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software processes that fit your business needs

## Effective Requirements Management with HP Quality Center Connecting Business Goals and Quality

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Bernhard Weiss, Hewlett-Packard, Switzerland  
Swiss Requirements Day, June 22, 2011, Zurich

## Integrated Requirements Management

- Requirements are the foundation of the entire software lifecycle
- The effective connection from requirements to testing enhances both disciplines
- It adds business value to the contributions of IT and software development
- Effective requirements management and test management must be supported by tools

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## Business Value of IT & Software Development

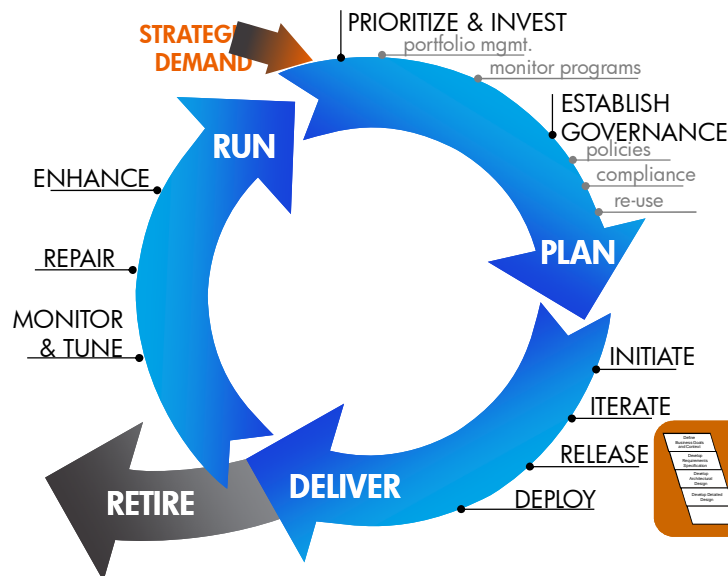


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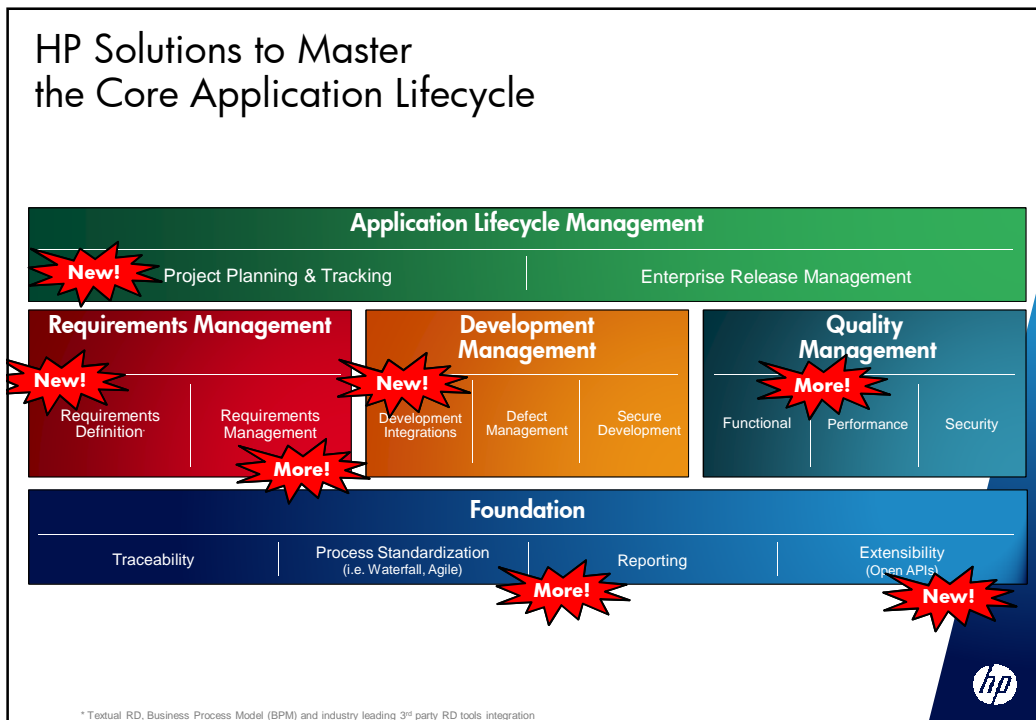
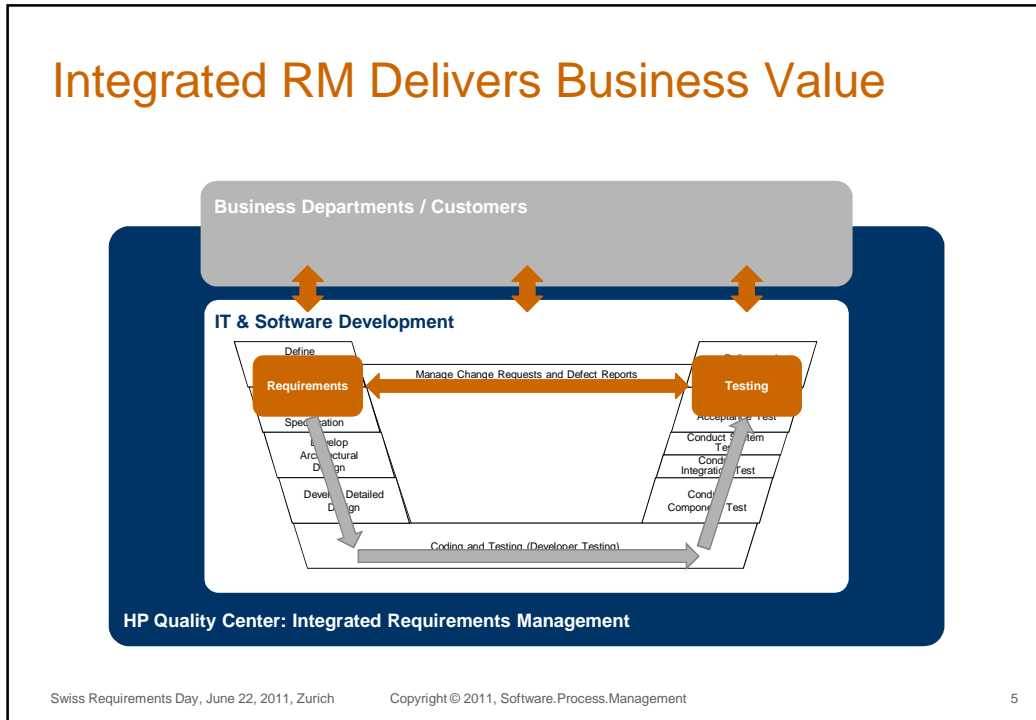
## Application Lifecycle Management

