



@RISK



Minimize risk. Maximize potential.

# What's New in @RISK 8

## A New Generation in Risk Analysis

@RISK 8 is a major upgrade that represents the culmination of feedback from thousands of users. We focused on what is most important to you, based on the analyses you do every day. Furthermore, @RISK 8 has been rebuilt on the latest programming technology from the ground up. This forward-looking foundation ensures that @RISK will continue to provide the most reliable, accurate, and robust quantitative risk analysis available anywhere for years to come.

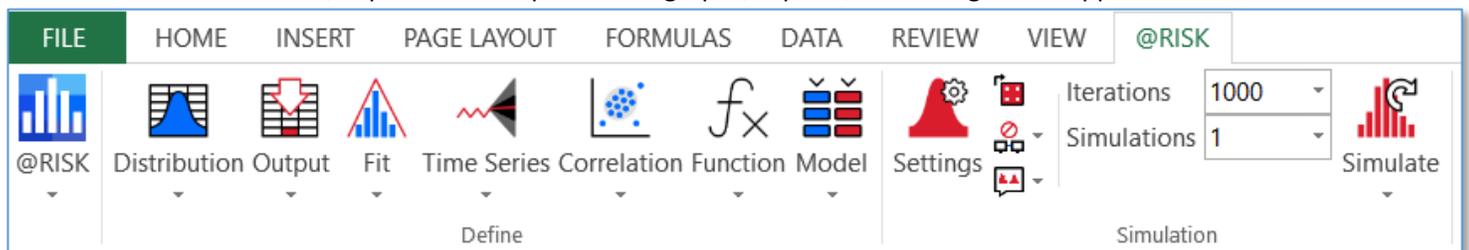
But make no mistake: while @RISK 8 is better, faster, and stronger than ever, it is still as easy to use as 1-2-3. The three basic steps to using @RISK still apply: Model. Simulate. Understand. This guide will walk you through some highlights to that simple process, and to @RISK as a whole.

## Fresh New Look, Streamlined Workflows

### Modern, Redesigned, Intuitive Interface

This exciting new version has been redesigned based on significant user input. As a result, the interface is now more intuitive for both new and experienced practitioners alike, reducing learning curves and the time it takes to perform analyses. From an all-new command Ribbon to fresh dialog layouts, @RISK 8 offers a thoroughly modern look and feel throughout the entire application.

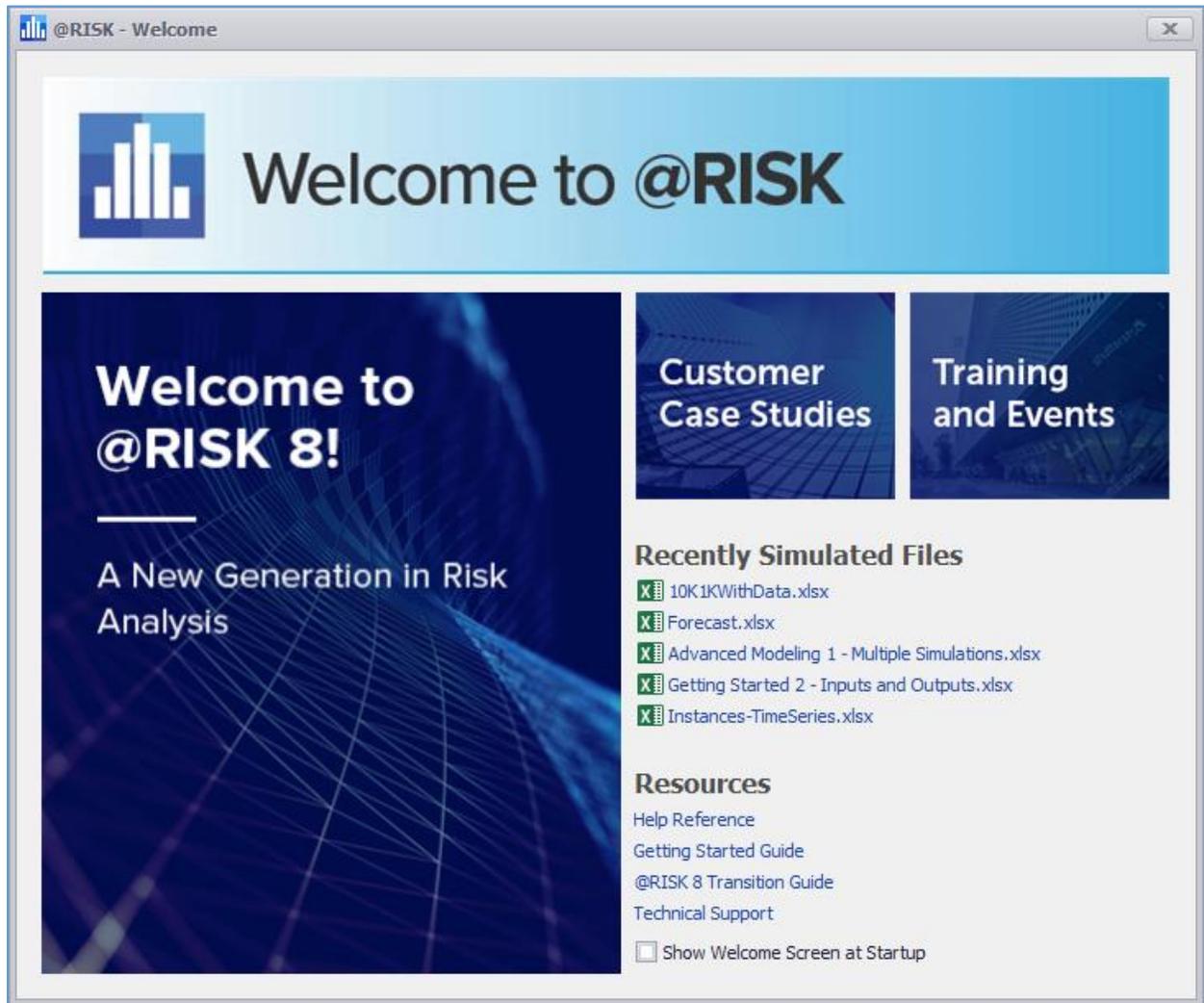
- New Ribbon features consolidation of like commands and modern split buttons
- Modern, refreshed windows
- More intuitive for both new and experienced practitioners alike
- Common steps and features are more accessible and require fewer clicks
- Reduce learning curves for new users
- Reduce the time it takes to perform analyses for all users
- A modern, expanded color palette for graphs, reports, and dialogs that support colors



*The new @RISK 8 Ribbon in Excel is more logically organized with a refreshed look.*

## Save Clicks with the New Welcome Screen

The updated @RISK Welcome screen contains a list of recently simulated workbooks, making it easy for users to pick up where they left off. It also contains quick links to helpful support and resources within the software and on the web.

