ABSTRACT OF PRESENTATIONS

Monte Carlo Schedule Risk Analysis

Monte Carlo simulation is used to analyze uncertainties in project schedule and cost. Monte Carlo method allows project schedulers to realistically model very complex set of uncertainties, although most organizations tend to use only basic features of Monte Carlo.

The presentation includes step by step process of quantitative risk analysis with risk events using Monte Carlo simulations. The process starts with risk identification and recording them using a risk register. The next step is assigning risks to tasks and resources with certain probability and impact. Then the relationship between risks is identified. This relationship is graphically presented using event chain diagrams. Uncertainties defined by statistical distributions represented unidentified events or “nose”. The Monte Carlo simulation helps to generate risk adjusted project schedule as well as rank events and event chains. Mitigation and response planning is conducted for the critical risk events and chains. The next runs of Monte Carlo simulations help to determine efficiency and cost of mitigation efforts. The process repeated multiple times during project execution based on actual task duration and cost.

In this presentation you will learn how to model:

- Weather uncertainties: weather or probabilistic calendars
- Probabilistic and conditional branching
- Uncertainties in work and rates
- Uncertainties in execution of mitigation and response plans

The presentation includes examples how Monte Carlo is used in real-life projects.