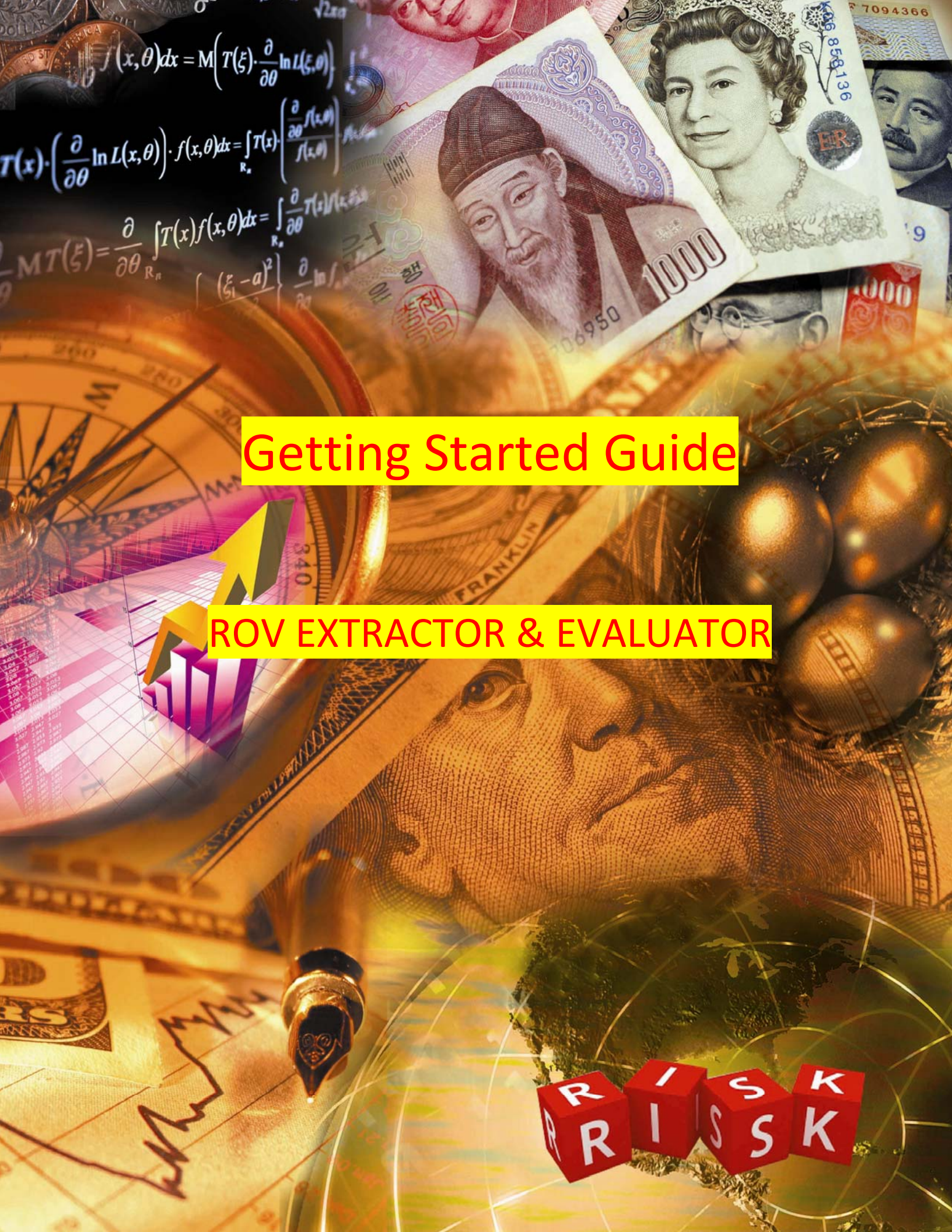

Getting Started Guide
ROV EXTRACTOR & EVALUATOR
RISK
RISK

ROV RISK EXTRACTOR AND EVALUATOR HELP

ROV Risk Extractor and Evaluator software is brought to you by Real Options Valuation, Inc. and is meant to work with Excel 2007 and later. This software is meant to be used inside of Microsoft Excel 2007 to extract an existing model into pure mathematical relationships and code such that the same model can be run outside of Excel. By running the extracted model, several items are accomplished, namely:

- All of the business intelligence and relationships are maintained but will no longer be visible to the end-user, allowing the model creator to safely and securely distribute the model without losing control of any intellectual property or company secrets.
- A large model that can take a long time to run in Excel can now be run at extremely fast speed in the lifted model.
- Large scale Monte Carlo Risk Simulations with large number of trials can be performed at very high speed.
- The extracted model can be locked using an AES 256 encryption (military strength protection) and can only be accessible using the correct password.
- Large models with many irrelevant parts are identified and additionally, you can identify the main key inputs and outputs you wish to have modeled. For instance, in a model such as A+B+C=D, B+E=F, and if F is chosen as the key output, only B and E are relevant. This decreases the computational time for the model by identifying critical inputs, and the model can then be optimized to run even faster once the model thread is identified.
- The large Excel model can now be turned into a calculator-like environment, where all the end user has to do is enter in the inputs and obtain the outputs. Imagine it as akin to creating a very large Visual Basic function in Excel, but instead of a simple function with several lines of computations, this function is an entire Excel workbook with many interconnected worksheets.
- The extracted model cannot be changed by the end user and this maintains a strict quality control and prevents malicious tampering or accidental breakage of the model (e.g., equations and functions with broken links, wrong functions and calculations, etc).
- The extracted file can also be used by third party software applications in a Component Based Modeling environment. For instance, the end user might have his or her own software or database with predefined calculations. The extracted file is linked into and is a part of this existing proprietary system. This proprietary system simply obtains the inputs to link into the extracted file and the extracted model will perform the computations at high speed and return the required outputs.

Please use the ROV Compiler software instead, if you wish to extract the model into a self-executable (EXE) file that runs inside Excel but all of its calculations are hidden, protected and can be licensed as its own software application. The ROV Compiler software complements this ROV Extractor and Evaluator software and is built by the same company.

SYSTEM REQUIREMENTS

The system requirements for the software include:

- Windows Vista or Windows XP
- Excel 2007 (older versions of Excel are not supported)
- 300MB free hard drive space
- 1GB RAM minimum
- Others: Microsoft .NET 3.5 Framework or later, VS Runtime, Microsoft Installer, and so forth

Please note that the .NET Framework 3.5 is included in the installation setup file, where the installer will first check your system and identify any missing prerequisites (e.g., .NET Framework 3.5, Microsoft Installer, VS Runtime, and other components) and automatically installs them for you before installing the ROV Extractor and Evaluator software.