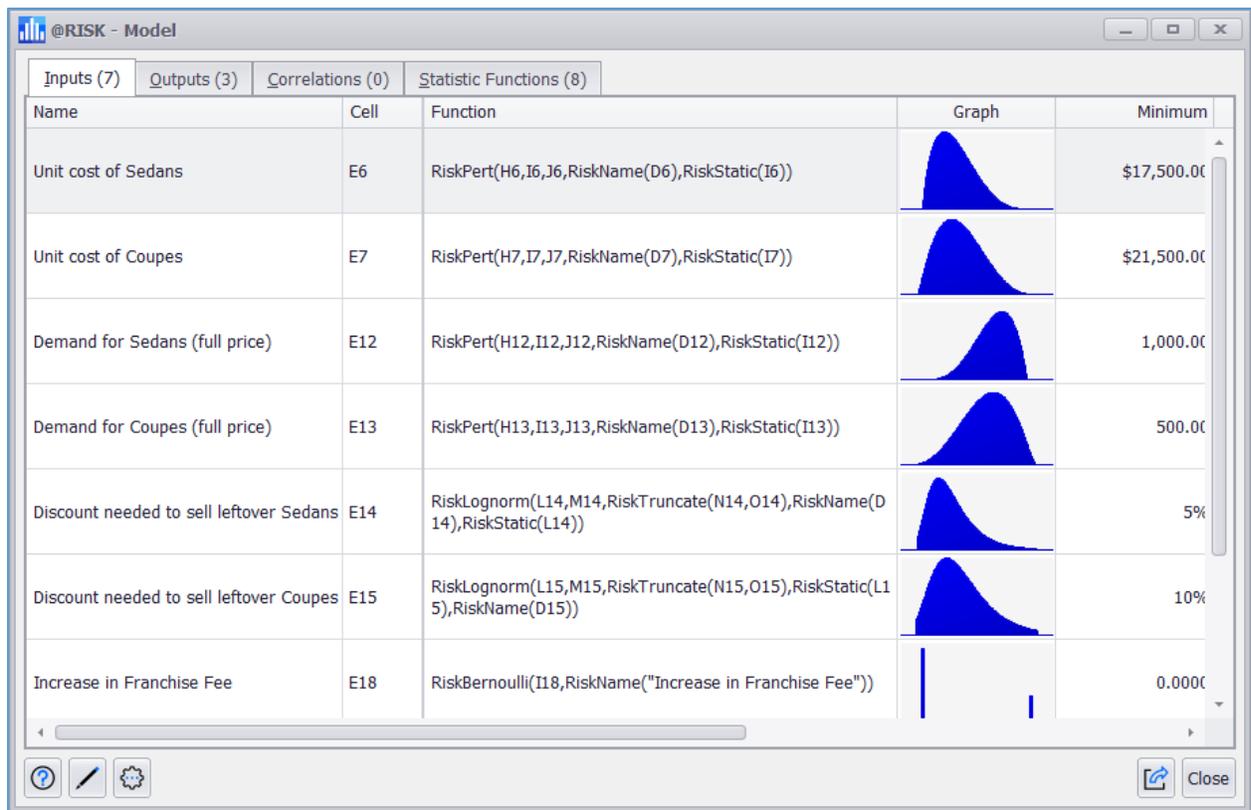


*The new @RISK Welcome Screen lets you pick up right where you left off.*

## Your Entire Analysis at a Glance in the New Model and Results Windows

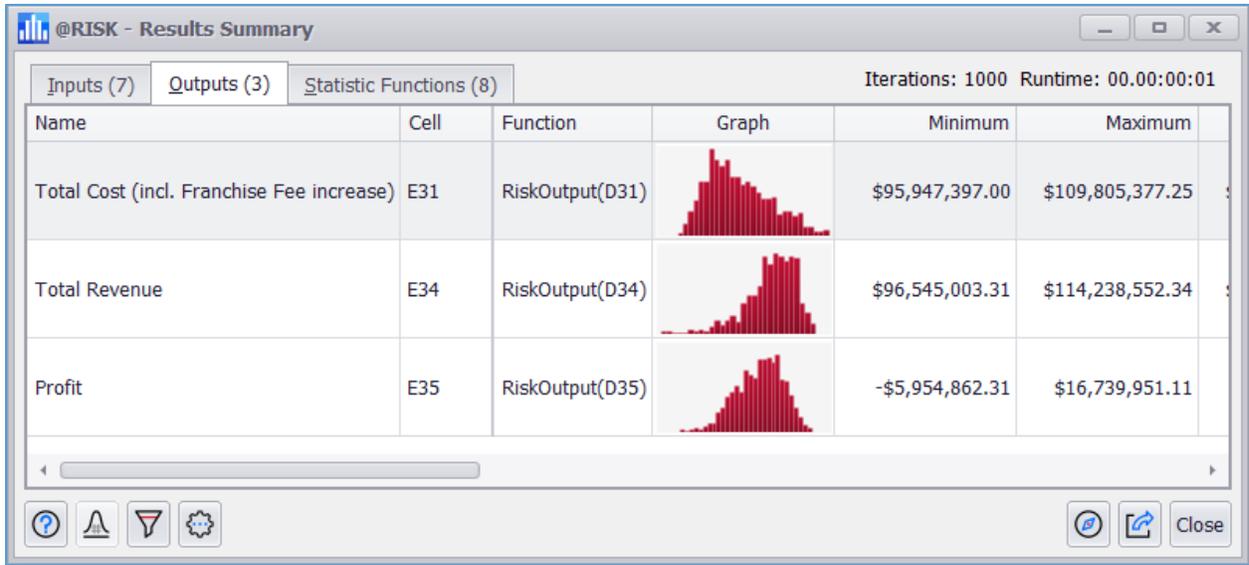
The @RISK Model and Results Windows have long been handy places to manage and view all the input variables and simulation results in your model. Both have been redesigned to significantly streamline the display of your model information. Other improvements include:

- Faster editing of your models
- Unlimited display of inputs, outputs, and other functions
- Flexible table configurations
- Export all the contents of both windows to Excel, PDF, or a printer
- New Find feature for quick searches of large models



Name	Cell	Function	Graph	Minimum
Unit cost of Sedans	E6	RiskPert(H6,I6,J6,RiskName(D6),RiskStatic(I6))		\$17,500.00
Unit cost of Coupes	E7	RiskPert(H7,I7,J7,RiskName(D7),RiskStatic(I7))		\$21,500.00
Demand for Sedans (full price)	E12	RiskPert(H12,I12,J12,RiskName(D12),RiskStatic(I12))		1,000.00
Demand for Coupes (full price)	E13	RiskPert(H13,I13,J13,RiskName(D13),RiskStatic(I13))		500.00
Discount needed to sell leftover Sedans	E14	RiskLognorm(L14,M14,RiskTruncate(N14,O14),RiskName(D14),RiskStatic(L14))		5%
Discount needed to sell leftover Coupes	E15	RiskLognorm(L15,M15,RiskTruncate(N15,O15),RiskStatic(L15),RiskName(D15))		10%
Increase in Franchise Fee	E18	RiskBernoulli(I18,RiskName("Increase in Franchise Fee"))		0.0000

The new @RISK Model Window stores an unlimited number of inputs and other model components.



