

What is new in @RISK 5.0

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Purpose of the Hands-On Session

1. Demonstrate the basics of risk analysis using @RISK and Monte Carlo Simulation
2. Practical experience working in the new @RISK 5.0 environment

About @RISK

- @RISK is a Monte Carlo simulation add-in to Excel.
- What @RISK accomplishes:
 - Assists in quantifying the exposure of a given decision
- How @RISK accomplishes this:
 - Specify variation that exists for key inputs
- Tools in @RISK that help you quantify “input” exposure that will determine “result” exposure.
 - Add-in probability distribution functions to Excel
 - Pre-processing risk analysis modeling capabilities
 - Post-processing reports, graphs and statistics
 - Post-processing analyses to assist in evaluating the results
 - Ability to create custom reports

Highlights of @RISK v5.0

- More seamless integration with Excel
- Toggle to static data display for sharing spreadsheets with non @RISK users
- Graphs embedded in Excel
- Improved sensitivity graphs (tornado chart options – RiskMakeInput - & scatter plots)
- Added functions (RISKCompound f(x), SixSigma, etc.)
- Time series correlation instancing
- Library

What is New!

- New Interface
 - Browse with Tab Key
 - Model Window
 - Customizing Model Window
 - Simulation Settings Toolbar
 - Results Summary Window
 - Drag and Drop Graphs
- Model Sharing
 - Swap Out Functions
 - @RISK Library
 - Saving @RISK Simulations
- New Commands
 - Application Settings
- Building Your Model
 - Correlations Slider
 - Correlated Time Series
 - RiskMakeInput Function
 - Overlay Fitted Distributions
 - RiskCompound Function
 - Six Sigma Functions
- Running Simulations
 - Demo Mode

What is New! Cont....

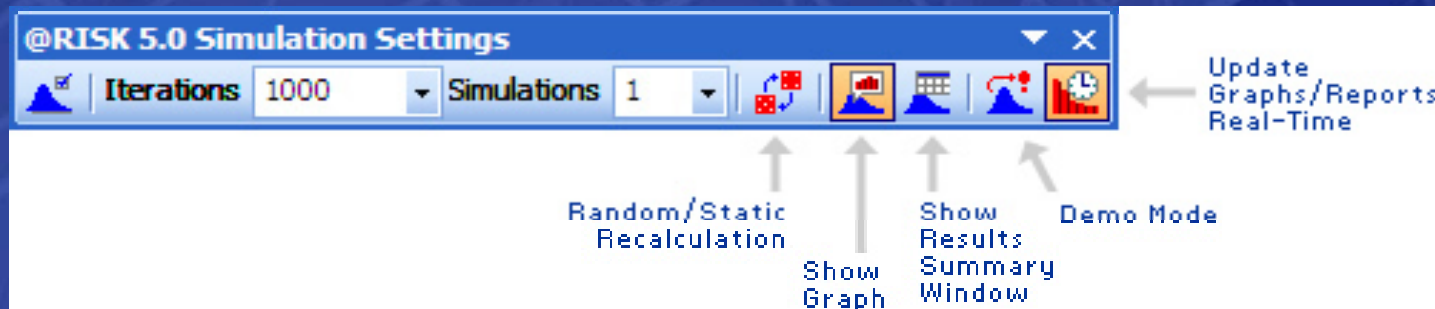
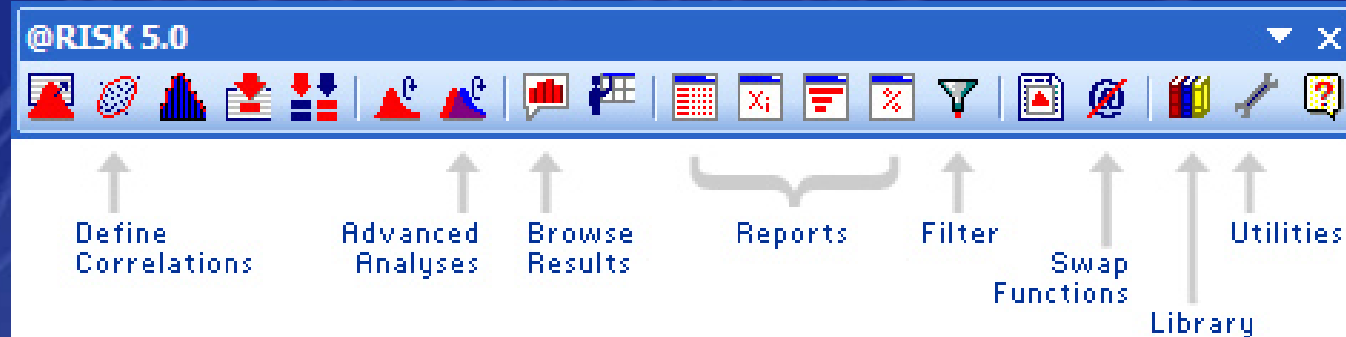
■ Simulation Results Graphs

