



IBM Software Group

Streamlining Software Delivery to Gain Market Advantage – Episode #1

Achieve consensus early and often with stakeholders to reduce costs and risk

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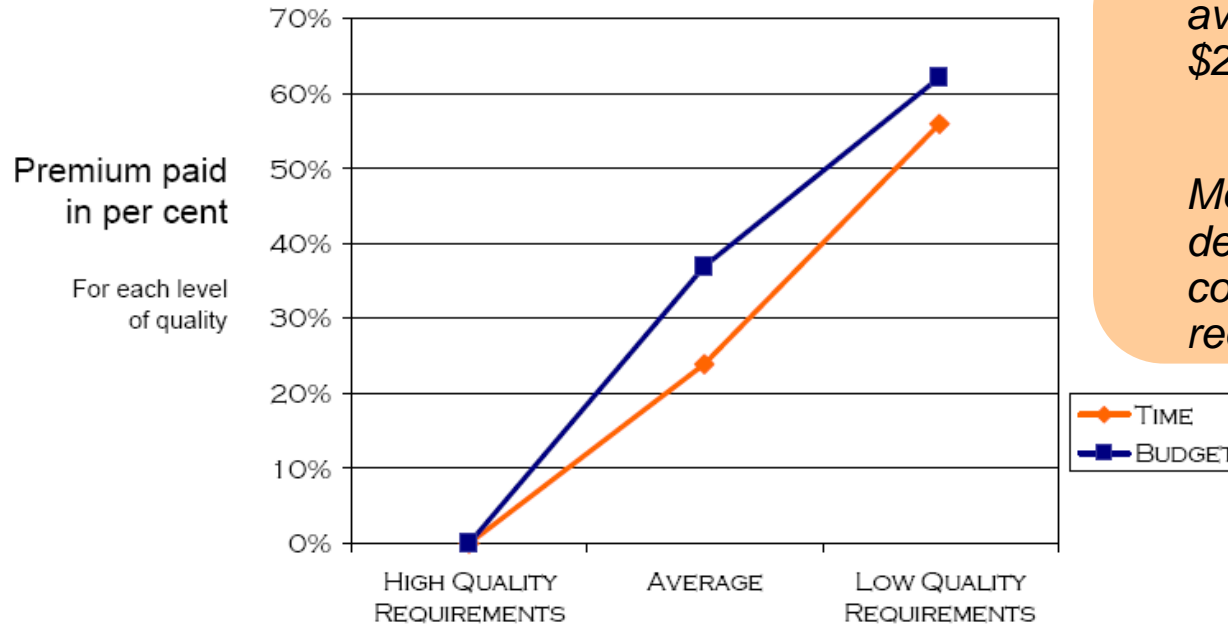


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We pay dearly for requirements issues