*The streamlined and more flexible @RISK Results Summary Window lets you configure information how you want to see it.*

## Faster Performance

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### Model Creation and Editing

From defining input distributions to correlating variables to identifying output cells, every aspect of model management has been re-engineered for fewer lags and overall more responsive performance. Some examples of faster performance include:

- Defining distributions
- Toggling between multiple distributions
- Overlaying distributions
- Deleting distributions
- Adding/deleting outputs
- Defining correlations
- Creating repeated correlations
- Fitting time series distributions
- And more

### Results Analysis and Reporting

Likewise, from analysis of simulation data to the generation of reports to share with others, everything to do with results analysis has been significantly sped up. In addition, you have greater control than ever, with more progress bars and ways to cancel long operations. Some examples of faster performance include:

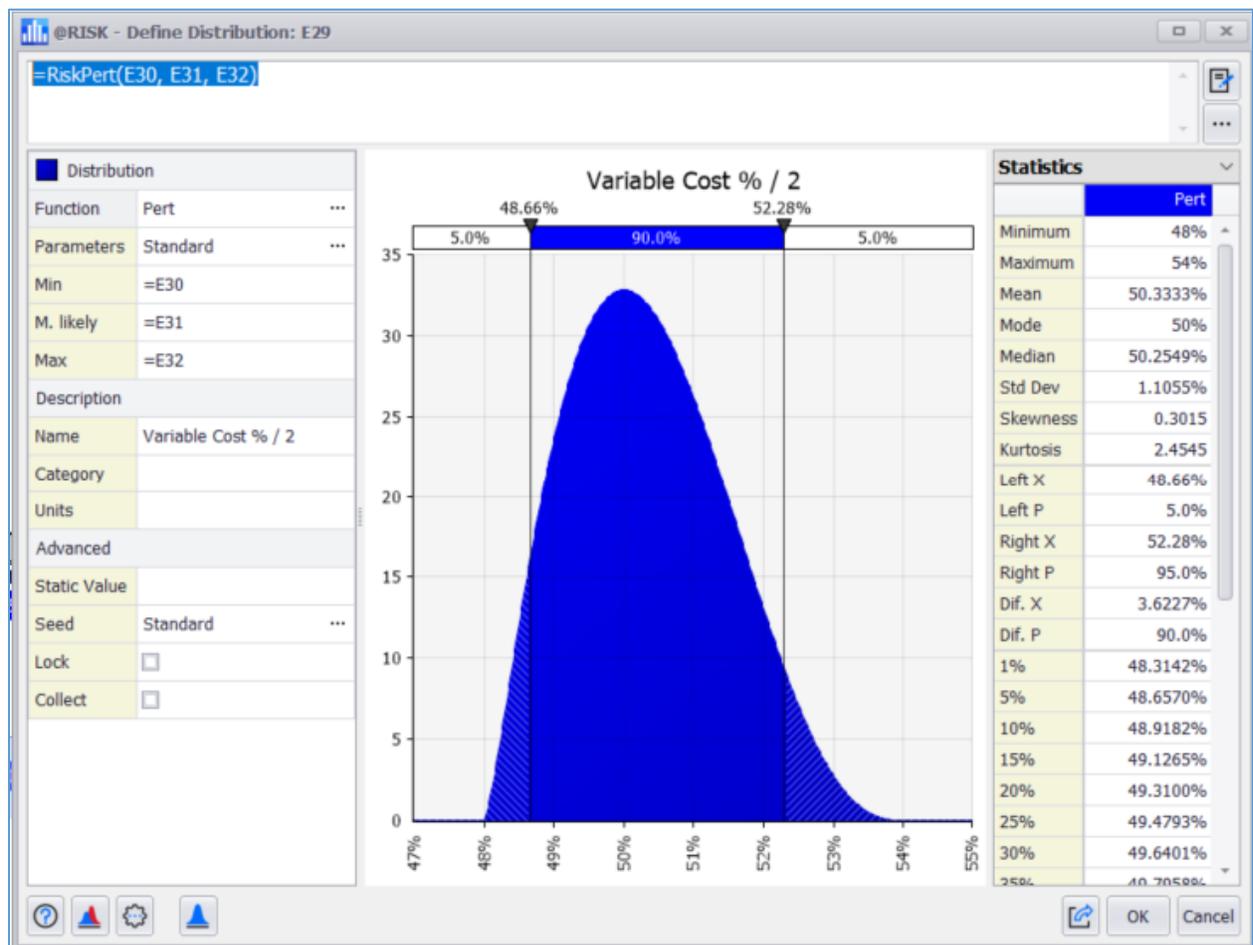
- Generating simulation reports in Excel – up to 10x faster than before
- Overlaying results graphs
- Generating graphs of multiple simulation runs
- Generation and management of scenario and sensitivity data
- And more

## Model: Setup Just Got Easier

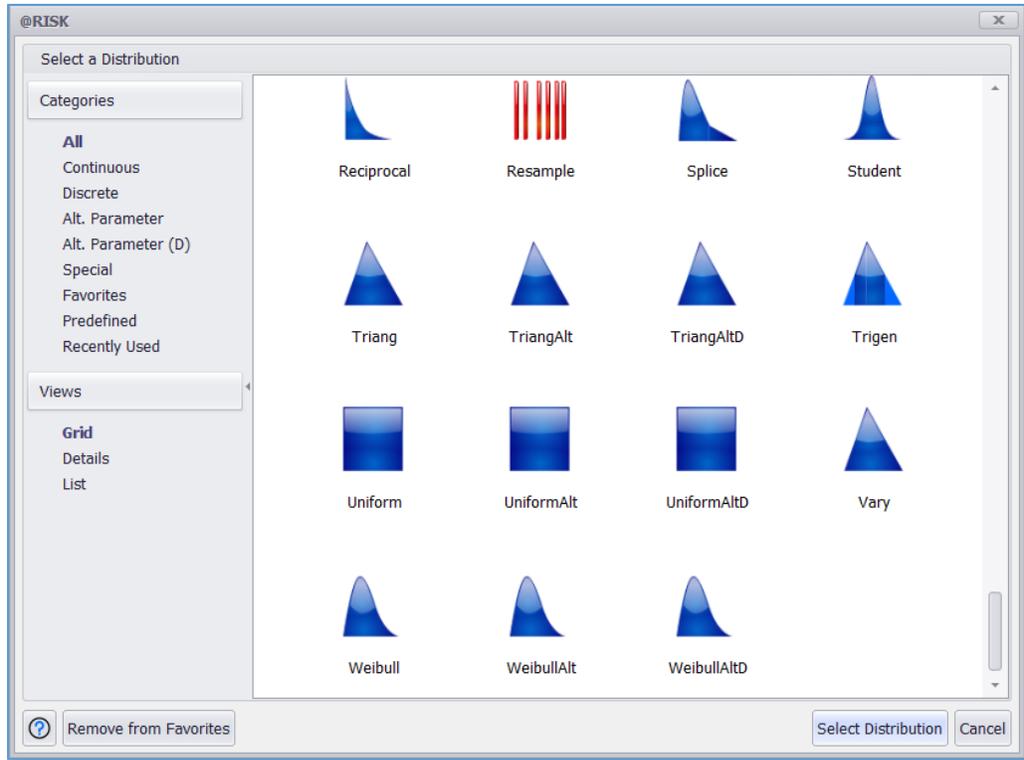
### Speed Model Setup with All-New Distribution Selection and Fitting

The Define Distribution window, the first step in any @RISK analysis, has been overhauled to simplify anything you may need to do when creating or editing @RISK distribution functions to define uncertainty in your models.

- Display multiple views of functions by type or by user-defined favorites
- Create fully customized Predefined Distributions with your own parameters and distribution names
- Property functions are editable directly from the interface
- @RISK's Distribution Fitting feature includes more data on fitted distributions in reports
- New truncation methods and more



*The new and improved Defined Distribution Window streamlines the definition of uncertain variables.*



The new @RISK Distribution Selector makes navigating distribution options a breeze.