- Overlay Results Graphs
- Graph Markers
- Graph Titles
- Customizing Graphs
- Scatter Plots
- Scatter from Tornado
- Sensitivity Scatter Matrix
- Tornado Mapped Values
- Summary Box Plots

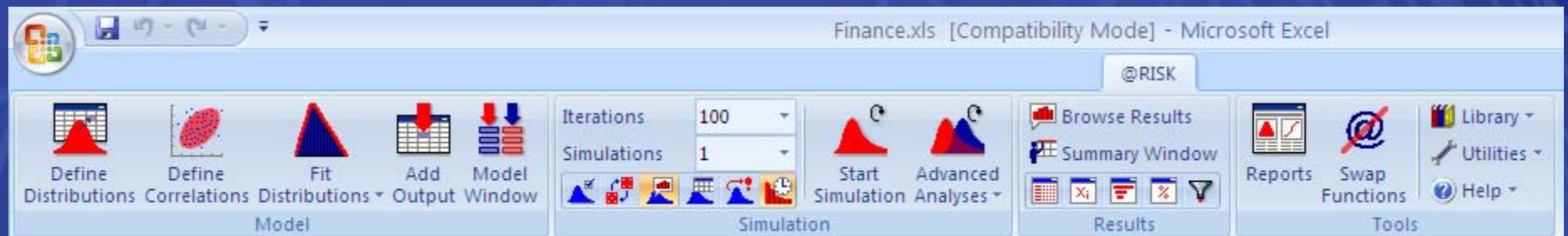
■ Simulation Results

- Step Through Simulation
- Simulated Correlations
- Improved Sensitivity
Analysis

Toolbars in Excel 2003



Toolbar in Excel 2007



Define Distributions



@RISK - Define Distribution: B3

Name:

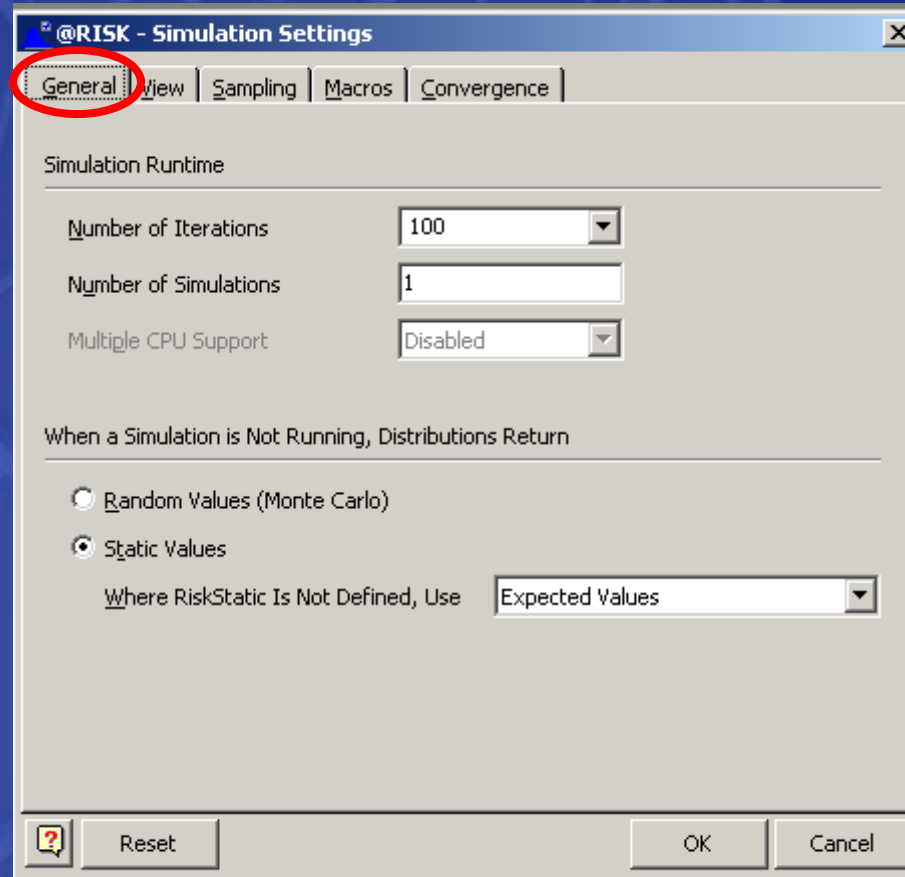
Cell Formula:

Select the distribution to add to this formula:

