

IBM Software Group

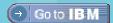
Governing the business process of software & systems delivery











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Agenda

- Innovation in the real world
 - Business and organizational trends and dependencies
 - Impact and realities for software and systems
 - Evolving software and systems delivery
- The IBM Rational software brand value in action.
 - ▶ Enterprise modernization
 - ▶ SOA lifecycle
- The IBM Rational software approach What we offer
 - ▶ Process and portfolio management
 - ▶ Change and release management
 - Quality management
 - ▶ Architecture management





Business realities - What you see

Software failure impacts the bottom line

- Airbus
 - Non-compatible software used at different Airbus factories **\$6.1 billion** profit hit over the next four years, 2006
- TJX
 Cost of data breach at TJX soars
 \$256 million cost, 2007
- Hewlett-Packard
 Problems with ERP system
 \$160 million loss, 2004

Software related downtime costs industry almost \$300 billion annually Only 34% of software projects succeed.

Sources: Standish CHAOS Report, Comparative Economic Normalization Technology Study, Business Week, CEO Magazine, Computerworld, InfoWeek, Fortune, The New York Times, Time, The Wall Street Journal, Boston Globe.

What's behind the failure?





An increasingly intense focus on business outcome



Align IT and business goals enabling greater business flexibility



Manage value and mitigate risks by improving project management



Control costs & improve global operational efficiencies (GDD)



Ensure security and compliance in a changing global environment



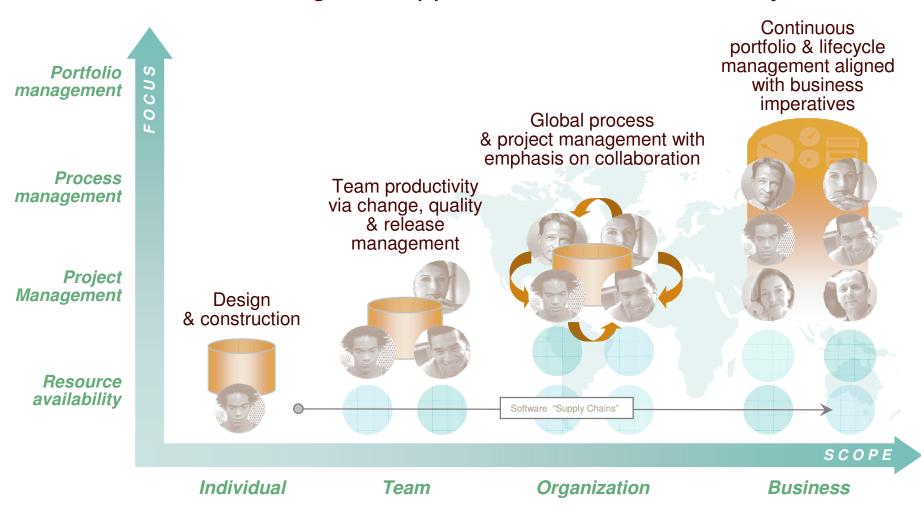
Consume & integrate value in organizationally diverse environments





