Plan with Confidence

Our goal was to inform the decision makers of the range of costs and schedule end dates that could be realized on this project to allow them to plan with confidence.

Jesse Kostelyk
Risk and Project Controls Manager
SMA Consulting

@RISK for Project Management

@RISK for Excel features a powerful integration with Microsoft Project that allows you to perform risk analysis and Monte Carlo simulation on your Microsoft Project schedules. This means that you can bring together your cost and schedule models, enabling you to determine the chances of finishing a project on time and within budget. You can also change inputs to see the direct impact on revenues or production. With @RISK, you can ask, “How will Revenues be affected if the start date is pushed back one week?” Or, “How will Production be impacted if the price of materials goes up 5%?”

palisade.com/projectriskmanagement
Model the Impact of Potential Risks in Your Project

@RISK for Excel integrates with Microsoft Project, allowing you to perform all your risk modeling from the more flexible Excel environment. @RISK 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, through live updating. When it’s time to run your Monte Carlo simulation, Microsoft Project’s scheduling engine is used for the calculations, ensuring accuracy. The bottom line for project managers is an integrated toolset that – finally – brings together cost, schedule, and financial risk modeling in a single, accessible environment.

@RISK tells us the probability of making our contractual dates, highlights any areas of risk that we may not have identified, and also provides us with forensic data to look back at for other areas of opportunities.

Michael Watson
Integrated Program Planning, Lockheed Martin
Master Planning team for the NASA Orion Multi-Purpose Crew Vehicle (MPCV)
Lockheed Martin and NASA Planning the First Manned Mission to Mars

NASA and Lockheed Martin are working together to plan the first manned mission to Mars, a multi-staged project that requires careful scheduling and planning in order to meet milestones efficiently. The project relies on the power of @RISK to help determine key risk factors along the way, and to analyze how different risk factors will impact the overall schedule, where every milestone is crucial, and millions are at stake.

“We turn on @RISK’s Monte Carlo simulations, and it tells us key information on major milestone points,” says Michael Watson of Lockheed Martin’s Integrated Program Planning. “For example, launch is extremely important, so we need to know what it’s going to take to hit them on time.”

By running regular schedule risk assessments with @RISK, Watson and his team can continuously validate the model for accuracy. “We look and see which factor might be causing delays, and how we can do a better job moving forward,” explains Watson. “We do this process every month, and it gets quite a bit more accurate as we go.”

US Army Materiel Systems Analysis Activity Schedule and Cost Risks in Acquisitions

The US Army Materiel Systems Analysis Activity (AMSAA) conducts critical analyses to provide state-of-the-art analytical solutions to senior level Army and Department of Defense officials. Analyses by AMSAA support the equipping and sustaining of weapons and materiel for U.S. soldiers in the field, and inform plans for the future. @RISK is used at AMSAA to help senior level officials avoid the risks of schedule and cost overruns. New @RISK models integrate schedule and cost consequences, and employ Monte Carlo simulation to give decision-makers the best information possible.

“This is cutting edge stuff,” says AMSAA Mathematician and Statistician John Nierwinski. “Once we’ve established a risk rating for a certain materiel option, let’s say it’s a particular alternative for a kind of tank, we can do all sorts of studies (i.e. tradespace, what-if scenarios, risk mitigations). ...@RISK enables us to build various kinds of risk models quickly, with lots of flexibilities.”

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Select Features & Benefits

- **RiskProject Functions**: Project-specific functions that can be included in Excel Formulas to make changes to a project schedule during simulation.
- **Probabilistic Branching**: Allows a project to branch from one task to any number of tasks during a simulation.
- **Probabilistic Calendars**: Allows you to enter non-working probabilities in calendars to be used in a simulation.
- **Risk Categories**: Allow distributions to be quickly assigned to a field for groups of tasks or resources in a project.
- **Parameter Entry Tables**: Create a table in Excel and use this feature to create columns for you and automatically generate @RISK distribution functions.
- **Schedule Auditing**: Identify mis-specified or incomplete entries.
- **Probabilistic Gantt Charts** (see image on facing page)
- **Time-Scaled Reports and Graphs**: @RISK can generate probability distributions that show a range of possible values for each time period in a project.
- **Integrated Cost and Schedule Risk Modeling**
- **Risk Registers**: Build risk registers in Excel, and easily link them to your project schedules. Add delays or costs in your project models as risk events occur.
- **Standardize**: Standardize on @RISK to meet the needs of everyone who deals with risk in your company. One interface for everyone means shorter learning curves.
- **Flexibility**: Access to Excel formulas, charts, functions and more gives project managers more modeling options than ever before.
- **Combine with other DecisionTools Suite products**: For example, combine with optimization techniques to determine the best order to perform tasks or phases of your project.
Palisade Software and Solutions: A Total Package

Palisade offers a complete solution, including both powerful software and custom services.

- **Custom Development**
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The World’s Leading Risk and Decision Analysis Software

- **@RISK** and **The DecisionTools Suite**
  www.palisade.com/risk
  www.palisade.com/decisiontools_suite

The DecisionTools Suite is an integrated set of programs for risk analysis and decision making under uncertainty. All Suite programs add in to Microsoft Excel, with @RISK as the cornerstone. @RISK performs risk analysis using Monte Carlo simulation in Excel and Project, allowing you to judge which risks are worth taking, and which to avoid.

DecisionTools Suite programs work together seamlessly to allow for powerful analyses and informed decisions:

- **@RISK**
  risk analysis using Monte Carlo simulation

- **BigPicture**
  mind mapping and data exploration for Excel

- **PrecisionTree**
  decision trees in Microsoft Excel

- **StatTools**
  advanced statistical analysis for Excel

- **TopRank**
  automated “what-if” analysis for Excel

- **Evolver**
  innovative optimization for spreadsheets

- **NeuralTools**
  sophisticated neural networks for Excel

- **RISKOptimizer**
  optimization with simulation

Contact Us Today

Get a New View of Your Project with Monte Carlo Simulation

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