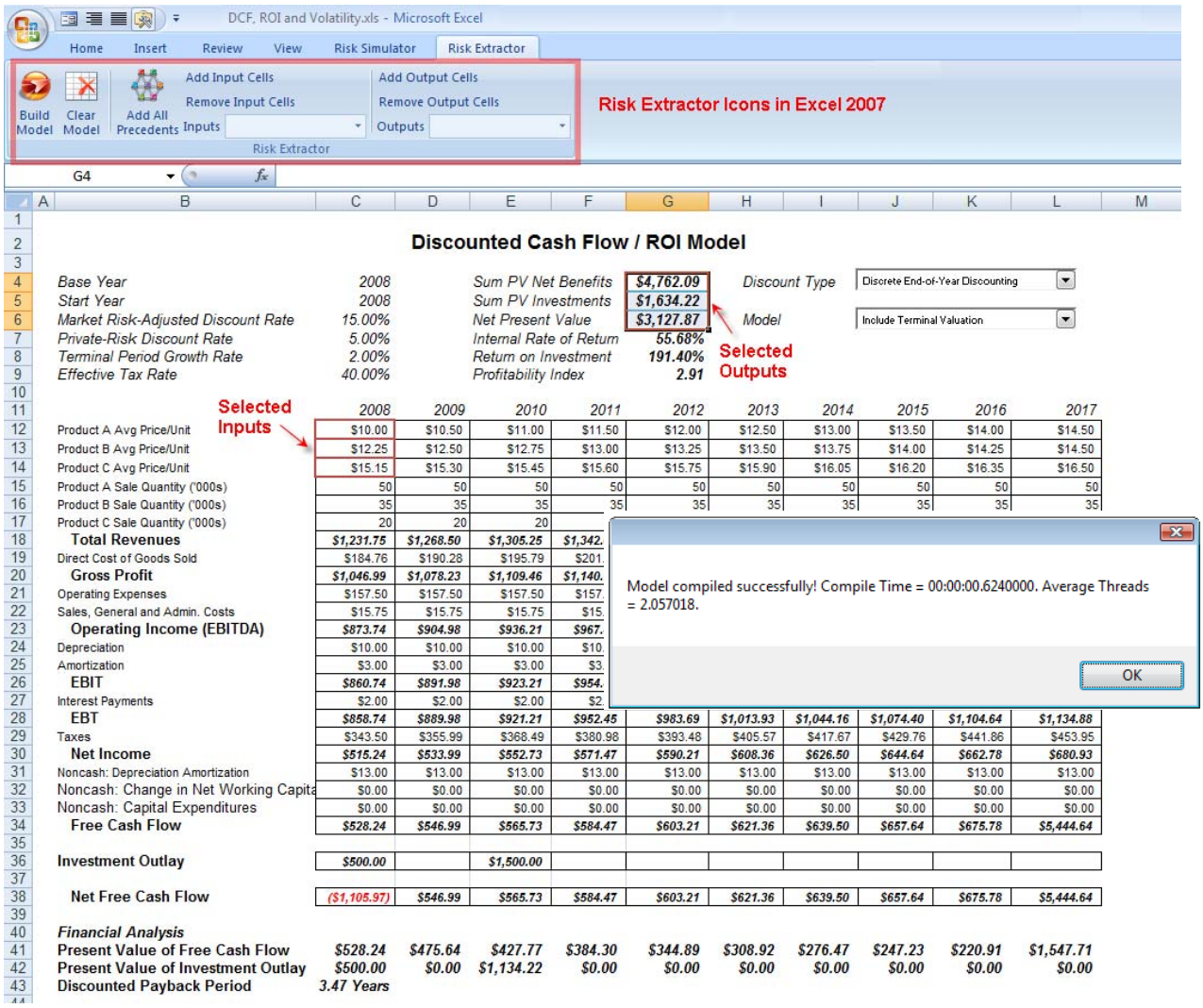
GETTING STARTED

The software comprises two different parts, the Extractor and the Evaluator. The Extractor resides as an add-in within Excel. When you start Excel 2007, a new icon ribbon named Risk Extractor will be visible. It is very simple to use the software. Here are a few sample steps to get you started:

1. Create a model or open an existing model in Excel 2007.
2. *Select the output cells* you want modeled (in the example below, these are cells G4:G6) and click on *Add Output Cells* on the icon toolbar and these cells are highlighted by a color box.
3. *Select the input cells* you want modeled (in the example, these are cells C12:C14) and click on *Add Input Cells* on the icon toolbar.
4. Click on *Build Model* to extract the model. Provide a name for the extracted model and a location to save the extracted *EXP* file. You will be informed if the model extraction is successful.
5. You can now close Excel and double click on the newly saved EXP file to open ROV Risk Evaluator. Alternatively, you can open Evaluator by going to *Start*, *Program Files*, *Real Options Valuation*, *Risk Extractor*, and selecting *Risk Evaluator*. You will then see the user interface below.

Note that you can set as many inputs and outputs as you wish. You may also click on the *Add All Precedents* to identify the model outputs' precedents. For instance, if the model is A+B=C, C+D=F and D+F=G, then if you select F and G as outputs, the precedents are automatically identified as A, B, D. Note that C and F are not identified as precedents as these are intermediate variables. Another note to remember is that you can keep opening new or existing models to extract their models but each time you do so, remember to first click *Clear Model* from memory in order to start setting inputs and outputs on the new model.

If the model extraction is successful, you will be notified with a short message (see below). Otherwise, you will be notified of any errors that may exist in the model or certain items that are not supported by ROV Extractor. Please see the section ***What is Supported and What is Not*** later in this help file for additional information.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Product A Avg Price/Unit	$10.00	$10.50	$11.00	$11.50	$12.00	$12.50	$13.00	$13.50	$14.00	$14.50
Product B Avg Price/Unit	$12.25	$12.50	$12.75	$13.00	$13.25	$13.50	$13.75	$14.00	$14.25	$14.50
Product C Avg Price/Unit	$15.15	$15.30	$15.45	$15.60	$15.75	$15.90	$16.05	$16.20	$16.35	$16.50
Product A Sale Quantity ('000s)	50	50	50	50	50	50	50	50	50	50
Product B Sale Quantity ('000s)	35	35	35	35	35	35	35	35	35	35
Product C Sale Quantity ('000s)	20	20	20							
Total Revenues	*$1,231.75*	*$1,268.50*	*$1,305.25*	*$1,342.*						
Direct Cost of Goods Sold	$184.76	$190.28	$195.79	$201.						
Gross Profit	*$1,046.99*	*$1,078.23*	*$1,109.46*	*$1,140.*						
Operating Expenses	$157.50	$157.50	$157.50	$157.						
Sales, General and Admin. Costs	$15.75	$15.75	$15.75	$15.						
Operating Income (EBITDA)	*$873.74*	*$904.98*	*$936.21*	*$967.*						
Depreciation	$10.00	$10.00	$10.00	$10.						
Amortization	$3.00	$3.00	$3.00	$3.						
EBIT	*$860.74*	*$891.98*	*$923.21*	*$954.*						
Interest Payments	$2.00	$2.00	$2.00	$2.						
EBT	*$858.74*	*$889.98*	*$921.21*	*$952.45*	*$983.69*	*$1,013.93*	*$1,044.16*	*$1,074.40*	*$1,104.64*	*$1,134.88*
Taxes	$343.50	$355.99	$368.49	$380.98	$393.48	$405.57	$417.67	$429.76	$441.86	$453.95
Net Income	*$515.24*	*$533.99*	*$552.73*	*$571.47*	*$590.21*	*$608.36*	*$626.50*	*$644.64*	*$662.78*	*$680.93*
Noncash: Depreciation Amortization	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00
Noncash: Change in Net Working Capita	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Noncash: Capital Expenditures	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Free Cash Flow	*$528.24*	*$546.99*	*$565.73*	*$584.47*	*$603.21*	*$621.36*	*$639.50*	*$657.64*	*$675.78*	*$5,444.64*
Investment Outlay	*$500.00*		*$1,500.00*							
Net Free Cash Flow	*($1,105.97)*	*$546.99*	*$565.73*	*$584.47*	*$603.21*	*$621.36*	*$639.50*	*$657.64*	*$675.78*	*$5,444.64*
Financial Analysis										
Present Value of Free Cash Flow	*$528.24*	*$475.64*	*$427.77*	*$384.30*	*$344.89*	*$308.92*	*$276.47*	*$247.23*	*$220.91*	*$1,547.71*
Present Value of Investment Outlay	*$500.00*	*$0.00*	*$1,134.22*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
Discounted Payback Period	*3.47 Years*									

