

# The DecisionTools Suite

**complete risk and decision analysis toolkit**

You make difficult decisions every day—decisions based on a thorough analysis of the alternatives and the available data.

But what if the alternatives are uncertain and ill-defined? Or the data is sketchy or doesn't exist?

Or the situation is dynamic and difficult to predict?

Every day analysts, engineers, project managers, and other professionals around the world rely on the DecisionTools Suite to help them solve problems, uncover opportunities, and make better decisions.



## DecisionTools That Work Together

The DecisionTools® Suite is an integrated set of programmes designed to work together to provide combined analyses for optimum decision analysis in one package! The DecisionTools Suite brings together up to seven products: @RISK, PrecisionTree®, TopRank®, RISKOptimizer®, BestFit®, RISKview™, and @RISKAccelerator®. Installation is fast and easy, using a single CD-ROM. The programmes themselves have been designed to work together in an integrated environment, running from a common toolbar in Microsoft Excel.

## 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 perform analyses with more complete results than any single programme can provide. Incorporate decision analysis in your spreadsheet model by creating a decision tree with PrecisionTree. Then perform a “What-if” analysis with TopRank to identify critical variables in the model. Bring in @RISK to analyse the risk inherent in the chance events and uncertain payoffs of your PrecisionTree model. Use BestFit and RISKview to quantify risks in your @RISK, PrecisionTree, and TopRank models. Perform a risk analysis of uncertain factors with @RISK, then use RISKOptimizer to help allocate variables you can control.

## Stay in Your Spreadsheet

The tools in the DecisionTools Suite provide you with complete, insightful results right in Microsoft Excel. The DecisionTools Suite components have Microsoft Office-style interfaces, menus, and toolbars. This means that you don't have to spend a lot of time learning how to use the DecisionTools Suite.

## Go Beyond Gut Feel

The DecisionTools Suite will show you where potential profits lie — as well as pitfalls. You'll get a better understanding of the “big picture” and make better-informed decisions. No longer having to rely on “gut feel” alone, you'll have rock-solid analytics to back up any decision.

*“DecisionTools is a really important suite of tools. BestFit is a really solid distribution selector, and @RISK is a good backbone for the qualitative and quantitative work I perform. I like the flexibility.”*

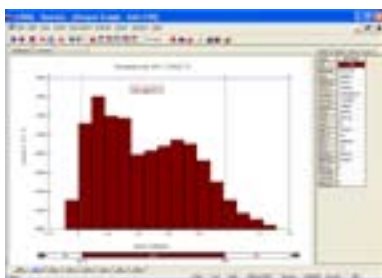
– Bruce Siegel, Engineering and Business Process Consultant

Have you ever seen a financial spreadsheet of a multimillion-dollar venture with only best case, worst case, and most likely scenarios? Or, key marketing, R&D or engineering decisions that were based on "best guess" estimates of demand, market share, and effects of competition? Chances are the answer to these questions is "Yes!" The fact is that the vast majority of Fortune 1000 companies, universities, and government agencies make multimillion-dollar decisions without taking more than three different possible outcomes into account! In reality, there are almost always dozens – if not thousands – of possible scenarios that could affect a company's bottom line.

# The DecisionTools Suite

## ■ @RISK The World's Leading Risk Analysis Tool

@RISK adds the power of Monte Carlo simulation to any spreadsheet model. Replace uncertain values in your spreadsheet with @RISK functions which represent ranges of possible values. Select one or more bottom-line cells as outputs, and start a simulation. @RISK recalculates your spreadsheet hundreds or even thousands of times, each time selecting random values for the @RISK functions you've entered. The result: a distribution of possible outcomes and the probability of getting those results. This not only tells you what could happen in a given situation, but how likely it is to happen. Results can be displayed as high-resolution graphs and in a full statistical report. Advanced features include Sensitivity and Scenario Analyses, overlay graphs, and multiple summary graphs. The DecisionTools Suite comes with @RISK Professional, which integrates RISKview for distribution viewing, and BestFit for distribution fitting.



## ■ PrecisionTree Visual Decision Analysis in Excel

Create influence diagrams and decision trees right in your existing spreadsheets! Use influence diagrams to see the relationships between components of a problem, then decision trees to model the sequence of events. Results include a full statistical report and risk profile graphs. Sensitivity Analysis tells you which factors in your decision are most important. Advanced features include linked trees, logic nodes, and Policy Suggestion Graphs.



