EXPERIENCE THE
WORLD’S LEADING
RISK AND DECISION
ANALYSIS SOFTWARE
AND SOLUTIONS
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.

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

INDUSTRY | SAMPLE APPLICATION
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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 DEFENCE | Resource allocation  
War games  
Welfare and budgetary projections

AEROSPACE AND TRANSPORTATION | Cost estimating  
Highway planning and optimization  
Supply chain distribution
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.
The DecisionTools Suite is an integrated set of programs for risk analysis and decision making under uncertainty that run in Microsoft Excel. The DecisionTools Suite includes @RISK for risk analysis using Monte Carlo simulation, PrecisionTree for decision analysis, and TopRank for automated “what if” sensitivity analysis. Also included are StatTools, NeuralTools, and Evolver for prediction, data analysis and optimization, and BigPicture for mind mapping, diagramming, and data exploration. All programs were designed and developed to work together easily.

The DecisionTools Suite is available in English, Spanish, Portuguese, French, German, Japanese, Chinese, and Russian.

LEARN MORE: PALISADE.COM/DECISIONTOOLS_SUITE
THE DECISIONTOOLS SUITE BRINGS TOGETHER
Eight powerful analytical programs that work together in Excel

@RISK®
risk analysis using Monte Carlo simulation

PrecisionTree®
decision trees in Microsoft Excel

TopRank®
automated “what-if” analysis for Excel

NeuralTools®
sophisticated neural networks for Microsoft Excel

BigPicture
mind mapping and data exploration for Microsoft Excel

StatTools®
advanced statistical analysis for Excel

Evolver™
sophisticated optimization for spreadsheets

RISKOptimizer®
optimization with simulation (available in Industrial edition only)

FEATURES & BENEFITS

FEATURES
See all possible outcomes with Monte Carlo simulation
Map out decisions with decision trees and influence diagrams
Works in Excel
Genetic algorithms and OptQuest optimization methods
Sensitivity or What-If Analysis
Distribution viewing and fitting
Presentation-quality graphs and reports
Full integration between programs
Parallel processing
Bundle pricing

BENEFITS
Avoid pitfalls and identify opportunities
Identify and illustrate the best alternatives
No need to learn new applications from scratch
Solve both linear and nonlinear problems quickly and accurately
Identify the most important variables
Accurate description of uncertainty
Easily explain results and recommendations to others
Easily install and migrate between component tools; apply analyses from one tool to another tool’s model for greater insight
Speed up large Monte Carlo simulations by using available CPUs within a single machine
Save money compared to buying products separately
PROCTER & GAMBLE USES @RISK AND PRECISIONTREE WORLD-WIDE

“We’ve trained well over a thousand people throughout the company on @RISK,” says Procter & Gamble’s Bob Hunt, Associate Director for Investment Analysis in P&G’s Corporate Finance organization. They are now using PrecisionTree: “Its attraction is its capacity to value complex decisions, which often involve multiple, sequential decision steps.”

UNILEVER EMPLOYS DECISION MAKING UNDER UNCERTAINTY FOR HIGH-STAKES DECISION-MAKING

Unilever’s Decision Analysis Group aims to bring Decision Making Under Uncertainty techniques to the entire worldwide organization, for all high-stakes decision-making. The DecisionTools Suite is an integral part of that effort. “It was the integration of decision tools and Monte Carlo in one package that seemed quite attractive to us,” explains Dr. Sven Roden, Senior Decision Analyst for the Finance Academy’s Decision Analysis Group.

MET-MEX PEÑOLES OPTIMIZES PRECIOUS METAL REFINING

Because of the costliness of its raw materials, the metallurgical giant Met-Mex Peñoles, the world’s largest refiner of silver and Mexico’s largest refiner of gold, tries to avoid expensive pilot projects. To cut down on the number of trial runs, the company simulates the refining process by using the DecisionTools Suite in Six Sigma Design of Experiments. This allows the company to work on process optimization and sacrifice a minimum of gold and silver to its experiments.
Would you like to know the chances of making money – or taking a loss – on your next venture? Or the likelihood that your project will finish on time and within budget? How about the probabilities of finding oil or gas, and in what amounts? Armed with that kind of information, you could take a lot of guesswork out of big decisions and plan strategies with confidence. With @RISK, you can answer these questions and more – right in your Excel spreadsheet.