Name	AIC	Name	Pareto	Levy	InvGauss	Expon	Pert
<input checked="" type="checkbox"/> Pareto	85.6762	Graph					
<input type="checkbox"/> Levy	87.3127	Function	RiskPareto(0.572...	RiskLevy(1.8178,...	RiskInvGauss(37...	RiskExpon(36.80...	RiskPert(2.0000,...
<input type="checkbox"/> InvGauss	91.4274	Method	MLE	MLE	MLE	MLE (Bias Correc...	MLE
<input type="checkbox"/> Expon	99.8242	Ranking by Fit Statistic (12 Valid Fits)					
<input type="checkbox"/> Pert	106.8753	Akaike (AIC)	#1	#2	#3	#4	#5
<input type="checkbox"/> ExtValue	109.1341	Bayesian (BIC)	#1	#2	#3	#4	#5
<input type="checkbox"/> Laplace	111.1362	Average Log-Likelihood	#1	#3	#2	#4	#5
<input type="checkbox"/> Triang	112.7872	Chi-Sq Statistic	#1 (Tie)	#3 (Tie)	#3 (Tie)	#3 (Tie)	#8 (Tie)
<input type="checkbox"/> Logistic	114.4785	K-S Statistic	#2	#8	#9	#4	#10
<input type="checkbox"/> Normal	118.2369	A-D Statistic		#8	#6	#4	#10
<input type="checkbox"/> Uniform	118.4893	Parameters - [* Values unavailable without running a bootstrap]					
<input type="checkbox"/> ExtValueMin	124.8726	Num. Est. Parameters	2	2	3	2	3
<input type="checkbox"/> BetaGeneral	N/A	Fitted Parameter #1	theta	a	mu	beta	Min
<input type="checkbox"/> Gamma	N/A	Fitted Value	0.572400	1.817778	37.01959	36.80000	2.0000
<input type="checkbox"/> LogLogistic	N/A	95% Lower Limit*	N/A	N/A	N/A	N/A	N/A
<input type="checkbox"/> Lognorm	N/A	95% Upper Limit*	N/A	N/A	N/A	N/A	N/A
<input type="checkbox"/> Pearson5	N/A	Conf. Interval Width*	N/A	N/A	N/A	N/A	N/A
<input type="checkbox"/> Pearson6	N/A	Fitted Parameter #2	a	c	lambda	Shift Factor	M. likely
<input type="checkbox"/> Weibull	N/A	Fitted Value	2.000000	0.575237	0.69925	-1.68000	2.0000
<input type="checkbox"/> Kumaraswamy	N/A	95% Lower Limit*	N/A	N/A	N/A	N/A	N/A
		95% Upper Limit*	N/A	N/A	N/A	N/A	N/A

New Distribution Fit Results report with thumbnail graphs for visual cues to the best distribution.

## Improve Model Accuracy with Enhanced Correlations and Copulas

A number of enhancements have been made to the @RISK's correlations feature, which allows you to define accurate relationships between related input distribution functions, and the copulas feature, which are functions used to model dependency between inputs in financial applications.

- Correlations and copulas now share a common, logical interface
- Create multiple groups of inputs using a single correlation matrix
- Create repeated correlations, or instances, very quickly
- More editing options

## Enhanced Modeling of Time Series

@RISK's Time Series feature allows you to model the uncertainty around variables whose nature is a series of values over time, such as commodities prices. New version 8 adds significant improvements to this key functionality:

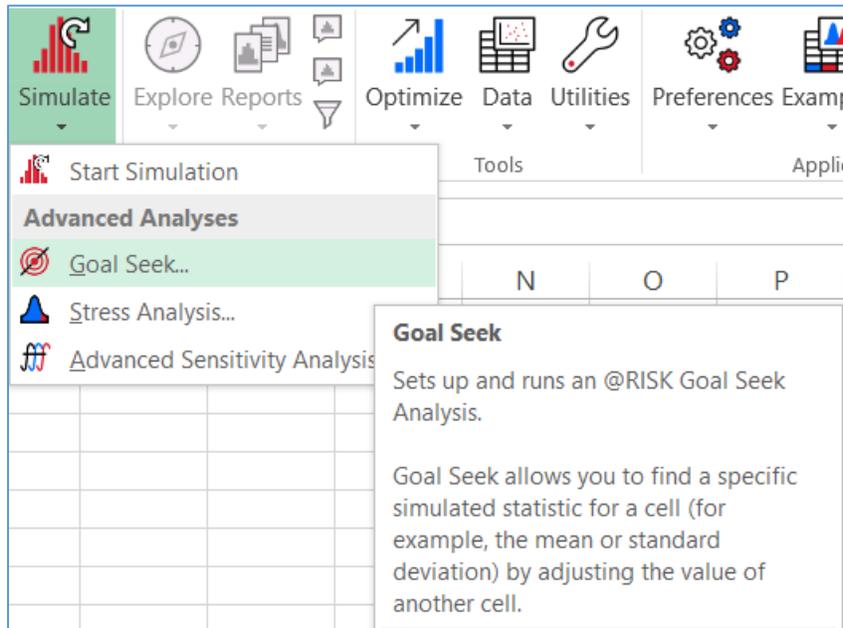
- New correlation of time series input functions
- Significantly improved performance in the time series fitting algorithms
- The interface for selecting time series models adds the ability to display models in multiple views
- The algorithm used to auto-detect transformations for achieving stationarity in the fitting process has been improved
- An improved approach for dealing with batch fitting series that have different lengths

## Simulate: One Button, Many Simulations

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### Perform Advanced Simulations with the Simulation Split Button

The new Simulation split button menu provides intuitive, one-click access to simulation-related analyses -- Goal Seek, Stress Analysis, and Advanced Sensitivity -- that were previously hard to find.