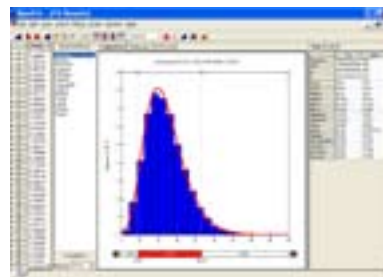
## ■ TopRank Automated Sensitivity Analysis for Excel

Take any spreadsheet and TopRank automatically determines which cells affect results the most and ranks them in order of importance. With TopRank, you'll be able to identify the critical factors in your model quickly, saving hours of manual "What-If" analysis. This will help you narrow your focus to make better decisions or to set up an @RISK analysis. Results can be displayed as Tornado graphs and in a full statistical report. Advanced features include a What-if Wizard and support for data tables. TopRank Pro features unlimited Multi-Way What-if Analysis.



## ■ BestFit and RISKview Describe Your Uncertain Factors

BestFit takes data (up to 100,000 points or pairs) and finds the distribution function that best describes that data. BestFit accepts three types of data — sample, density, and cumulative — and tests up to 26 distribution types using advanced optimization algorithms. Results are displayed graphically and through a statistical report which includes goodness-of-fit statistics.



RISKview is a powerful tool for viewing, assessing, and creating probability distributions. You can even draw your own distribution functions and place them in @RISK models. The DecisionTools Suite includes BestFit and RISKview both integrated with @RISK, and as stand-alone applications.

# DecisionTools Suite

**combined analyses for better insight**

*"I have used the whole range of products under the DecisionTools umbrella and cannot speak highly enough of the quality, power, and flexibility of the entire software suite. For example, @RISK and PrecisionTree have been applied to risk assessments for oil and gas projects, modelling of extreme environmental loads, as well as evaluation of biological and food-related hazards. I have yet to find a risk problem I could not handle with the software!"*

– Dr. Gus Cammaert, Senior Consultant  
DNV, Aberdeen, Scotland

*"DecisionTools is a superior brand of products directed at what I consider the gravest and most consequential activities of most businesses: risk assessment and decision making!"*

– Mark Ploskunak, Project Manager, IBM

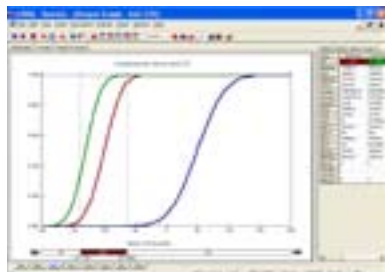
## ■ ■ RISKOptimizer Optimisation & Risk Analysis Combined

Optimise your @RISK models to find the best possible solution to your problem! RISKOptimizer combines genetic algorithm optimisation with Monte Carlo simulation to find the best possible combination of factors to lead to a desired result under uncertain conditions. Use RISKOptimizer to analyse the allocation of factors you can control. For instance, you could find the optimal combination of projects to maximise your firm's profits given uncertain costs. RISKOptimizer comes in the DecisionTools Suite Industrial edition.



## ■ ■ @RISKAccelerator Parallel-processing for Faster Simulations

Speed up large @RISK simulations by using all CPUs in a multi-CPU machine. If your PC has two processors, your simulations will run nearly twice as fast! With integrated @RISKAccelerator,



DecisionTools Industrial lets you take full advantage of the additional processing speed available with increasingly popular multi-processor machines. @RISKAccelerator comes in the DecisionTools Suite Industrial edition and does not function over a network.

*"The first time I used BestFit to determine probability distributions, I was shocked. This now takes only 3-5 mouse clicks, when it used to take me hours!"*

– Rolf van Lingen, Logion BV Consultancy



## Features

## Benefits

- |  |   |  |
|--|---|--|
| See all possible outcomes with Monte Carlo simulation        | → | Avoid pitfalls and identify opportunities            |
| Map out decisions with decision trees and influence diagrams | → | Identify the best alternative                        |
| Works in Excel   | → | No need to learn new applications from scratch       |
| Genetic algorithm optimisation                               | → | Solve complex, nonlinear problems with uncertainty   |
| Sensitivity or What-If Analysis                              | → | Identify the most important variables                |
| Distribution viewing and fitting                             | → | Accurate description of uncertainty                  |
| Presentation-quality graphs and reports                      | → | Easily explain results and recommendations to others |
| Full integration   | → | Easily install and migrate between programmes        |
| Bundle pricing   | → | Save money compared to buying products separately    |