An evolution of desired value – What you want

Customers are maturing their approach to software delivery

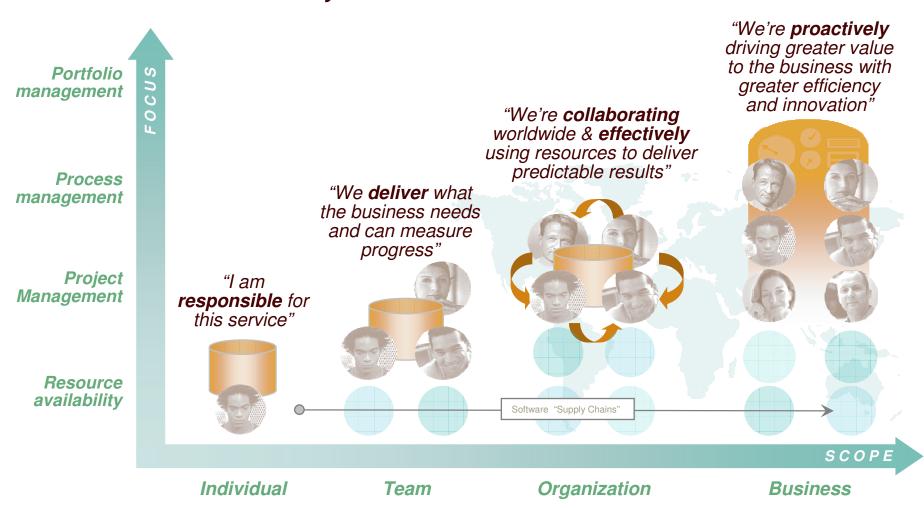






Evolving and maturing – How you get there

Govern software delivery in the context of the business





lifecycle managemen

Governance



Our business model

A strategic partner in enabling business innovation & transformation

Business imperatives

- Global capability
- Business flexibility
 - Time to value
 - Risk & compliance management

Rational. software

Governing the business process of software & systems delivery

Decades of proven process expertise & customer success

Business innovation & transformation

- Alignment
- Control
- Efficiency





IBM Rational Software Delivery Platform

What we offer

Rational. software

Process design and implementation best practices based on a market leading solutions delivery platform

Governance & Lifecycle Management

Process & portfolio management

Change & release management

Quality management

Architecture & construction

Integrated requirements management



- In-house
- Outsourced
- Packaged



Who is Rational?

Brand Value & Strategy



Make software development accountable to the business

Turn excellence in software & systems development into a competitive advantage

Facts and Figures

- 5th brand in SWG, acquired in 2003
- Used by 87 out of the top 100 companies
- Leader in Application Development market for 6 years in row (Gartner)
- Completed 3 acquisitions, System Corp, Build Forge and Watchfire -Telelogic on the horizon.
- Solutions for Development, IT Operations and Lines of Business
- Community of over 10,000 consultants skilled with Rational solutions
- Partnerships with over 40 global and regional SIs





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Ask yourself, can I?...

- Leverage existing assets?
 - Discover and gain control over existing enterprise application portfolio?
 - Identify assets for reuse in a Service Oriented Architecture?
- Leverage modern architectures?
 - Create services easily from existing code, including CICS, IMS, i5/OS and terminal applications?
 - Define new services for all deployment platforms from initial design to implementation?
- Leverage existing IT skills?
 - Exploit new technologies and innovation without retraining existing staff that knows the business?
 - Utilize new employees on any project independent of target platform?
- Leverage common development environment across siloed development teams?
 - Lower costs due to elimination of duplicate tools and processes?
 - Realize improved end-to-end communication and traceability across the entire lifecycle?





Aspects of enterprise modernization

To improve IT flexibility, you need to **modernize** your enterprise in the following areas:

Assets

Discover, understand, and leverage existing applications & services

Processes, Infrastructure & IDEs

Improve development processes, environments and infrastructure to reduce costs, improve quality and improve productivity

Architectures

Develop new SOA applications, reuse existing applications as services

Development Investment

Invest resources in new opportunities

Skills

Rapidly develop technology & platformindependent applications using existing developer skills





Scenario: Global Insurer

Challenge: Struggled with a broad assortment of inflexible heritage IT systems and a continuously changing slate of product offerings and regulatory requirements





Executive

"Our modernized IT environment must align with our business needs so that we can respond to customers quickly!"



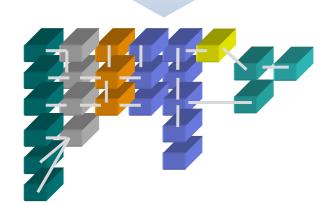
IT Manager

"How can we modernize our IT environment to create the kind of flexibility necessary to implement new products and services?"



.

"Should we leverage SOA and if so, how do we do it in a manner that is quick and cost efficient?"





Business Analyst

"We've accumulated 20 to 40 years of changes to our valuable applications, but we don't have reliable documentation of them."



