Merak Decision Tool Kit

Weigh uncertainties and evaluate the possible impacts

APPLICATIONS

- Calculate risk and analyze the impact of variables and decisions on project expected value

BENEFITS

- Gain confidence in decisions by exploring the effect of economic uncertainties on a project's value
- Determine the expected value of a project, with an understanding of the economic impact of variables
- Support decisions with reports, graphs, and decision trees

FEATURES

- Sensitivity analysis to determine the effect of variables on a project's economic value
- Decision trees for structured and consistent decision analysis
- Tornado charts and spider diagrams to visualize the effect of uncertainties on project value
- Visual Monte Carlo to model complex problems

Risk and uncertainty are ever-important considerations in petroleum investment analysis. Merak* Decision Tool Kit decision analysis and risk management software offers the power to weigh the economic uncertainties inherent in any project decision, measure the effect of those uncertainties on the expected value, and see just how risky your options really are.

Merak Decision Tool Kit comes with a toolbox of complementary modules. Access the economics data from Merak Peep economic evaluation and decline analysis software, then use the power of these tools to make more informed decisions:

- perform multivariable sensitivity analysis using tornado, spider, or value measure diagrams
- analyze decisions, calculate expected value, and determine the value of information
- calculate risk for complex projects not easily modeled in standard Monte Carlo analysis programs.

Sensitivity options

Sensitivity analysis helps you visualize the impact of certain variables, such as operating cost, on the project economics so you can determine the significance of the variables and compare the variables with prospect-scale uncertainty. The sensitivity options enable you to

- illustrate the effects of input variables from greatest to least in bar-chart format with a tornado diagram
- show how the rate of change in input variables affects the rate of change in value measures using a spider diagram
- see how the rate of change in one input variable affects multiple compatible value measures with a value measure diagram
- analyze Merak Peep data and Microsoft Excel workbooks
- generate and print customizable reports and export results to other applications
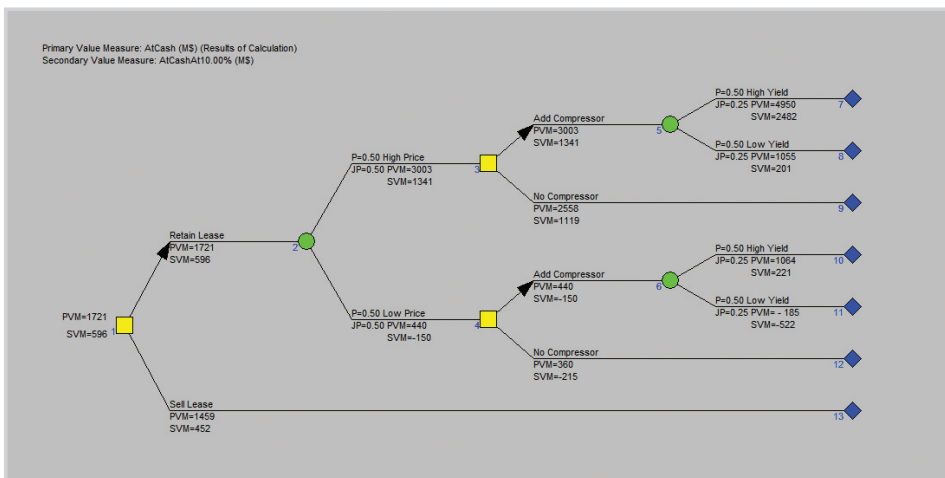- automatically build a decision tree based on your sensitivity analysis data.
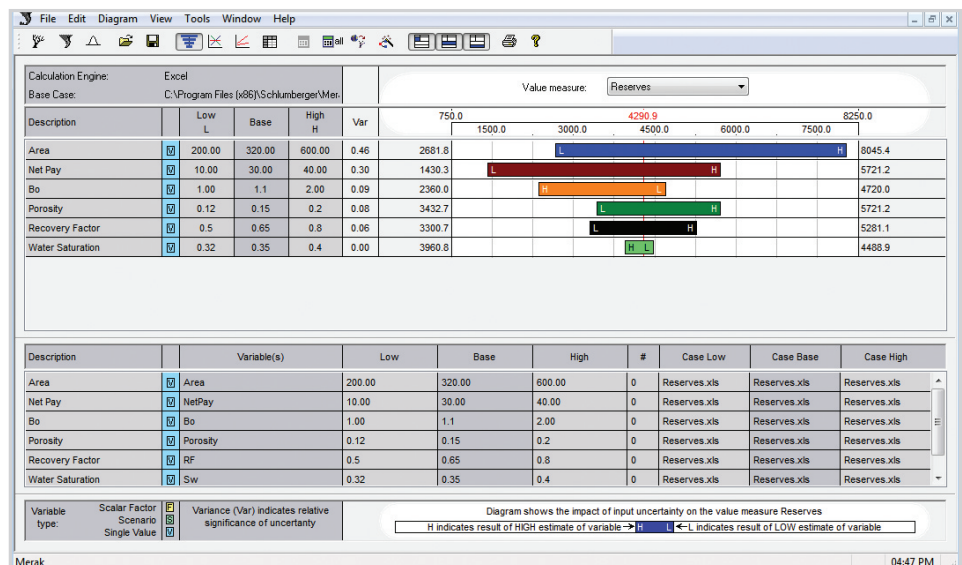
Gain confidence in your economic evaluations by conducting sensitivity, decision, and risk analysis with the Merak Decision Tool Kit.

