



IBM Rational Software Conference 2009  
As Real as It Gets!



## Understanding IBM Rational Method Composer

*Rafal Michalski*  
*Rational Technical Sales Specialist*  
*[rafal.michalski@au1.ibm.com](mailto:rafal.michalski@au1.ibm.com)*

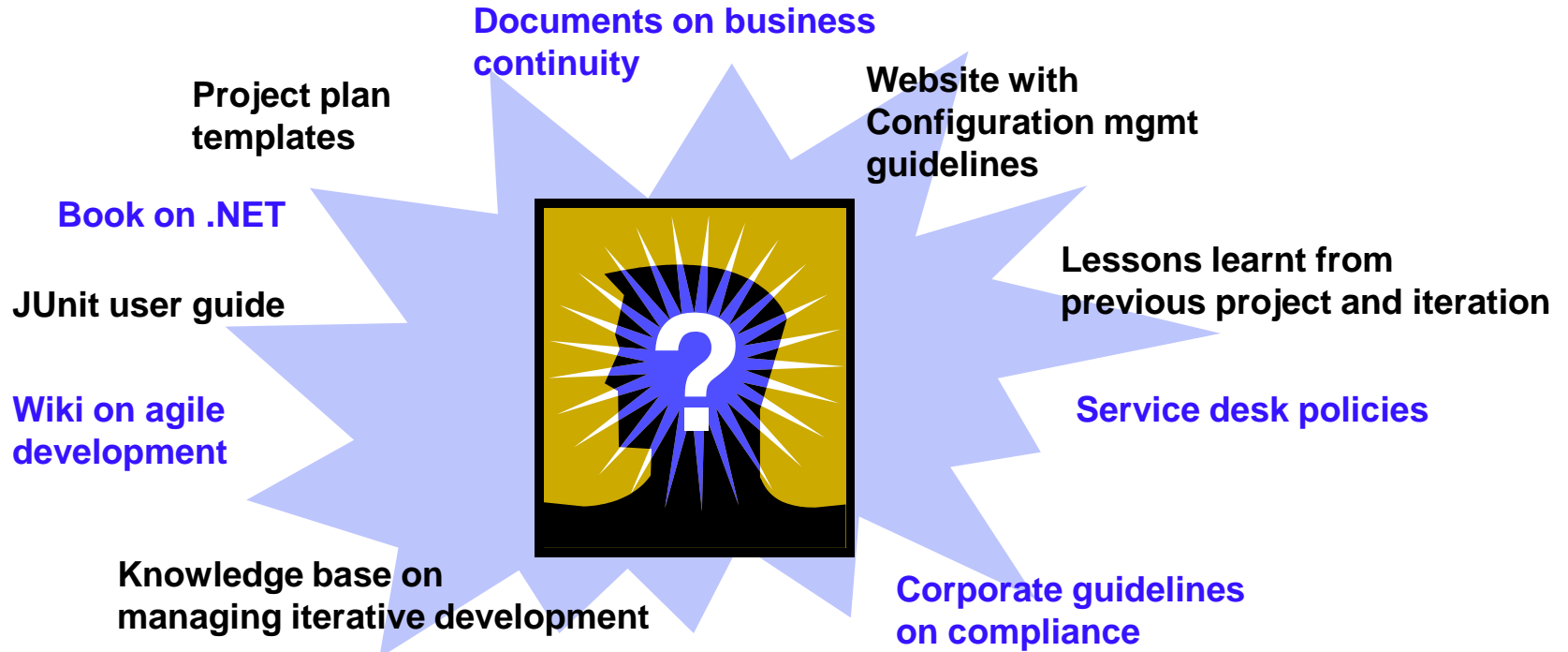
**Rational.** software

# Agenda

- **Process Management: Its Challenges and Importance**
- **IBM Rational Method Composer**
  - ▶ Process authoring
  - ▶ Process libraries (RMC Content)
  - ▶ Targeting and measuring Your success (MCIF)
  - ▶ Method communication

**Session Level = Novice**

**Requires little knowledge of RMC or the Process Management domain**



**Network Shares**



**Intranet and Internet**



**Physical Books**

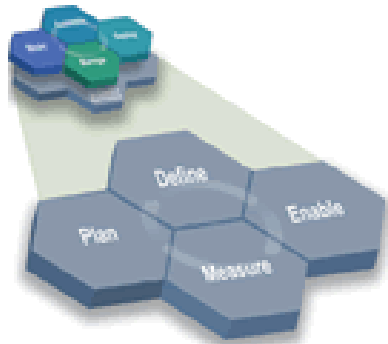


**People's Experience**

# Why Is Process Management Important?

## Governance

- Without general concurrence in the organization about what your processes are how can anyone in the organization...
  - Agree that 'what is supposed to be done, isn't being done'?
  - Qualitatively or quantitatively measure project performance?
  - Improve how are things are done?



## Productivity

- (Globally) Distributed development, outsourcing, and so forth implies that the teams now working together likely haven't done so in the past
  - A common process provides all team members a reference point from which to anchor their responsibilities to the team
  - It also provides the project manager and all other team leads a reference from which to have a conversation about the big picture and the immediate tasks at hand
  - Without a defined process tactical benefits can over shadow strategy
    - e.g. "We can do it quicker without requirements, version control, quality gates, ..."

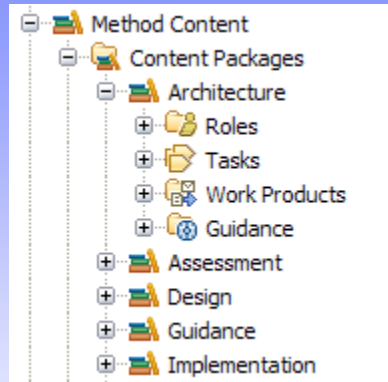
# Challenges in Process Management

- **Communication**
  - ▶ Non centralised repository
  - ▶ No standards
- **Usability**
  - ▶ Different formats
- **Flexibility**
  - ▶ Rightsizing of process
  - ▶ Responsiveness
- **Effective execution**
  - ▶ Disconnect between process engineering and process enactment

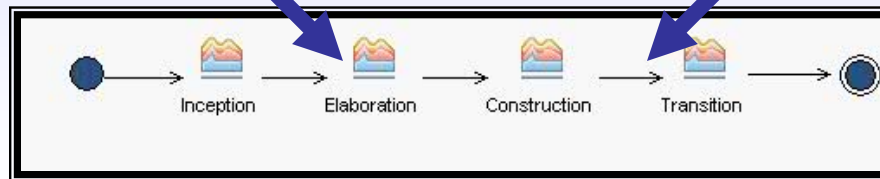
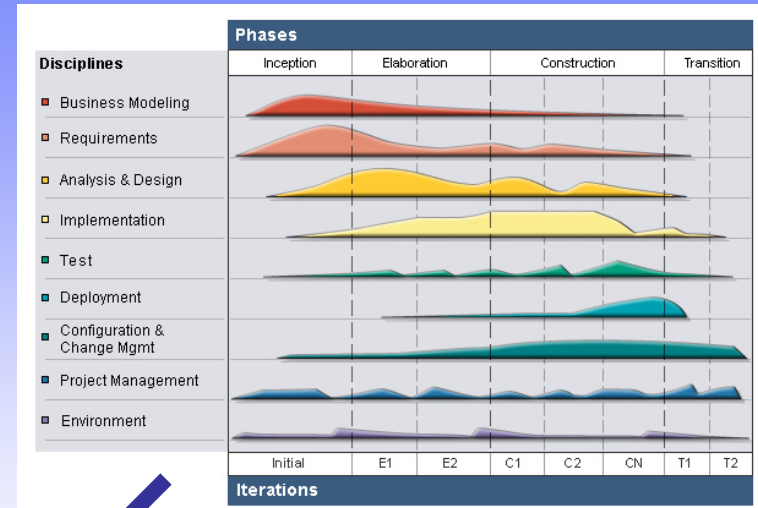