"Our current skills islands and team silos are not conducive to efficient communication, productivity, and flexible resource allocation"





Scenario: Global Insurer

Solution: Accelerating enterprise modernization with the IBM Rational Software Delivery Platform

Modernize assets

- Unlock the business value hidden. in existing systems
- Position for evolution to SOA
- Higher quality of application change management
- Reduce maintenance and new development cost



- WebSphere Studio Asset Analyzer
- Asset Transformation Workbench
- Rational Asset Manager

Modernize architectures

- Leverage key transaction capabilities across modern architectures such as SOA
- Reuse and integrate key processing across platforms
- Leverage trusted quality of service



- WebSphere Developer for System z
- WebSphere Development Studio Client
- Host Access **Transformation Services**

Modernize skills

- Enable business developer communities as "super" developers
- Maximize use of programming resources and business domain knowledge
- Support existing staff learning new technologies



Rational Business Developer Extension

Modernize processes, infrastructure and IDE's

- Software Delivery Platform
- Rational RequistePro
- Rational ClearCase
 Rational Performance Tester
- Rational Portfolio Manager
- Rational Build Forge
 Rational Functional Tester
- Rational ClearQuest
- SCLM-AE





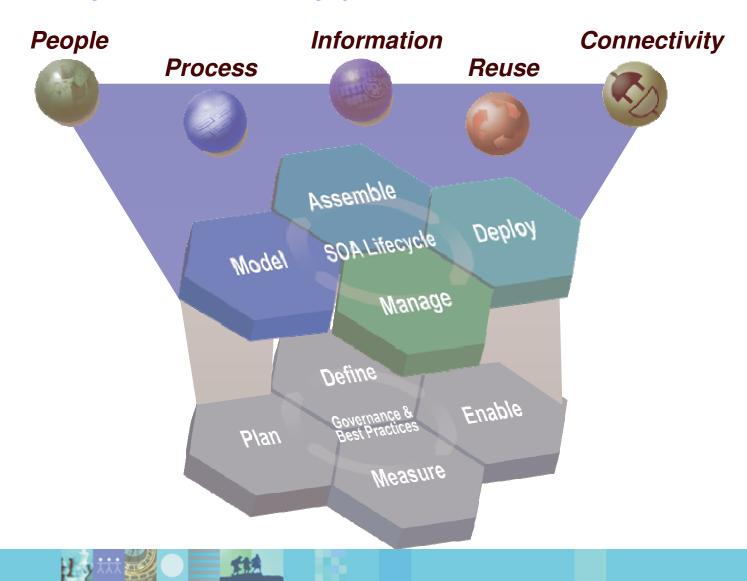
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SOA Lifecycle: SOA entry points



Define

Measure

Plan



Every SOA needs SOA governance

Establish the governance need

- Document and validate business strategy
- Layout governance plan

Define the governance approach

- Define/modify governance processes
- Design policies and enforcement mechanisms
- Charter/refine SOA Center of Excellence



- Compliance with policies
- Compliance with governance arrangements
- IT effectiveness metrics

Deploy the governance model incrementally

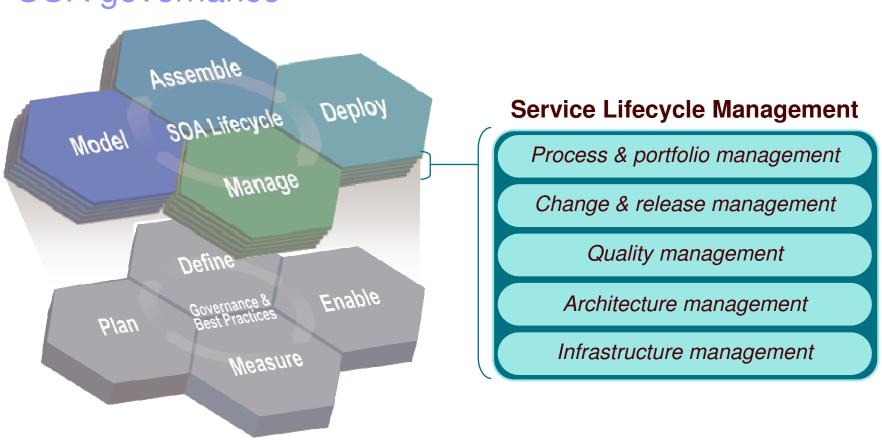
- Governance mechanisms
- Organization change, educate on expected behaviors and practices
- Deploy policies

