



FWSI Implementation Methodology Case Example: Extreme Programming



Agenda

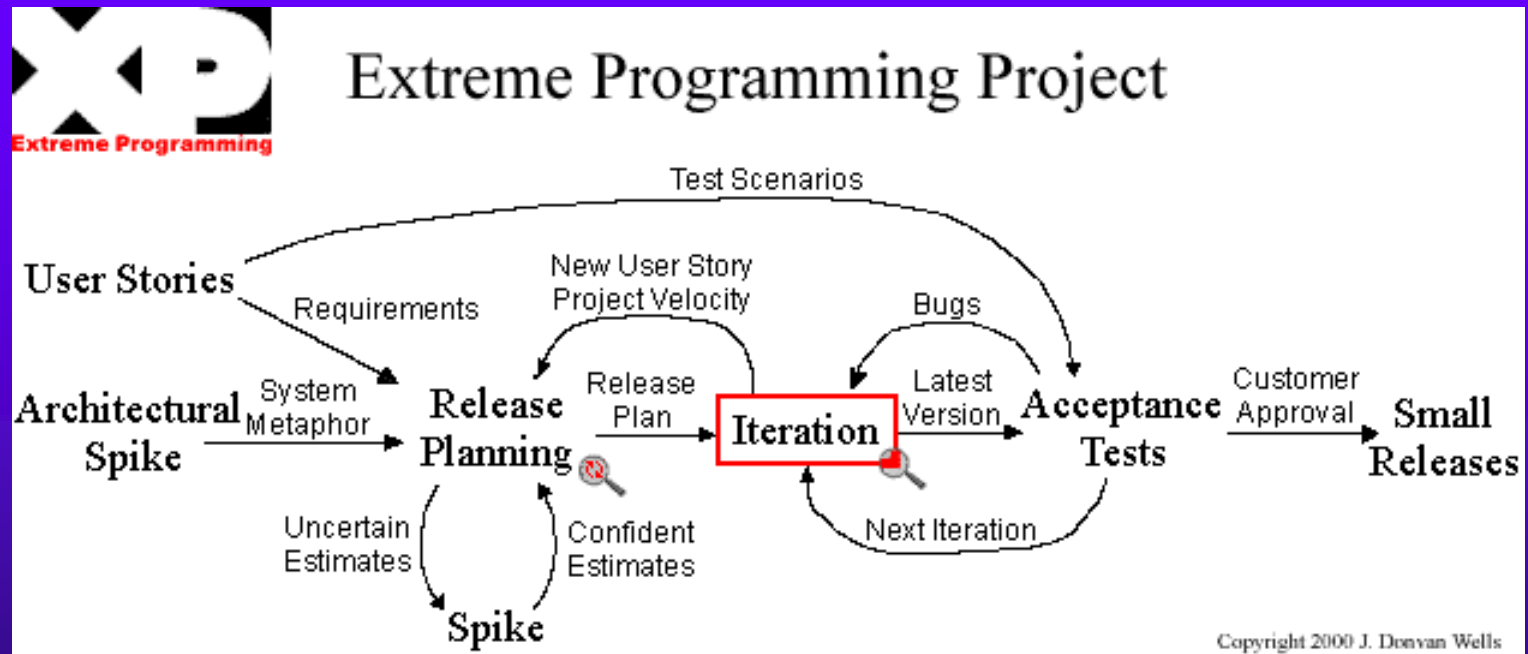
- ◆ Extreme Programming Reviewed
- ◆ Adapt XP for FWISI IM
- ◆ XP: Step by Step



Extreme Programming Reviewed

- ◆ An Agile/Lightweight Software Development Methodology
- ◆ Iteration-based
- ◆ User Story-driven
- ◆ Less Documentation
- ◆ Pair Programming

Extreme Programming Process





Adapt XP for FWSI IM

◆ Implementation Lifecycle

XP Phases	IM Guideline Phases
Planning	Requirement Phase Analysis Phase
Design	Design Phase
Coding	Coding Phase
Testing	Testing Phase
Releases	Deployment Phase



Adapt XP for FWSI IM (Cont'd)

◆ Project Team Roles

XP Suggested Roles	IM Guideline Roles
Programmer	Requirement Analyst, Architect, Designer, Developer
Customer	Stakeholder
Manager, Coach, Tracker	Project Manager, Tracker
Tester	Tester, Test Designer, Test Manager



Adapt XP for FWSI IM (Cont'd)

- ◆ Concepts Not Defined in IM Guideline
 - Pair Programming
 - Continuous Integration



XP: Step by Step

- ◆ Planning: Requirement Phase & Analysis Phase
- ◆ Design Phase
- ◆ Coding Phase
- ◆ Testing Phase
- ◆ Deployment Phase



Planning

- ◆ Determine the Need for Web Services
- ◆ Elicit Web Service Requirements



Planning (continued)

- ◆ Model the Usage Scenario
- ◆ Prepare Test Cases for UAT and System Test
- ◆ Selecting a Technology Platform as Implementation Framework



Planning (continued)

- ◆ Define a Candidate Structure Architecture
- ◆ Define Granularity
- ◆ Identify Reusable Web Services



Planning (continued)

- ◆ Identify Service Interface Contract for New Web Services
- ◆ Prepare Test Cases for Performance Test
- ◆ Prepare Test Cases for Integration/Interoperability Test



Planning (continued)

- ◆ Prepare Test Cases for Functional Test
- ◆ Prepare Test Bed
- ◆ Generate Release Plan



Design

- ◆ Transform Signature of Reusable Web Service
- ◆ Refine Service Interface of New Web Services
- ◆ Design Web Services
- ◆ Refine Test Cases for Functional Test



Coding

- ◆ Code Internal Working of Web Services
- ◆ Write the Web Service Consumer Code
- ◆ Unit Test Web Services



Test

- ◆ Functional Test
- ◆ Integrated Test
- ◆ System Test
- ◆ User Acceptance Test



Deployment

- ◆ Prepare Deployment Environment
- ◆ Deploy Web Services
- ◆ Test Deployment



Deployment (continued)

- ◆ Create End User Support Material
- ◆ Publish Web Service
- ◆ *Are We Done?*



Something To Note

- ◆ XP is Iteration-based
- ◆ Therefore, Plan Reusable Web Services Upfront
- ◆ But, In Reality, Not Too Many Iterations



Thank You

6th April 2005