BUSINESS REQUIREMENTS PREMIUM*



Faulty requirements on average cost an additional \$2.24MM

More than 40% of IT development budget will be consumed by poor requirements

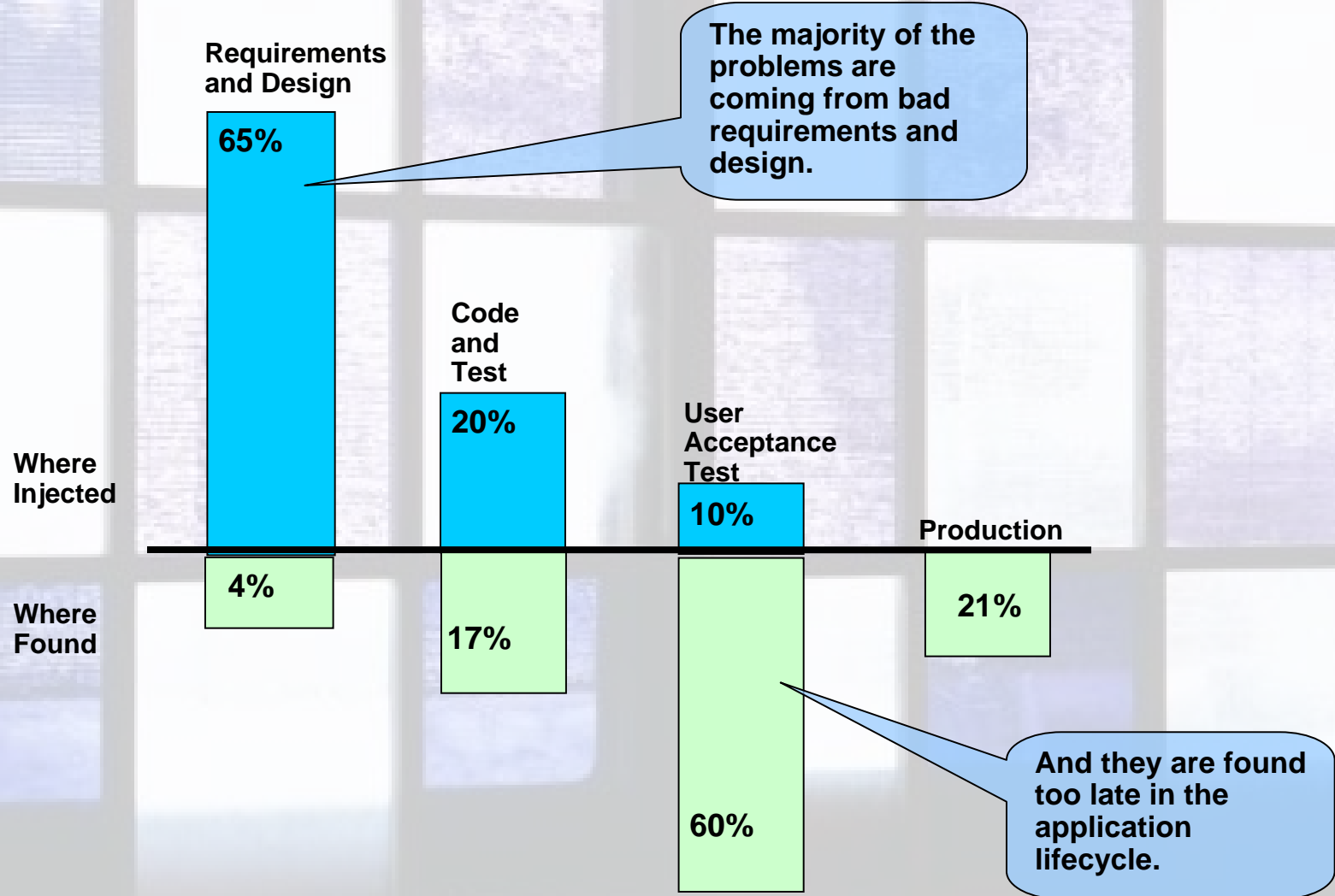
* Average increase in the overrun on time or cost versus projects that used high quality requirements