Enable





SOA Service Lifecycle Management builds upon SOA governance



Service Lifecycle Management aspects cut across the entire SOA lifecycle





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 - How do I Start





IBM Rational Software Delivery Platform

What we offer

Rational. software

Process design and implementation best practices based on a market leading solutions delivery platform

Governance & Lifecycle Management

Process & portfolio management

Change & release management

Quality management

Architecture & construction

Integrated requirements management



- In-house
- Outsourced
- Packaged







IBM Rational Software Delivery Platform

Process and portfolio management

Rational. software

Align business goals, best practices and projects for improved productivity and predictability

Process
& portfolio
management

Architecture & construction

- Align business and software
- Manage enterprise value
- Monitor progress and streamline decision making
- Control risk and change







Project and Portfolio Management....







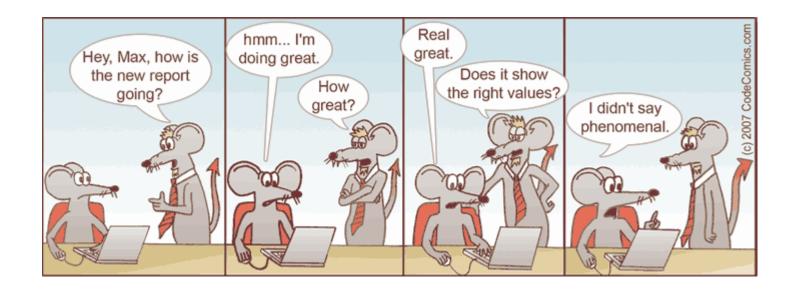
Process Improvement...?







Visibility





Line of Business Manager



Process and portfolio management

Align business goals, best practices and projects

Rational Portfolio Manager



Project Manager Executive

Create, customize

and publish process
Rational Method Composer
Rational Portfolio Manager

Business Analyst Project Manager Process Engineer **Best Practices**

Rational Method Composer Rational Unified Process

PMO Director Project Manager Portfolio Manager

Continuously monitoring and measure project portfolio health

Rational Portfolio Manager

Reduce risk of project failure by managing requirements

Rational Requisite Pro

Software Architect Project Manager Business Analyst

Align projects and resource planning with development activities

Rational ClearQuest

Developer Build Engineer





IBM Rational Software Delivery Platform

Change and release management

Rational. software

Improve software delivery and lifecycle traceability from requirements through deployment

Change & release management Process & portfolio management Arenitecture & construction

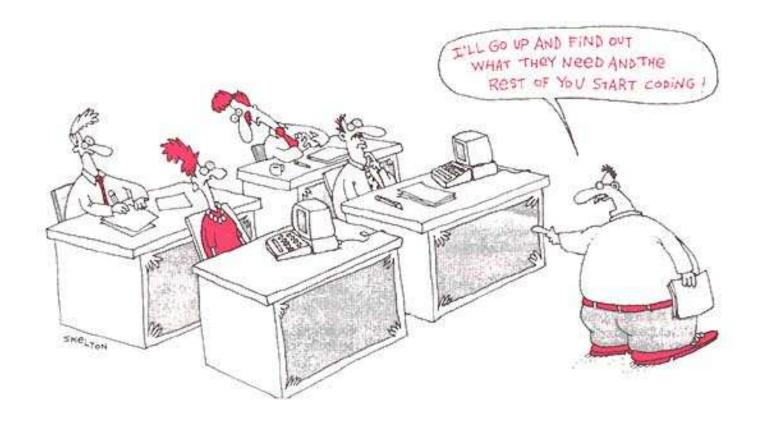
- Accelerate software delivery for business agility
- Reduce cost with efficient teams and better quality
- Effectively govern development and reduce risk







Change and Release Management...