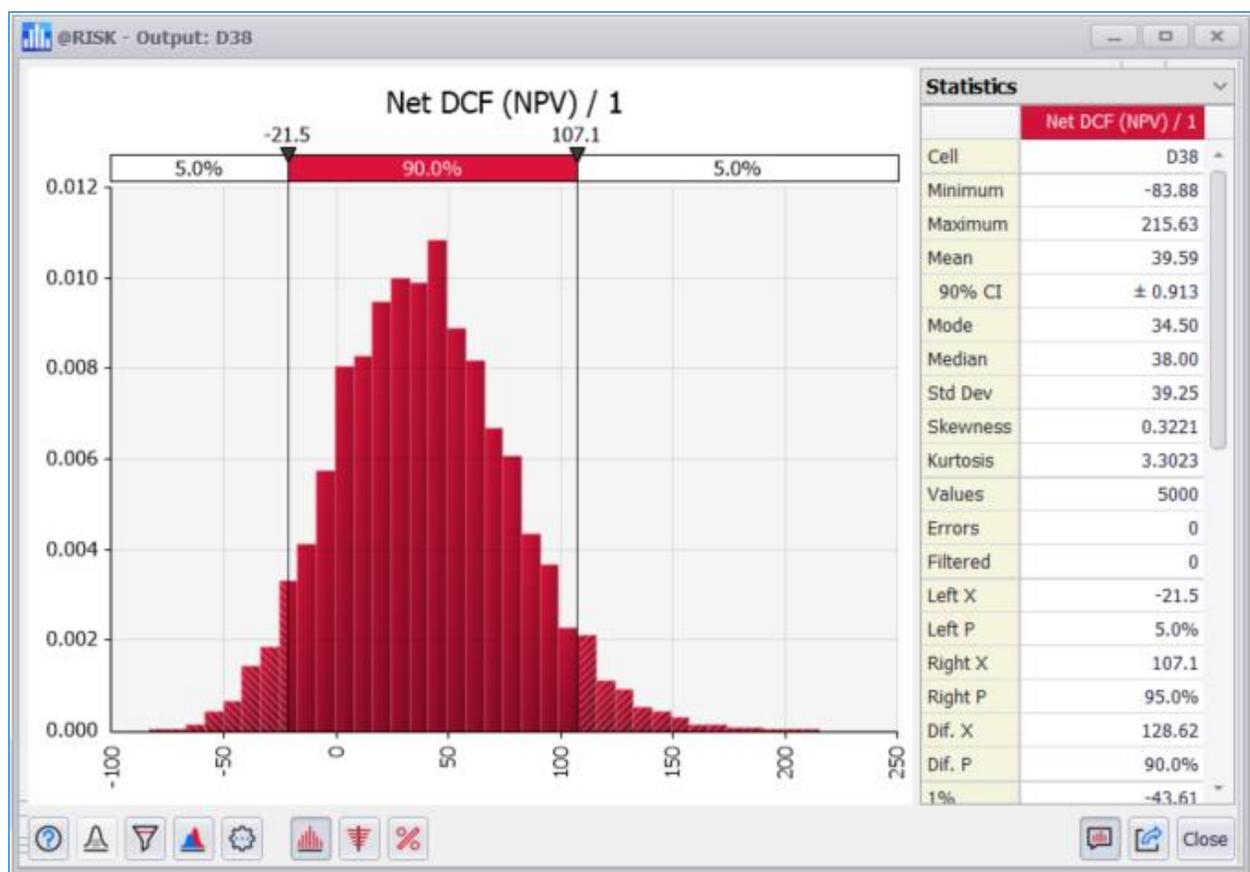
*The new @RISK 8 Simulation split button menu provides logical access to simulation variations.*

## Understand: More Ways to Interpret and Share Simulation Results

### Analysis at a Glance in the Redesigned Browse Results Window

The Browse Results Window has been significantly changed with the goal of simplifying the most common tasks. In addition, new functionality puts sophisticated insights at your fingertips.

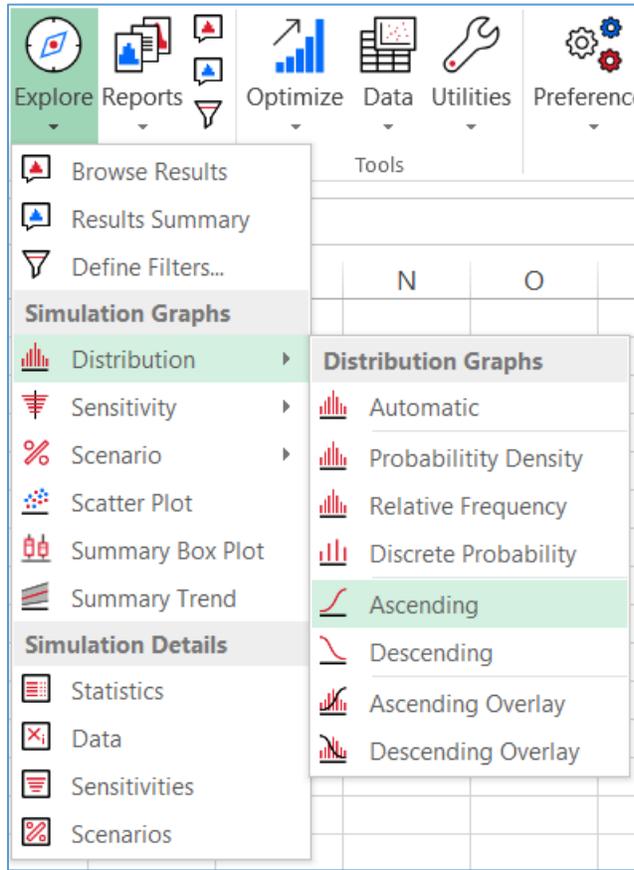
- A new overlay manager that allows you much more control of how overlays are displayed
- Display of results in multiple simulations – a common analysis – is significantly improved, including remembering your selection of a particular simulation to view (or overlay all of them) as you click around the spreadsheet to view different inputs or outputs
- Overlays of theoretical inputs has been significantly improved, including the ability to overlay a theoretical distribution function (or multiple theoretical functions) on any graph



The new, streamlined @RISK Browse Results window shows you just what you need.

## Insights in Just One Click with the New Explore Menu

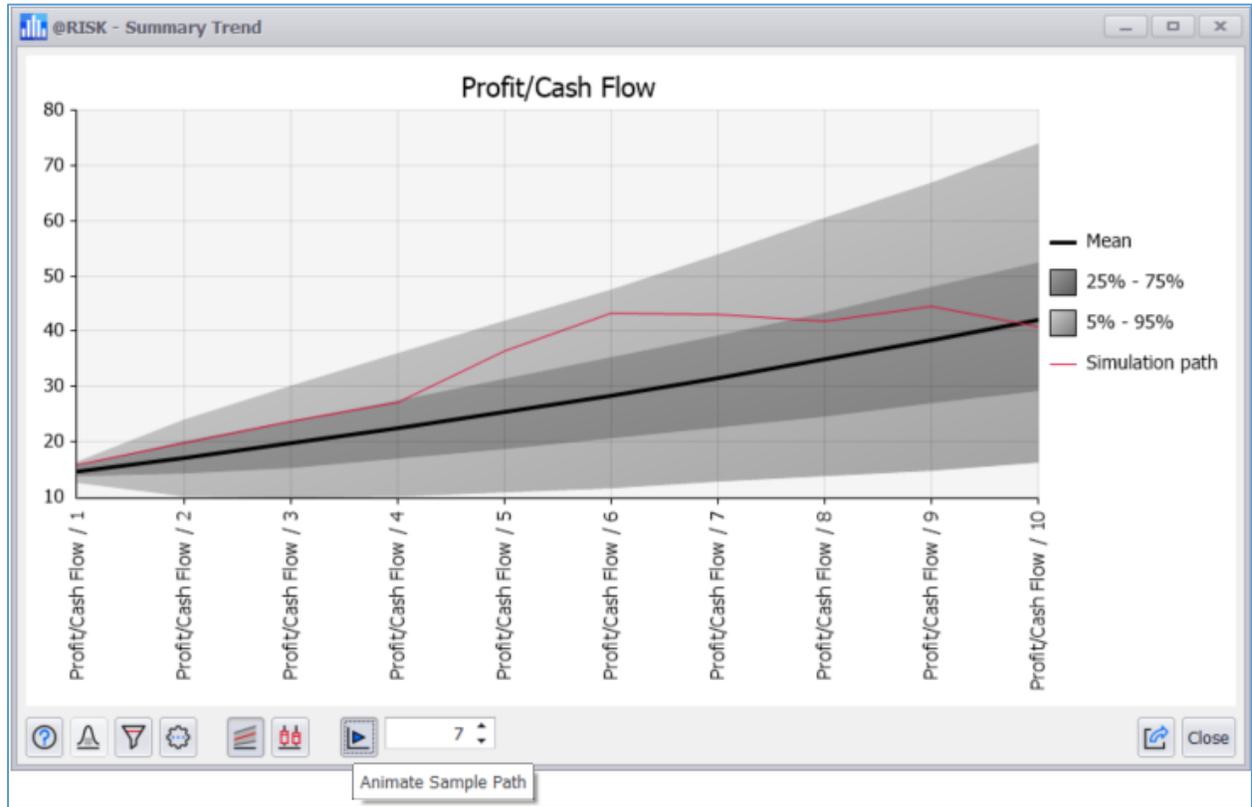
The new Explore menu contains everything you need to gain insights from your simulation results. Bring up the Browse Results Window, the Results Summary Window, and the Filter Dialog, or, choose from all of the different @RISK result windows.