When you open the EXP file by double clicking on it or when you start Risk Evaluator and click *File*, *Open* to open the saved EXP file, you will see a user interface similar to the one below. You will see the Project Explorer (A) where the input assumptions, output forecasts and the simulation results are available, the Input Variables section (B) where you can enter in the desired values, the Output variables (C) showing the computed results. There is also a menu and icon toolbar in the user interface (D). To get started, you can enter in any values in the input variables section and notice that the results in the output section are updated.

RUNNING SUPER SPEED SIMULATIONS

You can now run super speed simulations on your extracted model by first setting the input assumptions as distributions. The following are some simple steps to help you get started:

1. Find the assumption you wish to set a distribution on in the Project Explorer (A). Double click on the assumption you want.
2. You will then be presented with an Input Properties dialog. Here you can change the name of the input variable and change the value of the input if you wish (E).

a. Select the *Apply Simulation* checkbox (F)
b. *Select the distribution* (G) of choice (e.g., Triangular distribution)
c. *Enter in the relevant input parameters* (H) for the selected distribution (e.g., for Triangular, enter in the Min, Mode and Max values). You can continue by adding more input assumptions if you wish
d. When completed, you can click on the *Simulate* icon (I) and enter in the simulation name (this helps you identify which simulation results pertains to this simulation run in case you are running multiple simulations), the number of simulation trials , the random seed and number of computer CPU processors you wish to run on (J). When you click the *Simulate* icon, the simulation will start and you can watch the progress of the super speed simulation (K).
e. When completed, you can double click on the *simulation results* in the Project Explorer section (L) to view the results (M). Here, you can view the simulation statistics, enter or change the percentile values to obtain the relevant value (and hit TAB), or enter in the value (and hit TAB) to obtain the corresponding percentile. You can also export the simulated data or print the simulation results (O).

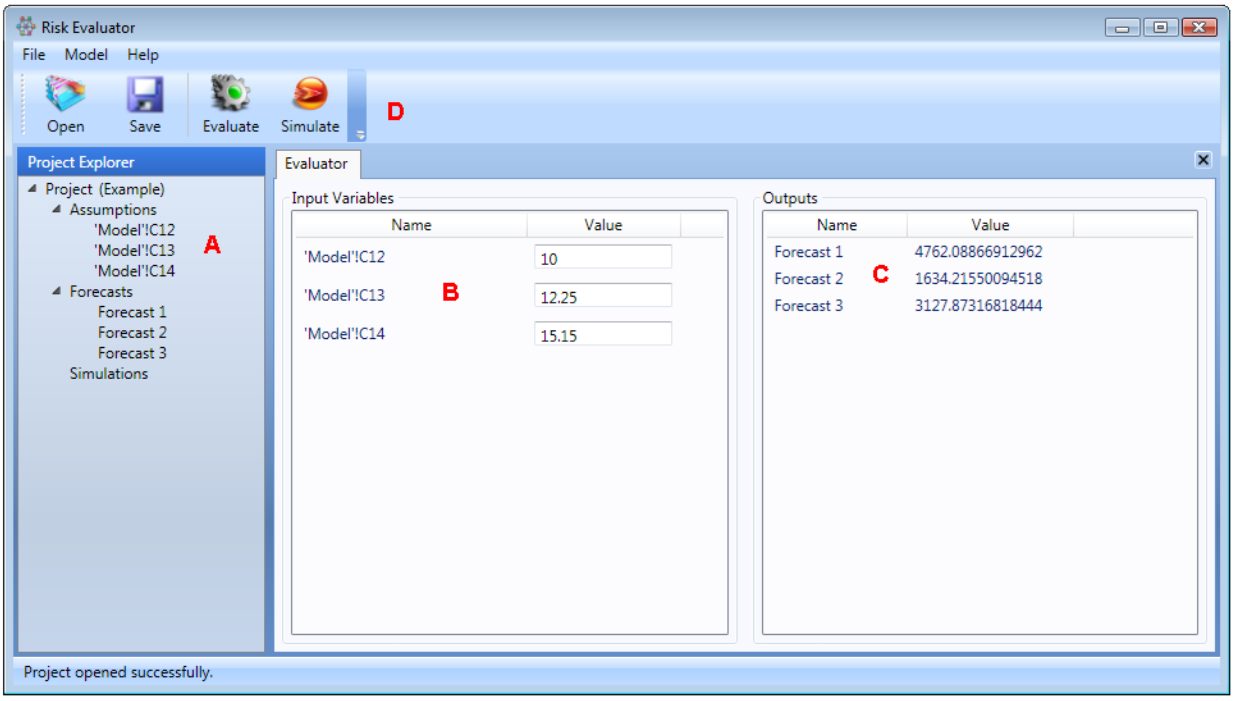
256 AES ENCRYPTION, MODEL OPTIMIZATION, AND SOFTWARE LICENSING

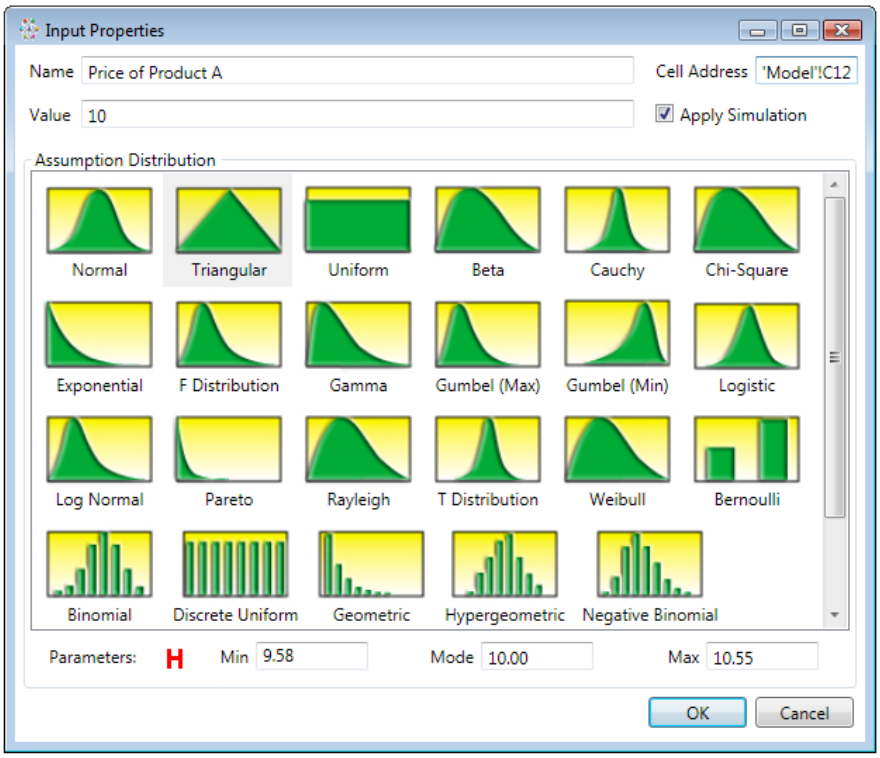
You can also add an AES 256 password encryption by clicking on *File* and *Protect Project* (P). Enter in a password (Q) to protect the EXP file from unauthorized access.