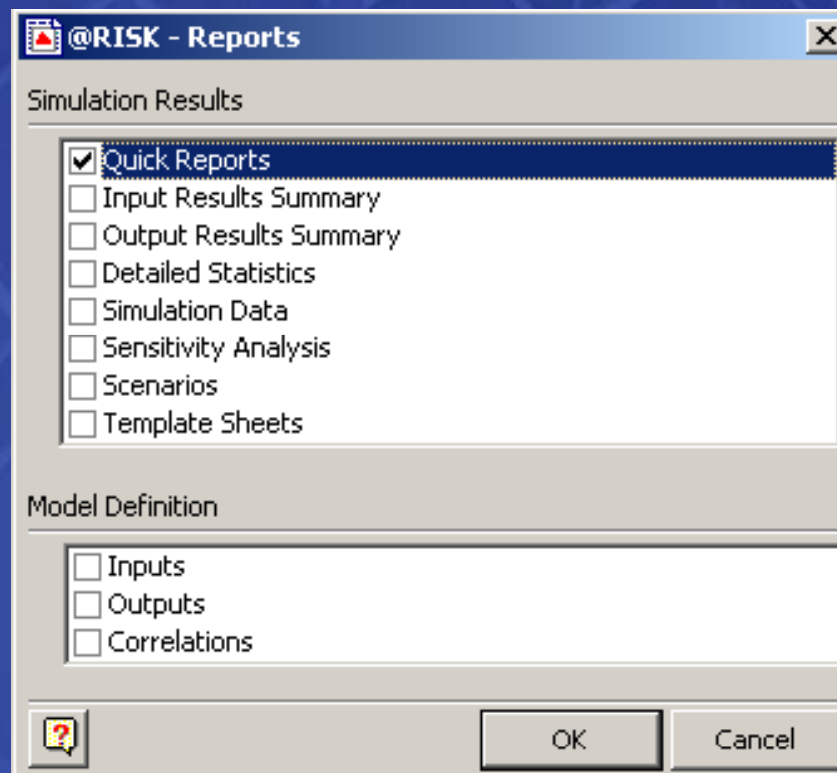
- Common
 - Binomial
 - Discrete
 - Poisson
 - BetaGeneral
 - Cumul
 - Expon
 - Gamma
 - General
 - Histogram
 - Lognorm
 - Normal**
 - Pert
 - Triang
 - TriGen
 - Uniform
 - Weibull
- @RISK Library <3 entries>
 - Oil Price
 - Interest Ra
 - Market Sha

