



Mindtree

Welcome to possible

Our Agile Release Journey Twelve Hours to One Hour

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Agenda

- Background
- Technical Overview
- What We Were Doing
- Agile – New World We Moved To
- Strong Subversion Guidelines & Build Strategy
- Unit Test Automation
- Static Analysis & Reporting Integration
- Centralized Resource Management & CI
- Deployment Automation
- Challenges & Learnings
- Questions

Background

What We Do and What System We are Building



Technical Overview



Note: Softwares mentioned above are just for examples, not to promote any of them.

What We Were Doing

- Water Fall Delivery
- Ad-hoc Releases
- Build For Every Environment
- Running Static Analysis Locally
- No Continuous Integration
- Manual Build and Deployments
- Elaborated Release Documentation etc.

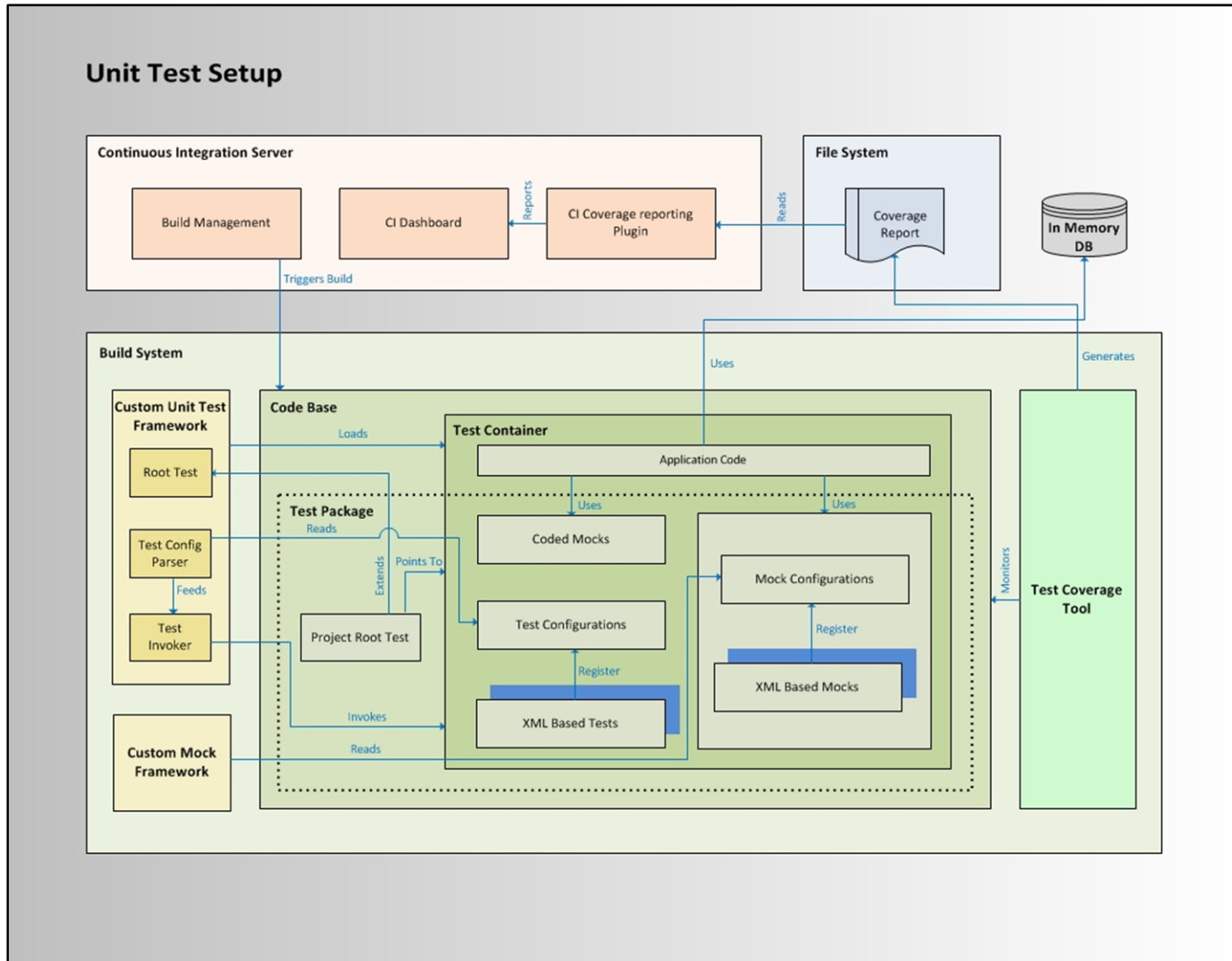
Agile – New World We Moved to

- 10,000+ Mark II Function Point product
- 20 Teams of 8 Member Each = ~ 180 Engineers Working Together
- 15 Days Sprint – Does This Mean Product Release Every 15 Days ? !!!
- No Separate Bug Fixing Cycles
- Fast and Furious !!!