N=109

Source: IAG Business Analysis Benchmark, 2008



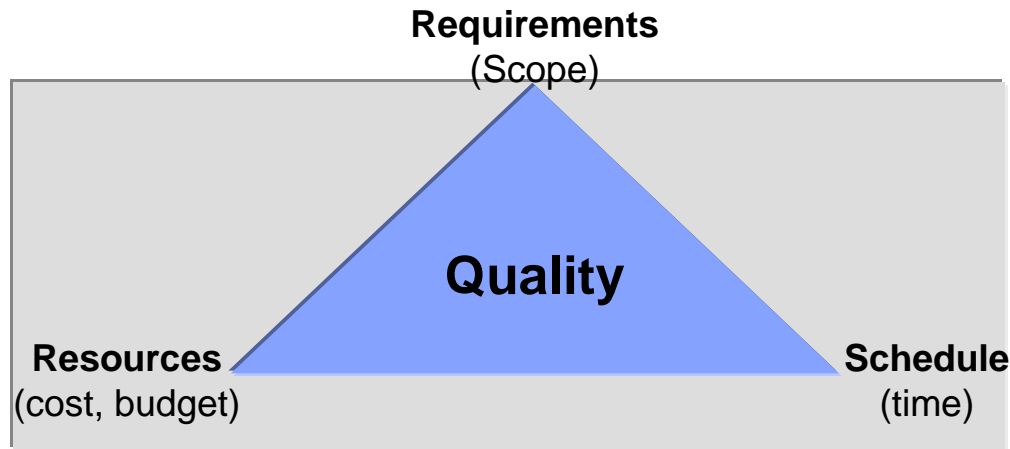
Impact of low quality requirements



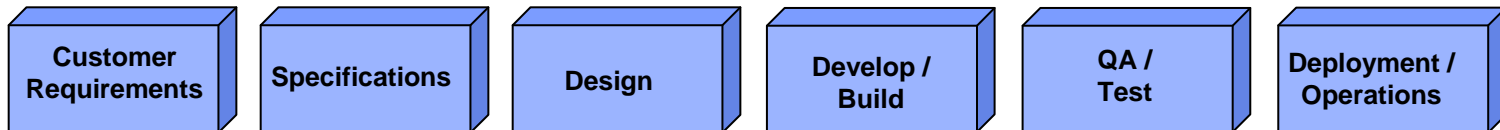
Driving Business Opportunity While Reducing Risk and Cost

What fundamentally is the problem here?

- Changing business requirements create pressure on delivery schedules, cost & quality
- Must “Break the Iron Triangle” – traditional methods will not deliver
- Quality, on-time delivery requires collaborative, iterative and integrated lifecycle processes



Quality-enabling activities must start here and involve the entire team



Requirements Definition and Management Is Challenging

Unsolved RDM Challenges → Software Rework → Cost, Delays, Quality Issues, Unmanaged risks

Definition

- Requirements are not always obvious
- They come from many sources
- Hard to express clearly
- Have unique properties
- Stakeholders don't agree on requirements or priorities
- Communication can be difficult
 - ▶ different stakeholders = different 'languages'
- Requirements are related ..
 - ▶ to one another
 - ▶ to other deliverables of the software engineering process
- Easy to lose sight of business objectives and goals as requirements are detailed

Management

- Impact of change often incompletely assessed and underestimated
- Changes are not communicated effectively
- Don't know what has changed so you may be working on the wrong requirements

"If I change this requirement what else will have to change?"

"What requirements have changed since the last release?"



Unsolved RDM Challenges → Software Rework → Cost, Delays, Quality Issues, Unmanaged risks