Merak Decision Tool Kit
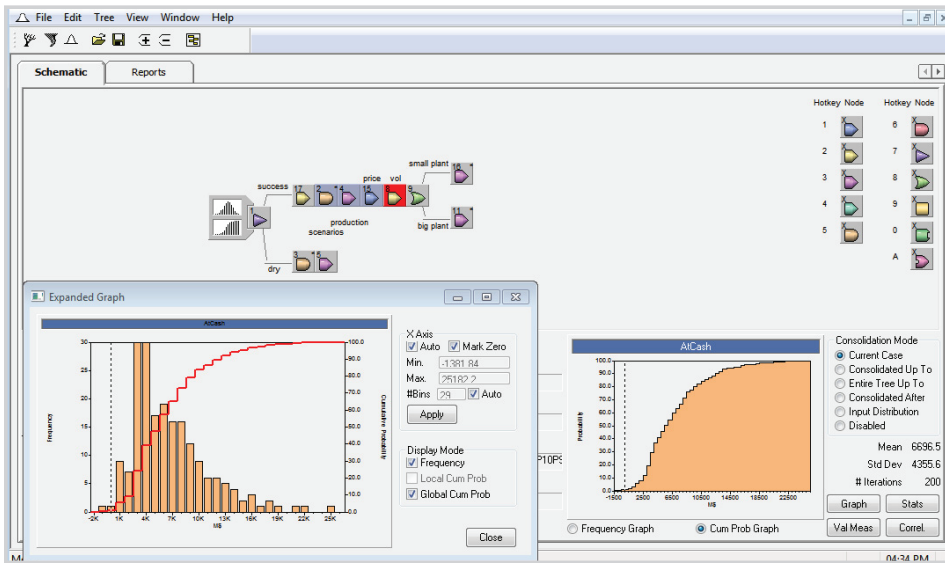
Increase the power of your investment appraisals with Visual Monte Carlo combined with decision-analysis techniques.

Decision tree options

Because changes in project uncertainties affect the project's expected economic value, confidence in data quality is critical. The decision tree options enable you to

- quickly and easily build simple or complex decision trees with a user-friendly interface
- combine multiple cases from Merak Peep economic data or multiple Excel workbooks into one decision tree
- determine if a decision path—and its resulting value—will change if you have information about an uncertainty before making a decision
- print, copy to the clipboard, save as a text file, or export input data or results to Excel with flexible printing options.

Use decision trees to put solid decision analysis behind your choices.

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