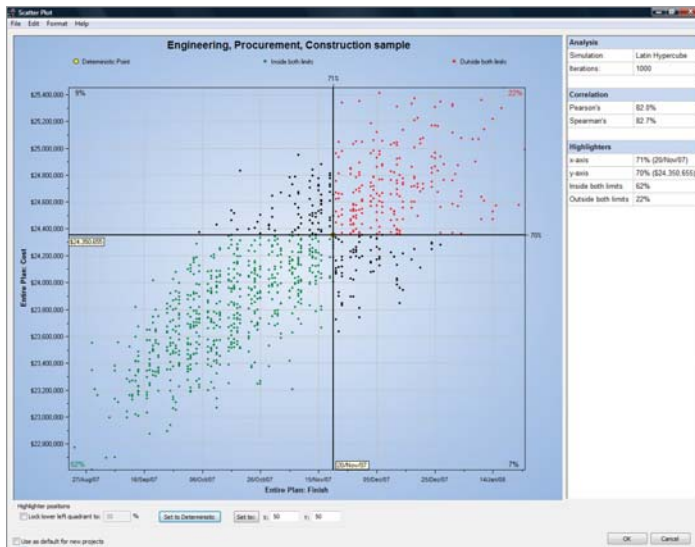# Risk Management

Primavera Pertmaster® is a full life cycle cost and schedule risk analytics solution for Primavera and Microsoft Project. It provides quick and easy techniques for determining contingency and risk response plans as well as a comprehensive means of reporting confidence levels for project success.

What does it provide?

Pertmaster is a decision support tool for determining confidence levels regarding project cost and schedule success. Pertmaster provides an objective view of required contingency to account for cost and schedule uncertainty as well as analyzing the cost effectiveness of risk response plans. These combined form the basis of a "risk adjusted schedule" which today is becoming the norm within the planning and scheduling process.
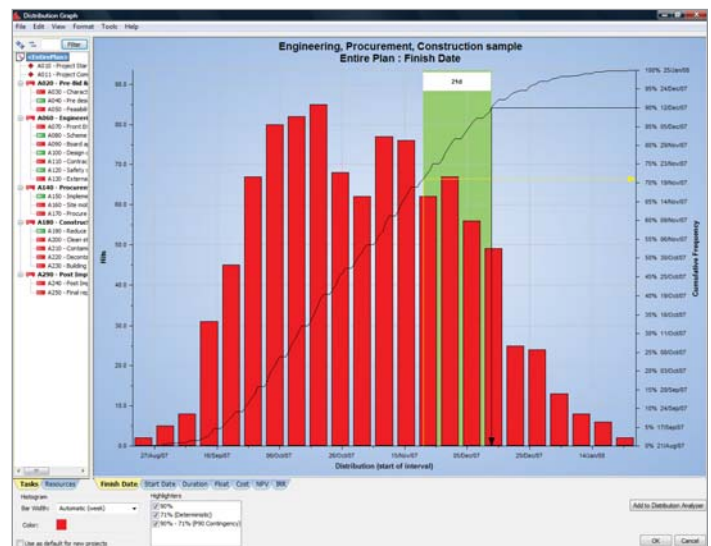
How does it work?

Pertmaster directly integrates with both project schedules and cost estimates modeling risks and uncertainty. Projects are risk loaded through the likes of risk registers and quick risk templating before being analyzed through a Monte Carlo simulation. Confidence levels and risk spots can be easily identified through reports such as risk histograms, tornadoes and scatter plots before the resulting risk adjusted plans are optionally published back into the live schedule.

> "We're able to look at the projects from a cost estimate perspective, schedule analysis as well as event driven risks and then merge the three variables together to give an overall assessment. To be able to see all sides of a project is an incredible value."
>
> Jim Christie, Manager of Project Controls at Marathon Oil Company

Scatter Plot

Histogram

Features

Schedule Check

Quickly determine your schedule maturity and risk readiness.

Risk Loading

Apply risks and uncertainties through the templated quick risk, risk register and a methodology-driven user interface.

Templated Quick Risk

Allows uncertainty risk distributions to be assigned to tasks based on a template approach. An advanced way of executing quick risk, these templates overcome the common challenge of accurately modeling task uncertainty.