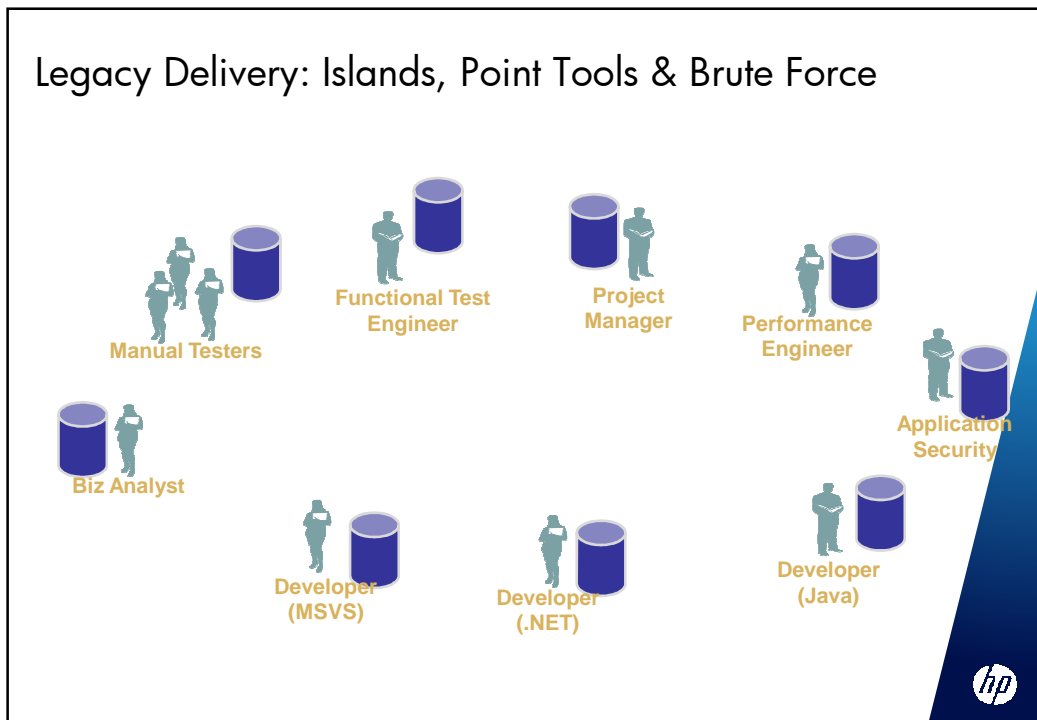
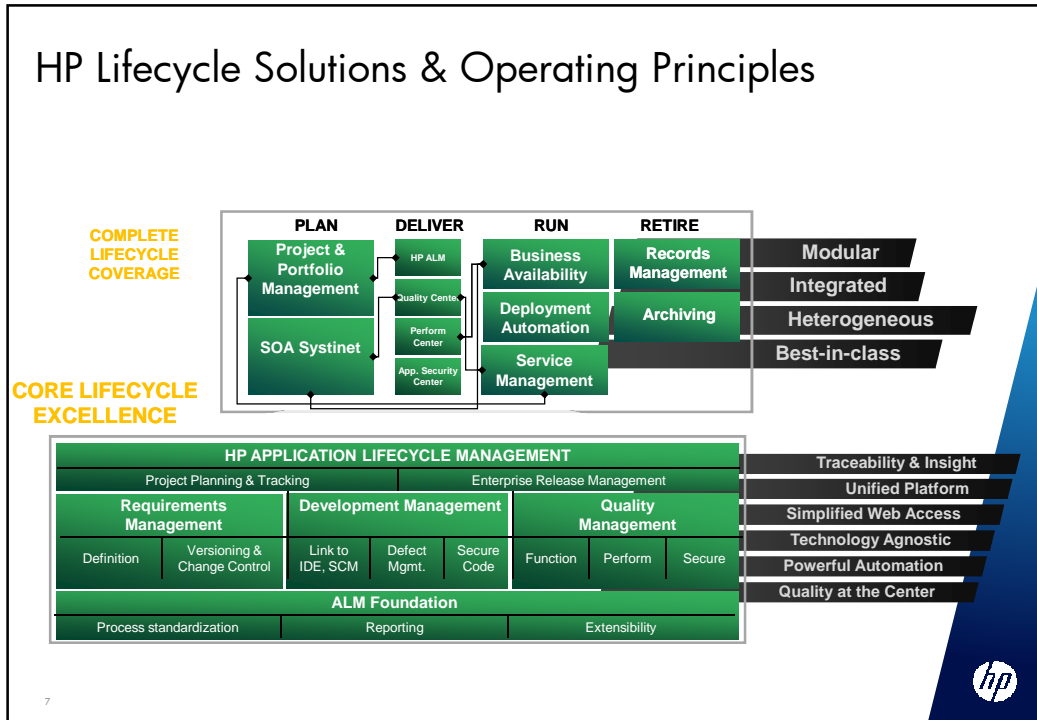


