Transitioning From Waterfall To Agile

2 Days

Course Description

There are significant benefits available when utilizing an Agile approach that can address the risks, unknowns, and uncertainties that affect nearly all software development projects. These complexities can best be addressed with a flexible and adaptable model that turns traditional problems into advantages and provides the tools to change the way work is done through addressing organizational issues head on. In this course you will learn how Agile addresses these traditional project challenges and finally resolve these ever-present constraints. Learn to overcome these hurdles and interweave your traditional practices with Agile practices to develop the best software for your organization and your customer.

After considering all of the ways in which the Agile methods will affect your organization and considering the benefits and challenges associated with each, you will be ready to plan your Agile adoption strategy. In this course you will gain all the tools, skills and knowledge to return to your office and successfully implement an Agile transition strategy that best fits your environment.

Course Objectives

- Explore the problems your organization is currently experiencing with software projects
- Solidify and strengthen any Agile concepts that your organization has already accepted and explore those that you have yet to implement
- Implement strategies for how you can build collaborative, self-directed teams
- Discover how you can institute incremental planning and adaptation on your projects
- Harvest methods to move your projects to a more customer-centric, change-tolerant requirements process
- Enlighten you organization on how you can make quality the job of each and every team member
- Prioritize the Agile changes you can make, identifying the "best of breed" strategies to achieve success
- Create the beginnings of your Agile transition action plan

Who Should Attend:

This course is valuable for anyone who is contemplating making their software projects more agile.

This class is for you if you are a:

- Software Development Manager
- Software Project Manager
- Software Team Lead
- Quality Assurance Specialist
- Process Engineer

For more information, please contact us at (866)543-0520 or info@velocityknowledge.com

- Software Developer or Tester
- Software Project Customer
- IT Director or Manager
- Software Engineers
- Software Architects
- Customers/Stakeholders
- Product Managers

Course Outline:

Introduction to Agility

Agility is comprised of a unique set of principles and values that must be understood and embraced before the organization can employ Agile practices. In this section, we will survey the essence of Agility.

Exercise

Identify the problems that you are experiencing with software projects in your organization. You will use this list throughout the course to evaluate the benefits of Agility. Compare notes with other students.

- The Essence of Agility
    - The Agile Lifecycle
    - Learning and Adaptation
    - Collaboration
    - Customer Focus
    - Self-Directed Teams
    - Lean Principles
    - Progressive Requirements Elaboration
    - Incremental Delivery
    - Iterative Planning and Adaptation

Exercise

Identify the Agile concepts that have already gained acceptance in your organization. Compare notes with other students.

2. **Us vs. Them Teams**

The heart of every project is the team. Yet in traditional approaches, the team often operates as a collection of competing individuals, rather than as a unit. Even worse, many organizations have divided responsibilities in ways that pit different groups against each other, when the project desperately needs cooperation.

Agility means establishing a single team for each project, and ensuring that it comprises all of the necessary people. Agile practices ensure that all team members are constantly collaborating and driving the project toward success.

- Traditional practices
    - The project manager
    - Shielding developers & customers from each other
    - Building silos of responsibility
    - Documents as the primary means of communication
    - Lessons Learned at project end
- Contrast w/the Agile approach
    - Product Owner

  - The Agile coach
  - One small co-located team
  - Continuous collaboration
  - Face-to-face communication
  - Regular feedback
  - Regular retrospectives

Case Studies

We will discuss the unique needs and situations of one of the three Case Study organizations, and determine how to make the transition from us-vs.-them teams to Agile Teams.

- Sell the benefits of Agile teams
- Defuse misconceptions about Agile teaming
- Address the challenges of adopting Agile teaming
- Define the Agile teaming process
- Train personnel to be Agile team members

Exercise

Determine how to introduce the Agile teaming on projects in your organization. Identify the benefits you would realize and the challenges you would face. Compare notes with other students.

3. **My Project Plan, Right or Wrong**

Traditional approaches are often referred to as "plan-based" because of the importance they put on up-front planning and then controlling the project so it conforms to the plan. Of course, some organizations go to the other extreme, paying little attention to their plans after the project starts, or even foregoing planning altogether.