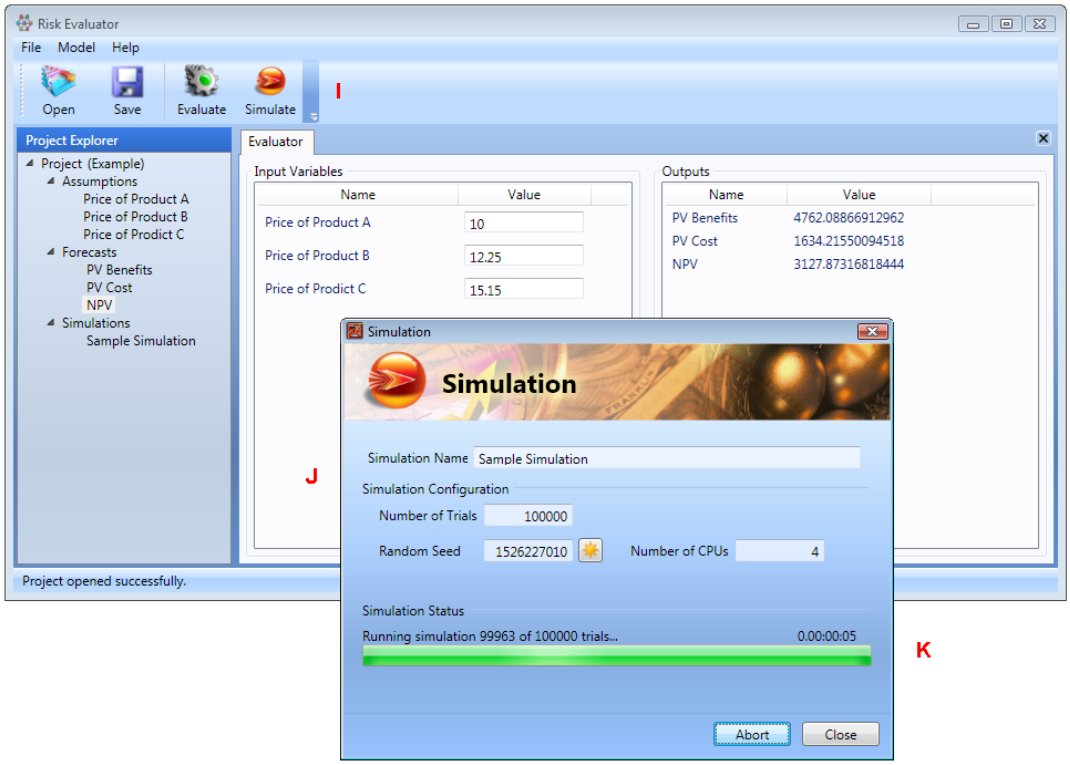
In addition, if you have a large Excel model to start with, and you have only selected a few input and output variables, then you can select *Model* and *Optimize* to optimize the extracted model. The software will apply some proprietary algorithms to identify the model threads and delete variables and computations that are irrelevant to the selected inputs and outputs. By optimizing the model, you can run the model and simulate the model at an even faster speed!

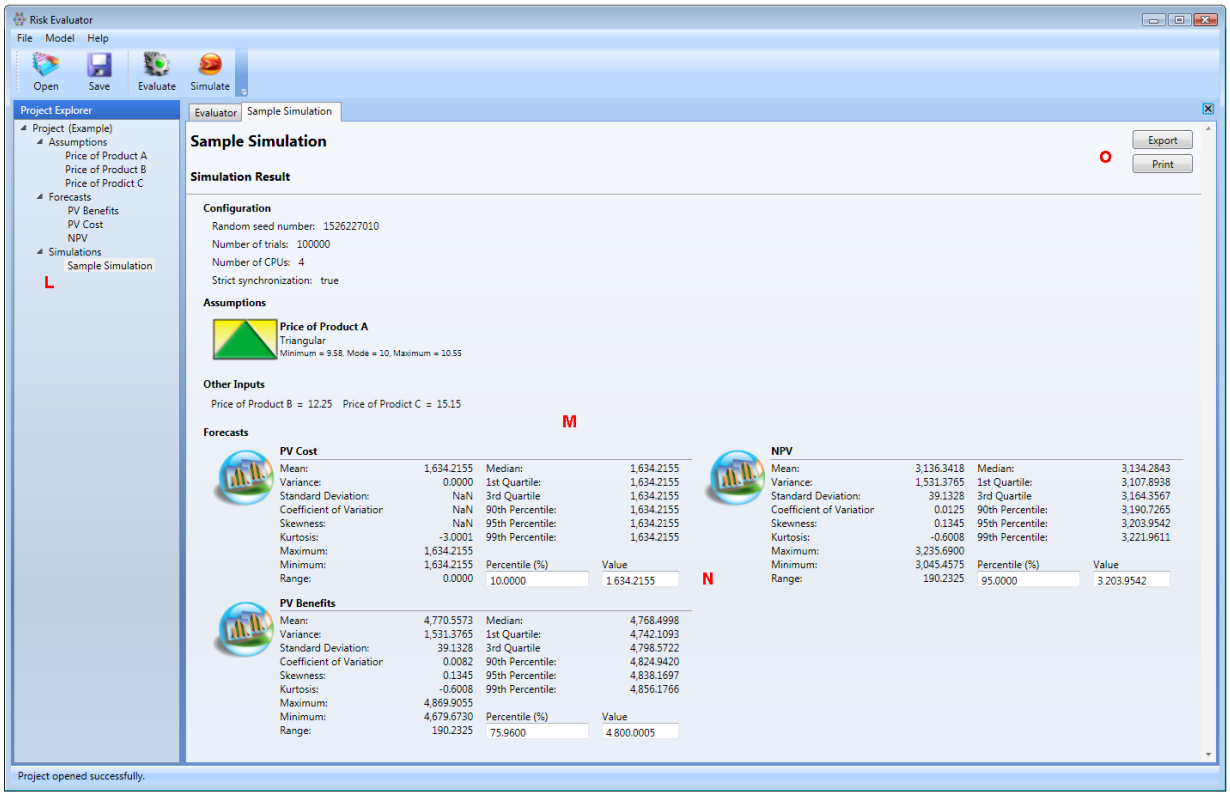
In order to use ROV Evaluator, you will need the software license.