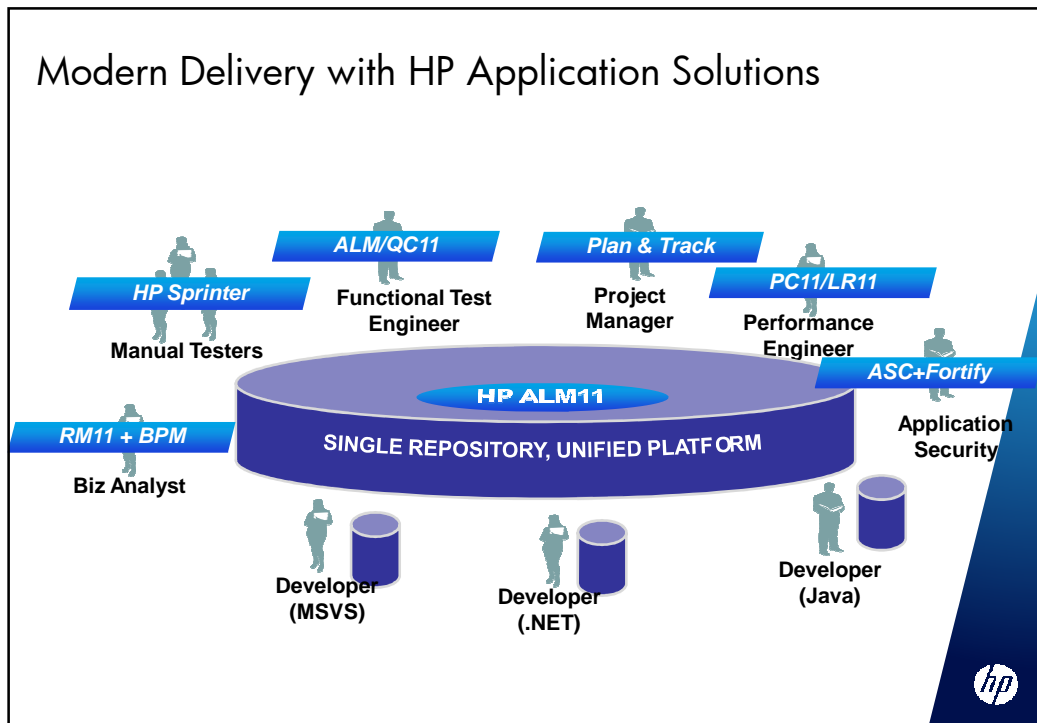
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## RM Challenges & Objectives

- Variety of Business Scenarios
- Collaboration & Communication
- Transparency
- Distributed Development
- Flexibility & Adaptability
- Process Guidance
- Consolidated Tool Landscape

## Different Business Scenarios for RM

- Application development for internal use
  - project-driven, occasional to continuous, one or few centrally hosted instances, subsequent releases, long lasting, change request driven
- Product development for market
  - continuous, customer & market driven
- Internet app
  - agile, short release cycles
- System development
  - embedded software

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## Recommendations for Integrated RM

- Establish evolving requirements practices
- Provide information structures for guiding requirements development & management
- Support collaboration among RM stakeholders
- Utilize a learning framework

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## Requirements Structure

Establish structure based on standard or good practice

e.g. IEEE Std. 830-1998, Volere

### PROJECT DRIVERS

1. The Purpose of the Product
2. Client, Customer and other Stakeholders
3. Users of the Product

### PROJECT EXISTING ISSUES

4. Mandated Constraints
5. Naming Conventions and Definitions
6. Relevant Facts and Assumptions

### FUNCTIONAL REQUIREMENTS

7. The Scope of the System
8. The Scope of the Requirements
9. Functional Requirements

### NON-FUNCTIONAL REQUIREMENTS

10. Usability Requirements
11. Availability Requirements
12. Performance Requirements
13. Operational Requirements
14. Maintainability and Portability Requirements
15. Security Requirements
16. Cultural and Political Requirements
17. Legal Requirements

Volere

Volere: <http://www.volere.co.uk>  
S. Robertson and J. Robertson, Mastering the requirements process (2nd Ed.), Addison-Wesley, 2006.

Name	Requirement Type
Requirements	Folder
Product Orion	Folder
Scope	Folder
Release 2.5	Folder
Business requirement 1	Business
Business requirement 2	Business
Business requirement 3	Business
Release 3.0	Folder
Release 4.0	Folder
Personas	Folder
Mathew - Program Staff Director	Persona
Constraints	Folder
Conventions	Folder
Functional Requirements	Folder
Functional area 1	Group
UC 1	Use Case
F4	Functional
F3	Functional
F6	Functional
Functional area 2	Group
F5	Functional
F8	Functional
F9	Functional
Usability	Folder
Performance	Folder
Security	Folder
Unclassified	Folder