Agility means planning just enough, doing that planning when it is needed, and accepting the fact that reality often works out differently from our plans. Agile projects value achieving the project goals; the plan is merely a tool to help them do that.

- Traditional practices
  - Predictive planning
  - Command and control management
  - Corrective action (Conformance to plan)
  - Periodic Status Reporting
  - Document review/sign-off as milestones
- Contrast w/the Agile approach
  - Time-boxed projects & iterations
  - Incremental planning & estimation
  - Self-directed teams
  - Daily status checks & periodic review
  - Adaptation to new information
  - Information Radiators
  - Delivered software as milestones

Case Studies

We will discuss the unique needs and situations of one of the three Case Study organizations, and determine how to make the transition from the plan-based approach to Agile planning.

- Sell the benefits of Agile planning

- Defuse misconceptions about Agile planning
- Address the challenges of adopting Agile planning
- Define the Agile planning process
- Train personnel to use Agile planning techniques

Exercise

Determine how to introduce the Agile planning on projects in your organization. Identify the benefits you would realize and the challenges you would face. Compare notes with other students.

4. The Insidious Creeping Scope

Traditional approaches usually begin with an important (and sometimes long and drawn out) Requirements phase during which all of the product requirements are elicited, analyzed and documented. Everyone in the project commits to the resulting specification, and then significant effort is expended in Change Control. Conformance to the Requirements Specification becomes the measure of project success. (Until the customer complains!)

Agility means documenting requirements just enough, eliciting more detailed information when it is needed, and accepting the fact that thing will change before the project is over. Agile projects value delivering what the customer needs; the requirements are merely a tool to help them do that.

- Traditional practices
    - Big-bang, up-front requirements definition
    - Requirements sign-off
    - Little customer involvement after requirements
    - Restrictive change control
    - Conformance to specification
    - Product delivered/accepted at project end
- Contrast w/the Agile approach
    - Progressive requirements elaboration
    - Prioritization by the customer
    - Incremental product acceptance & feedback
    - Welcome changing requirements

Case Studies

We will discuss the unique needs and situations of one of the three Case Study organizations, and determine how to make the transition from up-front requirements to Agile requirements.

- Sell the benefits of Agile requirements
- Defuse misconceptions about Agile requirements
- Address the challenges of adopting Agile requirements
- Define the Agile requirements process
- Train personnel to use Agile requirements techniques

Exercise

Determine how to introduce the Agile requirements on projects in your organization. Identify the benefits you would realize and the challenges you would face. Compare notes with other students.

5. **Where's the Quality?**

Traditional projects are often quality-challenged. The testing phase at the end of the project seems to be never-ending, and in spite of all that time and effort, a defective product is delivered. This results in high support costs, unhappy customers and out of control costs.

Agility means keeping the focus on quality from the very beginning of the project, testing continuously and ensuring that every piece of code is technically excellent. And because testing is not saved for the end, quality surprises are eliminated. Agility means producing production-ready software regularly throughout the project!

- Traditional practices
    - Little focus on developer verification
    - Separation of responsibilities (testers vs. developers)
    - Testers responsible for quality
    - Testing postponed to the project end
- Contrast w/the Agile approach
    - Developers focused on technical excellence
    - Developer/tester/customer collaboration/feedback
    - Testers as members of the development team
    - Early and regular "System" & "Acceptance" testing
    - Each product increment production-quality

Case Studies

We will discuss the unique needs and situations of one of the three Case Study organizations, and determine how to make the transition from traditional quality practices to Agile quality practices.

- Sell the benefits of Agile quality practices
- Defuse misconceptions about Agile quality practices
- Address the challenges of adopting Agile quality practices
- Define the Agile quality process
- Train personnel to use Agile quality practices

Exercise

Determine how to introduce the Agile quality practices on projects in your organization. Identify the benefits you would realize and the challenges you would face. Compare notes with other students.

6. **Course Wrap-Up**

There is too much to Agility for you to adopt all at once, so you will need an action plan. In this section, you will review what we have covered in the course and prepare a viable action plan for your organization to become more Agile.

Exercise

- Review the Essence of Agility

Prioritize the Agile concepts that you could introduce in your organization. For the three highest-priority concepts, create an action plan to make those things a reality on your projects. Compare notes with other students.