Risk Register

Integrate pre-developed risk registers as well as define new risk registers directly within Pertmaster. Model both qualitatively and quantitatively positive and negative risk events (threats and opportunities) together with associated response plans such as mitigation. Automatically integrate identified risk events into the schedule by creating a risk event plan. These risk event plans can then be analyzed to determine both key risk drivers as well as the cost effectiveness of the identified mitigation strategies.

Methodology-Driven User Interface

Real-time risk distribution overlays within the Gantt chart itself. A dockable 'task details' window and unlimited user-defined fields and codes closely align with Primavera and Microsoft Project.
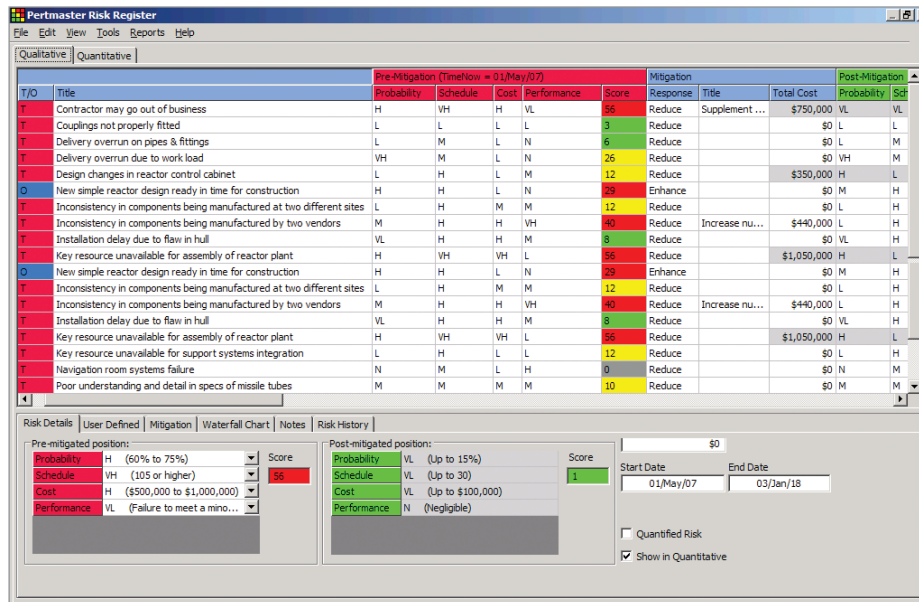
Risk Analysis

Primavera addresses full life cycle risk management through advanced Monte Carlo based cost and schedule analytics. Model Risk Types include: Estimate Uncertainty, Task Existence, Probabilistic Branching, Fixed Cost Uncertainty, Variable Cost Uncertainty, Resource Uncertainty, Conditional Branching and Weather Modeling. Risk analysis can be conducted both at the **project and portfolio level**. Make strategic decisions about project selection through portfolio models as well traditional project level risk analysis against individual or linked schedules.

> "Management, engineers, quality assurance and our customers now have faith in our increasingly realistic project schedules. Our project and risk models are considered to be an increasingly reliable source of business intelligence."
>
> David Ashcroft, Risk Manager in the Land & Joint Systems Division at Thales UK

Risk Register

Risk Reporting

Histogram/Distribution Chart

Determine confidence levels, P-schedules and quick determination of contingency. Report confidence levels with regards to finish dates, costs, float, Internal Rate of Return and Net Present Value. Drill down through the interactive report to identify confidence levels at multiple levels of the project including key milestones and stage gate review points. Quickly tab between cost and schedule based views with the ability to drill down and filter by task/resource through the integrated tree control.

Tornado

Identify key risk drivers. Find out what task or risk event is causing your schedule to not perform as expected. Alternatively, Cost Sensitivity reports isolate which tasks or risk events are the most cost critical. Interactive drill-down risk tornados enable quick and easy risk hot spot determination to report on key risk drivers.
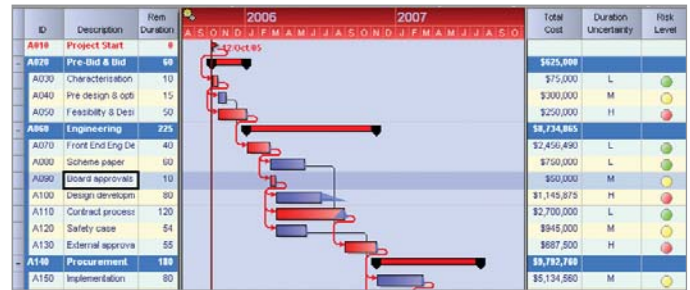
Scatter Plot