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## Good Requirements Definition: Volere Shell

Requirement #: **Unique id**    Requirement Type:    Event/use case #:

Description: **A one sentence statement of the intention of the requirement**

Rationale: **A justification of the requirement**

Source: **Who raised this requirement?**

Fit Criterion: **A measurement of the requirement such that it is possible to test if the solution matches the original requirement**

Customer Satisfaction:    Customer Dissatisfaction:

Dependencies: **A list of other requirements that have some dependency on this one**    Conflicts: **Other requirements that cannot be implemented if this one is**

Supporting Materials: **Pointer to documents that illustrate and explain this requirement**

History: **Creation, changes, deletions, etc.**

**Volere**  
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Degree of stakeholder happiness if this requirement is successfully implemented.  
Scale from 1 = uninterested to 5 = extremely pleased.

Measure of stakeholder unhappiness if this requirement is not part of the final product.  
Scale from 1 = hardly matters to 5 = extremely displeased.

The type from the template    List of events / use cases that need this requirement

Other requirements that cannot be implemented if this one is

S. Robertson and J. Robertson, Mastering the requirements process (2nd Ed.), Addison-Wesley, 2006.

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## Fit Criterion: Link RM with Testing

Requirement #: **Unique id**    Requirement Type: The type from the template    Event/use case #: List of events / use cases that need this requirement

Description: **A one sentence statement of the intention of the requirement**

**Fit Criterion: A measurement of the requirement such that it is possible to test if the solution matches the original requirement**

Dependencies: **A list of other requirements that have some dependency on this one**

Supporting Materials: Pointer to documents that illustrate and explain this requirement

History: **Creation, changes, deletions, etc.**

Conflicts: **one is**

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Degree of stakeholder happiness if this requirement is successfully implemented. Scale from 1 = uninterested to 5 = extremely pleased.

Measure of stakeholder unhappiness if this requirement is not part of the final product. Scale from 1 = hardly matters to 5 = extremely displeased.

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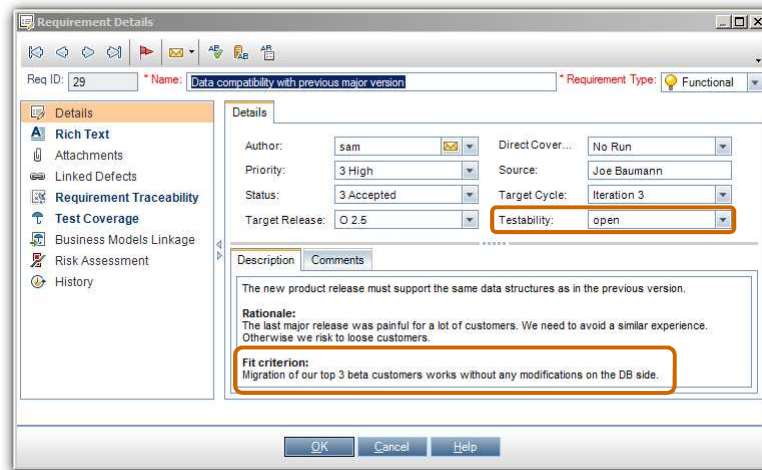
## Quality Requirements

See: ISO/IEC 9126-2001

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## Requirements Definition in HP Quality Center