Requirements Definition and Management

Definition

Elicit

- Engage stakeholders early and often to identify the need

Analyze and Specify

- Capture clear, unambiguous and actionable requirements

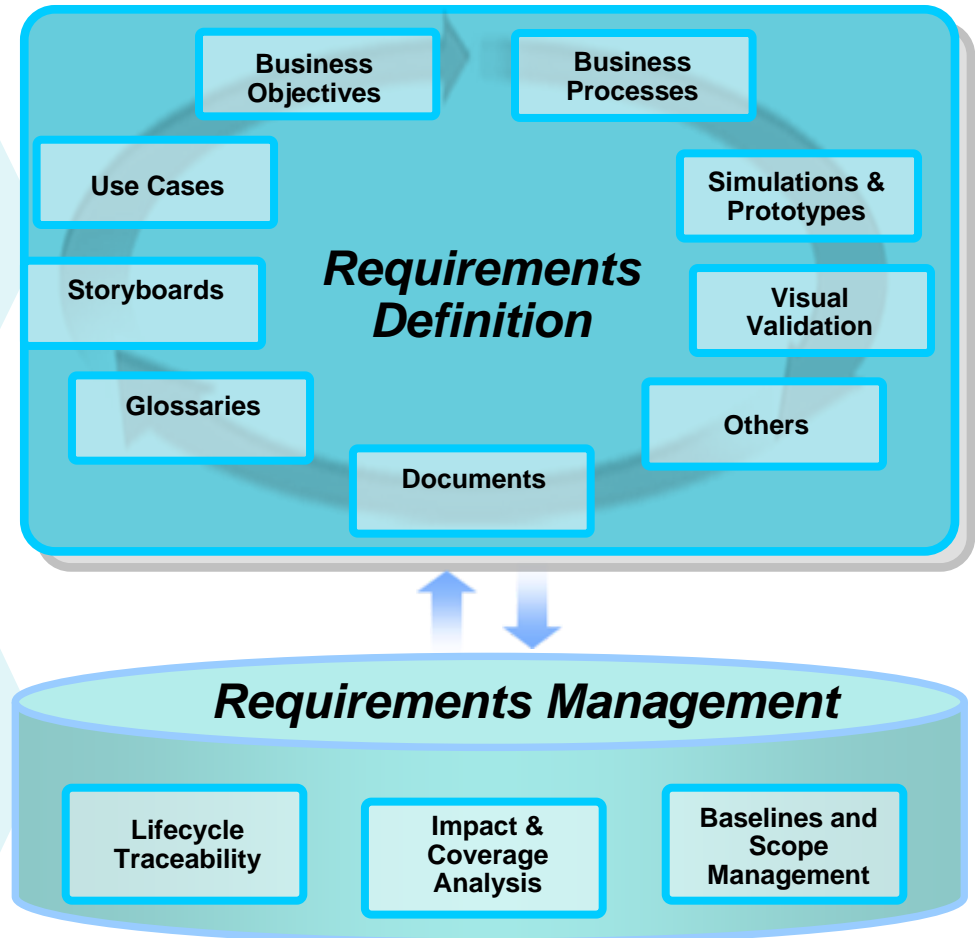
Validate

- Stakeholders review what is important and sign off with confidence

Management

Control scope

- Stay on track as things change
- Which tests must be updated for this requirement change?
- Which requirements have been tested and delivered?
- Who approved this change?
- Which requirements have changed?



Improving business value and ROI

Through requirements collaboration, capture & process control

Reduce rework
in all stages of
development

- **Fact:** Typically 30% or more of all project costs are associated with rework, and requirements errors are the root cause for up to 70% of this cost.
- **Solution:** Improve requirements processes, use effective notations, improve team collaboration to reduce project costs by 20%

Improve productivity
in requirements
definition

- **Fact:** Waiting time and redundant activities can eat up 10-15% of your project budget
- **Solution:** Speed iteration reviews and accelerate the onboarding process for new resources, reduces costs by up to 15%

Reduce delays
that impact
time to value

- **Fact:** A 6-month delay can cost companies up to 33% of ROI in a five-year business case
- **Solution:** Faster Requirements definition cycles and less project rework means faster to market.

Collaborating with stakeholders is key!



Achieving consensus with stakeholders...

Identify Stakeholders

Focus on Outcomes

Communicate Effectively



Collaborate Continuously

Keep it contextual

Accommodate Change

...to gain market advantage



Identify Stakeholders

- Stakeholder: Individual who is materially affected by the outcome of the system or the projects producing the system.
- Example stakeholders
 - ▶ The Users of the system
 - ▶ The Development team (architects, developers, testers, support, service)
 - ▶ Sponsors
 - ▶ Authorities
 - ▶ Customers
- Benefit of identifying and using Stakeholders:
 - ▶ Provide feedback to keep team focused on providing value to your customers.
- Identify at least one representative from each group