## Applications

- |                        |                       |
|------------------------|-----------------------|
| Aerospace              | Insurance/Reinsurance |
| Consulting             | Manufacturing         |
| Consumer Products      | Medical               |
| Engineering            | Military              |
| Environment            | Oil/Gas/Energy        |
| Financial/Securities   | Pharmaceuticals       |
| Government             | Securities            |
| Information Technology | Transportation        |

## Three Editions to Meet Your Needs!

DecisionTools Suite Standard    DecisionTools Suite Professional    DecisionTools Suite Industrial

	DecisionTools Suite Standard	DecisionTools Suite Professional	DecisionTools Suite Industrial
@RISK Pro	X	X	X
PrecisionTree Std	X		
PrecisionTree Pro		X	X
TopRank Std	X		
TopRank Pro		X	X
BestFit	X	X	X
RISKview	X	X	X
RISKOptimizer			X
@RISKAccelerator			X

## DecisionTools Suite Professional and Industrial

DecisionTools Suite Professional includes all the capabilities of DecisionTools Suite Standard plus the Professional version of PrecisionTree, which adds Policy Suggestion and Strategy Region Graphs. These enable decision-makers to better identify the best course of action in complex decisions. The Pro Suite also includes TopRank Professional, which adds unlimited Multi-Way What-if Analysis to make sense of larger models.

DecisionTools Suite Industrial adds RISKOptimizer and @RISKAccelerator. Once you've used @RISK to analyse the variables you can't control, bring in RISKOptimizer to find the best allocation of variables you can control. For large @RISK models, use @RISKAccelerator to slash simulation run-times.

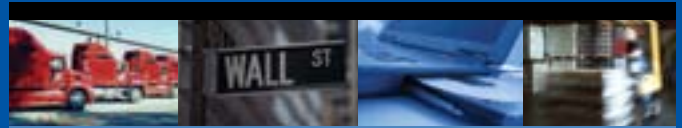
## Immediate Payback!

Data analysis and decision making has never been more complex. Data is never perfect and uncertainties abound. And the cost of incorrect decisions has never been higher. The DecisionTools Suite can take your decision making to the next level, delivering the broadest set of quantitative analysis tools for remarkable value.

Join the growing list of corporations, institutions, and government agencies using the DecisionTools Suite to identify opportunities, mitigate risk, and maximise their probability of success! The DecisionTools Suite will pay for itself with your first good decision. Call us or visit [www.palisade.com.au](http://www.palisade.com.au) for a free trial version, product fact sheet, or to instantly purchase the DecisionTools Suite.

## Custom Software and Training to Meet Your Needs

The DecisionTools Suite is available through a variety of licensing options, including corporate, network, and academic licenses. Training and consulting services can be bundled with your software to ensure your organisation gets the most out of its software investment. Palisade offers public risk and decision assessment seminars in a variety of cities worldwide, and online in the form of live web training to save travel costs. You can also opt for an on-site training class that has been tailored to your needs. Because we come to you and teach what you request, on-site seminars are very efficient. Our Sales Representatives would be happy to put together a solution that works for you.



## DecisionTools Case Studies

### Procter and Gamble

P&G's Corporate Finance department has been using @RISK since 1993 when it was first introduced for modeling production siting decisions. The company was evaluating cross-border siting options, and these 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, and manufacturing savings projects.

More recently the department expanded to a companion DecisionTool: PrecisionTree. PrecisionTree's attraction was its capacity to value complex decisions, which often involve multiple, sequential steps. They find it particularly valuable in evaluating real options. "We considered using financial option calculators to analyse the real options that are embedded in our complex decisions," says P&G's Bob Hunt. "But we found that they simply can't solve for the real option value in projects with multiple, sequential investment decisions." Business units are evaluating investment options based on their impact on shareholder value, and PrecisionTree helps them make good choices and better decisions.

### Logion BV

Logion is a Netherlands-based consultancy that specialises 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, the DecisionTools Suite has become critical to the firm's strategy and competitive position.

According to Logion's Rolf van Lingen, "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. The DecisionTools Suite really makes it easier for me to do my work in less time and with much more fun, too!"

Logion uses the DecisionTools Suite to optimise client functions such as transportation planning, new product introduction, and to set inventory levels. By allowing models to dynamically represent uncertainty, DecisionTools has enabled Logion to provide a much more realistic picture of possible outcomes.