# A Better Approach

Standardise representation and manage libraries of reusable **Method Content**



Develop and manage **Processes** for performing projects

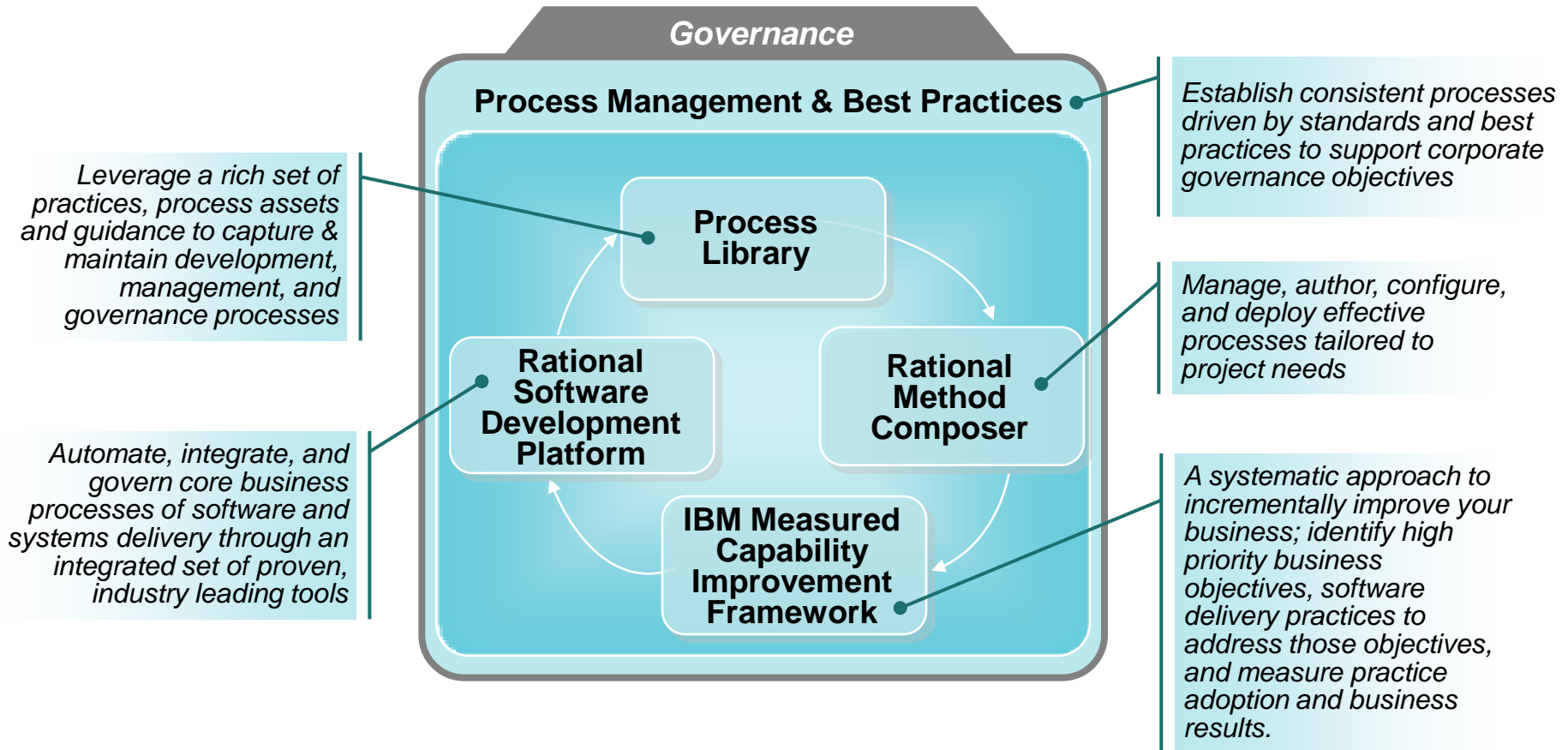


Configure a process for **my project** needs

Create project plan templates for **Enactment** of process in the context of my project

# What is IBM Process Management?

*Create, customize, publish, enact and measure software & systems delivery, practices and processes according to project needs*



## Agenda

- Process Management: Its Challenges and Importance
- IBM Rational Method Composer
  - ▶ Process authoring
  - ▶ Process libraries (RMC Content)
  - ▶ Targeting and measuring Your success (MCIF)
  - ▶ Method communication



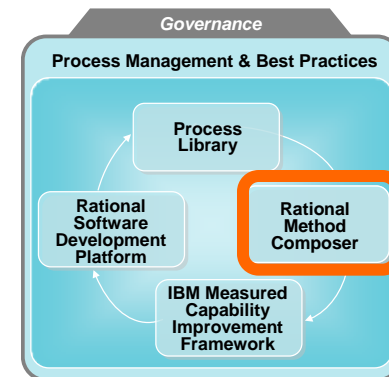
# Presenting IBM Rational Method Composer Overview

- ***A library for content***
  - ▶ Holds **YOUR** methods and process
  - ▶ Includes the entire Rational Unified Process, or **RUP**
  - ▶ Includes additional enterprise methods
  
- ***A standard method and process authoring tool***
  - ▶ **Standard** notation
  - ▶ **Reuse**
  
- ***Communication medium***
  - ▶ Publish to web or documents
  - ▶ Deliver within tool **contextually** and **role based**
  - ▶ Enforce through **project templates**

*Proven. Practical. Flexible.*

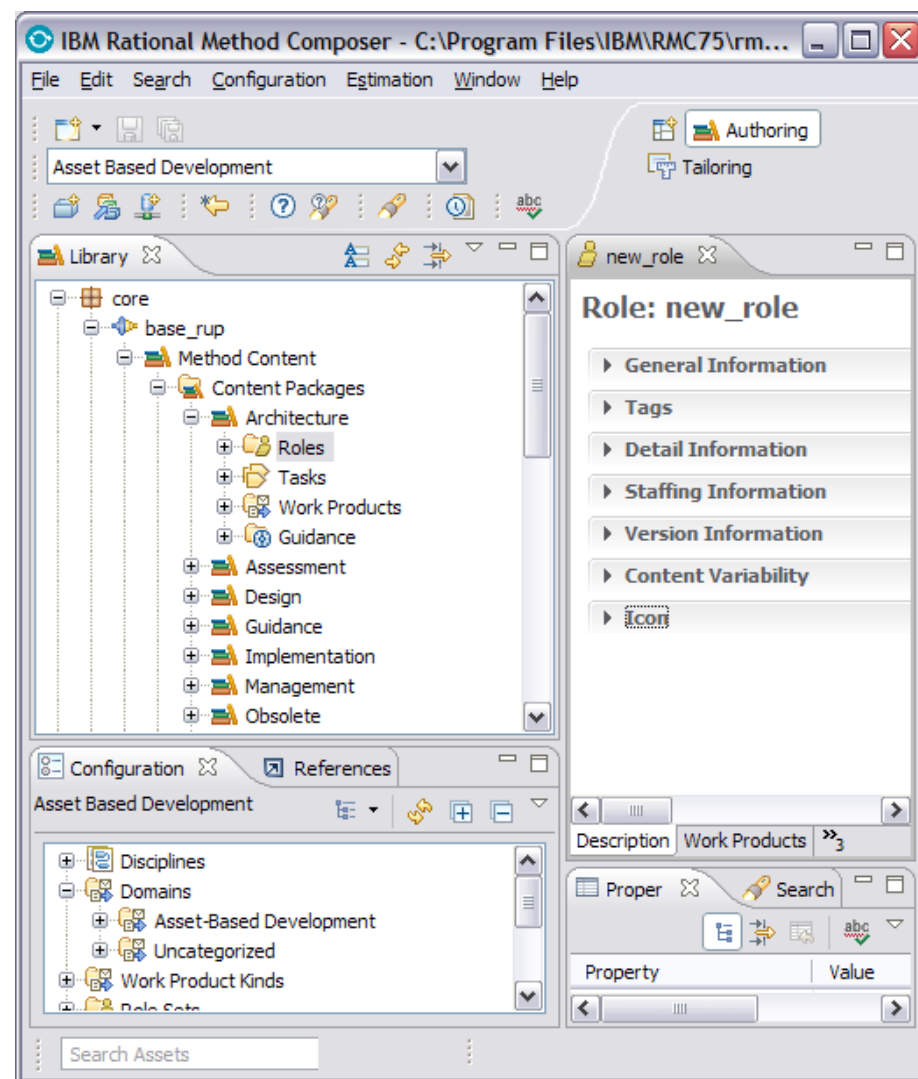
# Agenda

- Process Management: Its Challenges and Importance
- IBM Rational Method Composer
  - ▶ Process authoring
  - ▶ Process libraries (RMC Content)
  - ▶ Targeting and measuring Your success (MCIF)
  - ▶ Method communication



# Standard method and process authoring

- **Standard notation**
  - ▶ Allows the capture of all methods and processes across the organisation
  - ▶ Improves communication in the teams through the use of same *language*
- **Reuse**
  - ▶ Elements can be referenced or reused across many methods/process thus reducing effort in creating new processes and maintain existing ones
- **Integrations**
  - ▶ The process across the enterprise can clearly reference each other



# Separating Method Content and Process

A **Method** provides both the descriptions of work and the order of work. A method is end-to-end and is usable on a project. An example of a method is IBM Rational Unified Process (RUP).