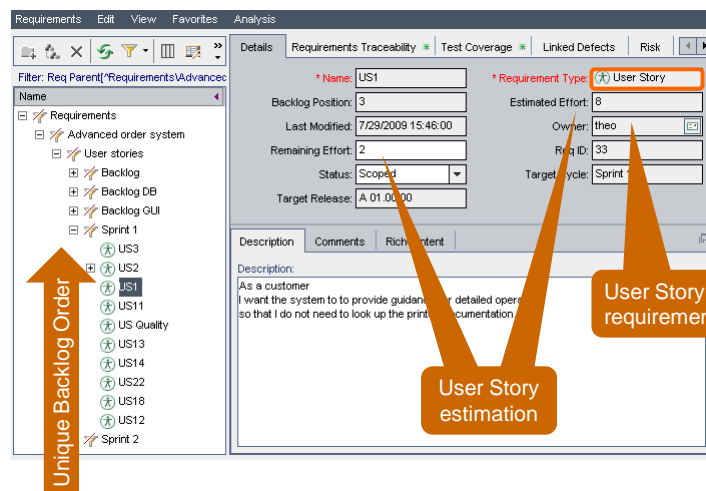


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## Agile Requirements

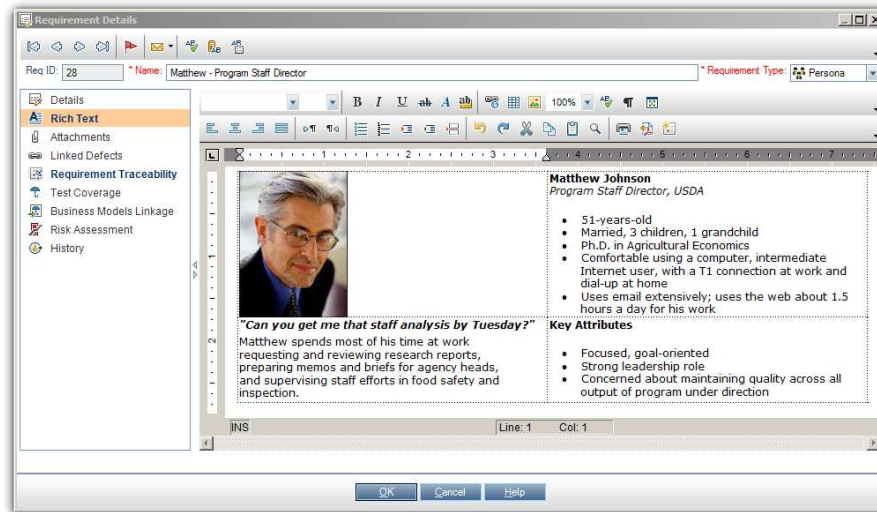


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## Rich Text Requirements

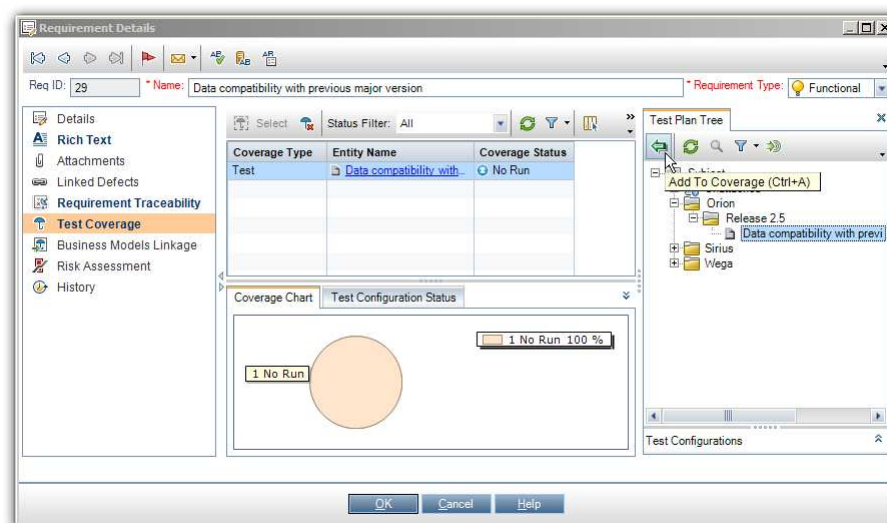


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## Traceability