Change and release management

Change & release management

Process
& portfolio
management

Process
A portfolio
management

Create and manage software requirements
Rational RequisitePro

Deliver into production

Rational ClearCase Rational ClearQuest Tivoli Provisioning Manager

Deployment Manager

Requirements Analyst

Measure, Trace, Reconcile



roject Manager

Automate and manage lifecycle processes

IBM Rational ClearQuest IBM Rational Portfolio Manager Implement software and services

Rational ClearCase Rational ClearQuest Rational Application Developer Microsoft Visual Studio 2005 Eclipse

Developer

Automate build and release processes Rational Build Forge

Build Engineer



Rational ClearQuest
Rational Functional, Performance
& Manual Tester



Tester



IBM Rational Software Delivery Platform

Quality management

Rational. software

Ensure software functionality, reliability, security and performance in development and production



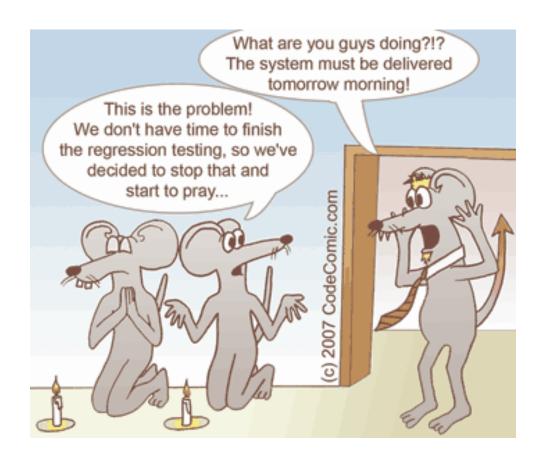
- Continuous testing across the delivery lifecycle
- Comprehensive integrated platform
- Collaborative information and data sharing across roles







Testing ALL the application?...







Quality management

Increase code quality

Rational Application Developer Purify Plus

Requirements Analyst

Enable requirements based testing

Rational Requisite Pro Rational ClearQuest Rational Method Composer

Deployment Manager

Continuous, comprehensive, and collaborative



∠usiness Analyst

analytics

Rational Portfolio Manager. Rational Method Composer

Assess business

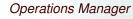
Automate & trace the quality process

Rational ClearCase Rational Build Forge

Developer

Ensure functionality, system performance, security & compliance

Rational Functional. Performance & Manual Tester Tester Rational ClearQuest Rational AppScan Rational Policy Tester



Provision, deploy and monitor applications

Tivoli Composite Application Manager Tivoli Monitoring Tivoli Provisioning Manager





IBM Rational Software Delivery Platform

Architecture and construction

Rational. software

Models, designs, and rapidly builds resilient architectures for SOA, systems, and applications

Process
& portfolio
management

Architecture & construction

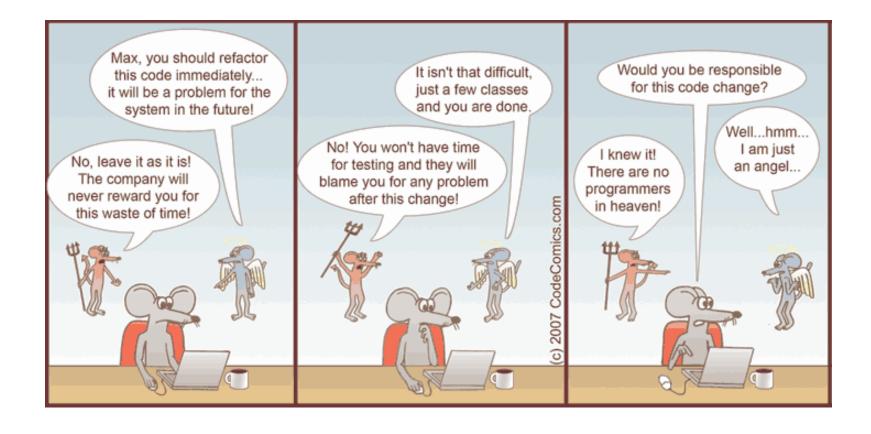
- Link Business Processes with development for complete lifecycle manageability
- Achieve resilient application architectures as SOA, with framework automation
- Accelerate delivery with design specification to code transforms
- Unify teams and ensure compliance with processes, patterns and profiles
- Stay in control and communicate architectural evolution and reconciliation







Enterprise Architect...