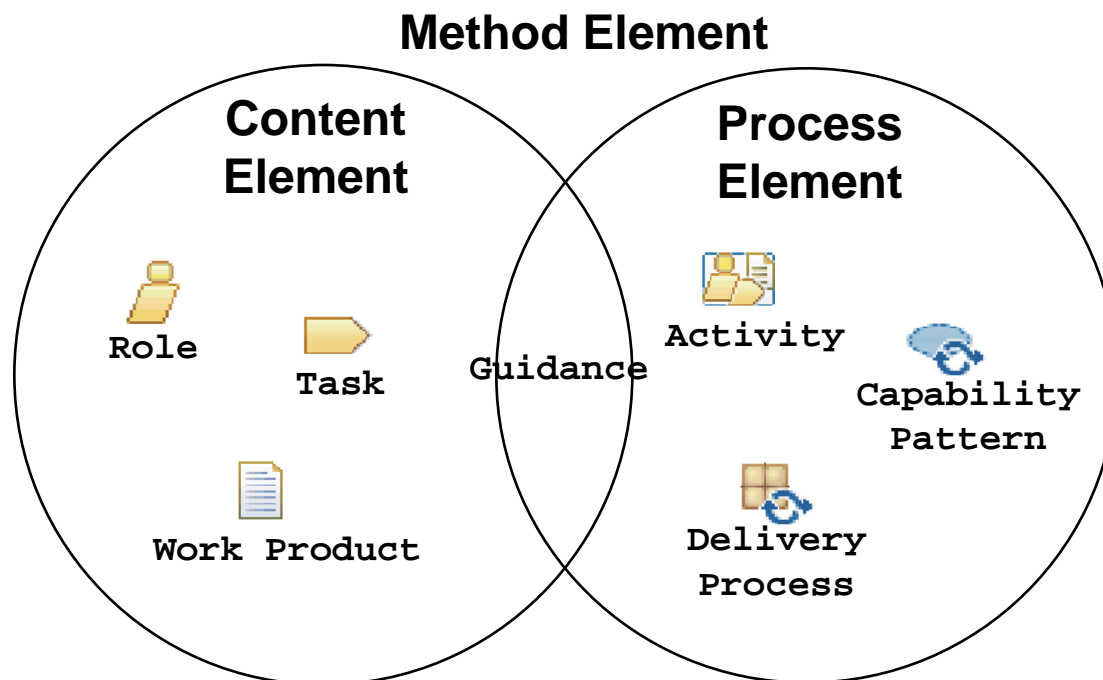
**METHOD = METHOD CONTENT + PROCESS**

**Method content** is the description of work that can be reused as key building blocks. Method content describes tasks, roles, work products, guidelines, and so on, that are involved in completing work.

**Processes** are the order of doing work. They provide the order for the method content. Processes will differ depending on project type, size, or other characteristic.

# Depicting Method Content and Process Elements

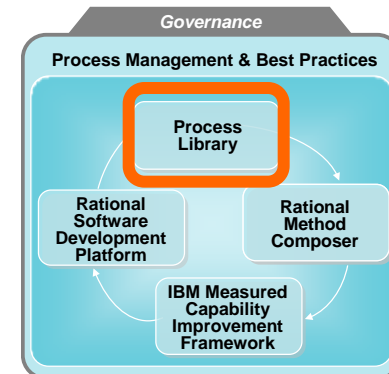
A method is defined in terms of **Method Elements**.



**Examples of Guidance:** Concept, Example, Template, Tool Mentor, Whitepaper, Roadmap, etc.

# Agenda

- Process Management: Its Challenges and Importance
- IBM Rational Method Composer
  - ▶ Process authoring
  - ▶ Process libraries (RMC Content)
  - ▶ Targeting and measuring Your success (MCIF)
  - ▶ Method communication



# Methods – Available v7.5

- **Enterprise plug-ins**
  - ▶ **IBM Rational Unified Process, or RUP**
  - ▶ IBM Rational Method for Portfolio Management (for Initiatives)
  - ▶ IBM Rational Method for Program Mobilization
  - ▶ **IBM Tivoli Unified Process (ITUP)**
  - ▶ RUP for Asset-Based Development
  - ▶ RUP with ITSM/ITUP Connection
  - ▶ RUP for Global Development and Delivery (GDD)
  - ▶ RUP for GDD Maintenance
- **Solution-specific plug-ins**
  - ▶ **SOA**
    - RUP for Service-Oriented Modeling and Architecture
  - ▶ **Governance**
    - **SOA Governance**
    - Asset-Based Governance
    - RUP for Practical Software & Systems Measurement (PSM)
  - ▶ **Compliance**
    - **RUP for CMMI®**
- **Project-specific plug-ins**
  - ▶ RUP for System z
  - ▶ RUP for Legacy Evolution
  - ▶ RUP for Maintenance Projects
  - ▶ **RUP for COTS Package Delivery**
  - ▶ RUP for Model-Driven Systems Development (MDSD)
- **Technology/tool-specific plug-ins**
  - ▶ RUP for Rational Application Development
  - ▶ RUP for Rational Software Architect
  - ▶ RUP for WebSphere® Business Modeler (beta)
  - ▶ RUP for Automated Software Quality (Rational Performance Tester, Functional Tester, and Manual Tester)
- **Standard-specific plug-ins**
  - ▶ RUP for Department of Defense Architecture Framework (DoDAF)

***A collection of out-of-the-box method content and processes that you can customize to address a diverse set of enterprise and project needs and development styles***

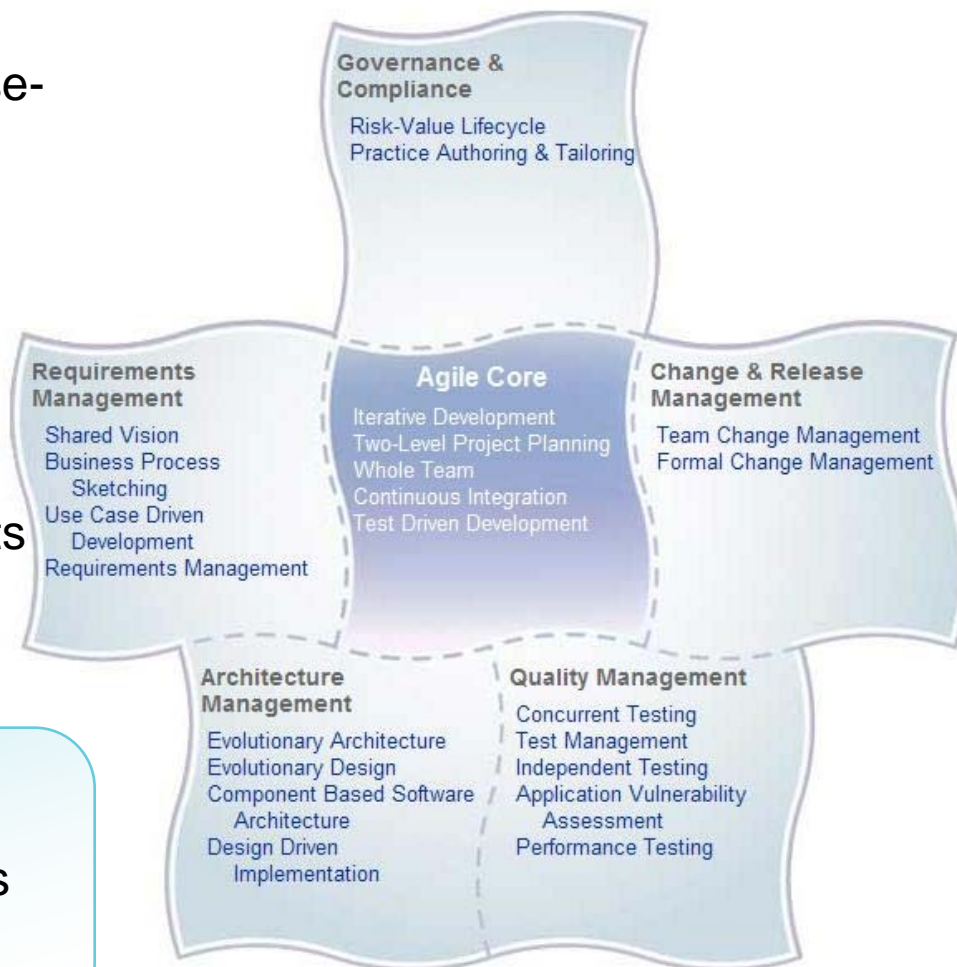
# IBM Practices – New for v7.5

Address one aspect of the software lifecycle e.g., continuous integration, use-case driven development, performance testing, etc.