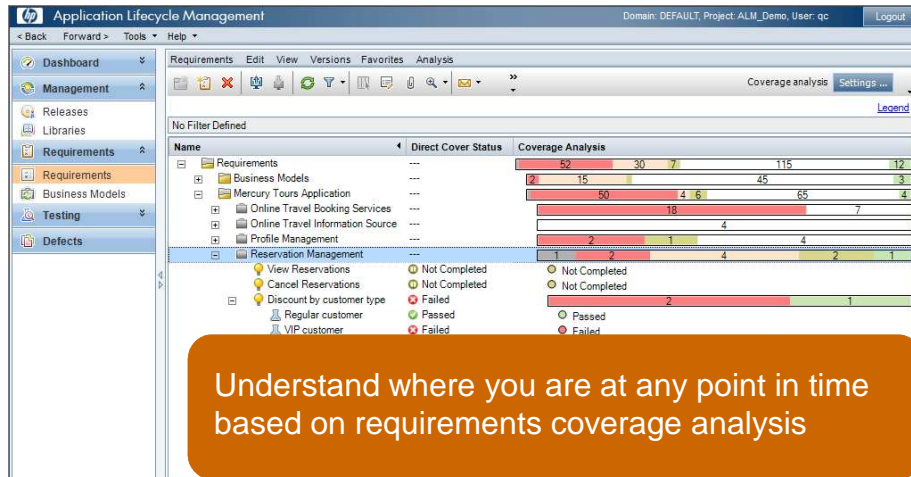


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## Transparency

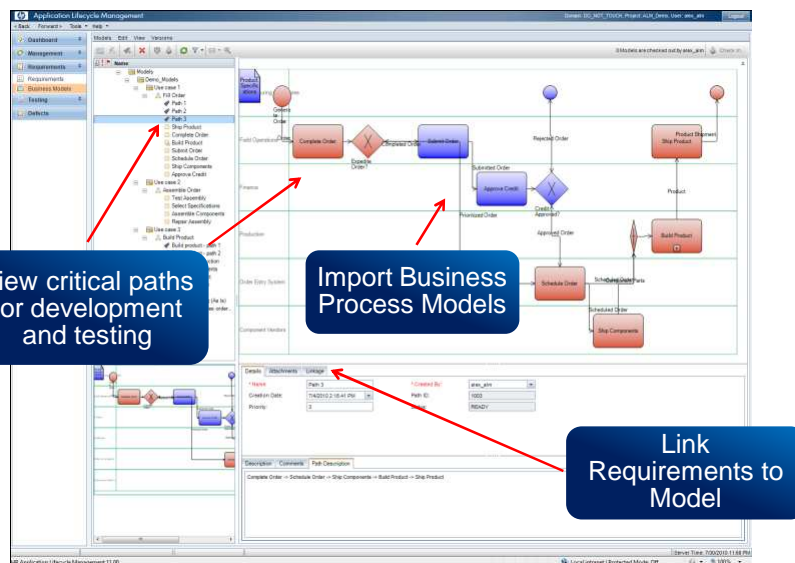


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## Connect Business Process Models

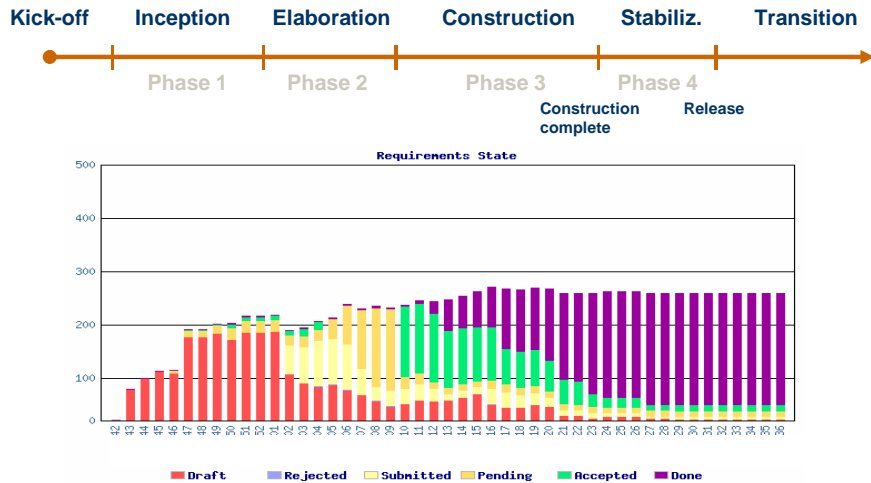


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## Support Project Management