@RISK performs risk analysis using Monte Carlo simulation to show you many possible outcomes in your spreadsheet model—and tells you how likely they are to occur. It mathematically and objectively computes and tracks many different possible future scenarios, then tells you the probabilities and risks associated with each different one. This means you can judge which risks to take and which ones to avoid, allowing for the best decision making under uncertainty.

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 100 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.

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 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.

Define Uncertainty with Ease. A graphical gallery lets you preview and compare various probability distributions. You can also use historical or industry data and @RISK’s integrated distribution fitting to select the best distribution function with the right parameters. Input distributions can also be correlated with one another, reflecting real-life dependencies between variables.

Understand with Graphs. @RISK graphs include histograms, cumulative curves, sensitivity tornado charts, scatter plots, box plots, overlays, trend graphs, and more.

Share Models with Others. You can remove and restore @RISK functions from your models, enabling colleagues without @RISK installed to use and edit the same files. In addition, you can store custom @RISK probability distributions and simulation results in the @RISK Library for sharing with other @RISK users in your group.

Integration with Microsoft Project. @RISK for Excel integrates with Microsoft Project, allowing you to perform all your risk modeling from the more flexible Excel environment. @RISK now imports your Project schedules into Excel so that you can use all of Excel’s formulas, and @RISK’s features, on your Project models. Excel becomes a front-end for your Microsoft Project schedule, linking directly to the underlying .MPP(X) file. Changes made in either Project or Excel are reflected in the other. When it’s time to run your Monte Carlo simulation, Microsoft Project’s scheduling engine is used for the calculations, ensuring accuracy.
Have you ever been faced with a complex, multi-stage decision like what is the best strategy for testing and drilling for oil? Or, should we build a new plant or buy an existing one?

What about bidding on a new project – what should you bid, and how should you react to your opponent’s bid? Or perhaps you are faced with determining what the best litigation strategy is in a legal dispute, or the best series of medical tests and procedures to maximize a patient’s chance of recovery?

PrecisionTree helps you tackle these types of complex, sequential decisions. With PrecisionTree, you can visually map out, organize, and analyze decisions using decision trees, right in Microsoft Excel. Decision trees are quantitative diagrams with nodes and branches representing different possible decision paths and chance events. This helps you identify and calculate the value of all possible alternatives, so you can choose the best option with confidence.

TopRank performs automated “what if” sensitivity analysis on Excel spreadsheets. Define any output cell. TopRank will find and vary input cells which affect your output. The result is easy-to-understand reports which clearly identify and rank the factors that affect your bottom line the most.

BigPicture is a diagramming software add-in for Microsoft Excel. With BigPicture, you can create mind maps to organize thoughts and ideas, or create dynamic maps from any type of spreadsheet data.

BigPicture can be used in a number of ways, from brainstorming, to chart-building, to data analysis. Applications include strategic planning, HR organizational charts, and data exploration. BigPicture collaborates handily with PrecisionTree. PrecisionTree’s quantitative decision trees can be viewed directly in BigPicture, turning them into stunning visual maps that can be shared with any Excel user for presentation and discussion.
**StatTools**

**advanced statistical analysis for Excel**

Have you needed forecasting, regression, quality control charts, or other statistical analyses beyond the basics that are provided with Excel? Have you ever doubted the accuracy of some of Excel’s statistical results? StatTools addresses both of these issues, providing a new, powerful statistics toolset for Excel. StatTools covers the most commonly used statistical procedures, and offers unprecedented capabilities for adding new, custom analyses. StatTools is used for sales forecasting, real options analysis, Six Sigma, and much more.