- Can be **incrementally** and independently adopted
- Can be **mapped to operational objectives** and development pain points
- Adoption can be **measured**

## Results:

- ✓ Avoids self-inflicting too much process
- ✓ Faster and more predictable results



<http://www.ibm.com/developerworks/rational/practices/>





## Examine Published IBM Practices

# Rational. Method Composer

- IBM Practices
  - Welcome
  - Getting Started
  - Management Practices
  - Requirement Practices
    - Business Process Sketching
    - Requirements Management
      - How to Adopt the Requirements Management Practice
      - Key Concepts
        - Requirements
        - Requirement Attributes
        - Traceability
      - Work Products
        - Requirements Attributes
        - Requirements Traceability
        - Requirements Management Process Description
      - Tasks
        - Organize Requirements
        - Assess Requirements Consistency
        - Manage Changing Requirements
        - Plan Requirements Management Strategy
      - Analyst
      - Guidance
      - Measurements
        - Core Measurements
          - High-Level Requirement Statistics
          - Requirement Defect Count
          - Untraced Requirements
        - Supplementary Measurements
          - Instability of Requirement Set
          - Project Lifecycle
          - Requirement Traceability Coverage
      - Shared Vision
      - Use Case Driven Development
      - Architecture Practices
      - Development Practices
      - Integration Practices
      - Test Practices

## Welcome

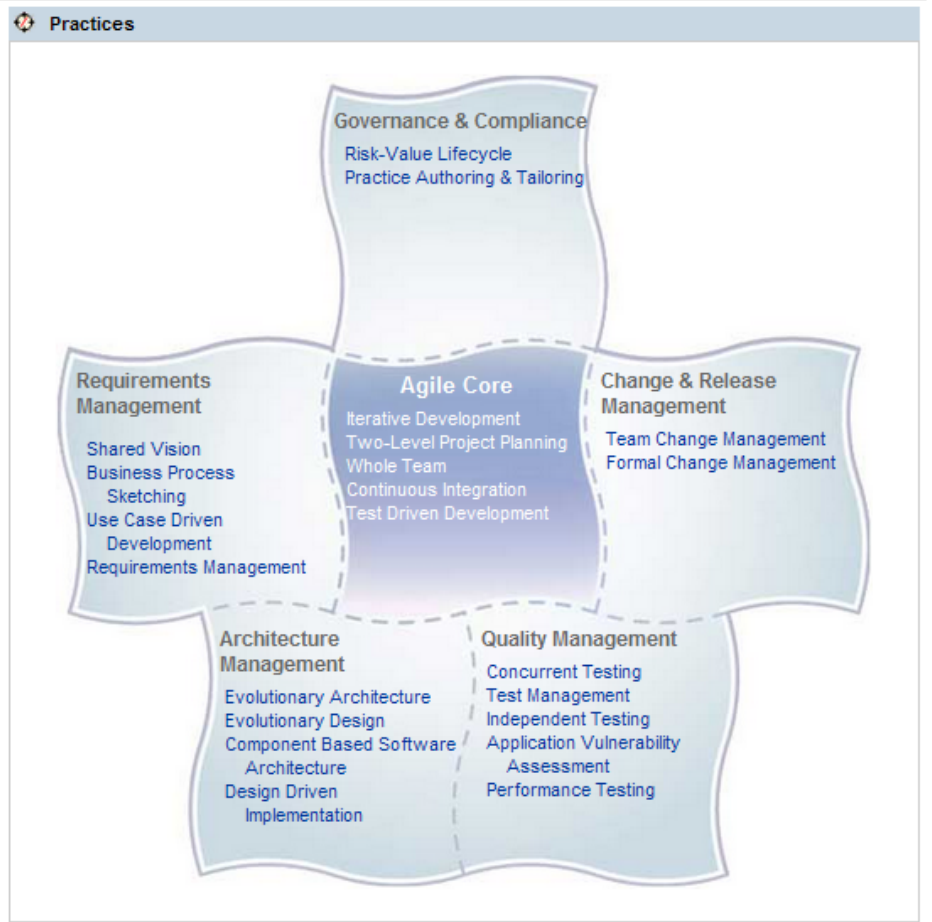
This configuration is intended for browsing the complete set of practices available from IBM.

### Main Description

- Learning**
  - Basic Process Concepts
  - Practice
- Resources**
  - Practice-based enablement
  - Additional Practice Plug-ins
  - IBM Rational Method Composer
  - General IBM resources
    - The Rational Edge
    - IBM Rational training
- About this configuration**

### Welcome to the All IBM Practices Configuration!

Anyone can use this configuration to view the available practices, but the primary audience is the process engineer. The treeview organization mirrors the choices presented in the IBM Practices process builder. A process engineer can use this view before executing process builder in preparation for making configuration choices.



# Rational. Method Composer

Search this Site:

- IBM Practices
  - Welcome
  - Getting Started
  - Management Practices
  - Requirement Practices
    - Business Process Sketching
    - Requirements Management
      - How to Adopt the Requirements Management Practice
      - Key Concepts
        - Requirements
        - Requirement Attributes
        - Traceability
      - Work Products
        - Requirements Attributes
        - Requirements Traceability
        - Requirements Management Practice Description
      - Tasks
        - Organize Requirements
        - Assess Requirements Consistency
        - Manage Changing Requirements
        - Plan Requirements Management Strategy
      - Analyst
      - Guidance
      - Measurements
        - Core Measurements
          - High-Level Requirement Status
          - Requirement Defect Count
          - Untraced Requirements
        - Supplementary Measurements
          - Instability of Requirement Set
          - Project Lifecycle
          - Requirement Traceability Coverage
      - Shared Vision
      - Use Case Driven Development
      - Architecture Practices
      - Development Practices
      - Integration Practices
      - Test Practices

Requirement Practices > Requirements Management > How to Adopt the Requirements Management Practice

## Roadmap: How to Adopt the Requirements Management Practice

This roadmap describes how to adopt the Requirements Management practice.

### Main Description

#### Getting Started

Requirements management requires a repository (and related tooling) to store and manage the requirements. You also need to decide what attributes to store, and what traceability to maintain. This practice provides some default attributes and traceability, which are a good starting point.

#### Requirement repository

The requirements repository must have the following functionalities:

- Add new requirements and edit existing requirements
- Support requirements attributes
- Provide traceability between requirements and other work products
- Store history of editing transactions
- Report/sort/filter based on requirements attributes

This practice is a good starting point that provides some basic attributes and traceability. Larger or more complex projects (such as systems of systems) may need additional attributes and traceability. However, consider starting with this basic set, and then adding additional attributes and traceability as needed. If you have a small number of requirements, you may be able to manage requirements with simple tools like spreadsheets, but larger projects will need effective requirements management tools.

#### Common Pitfalls

The most common pitfall with requirements management in general is excessive overhead. There is always a tradeoff between maintaining information, and the value that you get from that information.

For example, if you decide to extend traceability to design and/or code, then you should start by tracing to components, rather than low level elements such as operations or data items. If you trace to low level items, then you will spend a lot more time maintaining that traceability as the code changes.

Another common pitfall is not maintaining the information in your requirements repository, and thereby creating confusion in the team, and drawing wrong conclusions, such as prioritizing incorrectly.