Select Distribution OK Close

Simulation Settings



Report Settings



Model Window



@RISK - Model

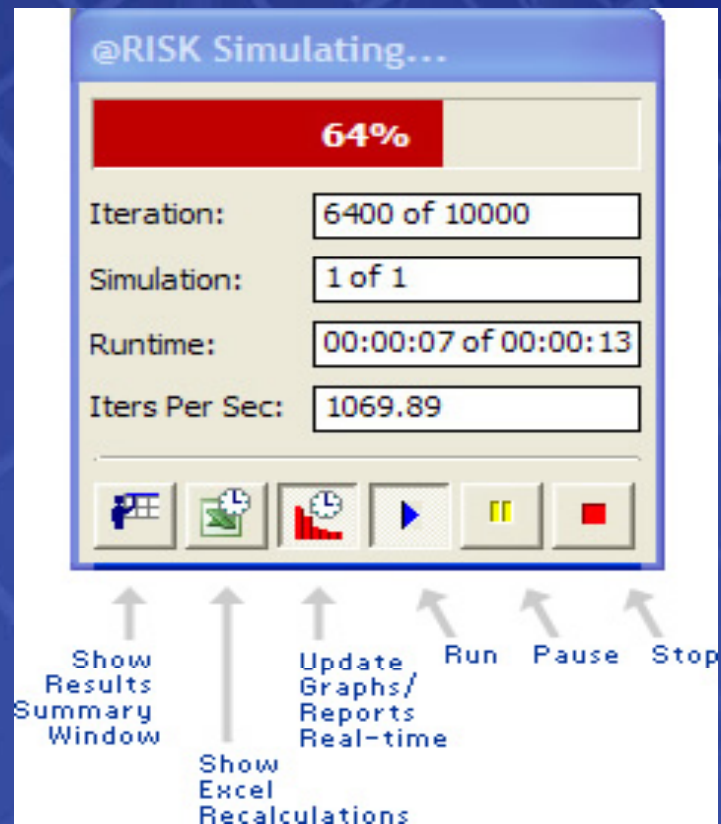
Inputs | Outputs | Correlations

Model Inputs in Open Workbooks: Inputs= 22, Outputs= 11

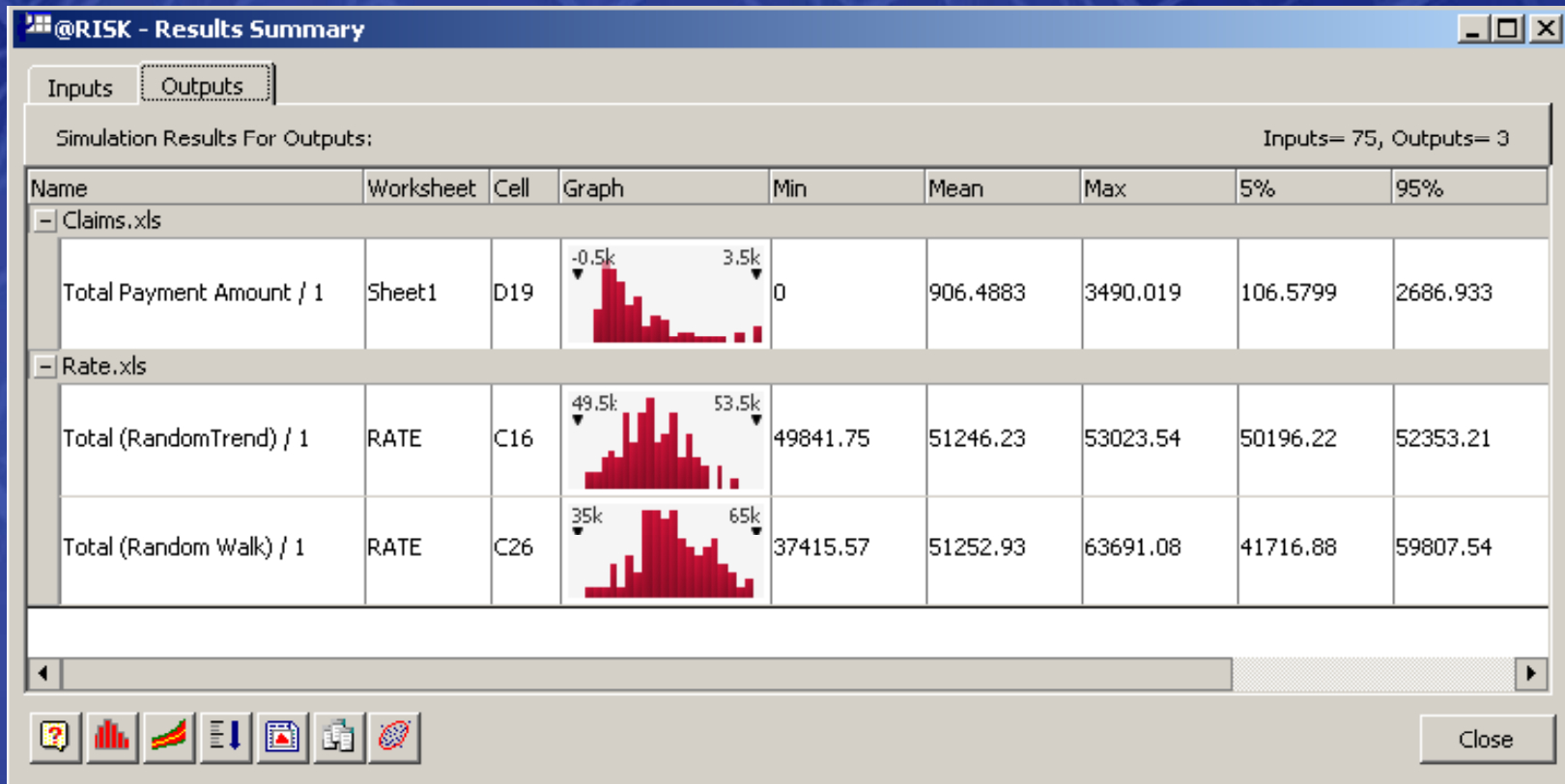
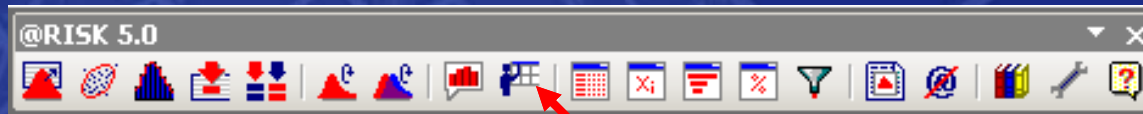
Name	Cell	Graph	Function	Min	Mean	Max
Number of Competitors / 2016	K25		RiskDiscrete({-1,0,1},{1,1,1})	-1	0	1
Number of Competitors / 2017	L25		RiskDiscrete({-1,0,1},{1,1,1})	-1	0	1
- Category: Product Development						
Product Development / 2008	C35		RiskNormal(50000,10000)	-∞	50000	+∞
Product Development / 2009	D35		RiskNormal(20000,2000)	-∞	20000	+∞
Product Development / 2010	E35		RiskNormal(10000,1000)	-∞	10000	+∞
- Category: Sales Volume						
Sales Volume / 2010	E32		RiskNormal(3000,1000)	-∞	3000	+∞
Sales Volume / 2011	F32		RiskNormal(5000,1000)	-∞	5000	+∞