*The new @RISK 8 Explore menu for one-click access to simulation results.*

## Understand Results Over Time with the New Summary Trend Graph

The new Summary Trend graph in @RISK 8 offers an updated look as well the ability to display a single sample simulation path on top of the trend for any iteration you specify. You can also animate this overlay to see a sequence of sample paths in succession.

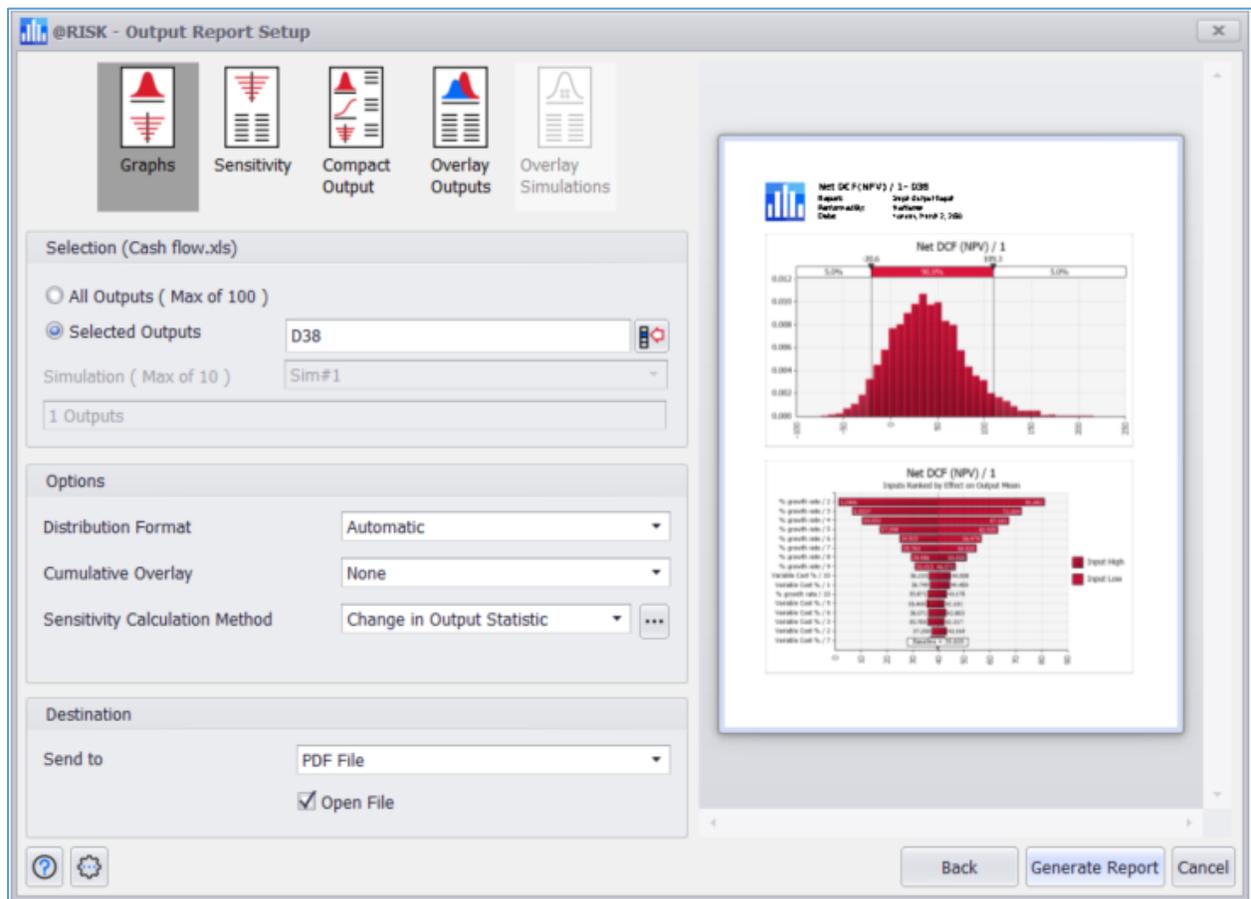


The new @RISK Summary Trend graph with animated sample simulation path

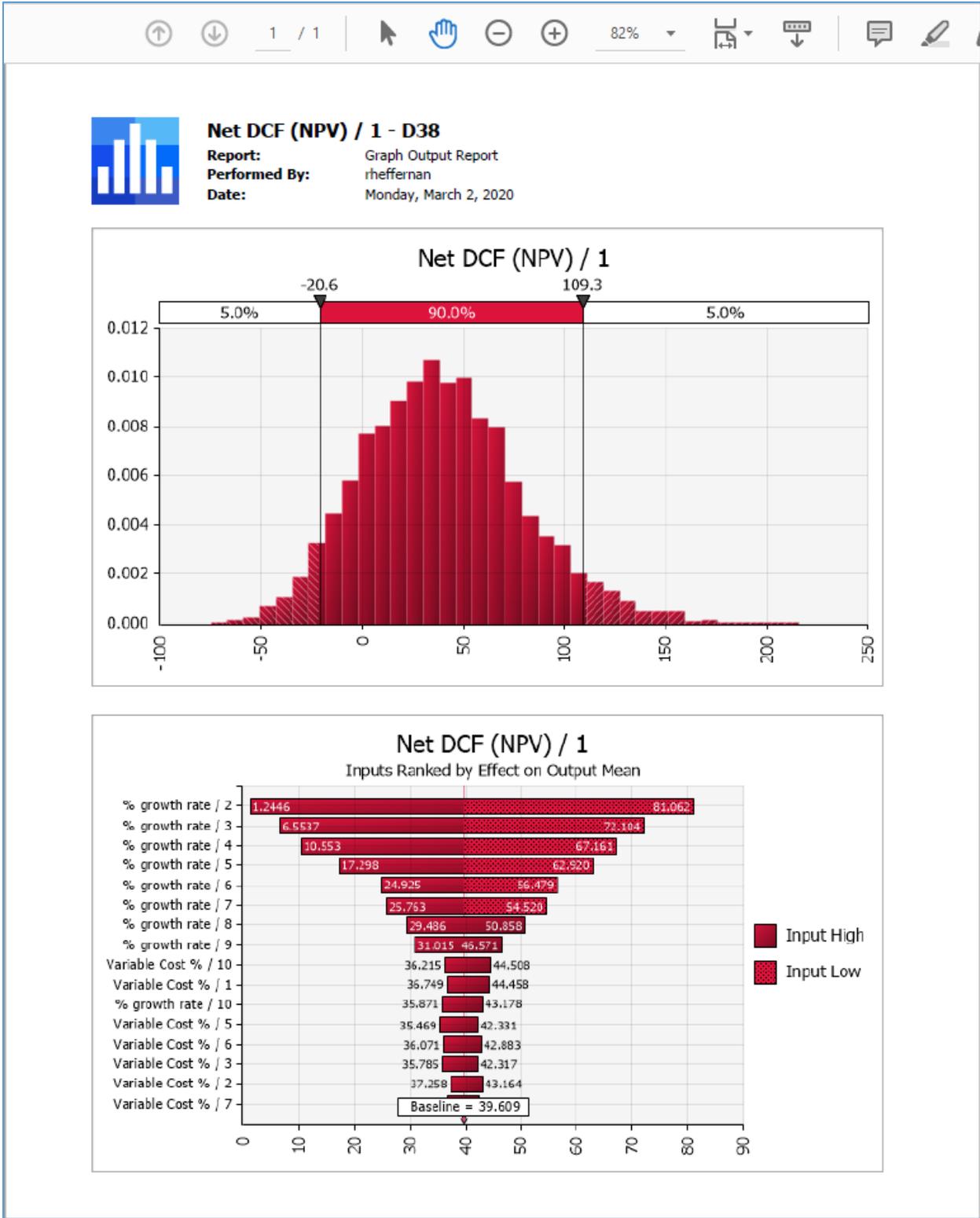
## Communicate Results Clearly with @RISK Reports

