



Requirements Driven Testing

First Step to Automation

Prashanth Shidlaghatta

COMPUWARE®

Business / IT Problem

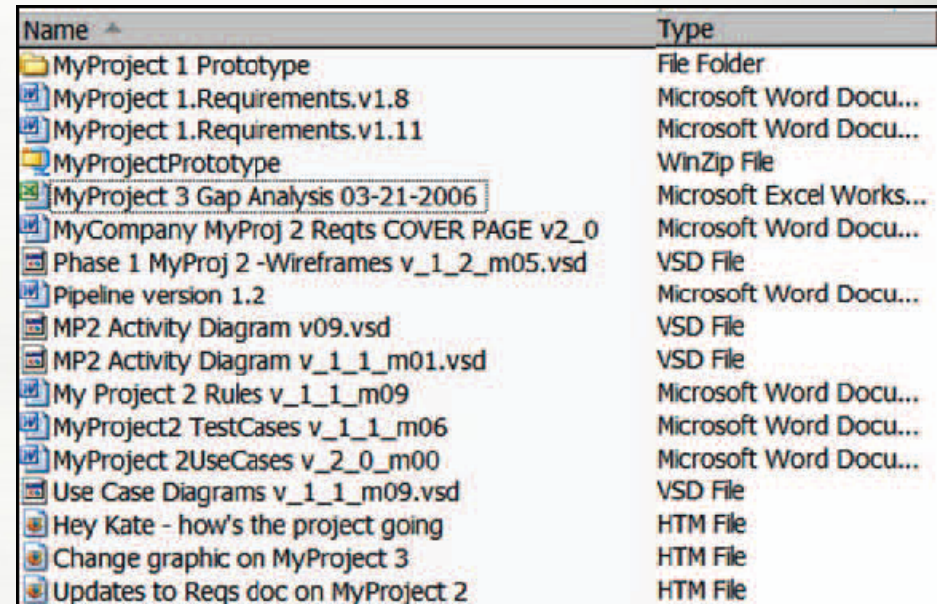
- **30%** of all defects, found by a customer, are requirements defects : **Quality Impact**
- Fixing a Requirement issue in maintenance phase costs a factor **200** more than fixing it in requirements phase : **Cost impact**
- Requirements errors are likely to consume **25%** of the total project budget/Time : **Time Impact**

The Standish Group

Business / IT Problem – At Practitioner Level

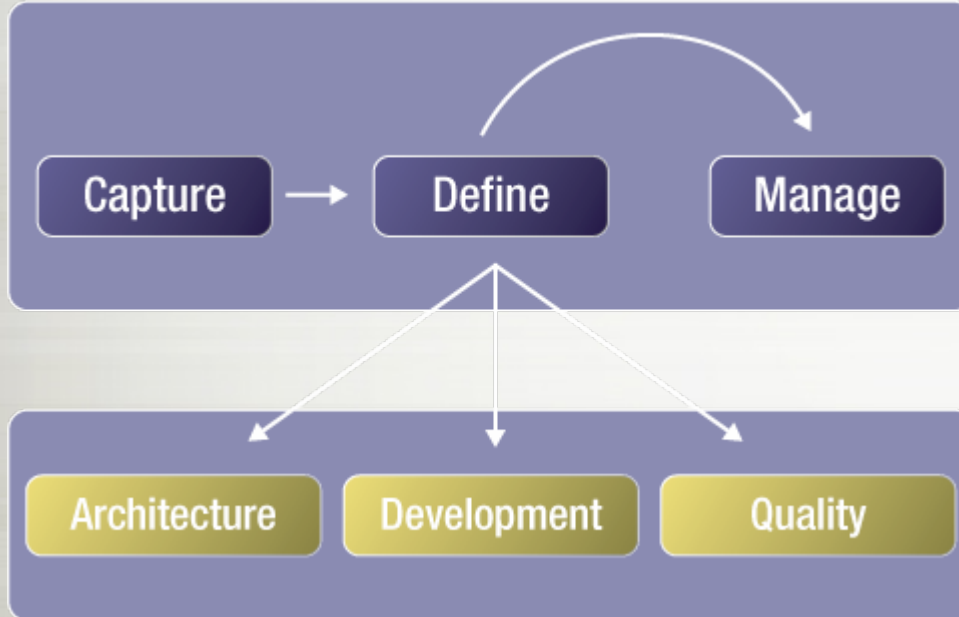
The IT Challenge (for Practitioners):