Collaborate Continuously

Achieving Consensus with Stakeholders

Why

- Obtain validation
- Gain buy-in
- Determine prioritization
- Contain Scope



How

- Start Early
- Talk Often
- Active participation
- All stakeholders



Focus on outcomes to drive innovation

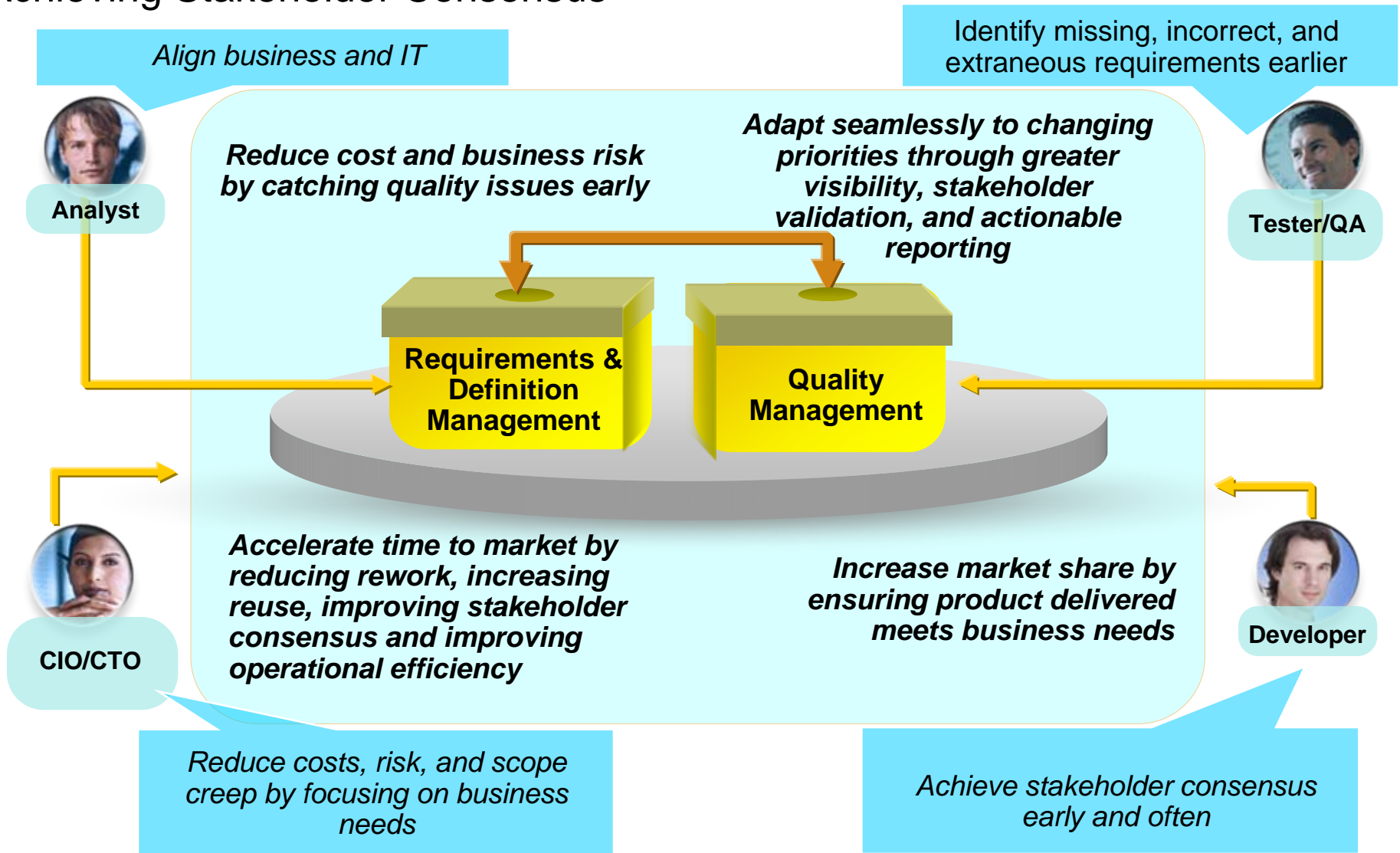
Achieving Consensus with Stakeholders

- ▶ Stop asking clients what they want.
- ▶ Start asking them **what they want the product to do for them**



Deliver better products faster with Requirements driven quality

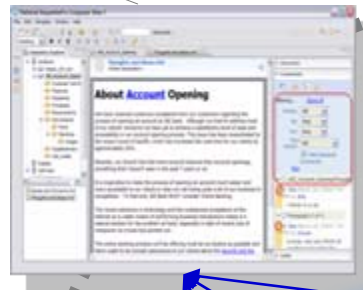
Achieving Stakeholder Consensus



Communicate Effectively – Examples from Rational Requirements Composer

Achieve Stakeholder Consensus

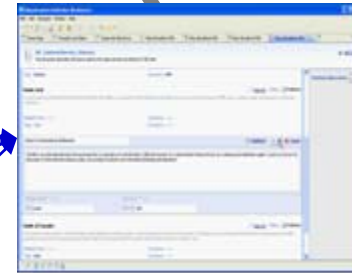
Use **Documents** to capture structured and unstructured information



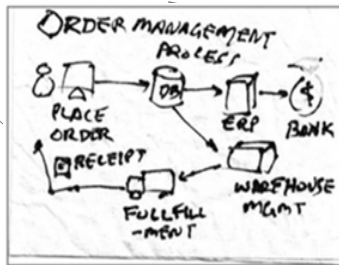
Capture current and future state with **Business Process Diagrams**



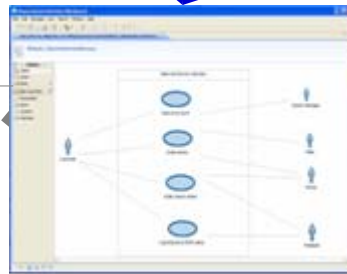
Remove ambiguity with shared business and technology **Glossaries**