[Back to top](#)

### More Information

- Concepts
  - [Traceability](#)

[Back to top](#)

# Rational. Method Composer

Search this Site:

- IBM Practices
  - Welcome
  - Getting Started
  - Management Practices
  - Requirement Practices
    - Business Process Sketching
    - Requirements Management
      - How to Adopt the Requirements Management Practice
      - Key Concepts
        - Requirements
        - Requirement Attributes
        - Traceability
      - Work Products
        - Requirements Attributes
        - Requirements Traceability
        - Requirements Management Process Description
      - Tasks
        - Organize Requirements
        - Assess Requirements Consistency
        - Manage Changing Requirements
        - Plan Requirements Management Strategy
      - Analysis
      - Guidance
      - Measurements
        - Core Measurements
          - High-Level Requirement Statistics
          - Requirement Defect Count
          - Untraced Requirements
        - Supplementary Measurements
          - Instability of Requirement Set
          - Requirement Traceability Coverage
  - Shared Vision
  - Use Case Driven Development
  - Architecture Practices
  - Development Practices
  - Integration Practices
  - Test Practices
- Business Objectives and Practices
- Glossary

Requirement Practices > Requirements Management > Work Products > Requirements Management Process Description

## Artifact: Requirements Management Process Description

This artifact is used capture the requirements strategy for a project or for multiple projects with a similar profile within an organization.

Domains: [Requirements](#)

### Purpose

- To document decisions made by the organization on how to document and manage their project requirements
- To reuse on future projects with a similar profile.
- To promote standardization of the requirements management process within the project team and the organization as a whole

[Back to top](#)

### Relationships

Roles	Responsible: <ul style="list-style-type: none"> <li>Analyst</li> </ul>	Modified By: <ul style="list-style-type: none"> <li>Analyst</li> </ul>
Tasks	Input To: <ul style="list-style-type: none"> <li>Organize Requirements</li> </ul>	Output From: <ul style="list-style-type: none"> <li>Plan Requirements Management Strategy</li> </ul>

[Back to top](#)

### Description

**Main Description**

The Requirements Management Process Description describes the requirements artifacts, requirement types, their respective requirements attributes, how requirements traceability will be managed, and specifies the information to be collected and tracked. It also specifies how requirements changes will be managed, as well as addressing requirements organization, tool automation, the necessary reports, views, and queries that will be generated and the related processes for requirements and requirements change management.

[Back to top](#)

### Illustrations

- |           |   |
|-----------|---|
| Templates | <ul style="list-style-type: none"> <li>Requirements Management Process Description</li> </ul> |
| Examples  | <ul style="list-style-type: none"> <li>Requirements Management Process Description</li> </ul> |

[Back to top](#)

### Tailoring

- |                      |   |
|----------------------|---|
| Impact of not having | <ul style="list-style-type: none"> <li>Inconsistency in documenting and managing requirements within the project team and the organization.</li> <li>Inconsistent organization of requirements and tool use.</li> <li>Poorly understood requirements and change management process.</li> <li>Incorrect usage of various requirement and document types in a large complex requirement set.</li> </ul> |
|----------------------|---|

Reasons for not needing	A lengthy and formal Requirements Management Plan may not be necessary for small projects with a simple requirements set and a well-defined requirements management strategy and process. This is particularly true if the analyst team is very familiar with the process.
-------------------------	--

Representation Options	Most of the information in this artifact can captured as a word document. It is also possible to capture all or part of this information as an
------------------------	--



# Rational Method Composer

Search this Site:

- IBM Practices
  - Welcome
  - Getting Started
  - Management Practices
  - Requirement Practices
    - Business Process Sketching
    - Requirements Management
      - How to Adopt the Requirements Management Practice
      - Key Concepts
        - Requirements
        - Requirement Attributes
        - Traceability
      - Work Products
        - Requirements Attributes
        - Requirements Traceability
        - Requirements Management Process Description
      - Tasks
        - Organize Requirements
        - Assess Requirements Consistency
        - Manage Changing Requirements
        - Plan Requirements Management Strategy
        - Analyst
          - Guidance
          - Measurements
            - Core Measurements
              - High-Level Requirement
              - Requirement Defect Count
              - Untraced Requirements
            - Supplementary Measurements
              - Instability of Requirement Set Project Lifecycle
              - Requirement Traceability Coverage
  - Shared Vision
  - Use Case Driven Development
  - Architecture Practices
  - Development Practices
  - Integration Practices
  - Test Practices

Requirement Practices > Requirements Management > Analyst

## Role: Analyst

The person in this role represents customer and end-user concerns by gathering input from stakeholders to understand the problem to be solved and by capturing and setting priorities for requirements.

Role Sets: [Basic Roles](#)

### Relationships



### Additionally Performs

- Assess Results
- Create Test Cases
- Design the Solution
- Implement Tests
- Manage Iteration
- Outline the Architecture
- Plan Iteration
- Plan Project

### Modifies

- Actor
- Glossary
- Requirements Attributes
- Requirements Management Process Description
- Requirements Traceability
- Storyboard
- System-Wide Requirements
- Use Case
- Use-Case Model
- Vision

## Rational. Method Composer

IBM Practices

[Requirement Practices](#) > [Requirements Management](#) > [Measurements](#) > [Core Measurements](#) > [High-Level Requirement Stability](#)

## High-Level Requirement Stability



This guideline describes how to measure and use high-level requirement stability metric.

### Main Description

#### Overview

Stability of the high-level requirement set early in project lifecycle reflects the health of a project and the effectiveness of the practices the project employs. This measure brings focus on getting stability of high-level requirements earlier in the project to reduce the impact of discovery high-level requirement changes late in the lifecycle. Given the nature of requirements management as "upstream" of most other efforts, high-level requirement stability is that much more important in achieving the project objectives.

For purposes of this discussion, the high-level requirement set typically includes the features and use cases. Lower level requirements than these are not included in this measure.

Convergence toward zero in the number of new, modified and de-scoped requirements earlier in the project lifecycle is a desirable outcome. However, it is important to only converge toward a zero level while still allowing the opportunity to innovate and remain adaptable to changing context. (That is why the term "converge toward" is used instead of "converge to".)

#### Measurement Method

##### Count:

Number of new requirements during time  $i$   
 Number of modified requirements during time  $i$   
 Number of de-scoped requirements during time  $i$   
 Number of extraneous requirements during time  $i$

The measure can be based on the phase completion or the duration into the project lifecycle.

#### Measurement Analysis

Use a time-based line chart to represent the stability of the high-level requirement set. The number of new, modified, de-scoped and extraneous high-level requirements are each placed on the y-axis. Expect significant change in the high-level requirement set in the first third of the project lifecycle, typically through Inception and the first half of Elaboration. Thereafter, stability in the high-level requirement set typically will improve certainty in achieving the project goals.

In general, a reasonable target is achieving not more than **25% of the requirement** set to change beyond the end of inception, 10% beyond the end of elaboration and 0% beyond the end of construction.

By graphing the number of requirement set changes based on whether they are new, modified, de-scoped or extraneous can provide more insight. For instance, an increase in high-level requirement de-scoping late in the lifecycle is an indication that the project was not initially properly scoped and this was not discovered and/or remedied until very late. More attention should then be placed on properly managing the scope of projects throughout the lifecycle. If, at the same time, new requirements were being added even midway through the lifecycle, there should have been a commensurate change in the schedule and budget, or other requirements should have been de-scoped at that time. This would indicate unmanaged scope creep. Similarly, if a high number of requirements continue to be modified late into the lifecycle, this reflects a need to establish stability in the requirement set earlier in the lifecycle.

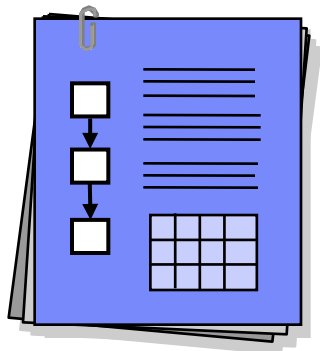
- IBM Practices
- Welcome
- Getting Started
- Management Practices
- Requirement Practices
  - Business Process Sketching
  - Requirements Management
    - How to Adopt the Requirements Management Practice
    - Key Concepts
      - Requirements
      - Requirement Attributes
      - Traceability
    - Work Products
      - Requirements Attributes
      - Requirements Traceability
      - Requirements Management Process Description
    - Tasks
      - Organize Requirements
      - Assess Requirements Consistency
      - Manage Changing Requirements
      - Plan Requirements Management Strategy
    - Analyst
    - Guidance
    - Measurements
      - Core Measurements
        - High-Level Requirement Stability
        - Requirement Defect Count
        - Untraced Requirements
      - Supplementary Measurements
        - Instability of Requirement Set Project Lifecycle
        - Requirement Traceability Coverage
  - Shared Vision
  - Use Case Driven Development
  - Architecture Practices
  - Development Practices
  - Integration Practices
  - Test Practices
- Business Objectives and Practices
- Glossary