OK Cancel

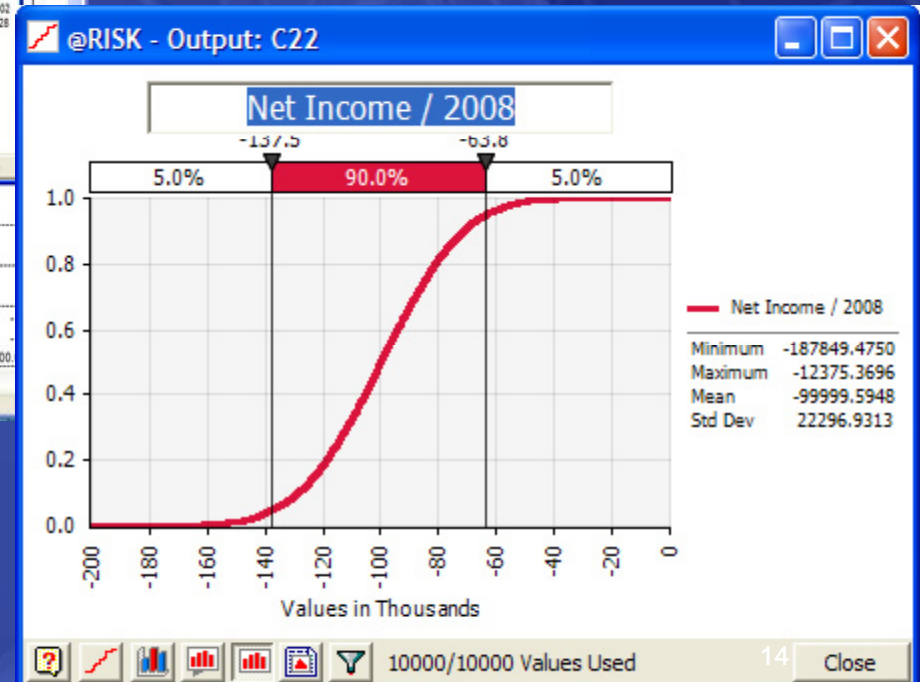
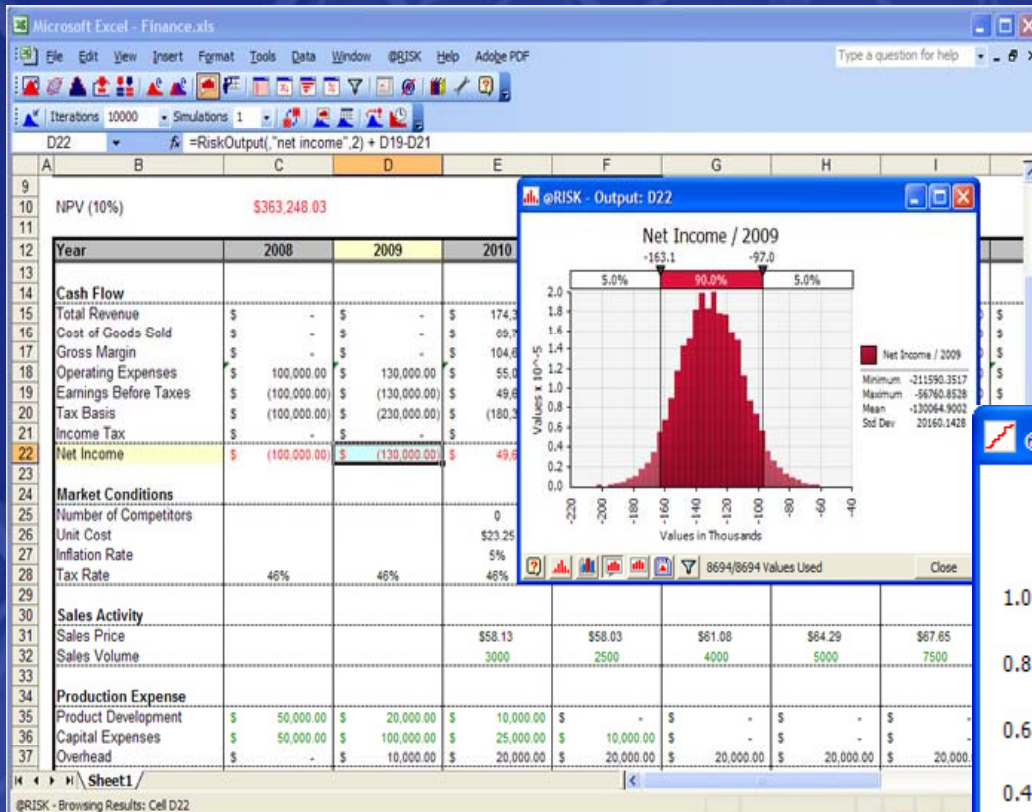
Simulation Progress Window