Include pictures, presentations, or any other kinds of file in your web of requirements context



Build **Use Case Models** and elaborate them in text

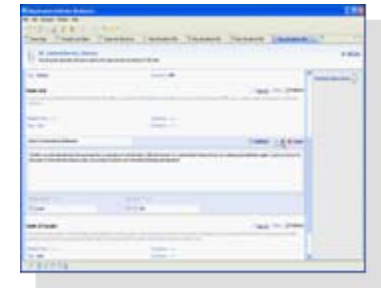
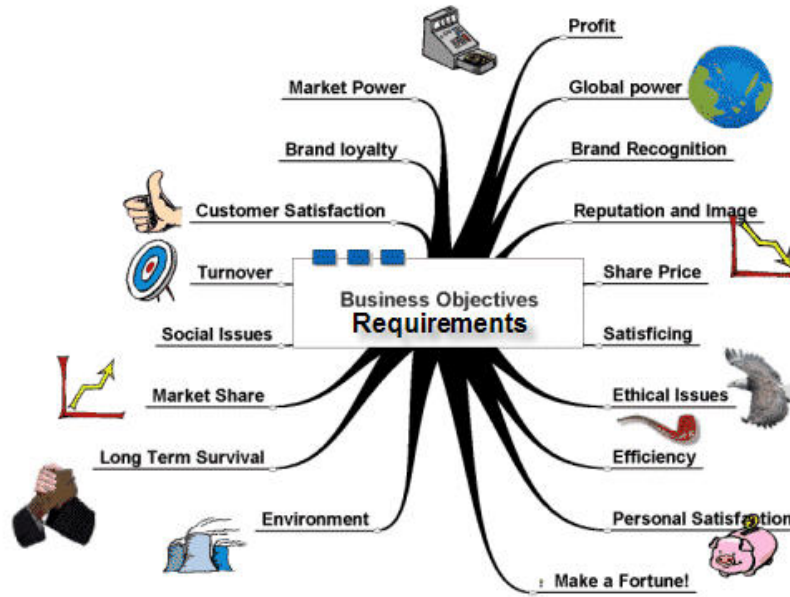


Visualize the User Experience with **User Interface Sketches and Storyboards**



Keep it Contextual

Achieve Stakeholder Consensus



Accommodate Change

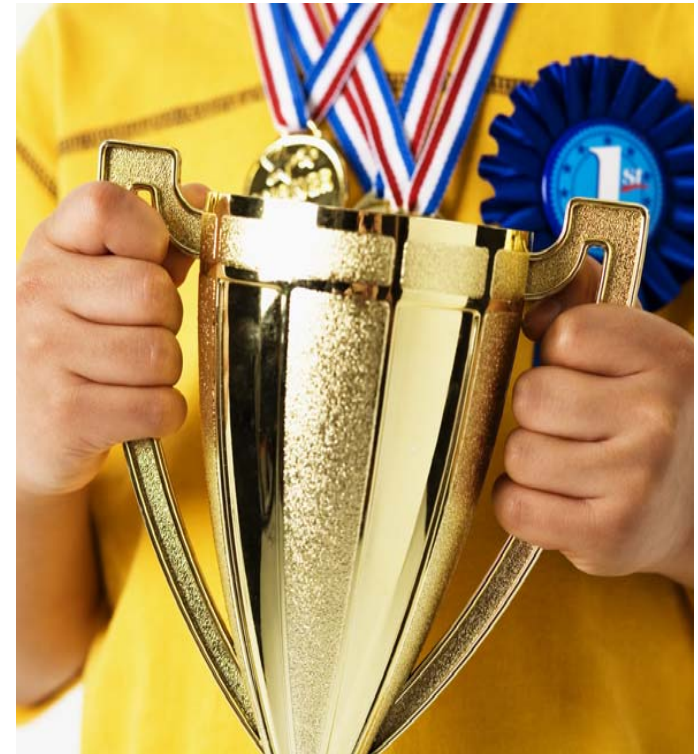
Achieve Consensus with Stakeholders

- ▶ **Plan** for change
- ▶ **Build** quality in with requirements driven quality
- ▶ **Limit scope** to maintain velocity
- ▶ **Align** business and IT