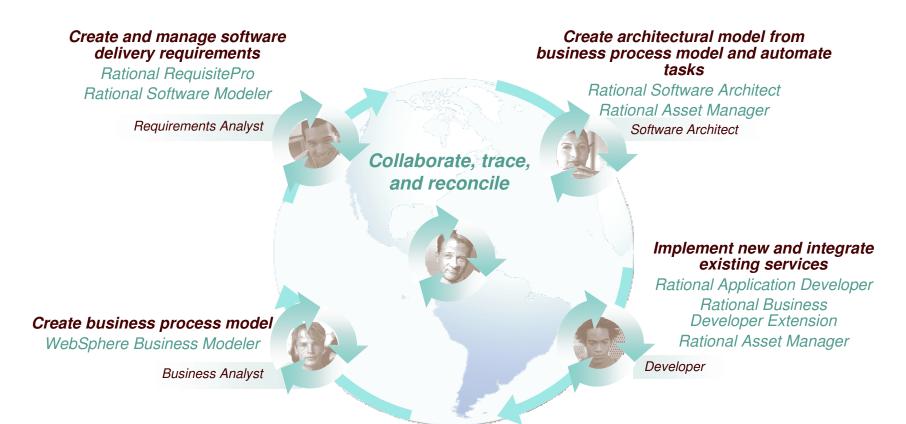






Architecture and construction









IBM Rational Software Delivery Platform

Integrated requirements management

Rational. software

Improve the communication of project goals, reduce project risk and increase the quality of applications before deployment



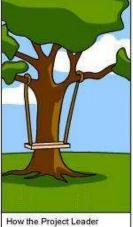
- Ensure that applications meet business needs by tracing to business process models
- Understand the impact of a change via full lifecycle traceability
- Verify quality by linking requirements to test cases
- Understand status, resources, cost, return, and other financial assessments associated with requirements



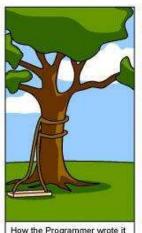


Requirements Management











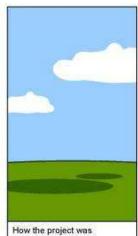
How the customer explained it

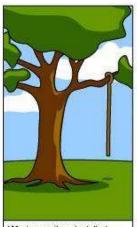
understood it

How the Analyst designed it

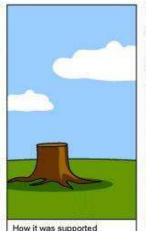
How the Programmer wrote it

described it











documented

What operations installed

How it was supported

needed





Integrated requirements management

Create and manage software requirements and use cases

Rational RequisitePro

Process
& portfolio
management

Integrated requirements management

Develop data and architectural models from business process models and software requirements

Rational Software Architect
Rational Data Architect

Software Architect

Requirements Analyst

Create business process models and business requirements

WebSphere Business Modeler Rational RequisitePro

Business Analyst

Continuous, comprehensive, and collaborative

Tester

Project Manager

Link requirements with project plans, financials and status

Rational Portfolio Manager

Use models and requirements to write code

Rational Application Developer

Developer

Use requirements and use cases to create test cases

Rational ClearQuest





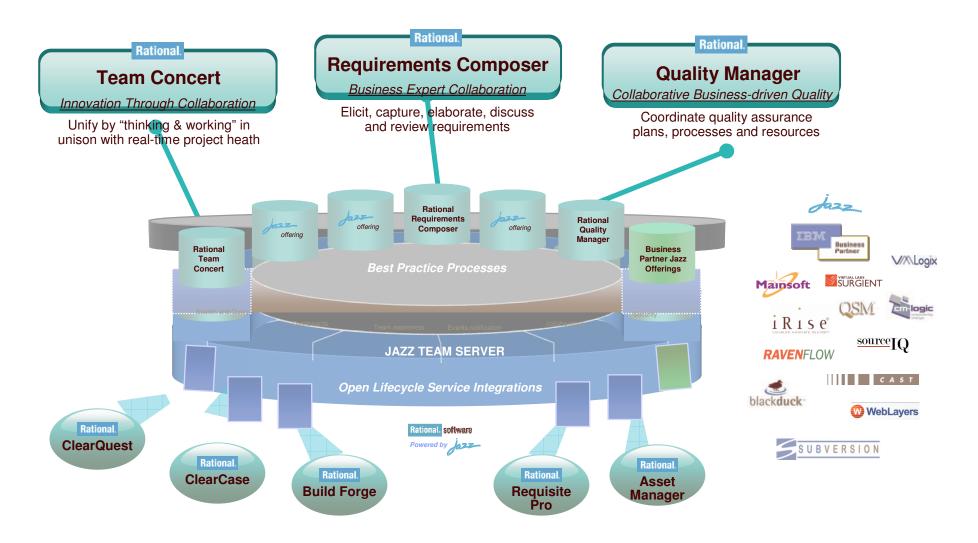
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Introducing the first wave of new Jazz offerings