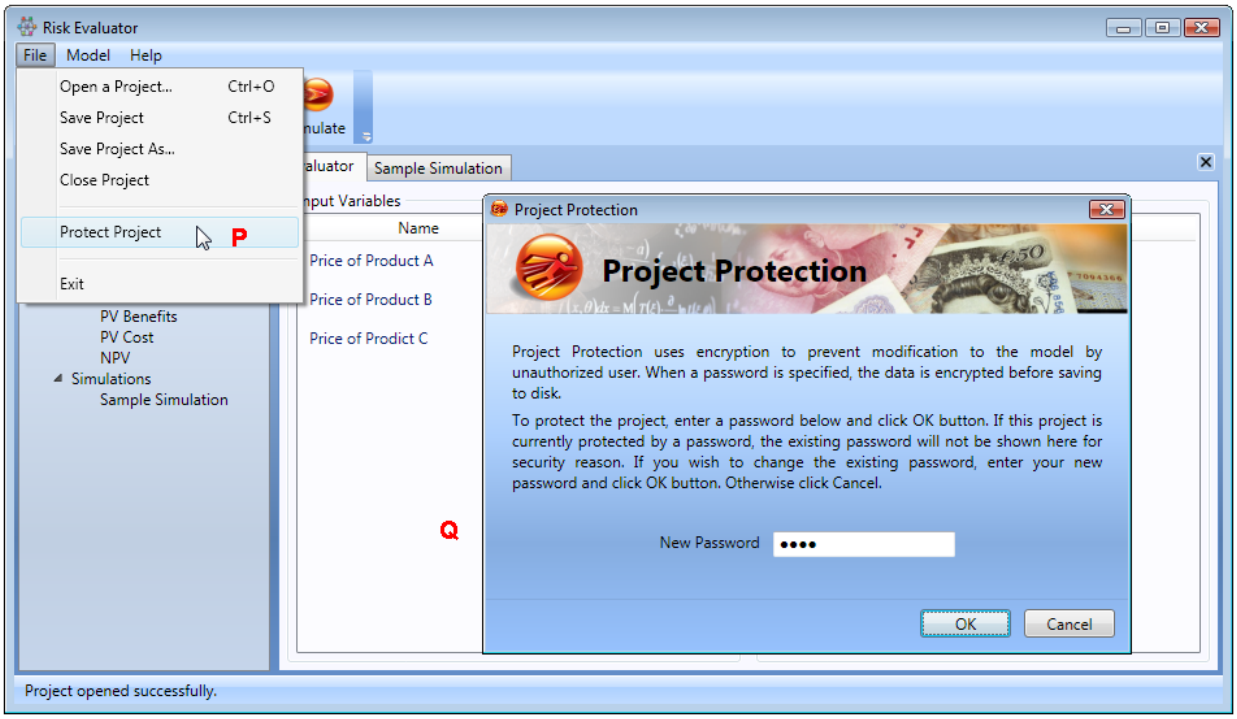
1. In ROV Evaluator, click on *Help* and select *License and Activation* (T). Here you will be shown your computer's *Hardware ID* (U). This hardware identification is derived from several hardware serial numbers of your computer (motherboard, memory, hard drive, and others) and we apply a proprietary algorithm to create this unique identification number. Every computer will have a unique Hardware ID and the license you obtain will only work on your computer.
2. *Select the Hardware ID* and right mouse click to *Copy* and you can now paste it into an e-mail to admin@realoptionsvaluation.com to request a license file.
3. When you receive the license file, save it to your hard drive. Start ROV Evaluator, click on *Help* then select *License and Activation*, and then *Activate*. Browse to the license file you just saved and you will be licensed immediately.


Risk Evaluator
File
Model
Help
Open
Save
Evaluate
Simulate
D
Project Explorer
Project (Example)
Assumptions
'Model'!C12
'Model'!C13
'Model'!C14
A
Forecasts
Forecast 1
Forecast 2
Forecast 3
Simulations
Evaluator
Input Variables
Name
Value
'Model'!C12
10
'Model'!C13
B
12.25
'Model'!C14
15.15
Outputs
Name
Value
Forecast 1
4762.08866912962
Forecast 2
C
1634.21550094518
Forecast 3
3127.87316818444
Project opened successfully.

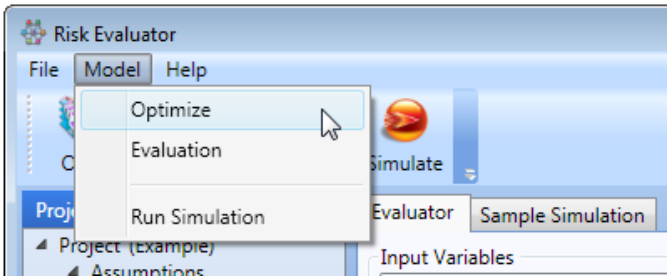

Input Properties
E
Name
Price of Product A
Cell Address
'Model'!C12
Value
10
Apply Simulation
F
Assumption Distribution
G
Normal
Triangular
Uniform
Beta
Cauchy
Chi-Square
Exponential
F Distribution
Gamma
Gumbel (Max)
Gumbel (Min)
Logistic
Log Normal
Pareto
Rayleigh
T Distribution
Weibull
Bernoulli
Binomial
Discrete Uniform
Geometric
Hypergeometric
Negative Binomial
Parameters:
H
Min
9.58
Mode
10.00
Max
10.55
OK
Cancel