Summary

- So much to gain
 - ▶ Increased ROI
 - ▶ Faster time to market
 - ▶ Greater marketshare
 - ▶ Better quality
- So much to lose
 - ▶ High cost of project overruns in time and money
 - ▶ Missed ROI
- Major investment benefit is **early** in lifecycle
- IBM has 60% of the market for RDM
 - ▶ Requirements Composer for clear definition of business requirements
 - ▶ RequisitePro for management at standard IT shops
 - ▶ DOORS for management at complex IT shops and systems requirements
- Let us help you



Life in the twentieth century is like a parachute jump: you have to get it right the first time.

Margaret Mead



Opportunities to learn more with this 2009 series

Episodes and additional resources

- **Streamline Software Delivery to Gain Market Advantage**

- ▶ (April 30) Series Overview: Driving Business Differentiation with the Rational Software Delivery Platform
- ▶ (May 28) **Episode 1: Listening to the Stakeholders:** Achieve consensus with stakeholders early and often to reduce cost & risk
- ▶ (June 18) **Episode 2: The Software Blueprint:** Designing a software solution that meets stakeholder needs
- ▶ (July) **Episode 3: Developing your Software:** Developing secure software faster, with minimal effort
- ▶ (August) **Episode 4: Yes You Can:** Reduce risk and cost by improving software quality, function and performance
- ▶ (September) **Episode 5: Pack it, Ship it:** Consistent and integrated software builds and packaging
- ▶ (October) **Episode 6: The Software is out the Door:** Strategies for managing released products and how to improve them
- ▶ (November) **Episode 7: Plan, Manage and Measure:** High-quality software solutions that maximize ROI



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- **Additional episode content and offers available at:** *stay tuned... site launching soon!*



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IBM community tools: Start small to grow large

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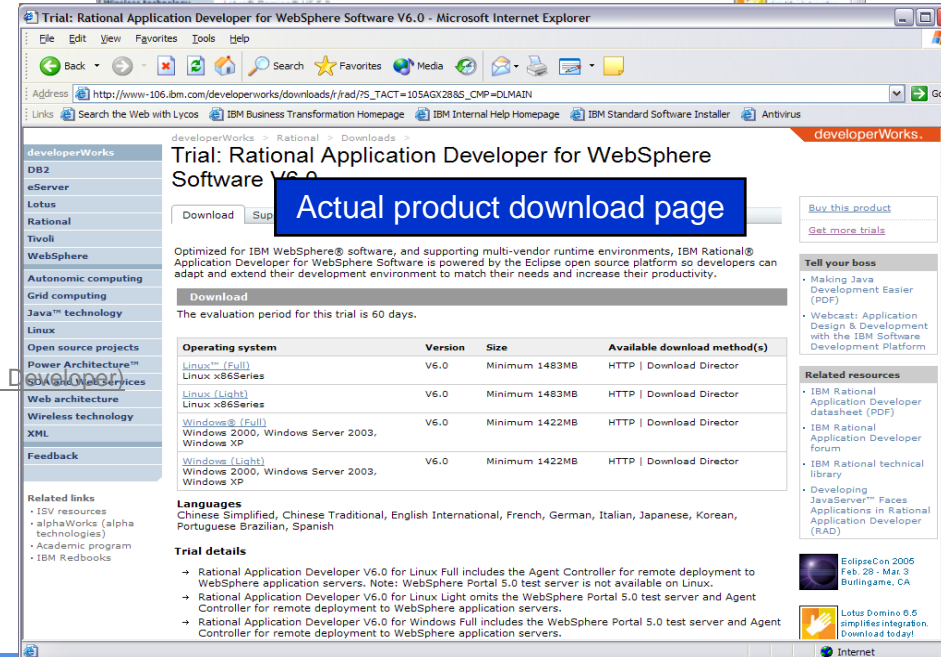
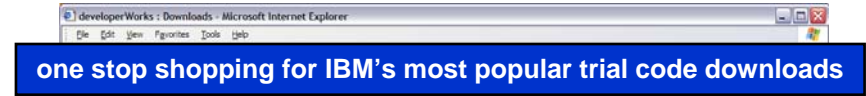


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