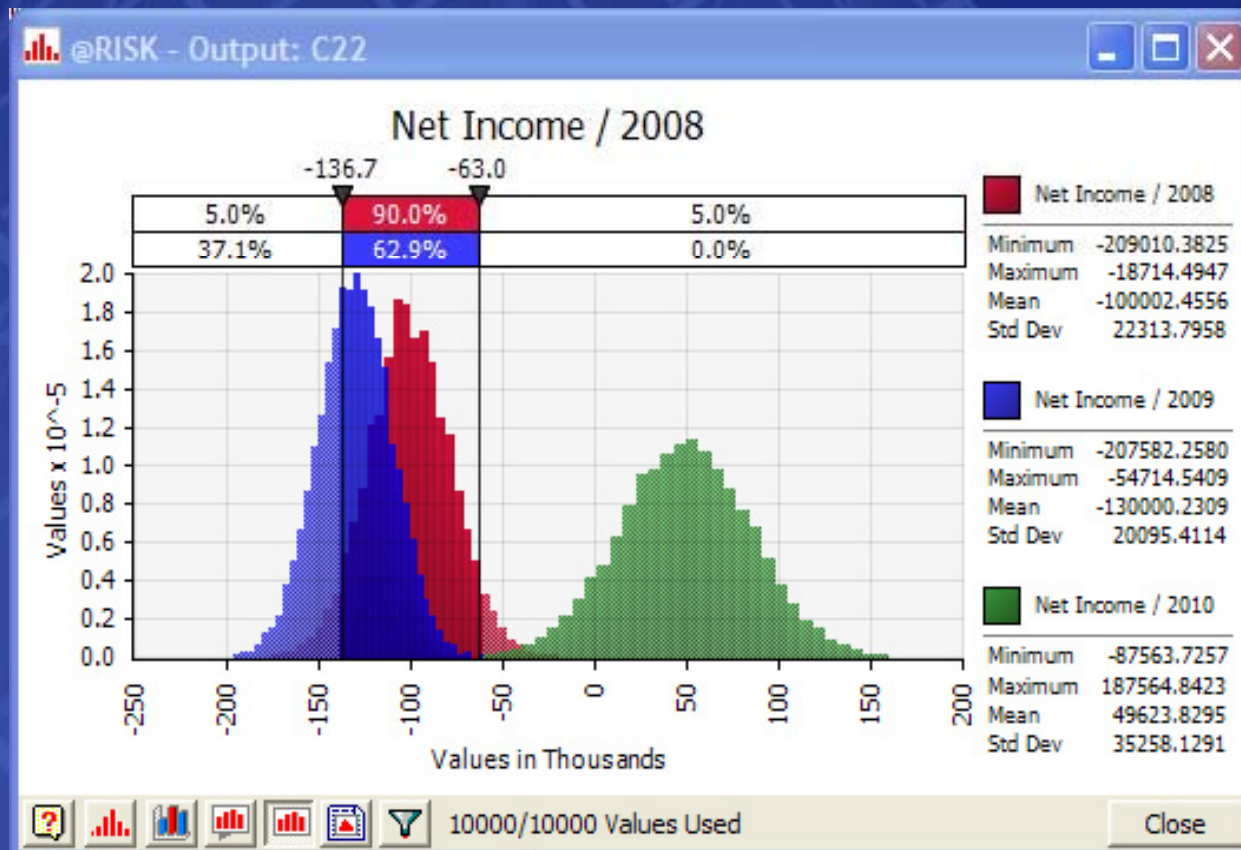
Results Summary Window



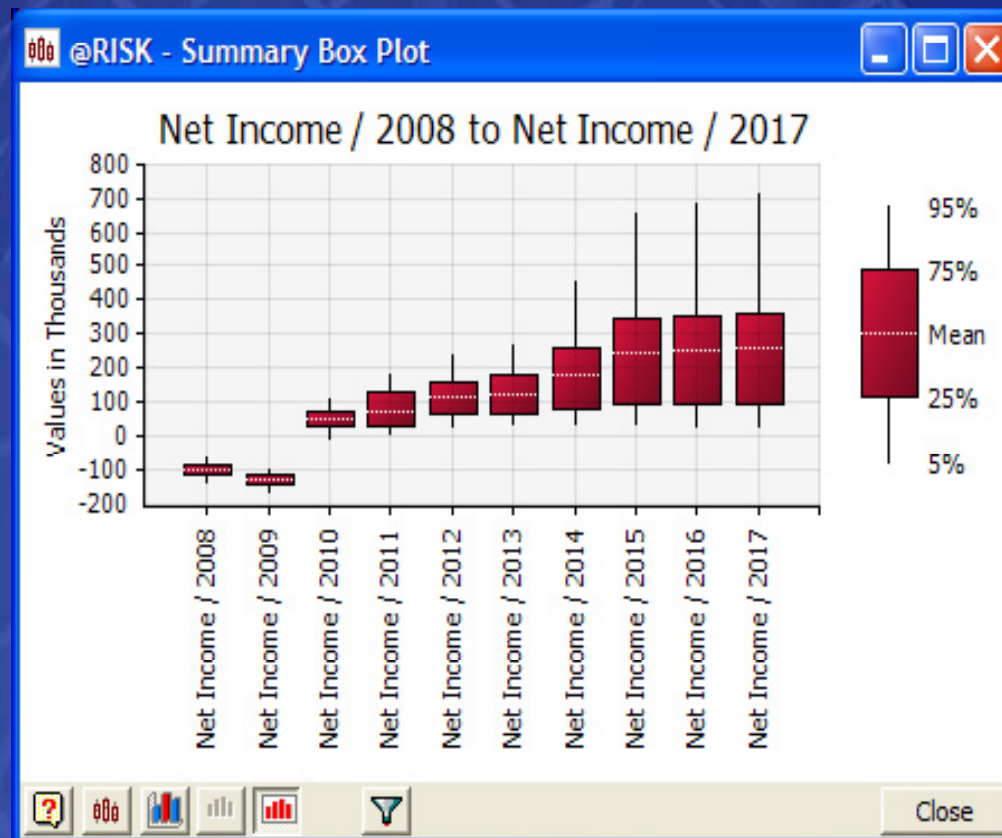
Graphing Results



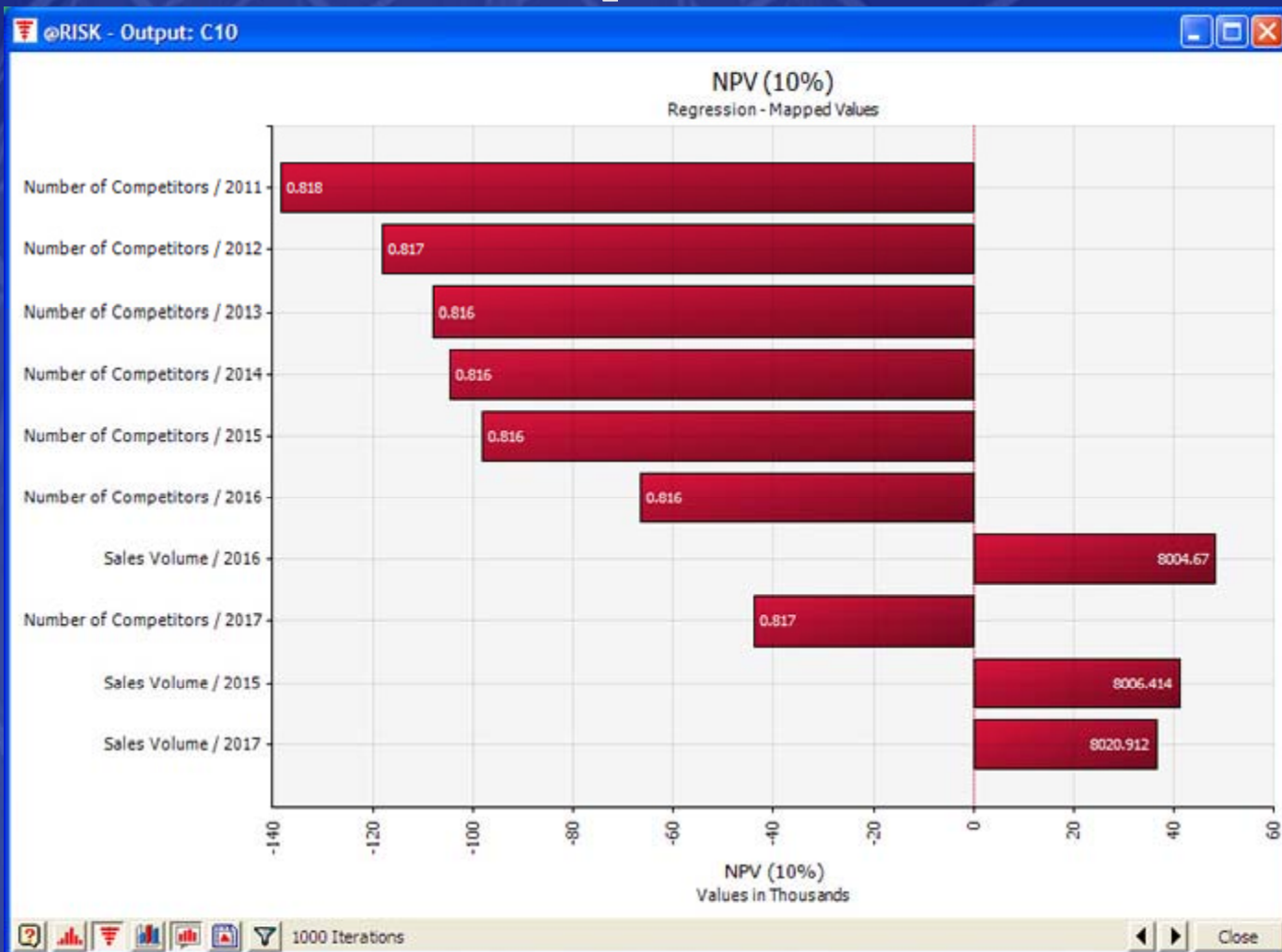
Drag 'n Drop



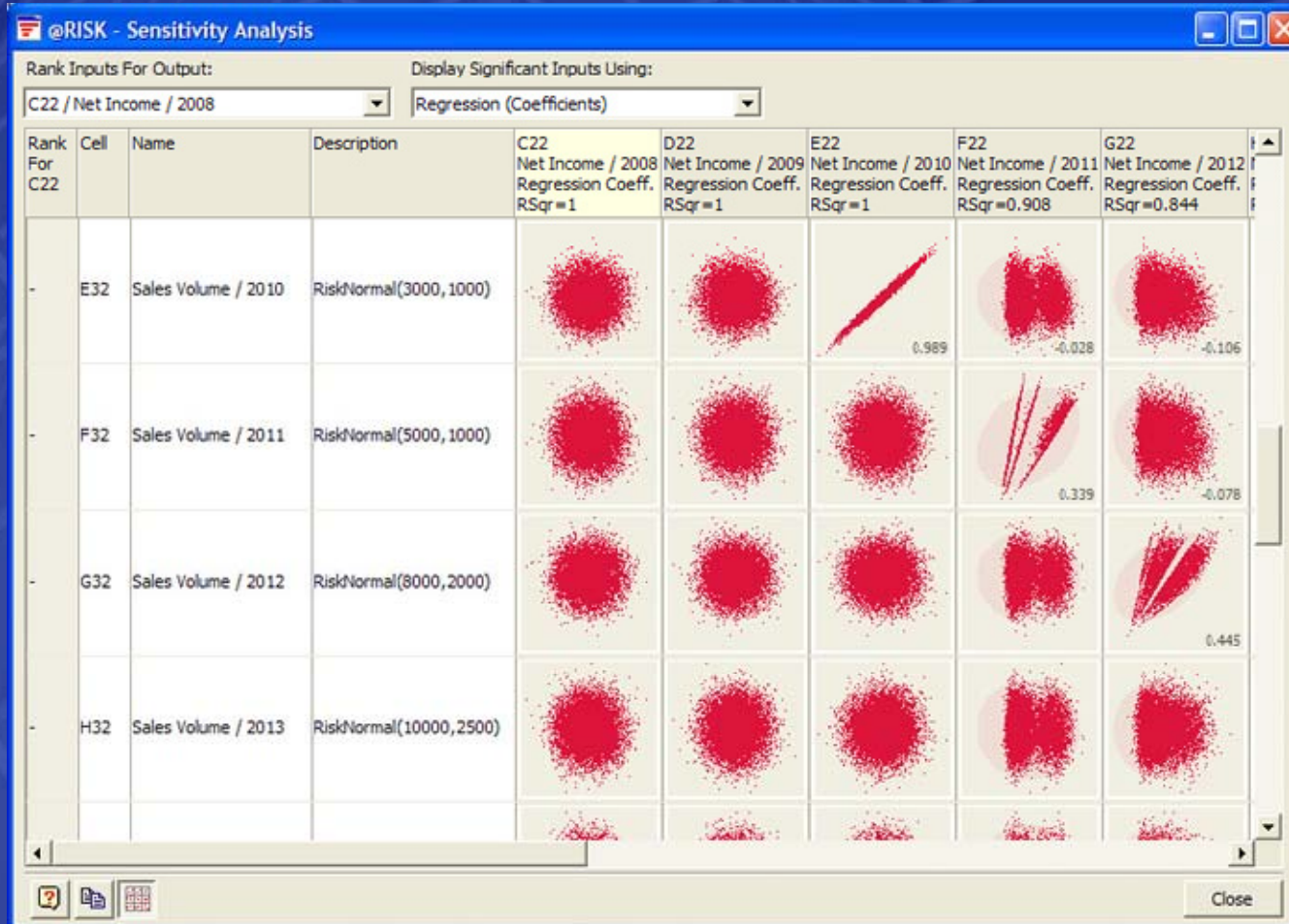
Summary Box-Plots



Tornado Graphs



Sensitivity Analysis



@Risk Library

The screenshot shows the Microsoft Excel interface with the @Risk Library dialog box open. The dialog box has three tabs: Distributions, Results, and Archive. The Distributions tab is active, showing a table of distributions. A red arrow points to the @Risk icon in the Excel ribbon.

Name	Workbook	Worksheet	Cell	Function	Author	Date	IndexID	Mean	Description