# Methods – New for v7.5

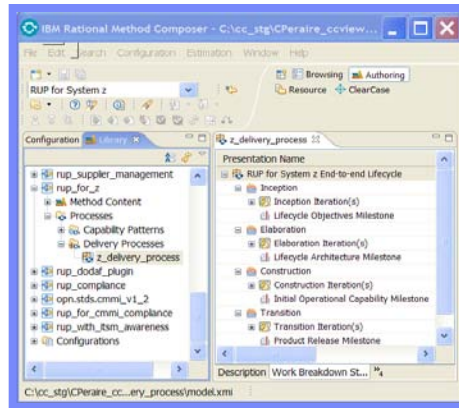
## Method Authoring Method (MAM)

Follow an iterative RMC-published process to create new processes

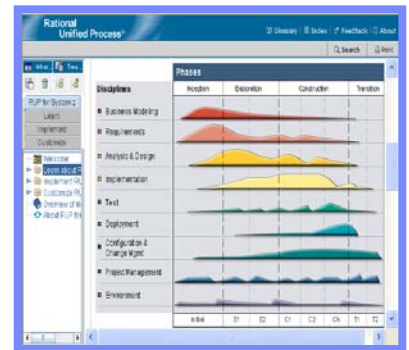
Three key method authoring work products:



Derivation



Automatic Generation



**Method Sketch**  
*Draft of the method*

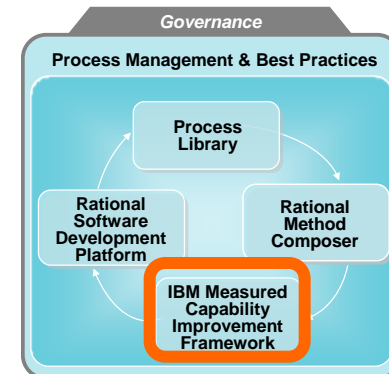
**(RMC) Method Definition**  
*Formal definition of the method*

**Method Web Site**  
*Published web site*

The method constituents  
(drafted in **Method Sketch**, formally defined in **Method Definition**, published in **Method Web Site**)  
are the **Method Elements**

# Agenda

- Process Management: Its Challenges and Importance
- IBM Rational Method Composer
  - ▶ Process authoring
  - ▶ Process libraries (RMC Content)
  - ▶ Targeting and measuring Your success (MCIF)
  - ▶ Method communication

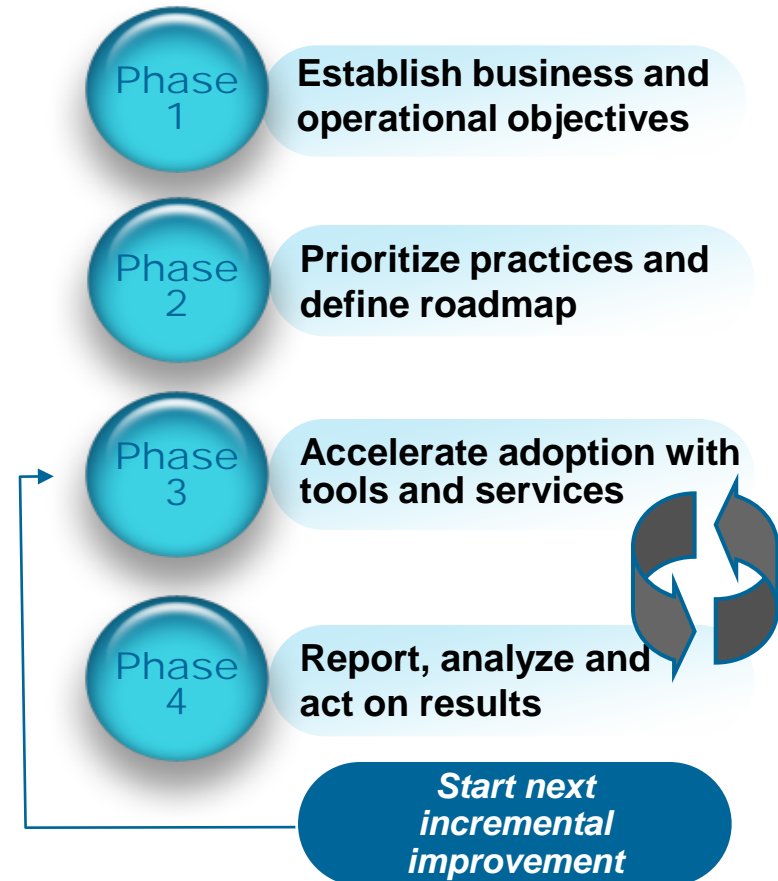




# IBM Measured Capability Improvement Framework

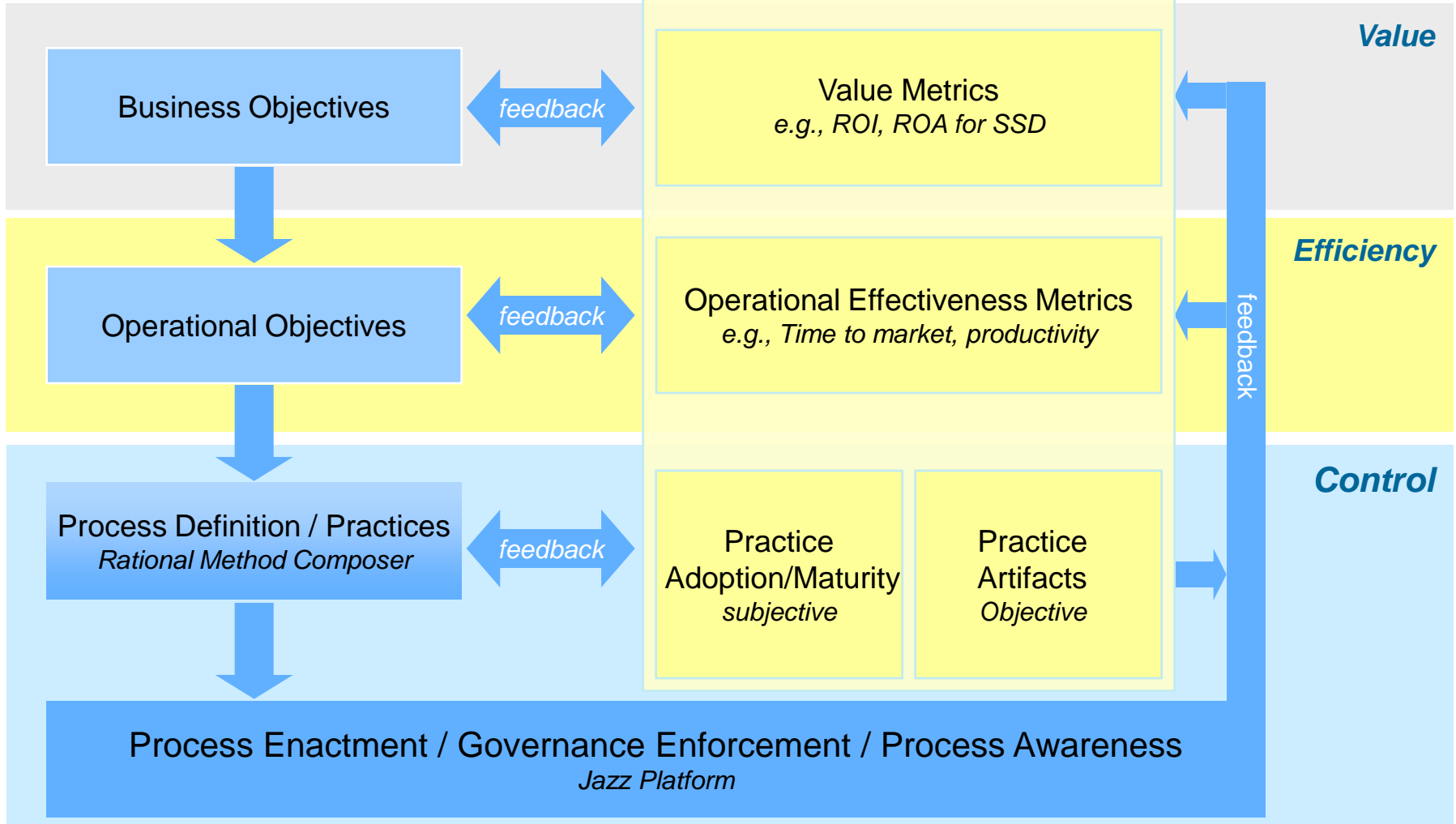
*A systematic approach to software excellence*