- Business not effectively participating in the requirements definition process
- Excessive time spent maintaining requirements/Test Cases within various forms of documentation
- Documentation can be misrepresented, misunderstood or misinterpreted, particularly in other lifecycle processes
- Remote stakeholders (e.g., offshore teams) not effectively engaged in the requirements/Test Design process
- IT struggles with validating process and regulatory compliance



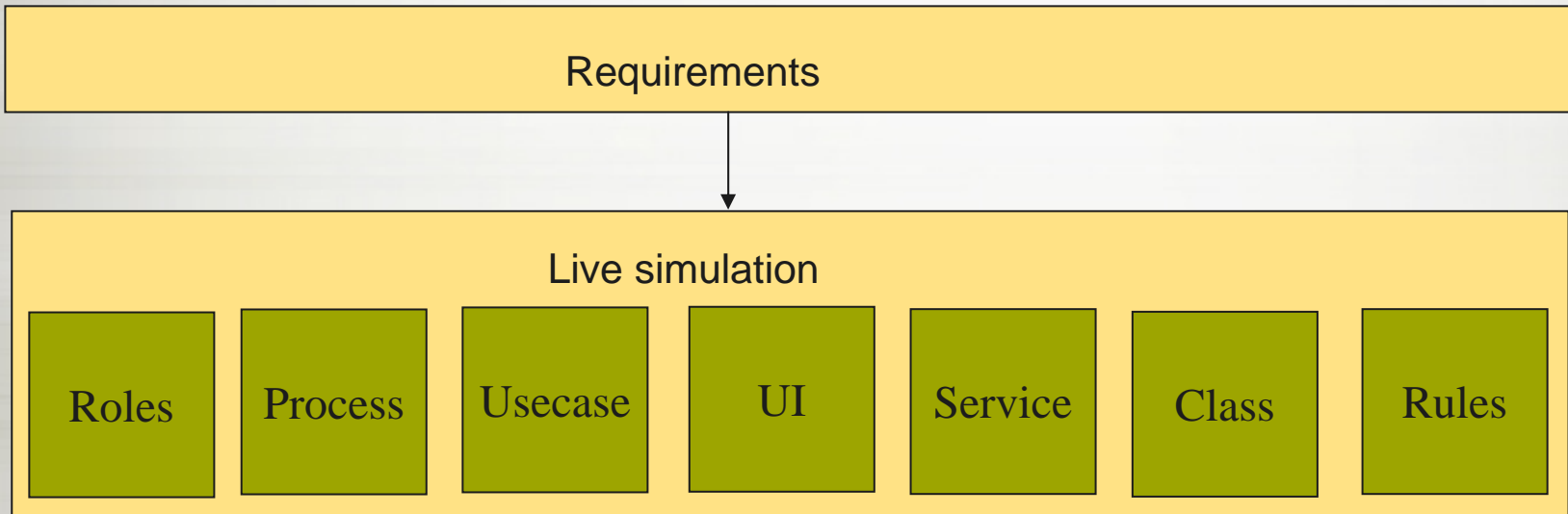
Name	Type
MyProject 1 Prototype	File Folder
MyProject 1.Requirements.v1.8	Microsoft Word Docu...
MyProject 1.Requirements.v1.11	Microsoft Word Docu...
MyProjectPrototype	WinZip File
MyProject 3 Gap Analysis 03-21-2006	Microsoft Excel Works...
MyCompany MyProj 2 Reqs COVER PAGE v2_0	Microsoft Word Docu...
Phase 1 MyProj 2 -Wireframes v_1_2_m05.vsd	VSD File
Pipeline version 1.2	Microsoft Word Docu...
MP2 Activity Diagram v09.vsd	VSD File
MP2 Activity Diagram v_1_1_m01.vsd	VSD File
My Project 2 Rules v_1_1_m09	Microsoft Word Docu...
MyProject2 TestCases v_1_1_m06	Microsoft Word Docu...
MyProject 2UseCases v_2_0_m00	Microsoft Word Docu...
Use Case Diagrams v_1_1_m09.vsd	VSD File
Hey Kate - how's the project going	HTM File
Change graphic on MyProject 3	HTM File
Updates to Reqs doc on MyProject 2	HTM File

