Analytical Need

Palisade Custom Development has written risk and decision analytics for clients separately from our existing software technologies. We can customize any analytical solution to meet your needs.

Custom Development in Excel

You may wish to customize your @RISK or DecisionTools Suite spreadsheet models, restricting access to model components for some users or automating reports and other aspects of your analysis. Using the DecisionTools built-in Excel Developer Kit (XDK) and Excel's VBA programming language, Palisade can help you build powerful, easy-to-use risk models for one user or for an entire work group.

Development Case Studies

Project Risk: An engineering firm needed an Excel risk solution for a large infrastructure project. Palisade wrote an add-in that imports schedule and cost data, creates a risk register, and uses Monte Carlo simulation to predict the probability of different schedule and cost outcomes.

Web-based Agricultural Risk: A research institution needed a web-based model for assessing the risk of cattle becoming infected with a disease. Using the @RISK Developer Kit, Palisade created an application that allows farmers around the world to analyze the risks facing their herds and identify the optimal mitigation strategy.

Developer Kits



@RISK Developer Kit



Evolver Developer Kit



BestFit Developer Kit



RISKOptimizer Developer Kit

Software developer kits for @RISK, BestFit (distribution fitting), RISKOptimizer and Evolver are also available separately if you wish to write your own custom applications. Each comes with .DLL and ActiveX interfaces, and supports Windows and .NET programming languages, such as C, C#, C++, Visual Basic, or Visual Basic .NET.

PALISADE ACADEMIC SOFTWARE

Palisade DecisionTools Suite Industrial software is available at significant discounts for academic users through a variety of programs.

OVER 40,000 STUDENTS
ARE TRAINED ON
DECISIONTOOLS ANNUALLY



The leverage you get by using these tools in Excel is phenomenal. My [MBA and Executive Education] students can very quickly learn and apply the techniques they see in class to difficult decision-making problems faced by their firms.



Dr. Phil Rogers, University of Houston's C. T. Bauer College of Business

Course Licenses

Available at over 95% off retail price, the DecisionTools Suite Course License is for professors and instructors who want to use DecisionTools as part of their curriculum. Course Licenses are an economical and trouble-free solution that enables schools to install DecisionTools in a computer lab, on individual machines, or on a secure server for students to download to their computers. The software is fully functional with no model size limitations and is available for twelve month licenses, renewable annually to ensure the latest version.

Student Versions

Also available at over 95% off retail price, the DecisionTools Suite Student Version is for individual full-time and part-time students. Student Versions are fully functional with no model size or functional limits. They expire twelve months after installation and may be installed on one machine.

Full Academic Versions

Available at a significant discount off the retail price, the DecisionTools Suite Full Academic Version is perfect for professors, instructors, researchers, administrators, and support staff of accredited academic institutions who use the software for non-teaching purposes. It has no model size, functional, or time limitations.

LEARN MORE: PALISADE.COM/ACADEMIC

Textbooks Bundled with Palisade Software

DecisionTools software is included with an increasing number of top MBA textbooks published today. Used at top business schools worldwide, over 40,000 students per year are learning to make better decisions using DecisionTools software.

**SEE A LIST OF TEXTBOOKS INCLUDING
DECISIONTOOLS SOFTWARE:**

PALISADE.COM/ACADEMIC/TEXTBOOKS.ASP



MAINTENANCE PLANS

Maintenance is included for 12 months with your initial software purchase, and is renewable every year. Benefits of maintenance include:

Free software upgrades

and updates. Major version upgrades are released when significant new features and/or interface changes are made to the software. Software updates are often released to keep current with changes in Windows, Excel or Project, and may also include bug fixes or minor product enhancements.

Free, unlimited technical support

if you need help operating the software or resolving errors.

LEARN MORE: PALISADE.COM/SUPPORT/MAINTENANCE.ASP

LICENSING OPTIONS

Palisade offers a range of software licensing options designed to help businesses and organizations meet their risk and decision analysis needs in the most efficient manner possible. Most Palisade software uses industry-standard FLEXnet licensing technology for maximum ease of deployment and flexibility.

Stand alone licenses

are intended for use by one person on one computer.

Concurrent network licenses

serve multiple users from a network server.

Enterprise Activation Server licenses

allow you to grant and manage stand-alone licenses yourself.

Palisade corporate licenses are purchasing options that enable you to get the most software for your money, deployed in the most efficient manner possible. Corporate licenses are available for a particular site or for larger groups beyond a physical location. They ensure version consistency, eliminate IT compliance hassles, and save money.

LEARN MORE: PALISADE.COM/LICENSING_OPTIONS

**Palisade Corporation**

sales@palisade.com
tel: +1 607 277 8000
800 432 RISK
fax: +1 607 277 8001

Palisade Europe

sales@palisade-europe.com
tel: +44 1895 425050
fax: +44 1895 425051
UK: 0800 783 5398
France: 0800 90 80 32
Germany: 0800 181 7449
Spain: 900 93 8916

Palisade Asia-Pacific

sales@palisade.com.au
tel: +61 2 9929 9799
1 800 177 101
fax: +61 2 9954 3882

Palisade Latinoamérica

www.palisade-lta.com
ventas@palisade-lta.com
tel: +1 607 277 8000
fax: +1 607 277 8001

Palisade Brazil

www.palisade-br.com
vendas@palisade-br.com
tel: +1 607 277 8000
fax: +1 607 277 8001