Oil Price	LibraryExample.xls	Variables	B3	RiskTriang(55,70,100)	Howie	9/4/2007 2:03:57 PM	1	0	Oil Price using Tria
Interest Rate	LibraryExample.xls	Variables	B4	RiskNormal(0.075,0.01)	Howie	9/4/2007 2:04:57 PM	2	0	Interest Rate usin
Market Share	LibraryExample.xls	Variables	B5	RiskGeneral(0,0.75,{0.1,0.2,0.3,(Howie	9/4/2007 2:05:57 PM	3	0	Market Share usin

Application Settings

The screenshot shows the Microsoft Excel interface with the @RISK Application Settings dialog box open. The dialog box is titled "@RISK - Application Settings" and contains the following settings:

Category	Setting	Value
General	Percentiles	Ascending
1	Insert Static Values	True
2	Save Results	Prompt on Save
3	Show Welcome Screen	True
4	@RISK Library	Enabled
5	Windows	
6	Default Size	Medium
7	Model Window Columns	Automatic
8	Results Window Columns	Automatic
9	Show Window List	Automatic
10	Colors (Graphs and Cells)	
11	Input Color	<Color>
12	Output Color	<Color>
13	Statistics Color	<Color>
14	Apply to	Graphs Only
15	Simulation Graph Defaults	
16	Preferred Distribution Format	Automatic
17	Preferred Tornado Format	Regression Coefficients

The dialog box has "OK" and "Cancel" buttons at the bottom. A red arrow points to the @RISK icon in the Excel ribbon, which is located in the "Tools" tab.



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