



Value of Control

MODULE

About the Skill Module

This skill module introduces value of control and covers the following topics:

- **Decision Trees – Expanded:** Decision trees are the most recognizable feature of decision analysis. So, many people think these are synonymous.
- **Value of Control I:** Investing to reduce project and operations risk are typical value of control (VOC) problems. Improving "control" means taking action to improve the probability and/or outcomes of a chance event.
- **Value of Control II:** An oil tanker has a heightened risk of collision accidents and oil spills if it loses its steering or propulsion power system. This exercise is to develop a decision model to decide whether to spend additional money on maintaining the tanker's steering and propulsion systems.



[See example online learning module](#)

Target Audience

Geologists, engineers, geophysicists, managers, team leaders, economists, and planners

You Will Learn

- To properly sequence decision tree nodes
- To back-solve the decision tree for node-branch expected values
- When it is okay to put costs and benefits on branches when realizing those values
- Exercise: Plant expansion decision
- Low- to moderate-cost software tools
- Advantages and disadvantages of decision trees compared to Monte Carlo simulation
- The distinction between threats and opportunities in project management terminology
- About the risk matrix (useful to illustrate the VOC concept, though not recommended for decision making)
- To set up and solve a decision tree to evaluate the value of a control-adding alternative
- How to apply Monte Carlo to optimize one or multiple control decision variables
- To calculate the expected value (EV) cost of an accident
- How to set up a decision tree to evaluate the EV cost of an accident vs amount spent on maintenance
- Calculate the EV cost of an accident with Low Maintenance plus Insurance

Product Details

Categories: [Upstream](#)

Disciplines: [Energy Business](#)

Levels: [Basic](#)

Product Type: Individual Skill Module

Format: On-Demand

Duration: 4 hours (approx.)

\$395.00