You can now create presentation-quality simulation reports for sharing with others much more easily. Use the built-in report templates, or create your own. @RISK 8 includes an entirely new feature set for report generation, simplifying the process, enhancing flexibility, improving the quality, and doing it faster than ever.

- Simplified report generation interface
- Export reports to Excel, PDF, or a printer
- Automatically generate reports at the end of a simulation
- 10x faster than before!



The @RISK Output Report Setup dialog allows you to configure and preview reports.

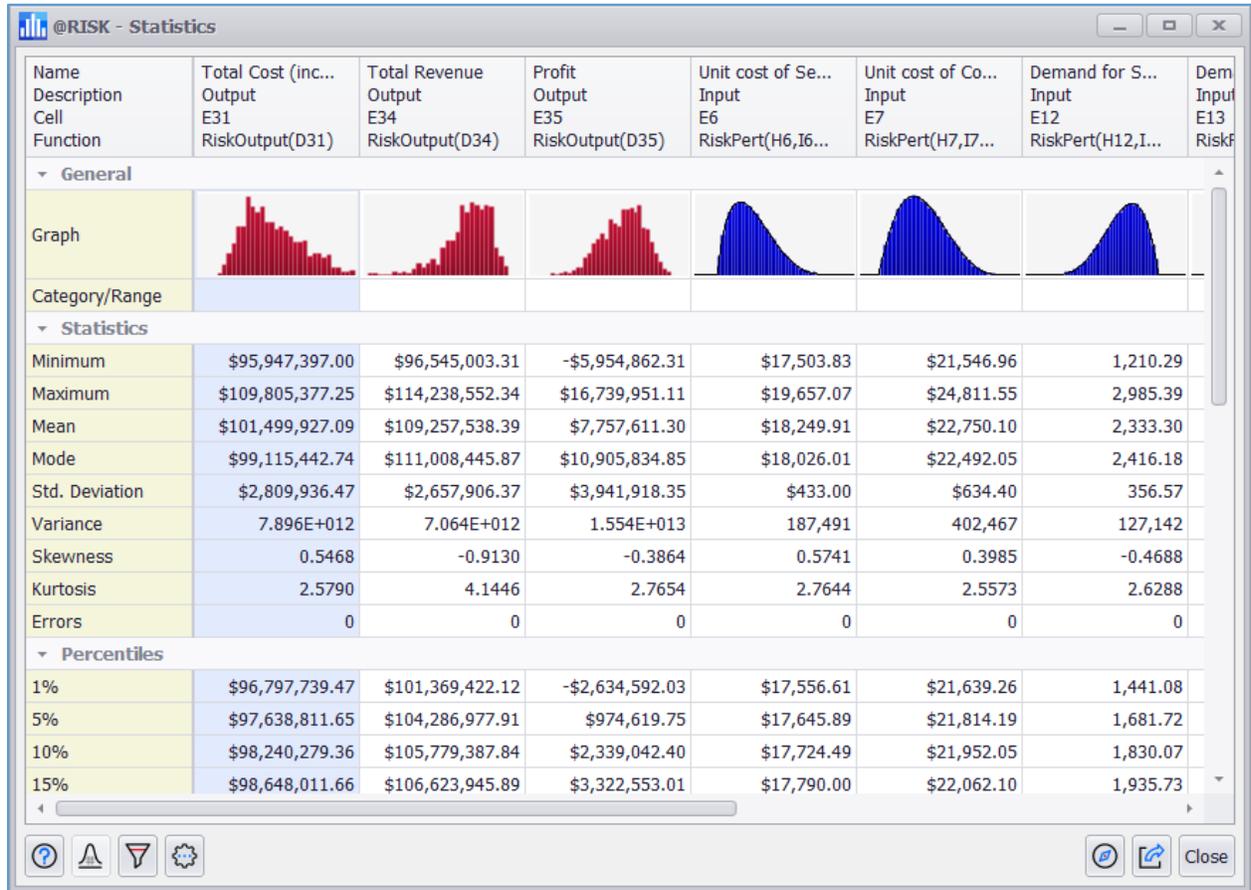


A PDF result of presentation-quality reports from an @RISK simulation.

## More Improvements to Simulation Results

The window improvements have been carried throughout @RISK, including the Statistics, Data, Sensitivity, and Scenarios windows.

- Thumbnail graphs have been added to the Statistics window to give visual cues to the reported statistics
- More flexible sorting of simulation data in the Data window
- Automatic assignment of scenario settings to all outputs in the Scenarios window to save time
- Export all the contents of all windows to Excel, PDF, or a printer



The new @RISK 8 Statistics window, with thumbnail graphs, exporting options, and more

# Get Started Fast

## Intuitive Learning with All-New Tutorial Examples

@RISK 8 ships with an all-new tutorial in the form of step-by-step example spreadsheets that are designed with ease-of-use and sequential learning in mind. Each example builds on the one before, and all interactively allow you to step through them with point-and-click ease. The new example library has been rewritten by professional consultants to help decision makers get results fast, out of the box.

- Models are succinct and easy to follow
- Start running your own analyses within minutes
- For experienced users, there are tutorial examples to guide you through more advanced features in the same consistent, step-by-step manner
- Previous examples, and many others, are available at [www.palisade.com](http://www.palisade.com)

The screenshot shows the @RISK ribbon in Microsoft Excel. The ribbon includes tabs for @RISK, Distribution, Output, Fit, Time Series, Correlation Function, Model, Settings, Iterations (1000), Simulations (1), Simulate, Explore Reports, Optimize, Data, Utilities, and Preferences. The main spreadsheet area is titled "Define the model logic" and contains the following text:

**Car sales across dealer network profit model, example 1 of 6**  
This workbook is part of a sequence that will guide you through the basic features of @RISK. In this first workbook we introduce you to the model and how it works, but have not yet put @RISK functions in anything.