A Visible Approach to Requirements Capture



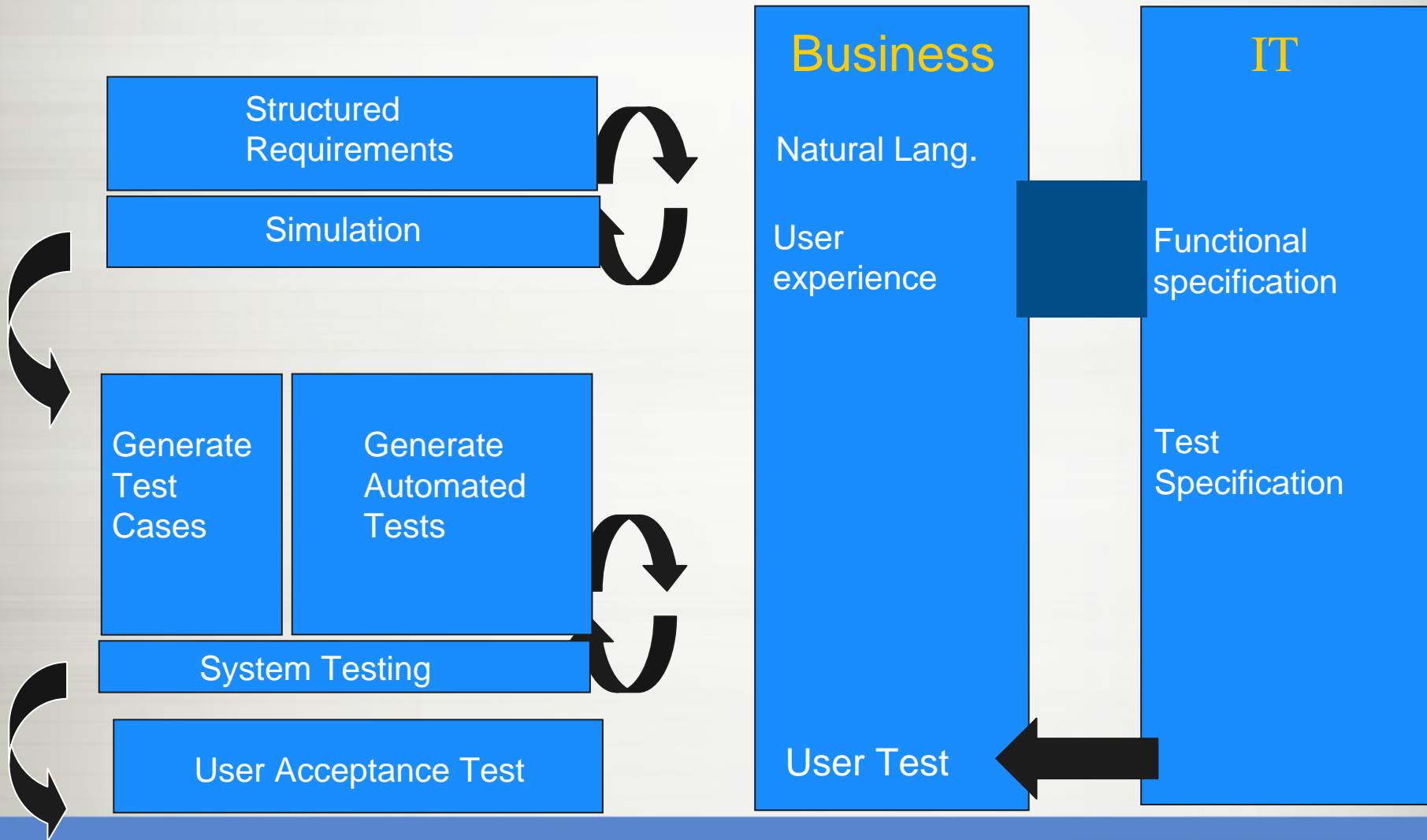
1. A pragmatic, structured approach to the capture, definition and management of requirements across the life cycle
2. Concurrent visibility to all stakeholders of requirements in output relevant to them

Aspects of simulation



- UI prototyping & Pageflow simulation
- Data-manipulation & service-simulation
- Business Rules simulation
- Use-case simulation
- Process & Security simulation

Requirements Driven Testing



The Results..

- Guaranteed Requirements Coverage
- Early Detection of Requirements flaws
- More time to execute Manual or Automated Tests
- More Tests Executed Increasing Coverage and Lowering Risk
- Happy Customers!!

COMPUWARE®