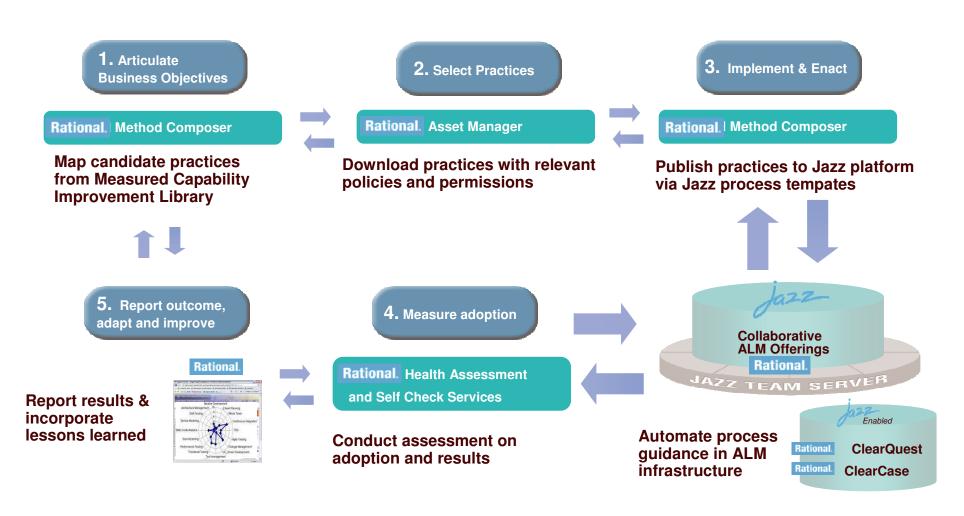
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Automate the authoring, deploying, measuring and adapting of proven best practices processes tied to business outcomes

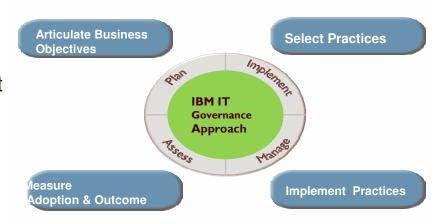






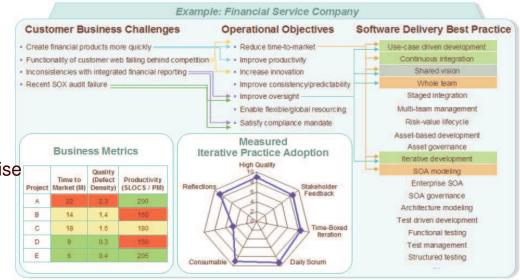
Mapping business value to software delivery best practices

- IBM Rational Health Assessment for Software Delivery to benchmark against proven improvement roadmaps
- IBM Rational Self Check for Software
 Teams to provide ongoing self assessments



Measured Capability Framework

- A systematic approach to assess practice adoption and map to business metrics
- A delivery model for accelerating adoption through out-of-the-box assets
- Consumable and incremental
- Applies decades of industry process expertise
- Practices delivered in Rational Method Composer 7.5 for incremental adoption









- IBM Rational software
- IBM Rational Software Delivery Platform
- Process and portfolio management
- Change and release management
- Quality management

- Architecture management
- Rational trial downloads
- developerWorks Rational
- IBM Rational TV

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