'What if' scenarios on cost and schedule changes. Determine the combined probability of achieving both given budgets and completion dates together. Play 'what if…' analysis by interactively varying cost and schedule thresholds to reveal the resultant chance of success.
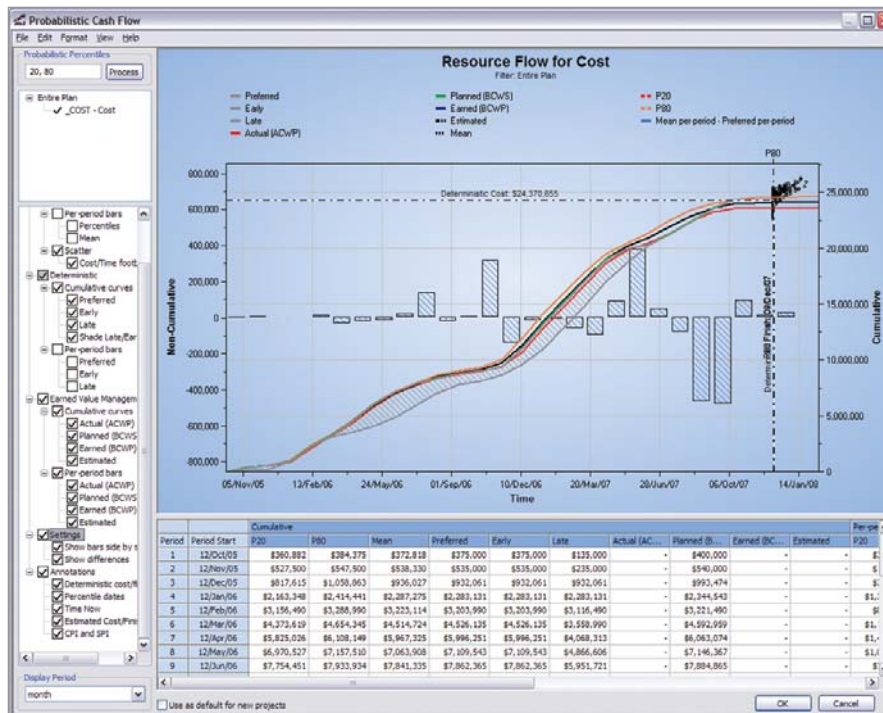
Distribution Analyzer

Compare scenarios and determine the cost/benefit ratio of selected mitigation plans. Overlay an unlimited number of cost/schedule risk distribution reports. Directly send risk distributions from the risk histogram view into the distribution analyzer report for risk scenario comparison and analysis. Standard and advanced cost modes enable quick and easy modeling of costs/resources while retaining optional advanced features.

Probabilistic Cash Flow

Critical for forecasting, long term budgeting, and EVMS reporting. In addition to reporting/overlay options such as percentile date shading, Pertmaster includes the ability to filter the probabilistic cash flow based upon specific resources/cost classes within the project plan. Cash flows can be generated for specific resource and cost types.

Gantt Chart

Probabilistic Cash Flow

Microsoft Office Toolbars

Fully customizable toolbars can be adapted to specific risk methodologies.

Integration

Full integration and support with Primavera 3.0 and higher (including P6) and Microsoft Project (including Project 2007 and EPM/Project Server).

About Primavera

Primavera is the world's leading provider of project, resource and portfolio management software. Our industry-specific solutions help project-driven companies create a competitive advantage by making better portfolio investment decisions, improving governance, prioritizing project investments and resources, and delivering tangible results back to the business.

Projects totaling more than $6 trillion in value have been managed with Primavera by more than 75,000 customers around the world. Our employees, global partners, award-winning customer support and professional services teams are deeply committed to helping organizations achieve their vision and strategy.

We encourage you to learn how Primavera can help you meet your project goals and business objectives. For greater detail on Primavera solutions and real-world customer successes, visit www.primavera.com today.

PRIMAVERA®
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