

# Project Management for Software Developers

Essential skills for agile development in today's increasingly complex business world



## Seminar Focus

- Discover how to effectively introduce a new process into an organization
- Learn techniques for assembling and building a technical project team
- Manage risks unique to software development
- Use a Traceability Matrix and build in effective quality controls
- Build a flexible schedule that anticipates changes and evolutions
- Learn how to participate actively in an agile development project

## Overview

**Fact: It's far easier to fail a software project than it is to get it right.**

In the recent past it has been proven that software projects are more prone to failure than any other type of project. It has also been shown that it is mainly due to bad project management that these failures occur. Many observers comment that software projects often fail because some simple yet critical management principles remain largely ignored.

**Dynamic, agile, innovative and harmonious processes are based on a balanced business focus, multi-cultural teamwork, frequent testing of value, and the ability to learn quickly**

Classical project management tends to treat all requirements as if they had the same priority. Thus the time – cost – quality triple constraint tells us that if we take less time, or invest fewer resources, then some quality will have to be sacrificed. Agile doesn't work like this. Agile says that the quality equation is in the trade off between time, cost and scope.

Today, IT projects are increasingly employing what is called iterative and agile approaches to software development. Time is handled like a 'timebox', and cash like a 'cashbox'. It's a little like packing a suitcase. We leave out what is least important, but still manage to finish on time and within the available resources.

This approach contrasts with the traditional waterfall approach for software development, where the software development life cycle is defined in a linear fashion: requirements, analysis, design, implementation, testing. The iterative and agile approaches hold that a basic premise of the waterfall approach is that you are able to define all aspects of a software project at its outset.

The iterative and agile approaches maintain that this premise does not hold up in an era of rapid technological and market change. Rather than scope out a whole project at the outset, iterative and agile approaches focus on developing small pieces of the desired system in an iterative fashion.

In addition to scheduling, budgeting, and resource allocation techniques, this course also focuses on bridging the business-technology gap. It uses case studies, examples from real projects and many group exercises to share practical experience.

## Benefits of Attendance

**Understand the rationale of iterative and agile software project management, in contrast to the rationale behind the traditional waterfall approach to software development**

After completing this course you will have a thorough understanding of the methodologies supporting iterative and agile project management. You will recognise what approaches to take to bridge the technology-business gap, and understand how to produce more quickly than with traditional techniques.

- Learn about prototyping and other agile development techniques
- Know when and how to participate in the different steps of a software development project
- Understand how to define the roles and structure of a project team
- Be confident to participate in a multi-disciplinary team workshop
- Discover tips for effective estimating, scheduling and controlling projects

The course is balanced between theoretical and practical sessions. We believe the knowledge gained will not only help you manage a project more effectively, but will provide a sound basis for progressing to the Project Management Professional (PMP) certification.

## Who Should Attend

This seminar is suitable for all software development team members, as well as those who manage IT projects but are not necessarily experts in the field.

All personnel involved in IT projects would find this seminar beneficial, especially:

- Software Project Managers
- Software system users or clients
- Software Applications Managers
- Data Managers
- Program Managers
- Project Team members involved in Software Development

# Course Topics

## DAY ONE

### Session 1 ~ Introduction

- Characteristics of software development projects
- Review Business, Architecture, Process and Service dimensions
- Challenges and problems for IT projects
- Success criteria and reasons for failure
- Trends and developments in life cycle management: Waterfall, Iterative, Agile...

### Session 2 ~ Project Charters

- Developing a Business Case and Project Charter
- Project Description and Management Overview (everyone on the same page)
- Triple Constraint, Return on Investment, Critical to Quality Indicators
- Team Structures: Sponsor, Lead Customer, Lead User, Visionary/Analyst
- Responsibility and Accountability
- People skills: negotiation, communication, leadership
- Scope Planning (in/out of scope) and defining Deliverables

### Session 3 ~ Requirements Definition

- Stakeholder Identification
- Benefits management
- Risk Management: managing opportunities and threats
- Communication planning and managing transitions
- From Business to Functional to Technical Requirements
- User Driven Development and Facilitated Workshops
- From Use Case to User Models to Test Case Definitions
- Traceability Matrix and Quality Plan
- Project Quality Management (Planning, Assurance & Control)

## DAY TWO

### Session 4 ~ Project Planning

- Work Breakdown Structures
- Product Based and Phased Based
- Prioritisation and Prototype Planning
- Types of Prototypes (Business, Technical, Performance, Usability)
- Solutions Definition: make or buy, responsibility matrix, contracts, estimating
- Recognising the Critical Path and utilising Float
- Change management and scope planning
- Risk Management: Dealing with Threats and Opportunities

### Session 5 ~ Management & Control

- Progress monitoring, control and reporting
- Concepts of Timebox Management
- Cost Management
- Configuration and Version Management
- Implementation, Launch, Go-Live and Close-Out Management
- Stakeholder Management (Customers, Management, Team, Suppliers)
- Testing, Documentation and Maintainability

### Session 6 ~ Project Improvement

- Organisational and Process Maturity Models
- Project Reviews and Audits
- Professional Skills Development
- Develop a personal action plan to apply your learning back at work

## Seminar Timetable

Registration will be from 08.00 to 08.30 every morning. Lunch and refreshments will be provided. The course will finish at approximately 17.00 each day.