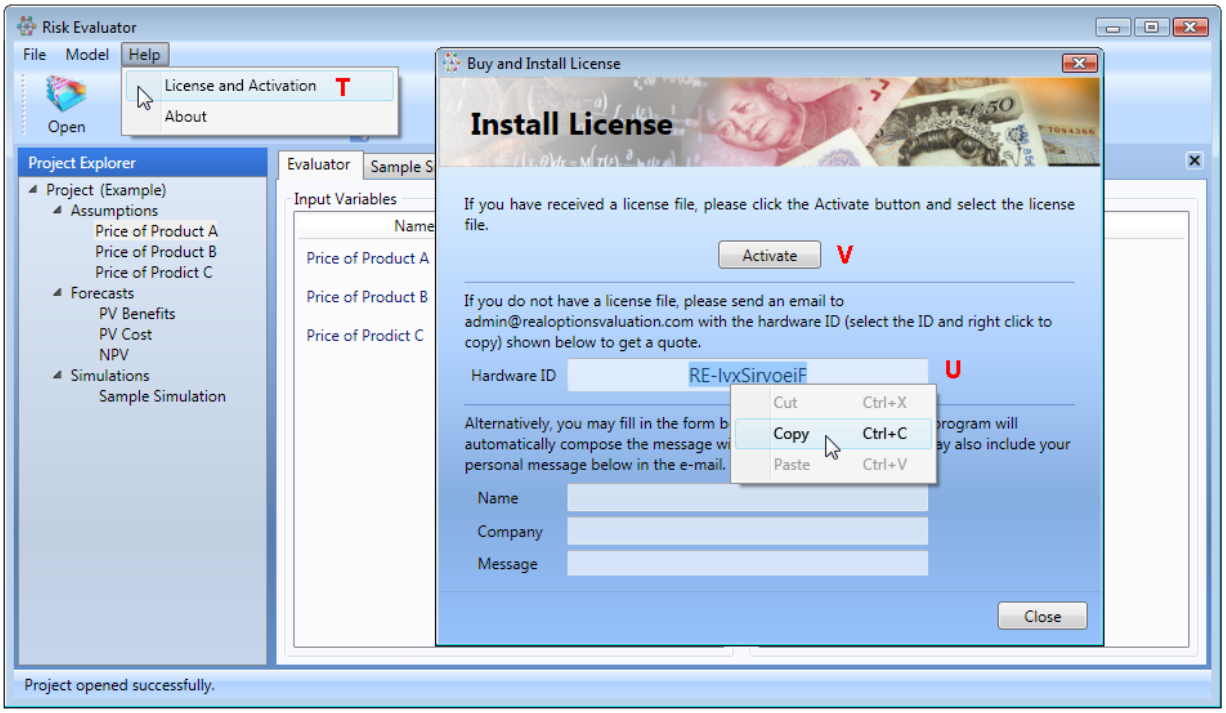

Risk Evaluator
File Model Help
Open Save Evaluate Simulate
I
Project Explorer
Project (Example)
Assumptions
Price of Product A
Price of Product B
Price of Prodict C
Forecasts
PV Benefits
PV Cost
NPV
Simulations
Sample Simulation
Evaluator
Input Variables
Name Value
Price of Product A 10
Price of Product B 12.25
Price of Prodict C 15.15
Outputs
Name Value
PV Benefits 4762.08866912962
PV Cost 1634.21550094518
NPV 3127.87316818444
J
Simulation
Simulation
Simulation Name Sample Simulation
Simulation Configuration
Number of Trials 100000
Random Seed 1526227010
Number of CPUs 4
Simulation Status
Running simulation 99963 of 100000 trials... 0.00:00:05
K
Abort
Close
Project opened successfully.


Risk Evaluator
File Model Help
Open Save Evaluate Simulate
Project Explorer
Project (Example)
Assumptions
Price of Product A
Price of Product B
Price of Prodict C
Forecasts
PV Benefits
PV Cost
NPV
Simulations
Sample Simulation
L
Evaluator
Sample Simulation
Sample Simulation
Simulation Result
O
Export
Print
Configuration
Random seed number: 1526227010
Number of trials: 100000
Number of CPUs: 4
Strict synchronization: true
Assumptions
Price of Product A
Triangular
Minimum = 9.58, Mode = 10, Maximum = 10.55
Other Inputs
Price of Product B = 12.25 Price of Prodict C = 15.15
M
Forecasts
PV Cost
Mean: 1,634.2155
Variance: 0.0000
Standard Deviation: NaN
Coefficient of Variation: NaN
Skewness: NaN
Kurtosis: -3.0001
Maximum: 1,634.2155
Minimum: 1,634.2155
Range: 0.0000
Median: 1,634.2155
1st Quartile: 1,634.2155
3rd Quartile 1,634.2155
90th Percentile: 1,634.2155
95th Percentile: 1,634.2155
99th Percentile: 1,634.2155
Percentile (%) 10.0000
Value 1,634.2155
N
NPV
Mean: 3,136.3418
Variance: 1,531.3765
Standard Deviation: 39.1328
Coefficient of Variation: 0.0125
Skewness: 0.1345
Kurtosis: -0.6008
Maximum: 3,235.6900
Minimum: 3,045.4575
Range: 190.2325
Median: 3,134.2843
1st Quartile: 3,107.8938
3rd Quartile 3,164.3567
90th Percentile: 3,190.7265
95th Percentile: 3,203.9542
99th Percentile: 3,221.9611
Percentile (%) 95.0000
Value 3,203.9542
PV Benefits
Mean: 4,770.5573
Variance: 1,531.3765
Standard Deviation: 39.1328
Coefficient of Variation: 0.0082
Skewness: 0.1345
Kurtosis: -0.6008
Maximum: 4,869.9055
Minimum: 4,679.6730
Range: 190.2325
Median: 4,768.4998
1st Quartile: 4,742.1093
3rd Quartile 4,798.5722
90th Percentile: 4,824.9420
95th Percentile: 4,838.1697
99th Percentile: 4,856.1766
Percentile (%) 75.9600
Value 4,800.0005
Project opened successfully.


Risk Evaluator
File
Model
Help
Open a Project... Ctrl+O
Save Project Ctrl+S
Save Project As...
Close Project
Protect Project
P
Exit
Sample Simulation
Input Variables
Name
Price of Product A
Price of Product B
Price of Prodict C
PV Benefits
PV Cost
NPV
Simulations
Sample Simulation
Project Protection
Project Protection
Project Protection uses encryption to prevent modification to the model by unauthorized user. When a password is specified, the data is encrypted before saving to disk.
To protect the project, enter a password below and click OK button. If this project is currently protected by a password, the existing password will not be shown here for security reason. If you wish to change the existing password, enter your new password and click OK button. Otherwise click Cancel.
Q
New Password
OK
Cancel
Project opened successfully.

S


Risk Evaluator
File
Model
Help
Optimize
Evaluation
Run Simulation
Evaluator
Sample Simulation
Input Variables



WHAT IS SUPPORTED AND WHAT IS NOT

The ROV Risk Extractor and Evaluator software supports many functions in Excel. However, there are certain things that are not supported. You can use the ROV Compiler software to perform these functions if you wish. ROV Compiler supports everything that can be done in Excel.

ROV Risk Extractor and Evaluator software does not support models with:

- Links outside of the current Excel file, i.e., linked to other Excel files, other databases or other data sources
- VBA functions and macros
- Ranges of multiple cells with a single range name
- Invalid operations such as:
    - A matrix multiplied by a value {TRANSPOSE(xxx)*A3} is not supported. Correct functions are supported such as {TRANSPOSE(xxx)} and {-TRANSPOSE(xxx)}
    - Range calculations such as A1:A10+B1:B10 is not supported
- Mixed strings and values such as:
    - IF(A1=3, 4, “”) or IF(A1=3, “4”, “”) are not supported, but numerical values in IF statements and nested IF statements are supported, such as IF(1 < 2, 3, 4), IF(A1< 5, 3, 4), IF(4 <> B3, 3, 4), IF(A1=3, 4, 0)
- IF(A1=B1, 4, 5) is not supported, but a workaround can be performed if A1 and B1 are numerical values, change the formula to IF(A1+0=B1, 4, 5). If A1 and B1 are text, change the formula to IF(A1&””=B1, 4, 5), and if A1 and B1 are Boolean, change the formula to IF(NOT(A1)=NOT(B1), 4, 5)

Other than these few quirks, many most commonly used functions are supported, including:

ABS	DATEVALUE	MMULT	PV	SUMPRODUC
ACOS	DAY	MOD	QUOTIENT	T
AND	EOMONTH	MONTH	RADIANS	SUMSQ
ASIN	EXP	MULTINOMIA	RAND	SUMX2MY2
ATAN	FACT	L	RANDBETWEE	SUMXMY2
ATAN2	FLOOR	NORMDIST	N	TABLE
AVEDEV	FV	NORMINV	RANK	TAN
AVERAGE	HLOOKUP	NORMSDIST	RATE	TANH
BIN2DEC	IF	NORMSINV	ROUND	TRANSPOSE
CEILING	INT	NOT	ROUNDDOW	TRUNC
CHOOSE	IRR	NPER	N	VAR
COMBIN	ISERROR	NPV	ROUNDUP	VARP
CORREL	ISNUMBER	OR	SIGN	VLOOKUP
COS	LN	PERCENTILE	SIN	XIRR
COSH	LOG	PERCENTRAN	SINH	XNPV
COUNT	LOG10	K	SQRT	YEAR
COUNTA	MAX	PI	STDEV	
COUNTIF	MEDIAN	PMT	STDEVP	
COVAR	MIN	POWER	SUM	
DATE	MIRR	PRODUCT	SUMIF	

All of these functions are language independent. This means that you can be using German Excel of Finnish Excel versus U.S.A. English Excel, the equivalent functions will be usable. The following table illustrates some most common languages of Excel and their corresponding function names that are supported by ROV Risk Extractor and Evaluator.

