2 DAY WORKSHOP

OVERVIEW

Ensuring timely and accurate delivery of project deliverables is now a critical responsibility for every Business Analyst, Project Planner or Executive. In this 2 day workshop, participants will learn simple and effective techniques/skills and tools that will improve accuracy in estimating, costing and scheduling projects as well as improve quality and reduce lead times. Participants will also learn how to optimize a portfolio of projects to yield the highest NPV.

Through workshops, case examples and anecdotal evidence, participants will actively learn and practice essential project risk analysis skills and techniques to obtain accurate estimates from subject matter experts, test & validate planning assumptions, leverage historical data in planning/estimating scenarios, assign a probability of realizing a target, maximize the benefits of the simulation / optimization process, etc.

CONTENT (DAY 1)

The Estimation Process

- **Estimating in a highly uncertain environment**
  - Special considerations in an IS/IT or R&D Shop
  - Development / Innovation vs. Implementation project
  - The "Agile" Perspective – Faster, Smaller, Better!
  - Planning projects across borders, time-zones and cultures
- **Fundamentals in Estimation**
  - What is an Estimate? What is a target?
  - Characteristics of a good estimate
  - Impacts and benefits of better estimations
  - What is variance and how does it impact targets and delivery dates
  - **Workshop:** *What does 95% confidence mean?*
- **The Estimation Process**
  - Major activities
  - Roles and Responsibilities
  - Critical Success Factors
  - Drivers and influencers
  - Outputs and deliverables
- **Communicating Results to the business**
  - **What your boss Wants to Know:** Incorporating key information from Crystal Ball into presentations and reports
  - Techniques to effectively and simply presenting your analysis
  - Question handling
  - **Workshop:** *Presenting effectively to your boss*

Estimation on the ground

- **Laying the groundwork for accurate estimates**
  - Properly scoping the need using the PM Pyramid
  - Establishing Project constraints
  - Identifying and documenting project assumptions
  - Risk identification and Assessment
  - **Workshop:** *Establishing planning and adjustment assumptions*
- **Refining planning assumptions**
  - Bottom-Up Estimating
  - Resource allocation assumptions (outsourced and internal)
  - The Delphi Method: Clarifying & validating planning assumptions (& risks) with Subject Matter Experts
  - Obtaining and using historical or published data
  - **Workshop:** Clarifying working assumptions with stakeholders

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CONTENT (DAY 2)

- **Estimating *Duration* and *Work*:**
  - Work vs. Duration
  - Project Lost Time and Non Project Lost Time Factors
  - Using labor contingency models and calculations

Assessing project risk using estimates

- **Taking variance into account**
  - Overview of basic statistical concepts
  - 3 point estimates and PERT
  - Range Estimates
  - Translating planning assumptions into range estimates
- **Model Building Basics**
  - Picking the right distributions and defining them in CB
  - Forecasts - Identifying and defining what we want to analyze
  - Fitting Probability Distribution using Historical Data
  - Making sure your model behaves correctly using correlation
  - **Workshop:** *Building a Project Cost Estimation Model in Excel.*
- **Risk identification and Assessment using Crystal Ball**
  - Interpreting Forecasts and Sensitivity Analysis
  - Identifying Risks and Potential Mitigation Strategies
  - Model Calibration using Risk Management Mitigation Solutions

Project & Portfolio Modeling Techniques

- **Critical Path vs. Critical Chain**
  - What is a critical path?
  - What is a critical chain?: Applying the Theory of Constraints
  - How does TOC apply to design and development projects?
- **Simulating Schedules with the Crystal Ball MS-Project Add-in**
  - Monte-Carlo for simulating project scheduling & cost outcomes
  - Applying Distributions in MS Project
  - Sensitivity Analysis:
    - Identifying risks in a critical path
    - Targeting tasks that have the greatest impact on delivery dates and budgets
  - Generate a project report
  - **Group Workshop :** *Optimizing critical path and reducing project risk*
- **Critical Optimizations**
  - Overview of schedule & cost optimization levers
  - **Project Selection:** Use OptQuest to pick the best projects based on Organizational Budget Constraints
  - Introduction to Project Crashing

BENEFITS

At the end of this 2 day workshop, participants will be able to:

- Explain and implements effective estimation practices
- Incorporate variance into planning estimates to improve certainty
- Identify critical project planning risks
- Optimize critical paths
- Optimize project portfolios for NPV and Risk
- Improve deliverable quality by effectively leveraging sensitivity analysis and simulation