TECHNOLOGY PARTNERZ

Professional Analytics Skills with Oracle Crystal Ball

2 DAY WORKSHOP

OVERVIEW

Executives, managers and analysts are facing increasing pressure to make good decisions with data from their ERP, CRM, Data warehouse or Bi solution that result in improved performance. In this 2 day workshop, participants will learn simple and effective techniques/skills and tools to improve decision making using Oracle Crystal Ball in 4 key areas: Finance, Operations, Risk and Project Management. In each topic, participants will discover how to use Crystal Ball's simulation and optimization tools to make decisions and assess risk in day-to-day situations as well as planning for building complex models.

Through workshops, case examples and practical crystal ball learning models, participants will actively learn and practice essential 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 an objective, maximize benefits using optimization, etc. – A must for executives, managers, consultants and analysts who can't afford to be wrong!

CONTENT (DAY 1)

Welcome to Crystal Ball

- **Crystal Ball Monte-Carlo simulation?**
  - Crystal Ball performance quick hits
  - Crystal Ball Success Stories
  - Workshop: What does 95% confidence mean?
  - Overview and history of Monte-Carlo Method (MCM)
  - Review of basic statistical concepts and definitions within Crystal Ball, including: variance, common distributions, sensitivity analysis, etc.
  - Overview of CB Interface, tools and functionalities including OptQuest and CB Predictor
- **Data Gathering**
  - Setting Objectives
  - Properly scoping the need, building assumptions and establishing model constraints with Subject Matter Experts
- **Refining assumptions**
  - Bottom-Up Estimating
  - The Delphi Method: Clarifying & validating planning assumptions (& risks) with Subject Matter Experts
  - Obtaining and using historical or published data

Risk Management using Crystal Ball

- **Model Building Basics**
  - Picking or fitting distributions 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
- **Running the model**
  - Establishing Confidence Intervals and number trials
  - Visualizing Results and Charts (Sensitivity, Forecasts, Assumptions and Overlays)
  - Generating Crystal Ball Reports
- **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
- **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

2 DAY WORKSHOP

CONTENT (DAY 2)

Financial Optimization

- **Sales and Demand Forecasting**
  - Time-series projections using CB Predictor to easily incorporate Seasonality, Smoothing algorithms, Growth Projections using historical data
  - Workshop: Projecting Next Year's Sales
- **Portfolio Management Optimization Techniques**
  - Modeling Efficient Frontier Analysis to optimize risk against benefit for projects and investments.
  - Project Selection: Use OptQuest to pick the best projects based on Organizational Budget Constraints
  - Portfolio & Resource Allocation Optimization: Allocate resources or budgets among various investments to maximize NPV or ROI or minimize risk or expense.
  - ROI Analysis using historical data to build ROI Scenarios and compare them using Overlay Charts

Improving Operations using Crystal Ball

- **Process Optimization**
  - The Theory of Constraints – What is keeping you from getting the most out of your operations?
  - Translating a Process into a Crystal Ball Model (Production, Administrative or Operating)
  - Process optimization using OptQuest
- **Inventory and Supplier Management**
  - Identifying optimal order quantities
  - Reducing Holding Costs using OptQuest
  - Calculating the impact of unreliable suppliers on inventory system
  - Use Monte-Carlo Method to monitory supplier billing on large projects.

Project Management using Crystal Ball

- **Project Management Essentials**
  - Using labor contingency models and calculations : Estimating Effort, Duration and Work:
  - Applying the Theory of Constraints: Critical Path vs. Critical Chain
  - Taking variance into account in Project Management
- **Critical Optimizations**
  - Monte-Carlo for simulating project scheduling outcomes
  - Identifying and mitigating project and program risks using sensitivity analysis
  - Project Crashing – Optimizing
  - Group Workshop : Optimizing critical path and reducing project risk

BENEFITS

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

- Understand and apply Monte-Carlo simulation and optimization in their day-to-day activities
- Make better and more informed decisions
- Quickly build effective models or customize existing ones with Crystal Ball
- Apply simple and effective Crystal Ball Risk Management Techniques
- Improve financial and operational performance by applying Crystal Ball
- Pick and manage project more effectively