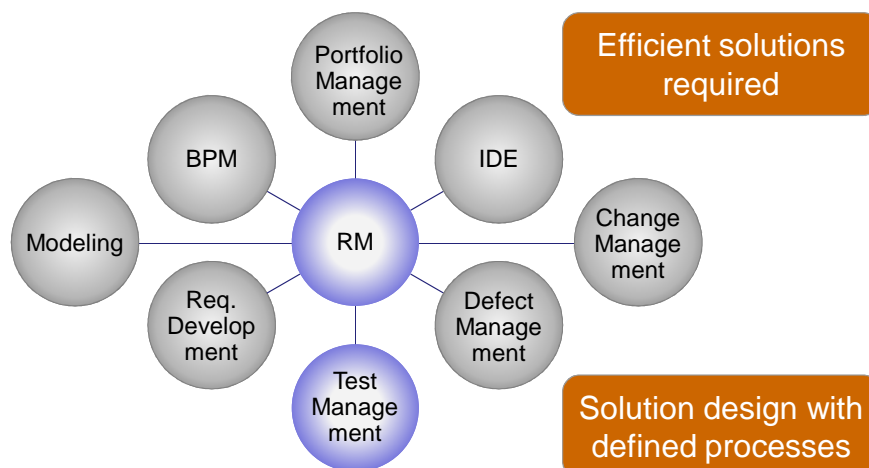


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## Tool Landscape for RM

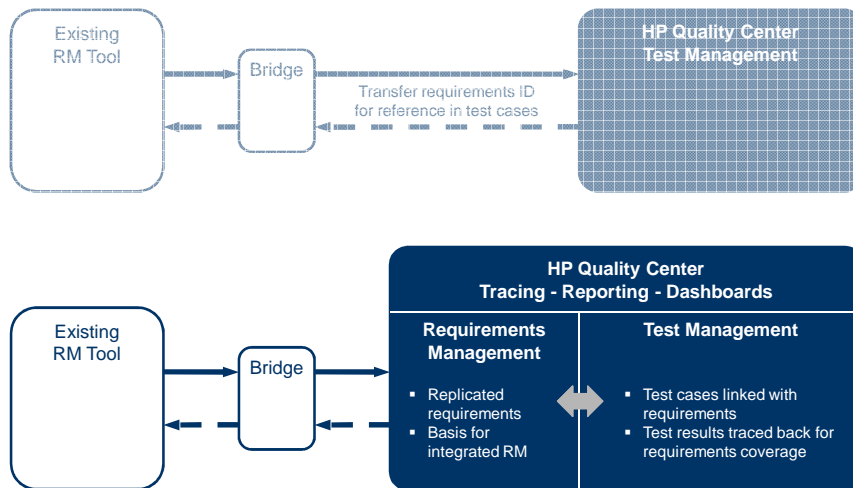


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## Introducing Integrated RM: RM Tool Exists

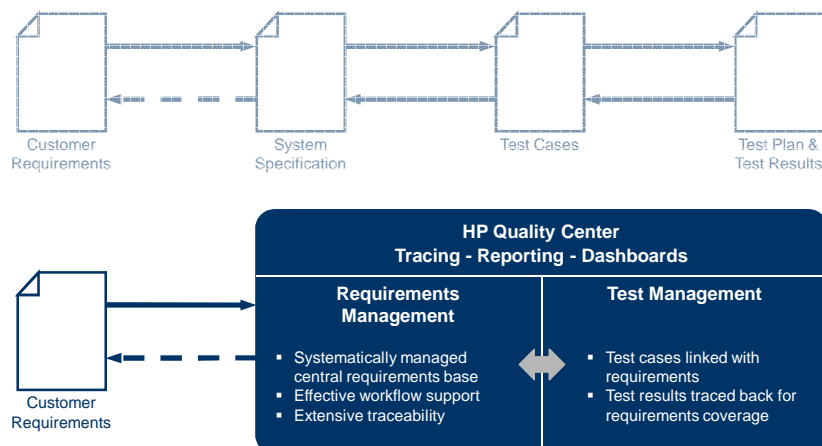


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## Introducing Integrated RM: No RM Tool, Yet



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## Benefits of Integrated RM

- Requirements managers can easier define good requirements and achieve higher productivity
- Project managers gain new levels of transparency and control
- Business departments and customers receive more useful software and services faster

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## Thank you

### Contact



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### Blog & Resources

MakingOfSoftware.com

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