

How to Estimate Early in IT Projects

Course Overview

"How long will it take you?" is one of the scariest questions that business analysts have to answer. Decision makers pose this question before you know what you are going to have to do to analyze the requirements, meaning you have not yet done the analysis upon which to base your answer. Given that uncertainty, it is no wonder that whatever answer you come up with will be off, leading to a missed delivery date and unhappy customers.

This workshop introduces methods that improve early estimates and the communication of the factors that affect them. We cover foundation approaches for state-of-the-practice in early project estimating based on business and stakeholder requirements, story points, and other relevant techniques. We discuss factors that affect estimating accuracy and you apply them in a case study. Included in the class materials is an individual, time-limited license for our estimating tool, Quest For Better Estimates®.

The techniques taught in this course are methodology-neutral, meaning they are relevant to traditional, UML or Agile development environments. The target audience for this course is anyone wearing the business analysis hat, including business analysts, subject matter experts, agile product owners, project leaders and managers, line managers, systems analysts, software testers, and solution architects.

Key Outcomes

Upon completion of this course, participants will be able to:

- Identify natural estimating points and the most useful methods for early estimating
- Base initial, early project estimates on the appropriate level of requirements to communicate risks
- Use simplified standard deviations to improve the reliability of your estimate
- List 6 estimating approaches and present the pros and cons of each
- Distinguish between single- and multi-point estimating approaches
- Defend the need for and limitations of requirements-based estimating
- Apply multiple estimating approaches for forecasting effort required to complete a project
- Discuss Function Point Estimating and its usability in early project estimating
- Plan to incorporate selected techniques to improve your performance on the job

Course Outline

1. Introducing Early Project Estimating

The Estimating Enigma

- Estimating Overview
- Common Estimating Techniques
- Why Estimate?
- Exercise: The Realities of Estimating
- Early Project Estimating Techniques
- When Do You Estimate?
- The Early Estimating Challenge

At-a-Glance:

Course Length:

1 day

Course Number & Level:

325.HEE1 – Proficient

Professional Development Units

(PDUs): 7 (Business)

Delivery Option:

- Instructor-led Training (Delivered Onsite at Your Location)

2. Simple Estimating Ideas that Work

Estimating based on Statistics

- What Is An Estimate?
- Every Estimate Is a Statistical Guess
- Estimating and Range Expectations
- Discussion: IT and Uncertainty
- Exercise: Flat Tire Estimate
- Statistical Estimating Principles
- Estimates and the Bell Curve
- Statistically Speaking
- A Few Words on Statistics
- Exercise: Use Three-Point Estimating
- Exercise: Subdividing Projects
- Increasing Detail Decreases Error

The 20 Questions of Estimating

- What Are You Estimating?
- Exercise: Ask What Questions?
- Case Study: Team
- Asking the Right Question: One Step toward Solution
- The Top Twenty Cost Drivers

Swagging It

- The SWAG Estimate
- Case Study: SWAG
- Case Study 4: Consensus (Team) Estimating
- Quest for Better Estimates
- Recap: Estimation Improvement Techniques

3. Estimating based on Expertise

Expert Guesswork

- The Expert Estimator
- Units of Estimating
- Comparison Estimating 1
- Exercise: Comparison Estimating 2
- Requirements Impact Estimates
- COCOMO II Cost Factors
- Quest/SWAG and COCOMO Cost

The Finer Points of Estimating

- Using "Points" for Estimating
- Points as Sizing Parameters
- User Requirement Sizing, the Initial Process
- User Requirement Sizing, the Estimating Process
- Reality Check
- Iterations, Increments & Releases
- Backing into Duration
- Making Points
- Function Point Estimating
- Profiles of Successful Projects
- Summary: Experience-Based Estimating

**4. Improving Your Estimating Practices
Implementing Lessons Learned**

- Summary
- Implement Better Estimating
- Management Issues
- In-House Estimating Experts
- Keeping History Databases
- Providing Software Support
- Avoiding Management Malpractice

**5. From Showtime to Go Time!
Personal Improvement Plan**

- Understanding the Learning Curve
- Exercise: My Techniques
- My Personal Implementation Plan