Strong Subversion Guidelines & Build Strategy

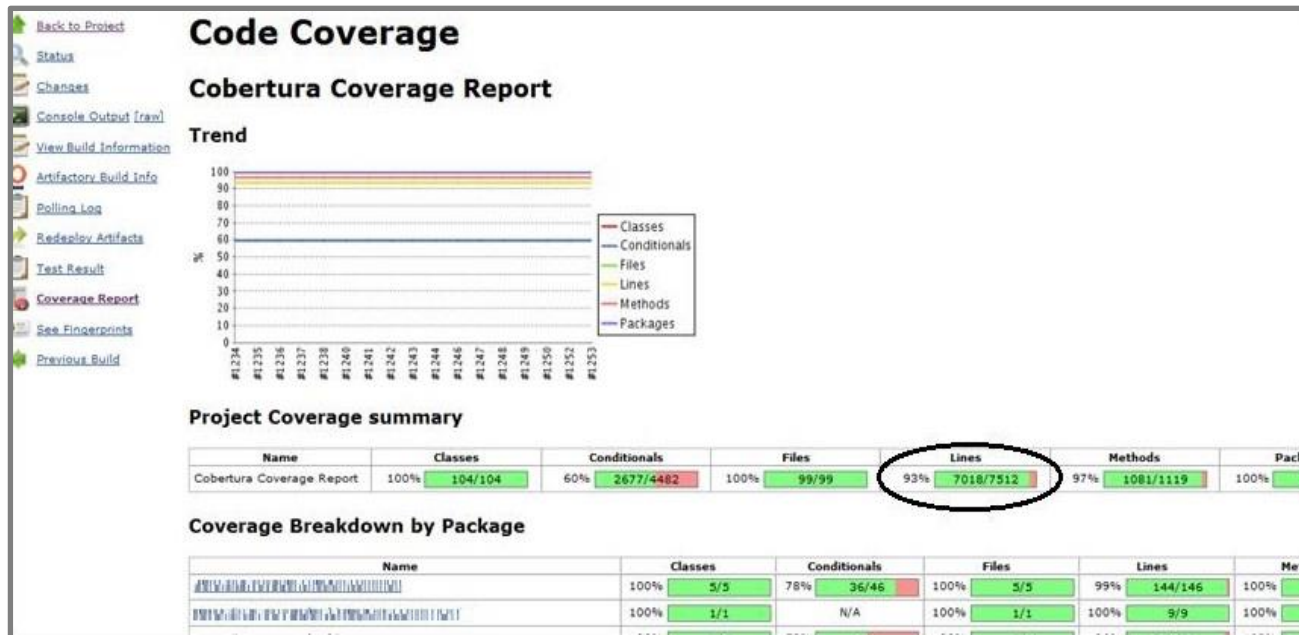
- Dividing Artifacts Correctly in Subversion
- Build Once Deploy Anywhere – Golden Rule – It Works !
- Tagging/Branching by CI
- Building Everything You Can!
- Dependency Management – Shared Libraries
- Push Binaries to Centralized Resource Management
- Everything Driven by Continuous Integration Magic !

Unit Test Automation



Static Analysis & Reporting Integration

- Checkstyle Integrated With Maven & CI
- Klocwork Integrated With Maven & CI
- Unit Test Reports Integrated with CI
- Report Example:



Centralized Resource Management & CI

- Maven Artifactory Based Centralized Resource Management
- Have Single Code and Resource Repository
- Source Code Build, Code Tagging & Push To Repository – All Driven by CI
- Even Requirements & Specifications Managed Through CI & Centralized Resource Management
- CI Dashboard – Single Source of Truth!

Deployment Automation

- Weblogic - Shell Script Based Deployment Automation
- Automate Creation of App Server Resources like Datasources, Queues etc.
- Automate Database Change Requests - Custom Tool
- Post Installation Verification Automation – SOAPUI Based Automation
- Complexity of Handling Multiple Managed Servers and Downtime

Challenges & Learnings

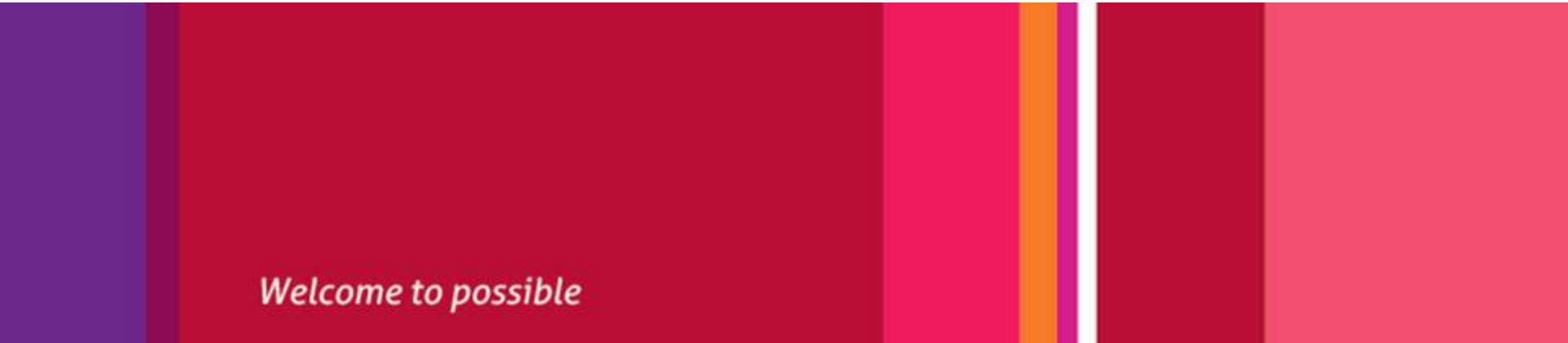
- **Challenges:**

- Adapting to New Discipline with Large Team
- Investing on Automation and Getting It Right
- Not Just Automation Will Help – Convincing Customer for Robust Release Process is Key!

- **Learnings:**

- Advantages and Challenges of Moving to Agile
- Less Documentation is Less Pain During Release
- You Can Automate Almost Everything Except Coding!
- It is So Easy to Release the Product – Off Course When Everything is in Place

Questions ?



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