- A phased approach that helps teams
  - ▶ Adopt an incremental, measured approach to transformation
  - ▶ Focus on the core practices that matter most
  - ▶ Accelerate adoption through out-of-the-box assets
  - ▶ Articulate capability improvements in terms of business value
  - ▶ Support any method
    - Optimized for Agile practices



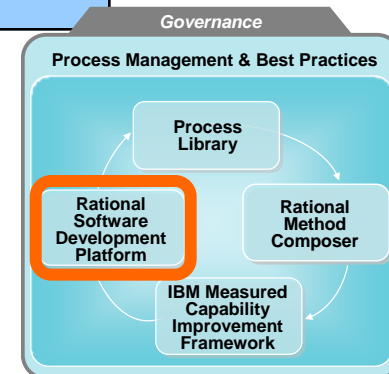
***Empower teams to measure, manage and incrementally improve their software delivery capability.***

# Leverage a Control Framework to Manage to Expected Business Results



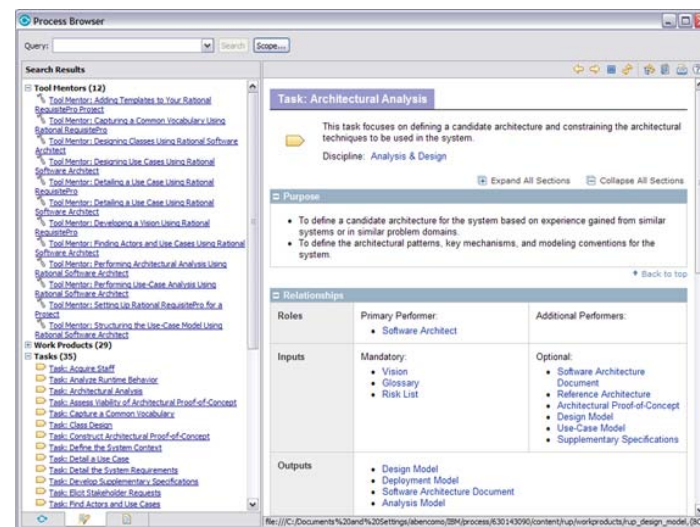
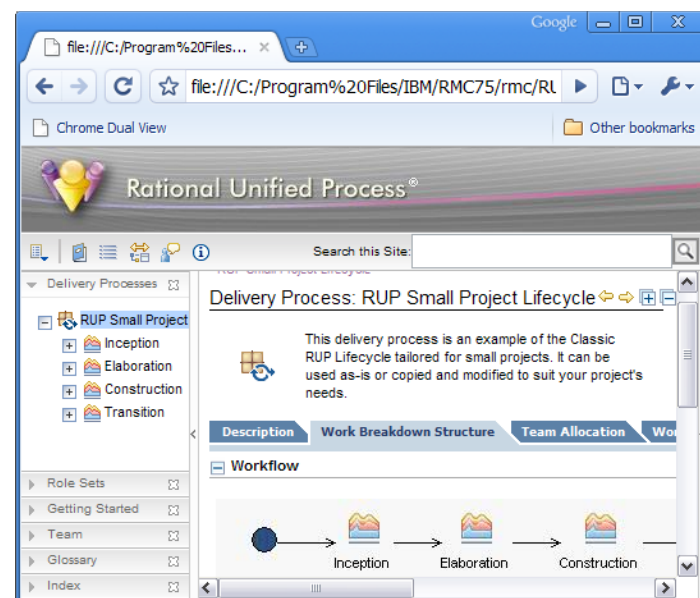
# Agenda

- Process Management: Its Challenges and Importance
- IBM Rational Method Composer
  - ▶ Process authoring
  - ▶ Process libraries (RMC Content)
  - ▶ Targeting and measuring Your success (MCIF)
  - ▶ Method communication



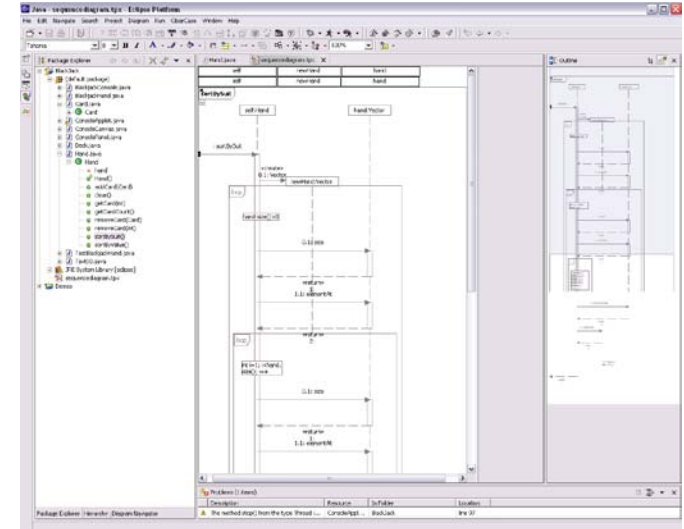
# Ensure adoption

- Publish to web or documents
  - ▶ Ensure the content is broadcast and accessible to the team
- Deliver within tool **contextually** and **role based**
  - ▶ Make adoption of the process easy by delivering it in the tool of choice (Visual Studio, Rational/Eclipse)
- Enforce through **project templates**
  - ▶ Export work breakdown structures for project managers to ensure everyone is on the same page



# Integrations

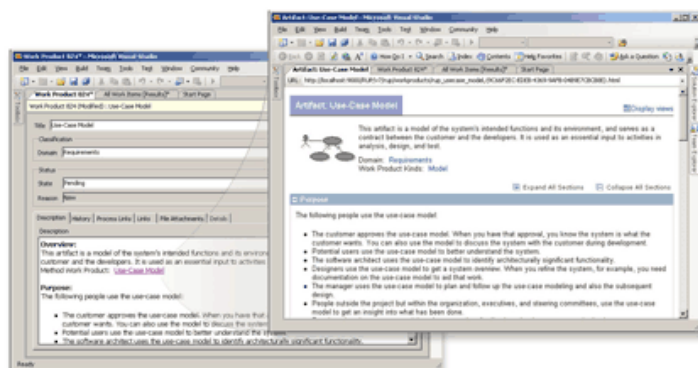
- Eclipse
- MS Visual Studio
- MS Project
- Websphere Business Modeler



# Visual Studio Integration

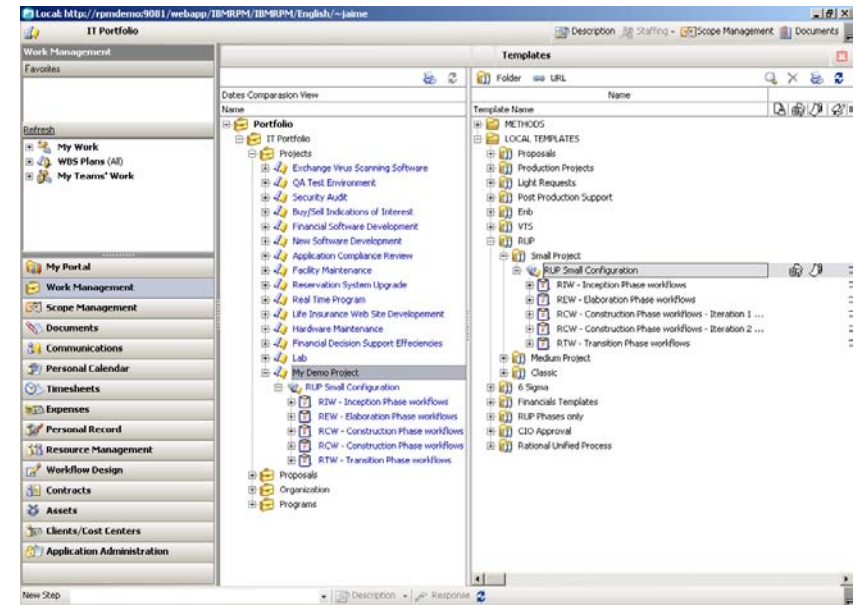
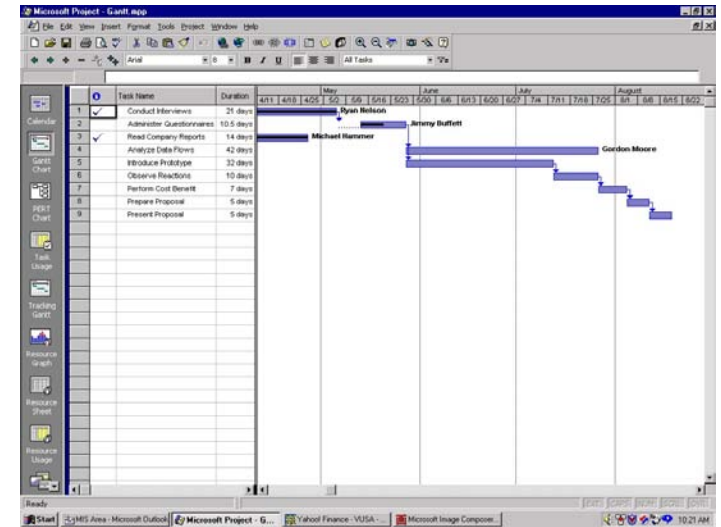