ENGLISH	FRENCH	GERMAN	SPANISH	PORTUGUESE	ITALIAN	SWEDISH	DUTCH	FINNISH
ABS	ABS	ABS	ABS	ABS	ASS	ABS	ABS	ITSEISARVO
ACOS	ACOS	ARCCOS	ACOS	ACOS	ARCCOS	ARCCOS	BOOGCOS	ACOS
AND	ET	UND	Y	E	E	OCH	EN	JA
ASIN	ASIN	ARCSIN	ASENO	ASEN	ARCSEN	ARCSIN	BOOGSIN	ASIN
ATAN	ATAN	ARCTAN	ATAN	ATAN	ARCTAN	ARCTAN	BOOGTAN	ATAN
ATAN2	ATAN2	ARCTAN2	ATAN2	ATAN2	ARCTAN.2	ARCTAN2	BOOGTAN2	ATAN2
AVEDEV	ECART.MOYEN	MITTELABW	DESVPROM	DESV.MÉDIO	MEDIA.DEV	MEDELAVV	GEM.DEVIATIE	KESKIPOIKKEAMA
AVERAGE	MOYENNE	MITTELWERT	PROMEDIO	MÉDIA	MEDIA	MEDEL	GEMIDDELDE	KESKIARVO
BIN2DEC								
CEILING	PLAFOND	OBERGRENZE	MULTIPLO.SUPERIOR	TETO	ARROTONDA.ECCESSO	RUNDA.UPP	AFRONDEN.BOVEN	PYÖRISTÄ.KERR.YLÖS
CHOOSE	CHOISIR	WAHL	ELEGIR	ESCOLHER	SCEGLI	VÄLJ	KIEZEN	VALITSE.INDEKSI
COMBIN	COMBIN	KOMBINATIONEN	COMBINAT	COMBIN	COMBINAZIONE	KOMBIN	COMBINATIES	KOMBINAATIO
CORREL	COEFFICIENT.CORRELATION	KORREL	COEF.DE.CORREL	CORREL	CORRELAZIONE	KORREL	CORRELATIE	KORRELAATIO
COS	COS	COS	COS	COS	COS	COS	COS	COS
COSH	COSH	COSHYP	COSH	COSH	COSH	COSH	COSH	COSH
COUNT	NB	ANZAHL	CONTAR	CONT.NÚM	CONTA.NUMERI	ANTAL	AANTAL	LASKE
COUNTA	NBVAL	ANZAHL2	CONTARA	CONT.VALORES	CONTA.VALORI	ANTALV	AANTALARG	LASKE.A
COUNTIF	NB.SI	ZÄHLENWENN	CONTAR.SI	CONT.SE	CONTA.SE	ANTAL.OM	AANTAL.ALS	LASKE.JOS
COVAR	COVARIANCE	KOVAR	COVAR	COVAR	COVARIANZA	KOVAR	COVARIANTIE	KOVARIANSSI
DATE	DATE	DATUM	FECHA	DATA	DATA	DATUM	DATUM	PÄIVÄYS
DATEVALUE	DATEVAL	DATWERT	FECHANUMERO	DATA.VALOR	DATA.VALORE	DATUMVÄRDE	DATUMWAARDE	PÄIVÄYSARVO
DAY	JOUR	TAG	DIA	DIA	GIORNO	DAG	DAG	PÄIVÄ
EOMONTH								
EXP	EXP	EXP	EXP	EXP	EXP	EXP	EXP	EKSPONENTTI
FACT	FACT	FAKULTÄT	FACT	FATORIAL	FATTORIALE	FAKULTET	FACULTEIT	KERTOMA
FLOOR	PLANCHER	UNTERGRENZE	MULTIPLO.INFERIOR	ARREDMULTB	ARROTONDA.DIFETTO	RUNDA.NER	AFRONDEN.BENEDEN	PYÖRISTÄ.KERR.ALAS
FV	VC	ZW	VF	VF	VAL.FUT	SLUTVÄRDE	TW	TULEVA.ARVO
HLOOKUP	RECHERCHEH	WVERWEIS	BUSCARH	PROCH	CERCA.ORIZZ	LETAKOLUMN	HORIZ.ZOEKEN	VHAKU
IF	SI	-	-	-	-	-	-	-
INT	ENT	GANZZAHL	ENTERO	INT	INT	HELTAL	INTEGER	KOKONAISLUKU
IRR	TRI	IKV	TIR	TIR	TIR.COST	IR	IR	SISÄINEN.KORKO
ISERROR	ESTERREUR	ISTFEHLER	ESERROR	ÉERROS	VAL.ERRORE	ÄRFEL	ISFOUT	ONVIRHE
ISNUMBER	ESTNUM	ISTZAHL	ESNUMERO	ÉNÚM	VAL.NUMERO	ÄRTAL	ISGETAL	ONLUKU
LN	LN	LN	LN	LN	LN	LN	LN	LUONNLOG
LOG	LOG	LOG	LOG	LOG	LOG	LOG	LOG	LOG
LOG10	LOG10	LOG10	LOG10	LOG10	LOG10	LOG10	LOG10	LOG10
MAX	MAX	MAX	MAX	MÁXIMO	MAX	MAX	MAX	MAKS
MEDIAN	MEDIANE	MEDIAN	MEDIANA	MED	MEDIANA	MEDIAN	MEDIAAN	MEDIAANI
MIN	MIN	MIN	MIN	MÍNIMO	MIN	MIN	MIN	MIN
MIRR	TRIM	QIKV	TIRM	MTIR	TIR.VAR	MODIR	GIR	MSISÄINEN
MMULT	PRODUITMAT	MMULT	MMULT	MATRIZ.MULT	MATR.PRODOTTO	MMULT	PRODUKTMAT	MKERRO
MOD	MOD	REST	RESIDUO	MOD	RESTO	REST	REST	JAKOJ
MONTH	MOIS	MONAT	MES	MÊS	MESE	MÅNAD	MAAND	KUUKAUSI
MULTINOMIAL								
NORMDIST	LOI.NORMALE	NORMVERT	DISTR.NORM	DIST.NORM	DISTRIB.NORM	NORMFÖRD	NORM.VERD	NORM.JAKAUMA
NORMINV	LOI.NORMALE.INVERSE	NORMINV	DISTR.NORM.INV	INV.NORM	INV.NORM	NORMINV	NORM.INV	NORM.JAKAUMA.KÄÄNT
NORMSDIST	LOI.NORMALE.STANDARD	STANDNORMVERT	DISTR.NORM.ESTAND	DIST.NORMP	DISTRIB.NORM.ST	NORMSFÖRD	STAND.NORM.VERD	NORM.JAKAUMA.NORMIT
NORMSINV	LOI.NORMALE.STANDARD.INVERSE	STANDNORMINV	DISTR.NORM.ESTAND.INV	INV.NORMP	INV.NORM.ST	NORMSINV	STAND.NORM.INV	NORM.JAKAUMA.NORMIT.KÄÄNT
NOT	NON	NICHT	NO	NÃO	NON	ICKE	NIET	EI
NPER	NPM	ZZR	NPER	NPER	NUM.RATE	PERIODER	NPER	NJAKSO
NPV	VAN	NBW	VNA	VPL	VAN	NETNUVÄRDE	NHW	NNA
OR	OU	ODER	O	OU	O	ELLER	OF	TAI
PERCENTILE	CENTILE	QUANTIL	PERCENTIL	PERCENTIL	PERCENTILE	PERCENTIL	PERCENTIEL	PROSENTTIPISTE
PERCENTRANK	RANG.POURCENTAGE	QUANTILSRANG	RANGO.PERCENTIL	ORDEM.PORCENTUAL	PERCENT.RANGO	PROCENTRANG	PERCENT.RANG	PROSENTTIJÄRJESTYS
PI	PI	PI	PI	PI	PI.GRECO	PI	PI	PII
PMT	VPM	RMZ	PAGO	PGTO	RATA	BETALNING	BET	MAKSU
POWER	PUISSANCE	POTENZ	POTENCIA	POTÊNCIA	POTENZA	UPPHÖJT.TILL	MACHT	POTENSSI
PRODUCT	PRODUIT	PRODUKT	PRODUCTO	MULT	PRODOTTO	PRODUKT	PRODUKT	TULO
PV	VA	BW	VA	VP	VA	NUVÄRDE	HW	NA
QUOTIENT								
RADIANS	RADIANS	RADIANT	RADIANES	RADIANOS	RADIANTI	RADIANER	RADIALEN	RADIAANIT
RAND	ALEA	ZUFALLSZAHL	ALEATORIO	ALEATÓRIO	CASUALE	SLUMP	ASELECT	SATUNNAISLUKU
RANDBETWEEN								
RANK	RANG	RANG	JERARQUIA	ORDEM	RANGO	RANG	RANG	ARVON.MUKAAN
RATE	TAUX	ZINS	TASA	TAXA	TASSO	RÄNTA	RENTE	KORKO
ROUND	ARRONDI	RUNDEN	REDONDEAR	ARRED	ARROTONDA	AVRUNDA	AFRONDEN	PYÖRISTÄ
ROUNDDOWN	ARRONDI.INF	ABRUNDEN	REDONDEAR.MENOS	ARREDONDAR.PARA.BAIXO	ARROTONDA.PER.DIF	AVRUNDA.NEDÅT	AFRONDEN.NAAR.BENEDEN	PYÖRISTÄ.DES.ALAS
ROUNDUP	ARRONDI.SUP	AUFRUNDEN	REDONDEAR.MAS	ARREDONDAR.PARA.CIMA	ARROTONDA.PER.ECC	AVRUNDA.UPPÅT	AFRONDEN.NAAR.BOVEN	PYÖRISTÄ.DES.YLÖS
SIGN	SIGNE	VORZEICHEN	SIGNO	SINAL	SEGNO	TECKEN	POS.NEG	ETUMERKKI
SIN	SIN	SIN	SENO	SEN	SEN	SIN	SIN	SIN
SINH	SINH	SINHYP	SENOH	SENH	SENH	SINH	SINH	SINH
SQRT	RACINE	WURZEL	RAIZ	RAIZ	RADQ	ROT	WORTEL	NELIÖJUURI
STDEV	ECARTYPE	STABW	DESVEST	DESVPAD	DEV.ST	STDAV	STDEV	KESKIHAJONTA
STDEVP	ECARTYPEP	STABWN	DESVESTP	DESVPADP	DEV.ST.POP	STDAVP	STDEVP	KESKIHAJONTAP
SUM	SOMME	SUMME	SUMA	SOMA	SOMMA	SUMMA	SOM	SUMMA
SUMIF	SOMME.SI	SUMMEWENN	SUMAR.SI	SOMASE	SOMMA.SE	SUMMA.OM	SOM.ALS	SUMMA.JOS
SUMPRODUCT	SOMMEPROD	SUMMENPRODUKT	SUMAPRODUCTO	SOMARPRODUTO	MATR.SOMMA.PRODOTTO	PRODUKTSUMMA	SOMPRODUKT	TULOJEN.SUMMA
SUMSQ	SOMME.CARRES	QUADRATESUMME	SUMA.CUADRADOS	SOMAQUAD	SOMMA.Q	KVADRATSUMMA	KWADRATENSOM	NELIÖSUMMA
SUMX2MY2	SOMME.X2MY2	SUMMEX2MY2	SUMAX2MENOSY2	SOMAX2DY2	SOMMA.DIFF.Q	SUMMAX2MY2	SOM.X2MINY2	NELIÖSUMMIEN.EROTUS
SUMXMY2	SOMME.XMY2	SUMMEXMY2	SUMAXMENOSY2	SOMAXMY2	SOMMA.Q.DIFF	SUMMAXMY2	SOM.XMINY.2	EROTUSTEN.NELIÖSUMMA
TABLE								
TAN	TAN	TAN	TAN	TAN	TAN	TAN	TAN	TAN
TANH	TANH	TANHYP	TANH	TANH	TANH	TANH	TANH	TANH
TRANSPOSE	TRANSPOSE	MTRANS	TRANSPONER	TRANSPOR	MATR.TRASPOSTA	TRANSPONERA	TRANSPONEREN	TRANSPONOI
TRUNC	TRONQUE	KÜRZEN	TRUNCAR	TRUNCAR	TRONCA	AVKORTA	GEHEEL	KATKAISE
VAR	VAR	VARIANZ	VAR	VAR	VAR	VARIANS	VAR	VAR
VARP	VAR.P	VARIANZEN	VARP	VARP	VAR.POP	VARIANSP	VARP	VARP
VLOOKUP	RECHERCHEV	SVERWEIS	BUSCARV	PROCV	CERCA.VERT	LETARAD	VERT.ZOEKEN	PHAKU
XIRR								
XNPV								
YEAR	ANNEE	JAHR	AÑO	ANO	ANNO	ÅR	JAAR	VUOSI