**RISKOptimizer**

**optimization with simulation**

Wouldn’t you like to know the best allocation of your limited resources to maximize your profits? Or the most efficient schedule to minimize costs? But what about the uncertainty inherent in sales projections, returns from individual investments, or production costs?

Traditional optimization methods ignore this uncertainty, a very risky approach. RISKOptimizer tells you not only the best combination of inputs to use, but the risk associated with each strategy. It does this by combining optimization algorithms with Monte Carlo simulation. You can seek out strategies that enable you to minimize your risks while achieving your goals.

**NeuralTools**

**sophisticated neural networks for Excel**

NeuralTools performs predictions in Microsoft Excel using sophisticated neural networks. NeuralTools imitates brain functions to “learn” patterns in your known data, and uses those patterns to make predictions from new, incomplete data. In addition, NeuralTools can automatically update predictions live when input data changes, saving time and enabling more robust analyses. NeuralTools is used for loan underwriting, credit scoring, call center planning, fraud detection, and much more.

**Evolver**

**sophisticated optimization for spreadsheets**

Evolver uses innovative genetic algorithm (GA), OptQuest, and linear programming technology to quickly solve problems in finance, distribution, scheduling, resource allocation, manufacturing, budgeting, engineering, and more. Virtually any type of problem that can be modeled in Excel can be solved by Evolver, including otherwise unsolvable, complex nonlinear problems. Evolver has a unique ability to arrive at the best overall “global” solution to a problem—solutions traditional solvers typically miss.
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.

**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 the same functions as @RISK.

**PrecisionTree**, then **BigPicture**

View PrecisionTree's quantitative decision trees directly in BigPicture, turning them into stunning visual maps that can be shared with any Excel user for presentation and discussion.

**@RISK**, then **StatTools**

@RISK results can be run through a StatTools analysis to assess confidence intervals. @RISK can also be applied to results from a StatTools forecast to simulate possible outcomes with more precision.

**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. The tools work together to predict the optimal solution.

**@RISK**, then **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 identify the critical factors in your tree.

**COMBINE PRODUCTS FOR GREATER INSIGHTS**

LICENSING OPTIONS

The DecisionTools Suite is available through a variety of licensing options, including corporate, network, and academic licenses.

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.

LEARN MORE: PALISADE.COM/LICENSING_OPTIONS
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. Palisade offers:

• Customized On-Site Training
• Public Regional Seminars
• Live Web Training

LEARN MORE: PALISADE.COM/TRAINING

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

Academic Software
significant discounts on academic licenses

Available at steep discounts, Academic Course Licenses are an economical and trouble-free solution that enables schools to install the DecisionTools Suite in a computer lab, on individual machines, or on a secure server for students to download to their computers. Software is fully functional with no model size limitations and is available for twelve-month licenses, renewable annually to ensure the latest version.

LEARN MORE: PALISADE.COM/ACADEMIC
@RISK and DecisionTools Suite software ship with full-featured development environments that allow you to create custom applications using Palisade technology directly in Excel. Palisade offers custom software development services to create tailored applications right in your spreadsheet. We can also create custom applications using @RISK and other technology for any application outside of Excel.

We have written applications for cost estimation, asset management, retirement planning, oil and gas prospecting, and more – each with a customized interface to include only what the users need, hiding unused @RISK functionality and preventing user access to the underlying model logic. And because the application is in Excel, the training required for users is minimal.

LEARN MORE: PALISADE.COM/DEVELOPMENT

100% EXCEL INTEGRATION

@RISK and the DecisionTools Suite integrate completely with your spreadsheet. Palisade software adds new functions to Excel that behave exactly as native Excel functions behave. The Palisade interface is designed to work seamlessly with Excel, minimizing learning curves.

@RISK and DecisionTools Suite calculations are performed 100% within Excel, supported by Palisade sampling and statistics proven in over 30 years of use. Palisade does not attempt to rewrite Excel in an external recalculator 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. Get correct results—and fast—using @RISK and the DecisionTools Suite!