<p><b>Frictionless access to the right process content</b></p>	<p>Practitioners can benefit from immediate access to relevant RUP® content, without the need to dig through cumbersome process documentation.</p>
<p><b>Seamless integration into VSTS</b></p>	<p>Work Item types are created based on familiar RUP® entities (Activities, Work Products, Artifacts, etc...) to permit seamless integration of the RUP® methodology into the VSTS environment.</p>
<p><b>Preservation of the Work-flow and Work Breakdown Structure</b></p>	<p>The Work-flow and Work Breakdown Structure of the process can be exposed to allow better understanding of task context and to optionally facilitate process enactment through IRIS Process Live.</p>



# Integrations

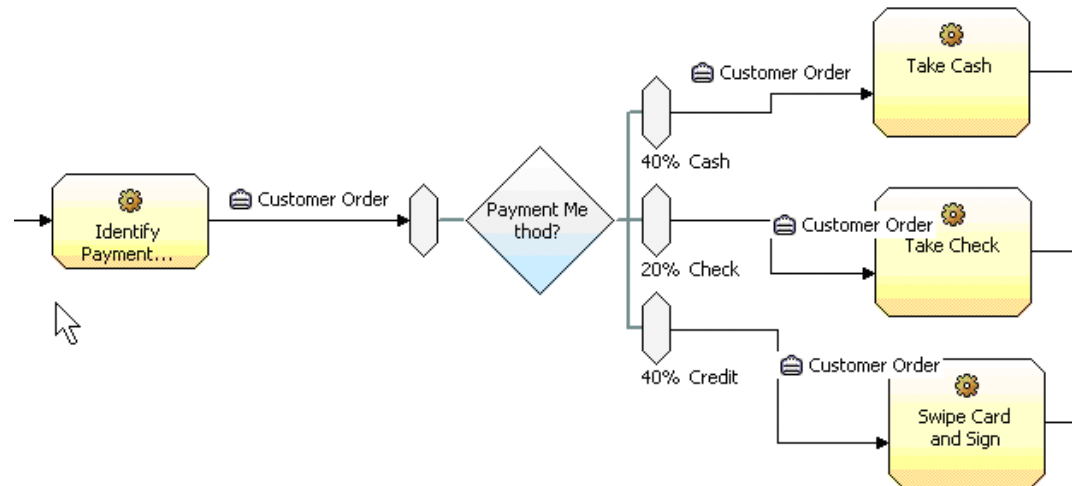
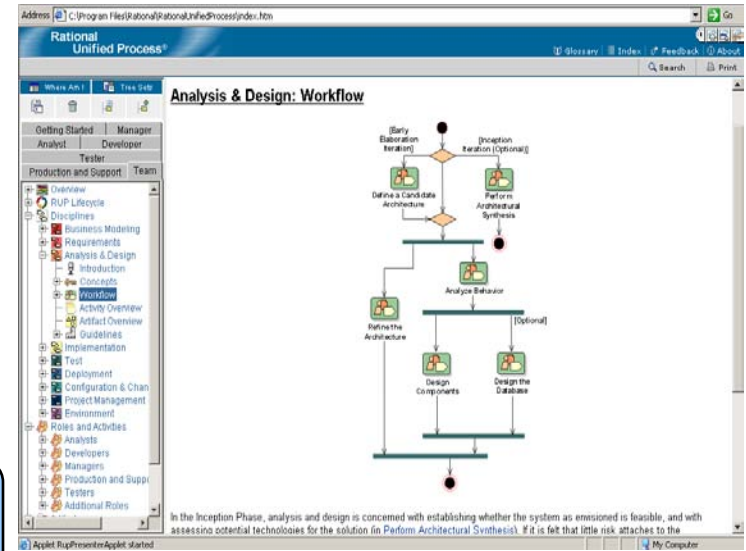
- Eclipse
- MS Visual Studio
- MS Project
- Websphere Business Modeler





# Integrations

- Eclipse
- MS Visual Studio
- MS Project
- Websphere Business Modeler





**Tomorrow 14:15 - 15:00**

**Help! We Have All This Information ... Now What?**

This session looks at the planning, preparation & steps that were taken by the process team to ensure the transition to RMC was as smooth as possible. Taleen Armen. QBE

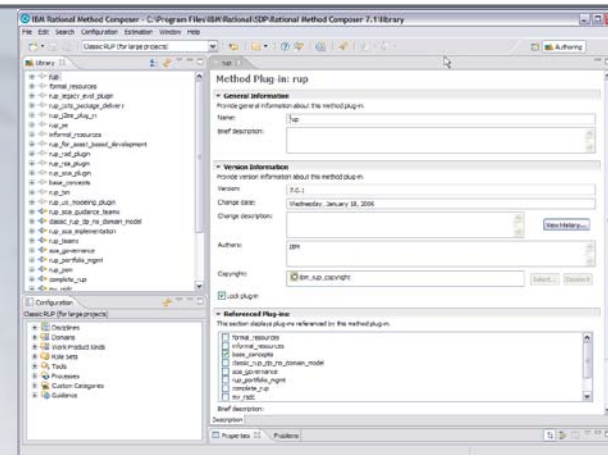
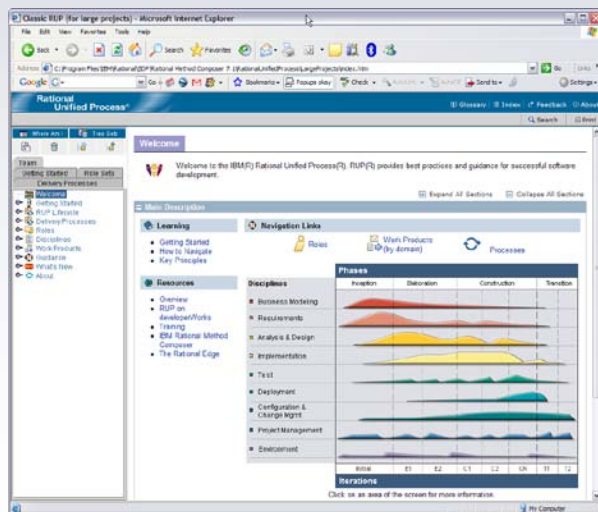


# Method Authoring Capabilities

## *Author, configure, publish*

### Key Capabilities

- ✓ Extend out-of-the-box method content and processes
- ✓ Create new content
- ✓ Easy form-based authoring
- ✓ Configure and publish to website



### Corresponding Benefits

- ✓ Apply enterprise practices (e.g., governance, compliance, portfolio management) immediately
- ✓ Build resilient software and systems with the most current development practices from a library of continually evolving processes
- ✓ Reuse and customise proven processes to fit individual project needs
- ✓ Provide easy access to the process through website navigation

# IBM.com Resources

- **IBM Rational Method Composer Product Page**
  - ▶ Overview, Datasheet, Trial Download
  - ▶ <http://www.ibm.com/software/awdtools/rmc/index.html>
- IBM Rational Method Composer and RUP resource library
  - ▶ Analyst reports, books, case studies, webcasts, white papers
  - ▶ <http://www.ibm.com/software/awdtools/resources/rmc.html>
- IBM Rational Method Composer and RUP on developerWorks
  - ▶ Plug-in information, additional technical info, discussion forum, course info
  - ▶ <http://www.ibm.com/developerworks/rational/products/rup>
- IBM Rational Method Composer and RUP articles in the Rational Edge e-zine
  - ▶ <http://www.ibm.com/developerworks/rational/rationaledge/archives.html>

Thank You

© Copyright IBM Corporation 2009. All rights reserved. The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.