Click on the buttons at the left to navigate your way through the steps. Scroll down and/or right when necessary to find the highlighted section and step explanation.

**1**  
Input Variables

Numeric Inputs	
Unit cost of Sedans	\$ 18,000
Unit cost of Coupes	\$ 22,500
Sales price per Sedan	\$ 21,000
Sales price per Coupe	\$ 26,000
Sedan units purchased	3,000
Coupe units purchased	2,000
Demand for Sedans (full price)	2,500
Demand for Coupes (full price)	1,500
Discount needed to sell leftover Sedans bef	15%
Discount needed to sell leftover Coupes bef	25%

**2**

**Step 1: Define the input variables for your model**

- Two models of car are ordered to then sell before the end of the financial year (C10:C11).
- Due to factors like exchange rate variation the exact unit cost of each is variable (C6:C7).
- The demand for each has been estimated based on previous years data and new demand forecasts, but is

The right side of the screenshot shows the "Examples" dropdown menu with the following options:

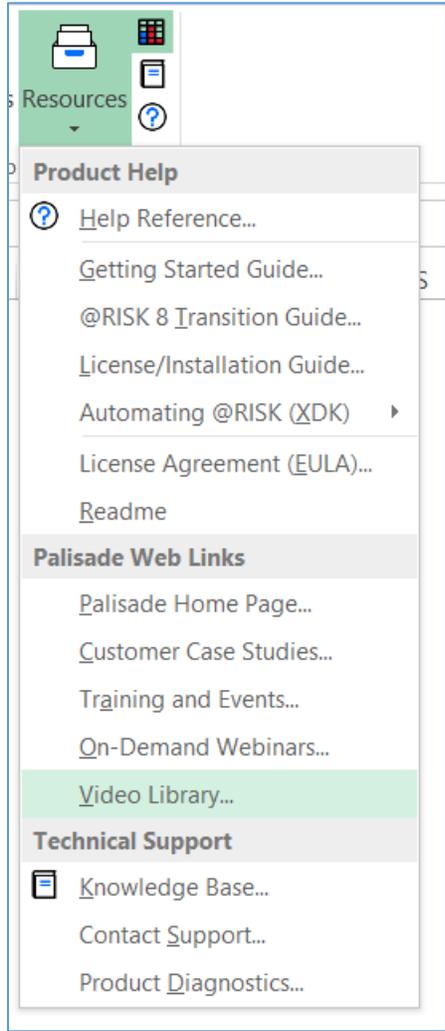
- Getting Started with @RISK
  - Define Model Logic
  - Define Inputs and Outputs
  - Include Property Functions
  - Configure and Run a Simulation
  - Add Statistics and Graphs
  - Create Reports
- Advanced Modeling with @RISK
  - Include Multiple Simulations
  - Create Reports for Multiple Simulations
  - Use RiskMakelInput
  - Use RiskCompound
- Other @RISK Features
  - Data Visualization
  - Distribution Fitting
  - Correlate Inputs
  - Time Series Modeling
  - Optimization
- Additional Examples
  - Online Model Library...

A tooltip for "Define Inputs and Outputs" is visible, stating: "Example 2 of 6 - Explains how to define @RISK input distributions and outputs." Below it is a link to "RiskRibbon\_EN.xlam" and a "Tell me more" button.

The all-new tutorial examples in @RISK 8

## Resources to Support You, 24/7

A new Resources menu opens the door to wealth of learning options and references. From Getting Started guides to What's New documentations, there is something for new and existing users alike. Plus, access to technical support tools is included.



*@RISK's new Resources menu gives you one-click access to guides, technical support, and much more.*

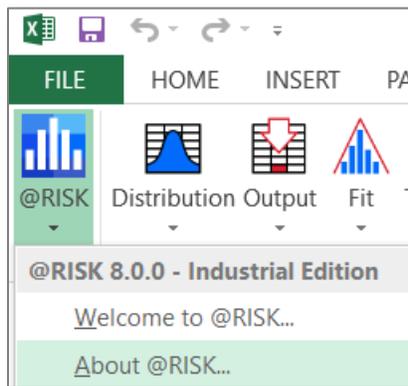
## Simple, Easy Application Management

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### Get Notifications and More in the New @RISK Menu on the Ribbon

The new “@RISK” menu on the Ribbon includes important notifications about @RISK as well as allows easier access to manage your @RISK license.

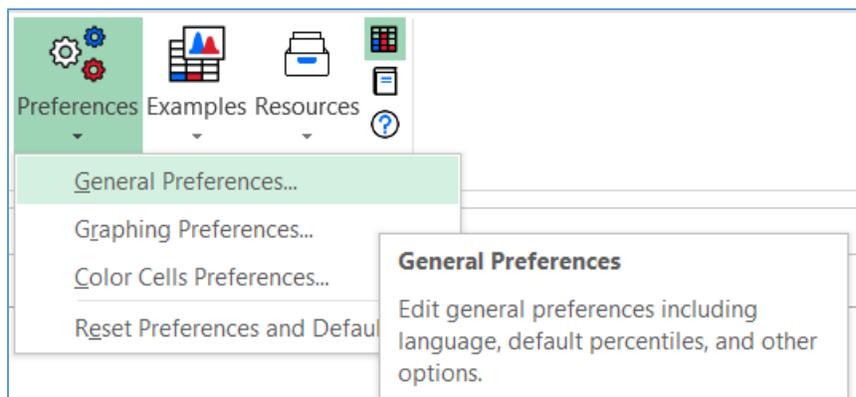
- Notifications provide important messages (such as the availability of updates) without interrupting your work
- Product management allows you to manage your license



*The @RISK menu on the @RISK Ribbon in Excel gives you notifications without interrupting your work.*

### New Preferences Menu Makes Setting Defaults a Snap

@RISK 8 allows you to manage application-wide preferences and settings much more easily than ever. A new Preferences menu on the Ribbon lets you adjust general @RISK settings, common graph defaults (which can be adjusted by individual graph type as well), and color preferences for denoting cells with @RISK functions.



*The new @RISK 8 Preferences menu lets you control @RISK defaults with ease.*

## Built for the Latest Tech Environments

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### Tighter Excel Integration for More Cohesive Analyses

@RISK 8 takes full advantage of changes made in more recent releases of Excel, while still maintaining backward compatibility with models created in older versions of Excel and @RISK.

- Improved support for Excel's OneDrive auto-save functionality
- Robust support for a new array functionality added in Excel called dynamic arrays, which allow formulas to return multiple results to a range of cells on the worksheet based on a single formula entered in one cell

### Enhanced Display Support

Because @RISK is used so widely for its graphical report and graphs, new version 8 displays these more crisply and effectively in a wide range of configurations, including high DPI settings and multiple monitors. On-screen animations and movements are also smoother.

## Ready for the Future

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While @RISK 8 is a substantial upgrade in its own right, it also represents the birth of a new platform which will launch an entire generation of risk analysis advances. The new @RISK is technologically poised to take advantage of future improvements in the field of probabilistic analysis as well as in Excel itself. Put simply, this ensures you can trust that @RISK will provide the best possible insights, whatever the future brings.