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Software. Everywhere.

Demonstration:

**IBM Rational Solution for
Systems and Software
Engineering**



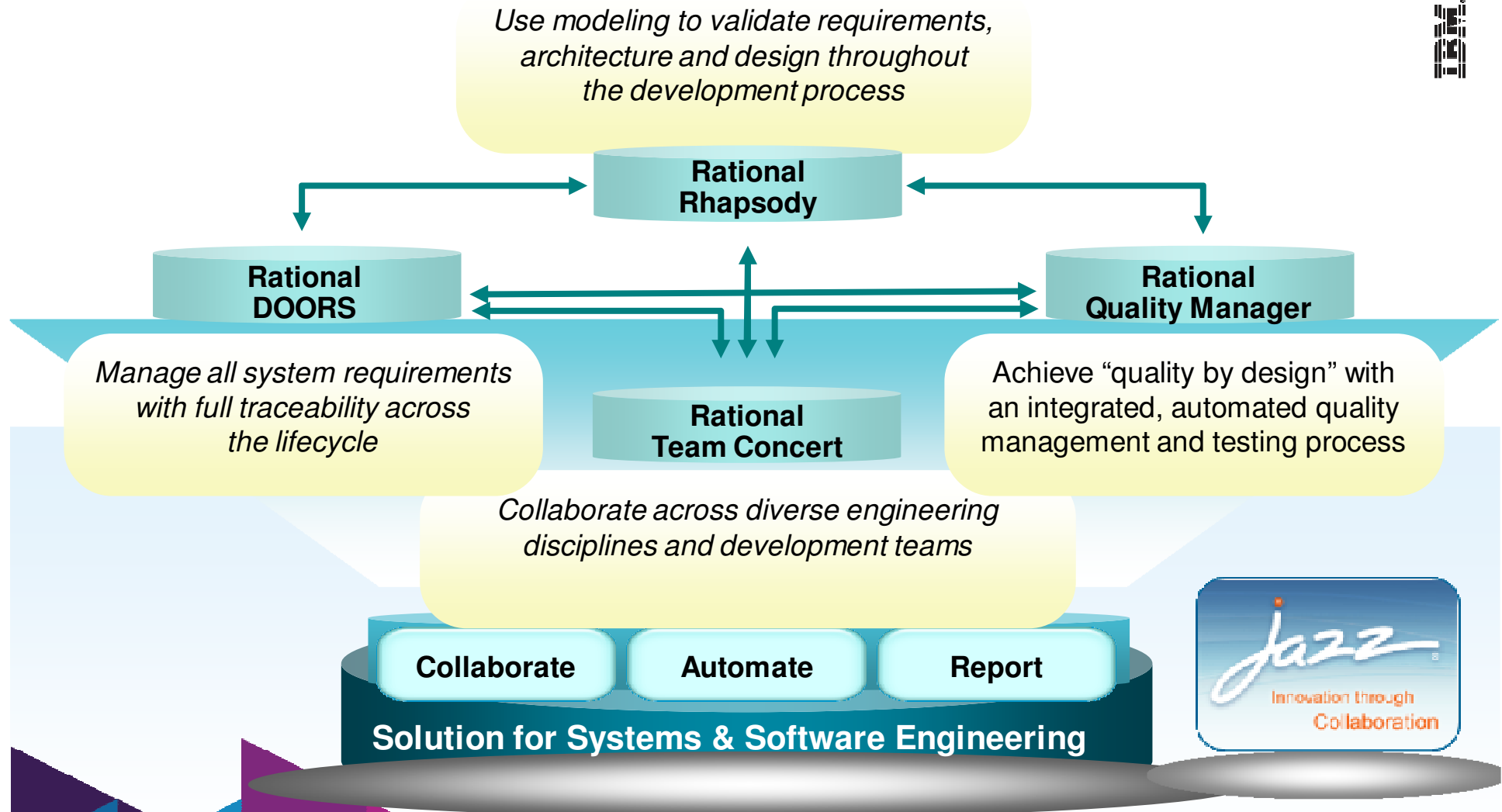
**Reduce the Time, Cost and Risk of
Developing Profitable Products
and Systems**

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Rational Solution for Systems and Software Engineering

Built on a core solution set



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Embedded Security Device (ESD)

- ESD is the technology of scanning the finger print of a person and then authorizing him for any online transactions where user authentication is critical. This adds another layer of security to online transactions, that are becoming more common these days.
- Benefits:
 - ▶ The institution will collect the finger prints of a user
 - ▶ They will issue a hardware device with pre loaded image of user's finger prints
 - ▶ Whenever an authentication is required, user can scan his finger prints thru the device.
 - ▶ The device will generate a unique key code, every time the scan is successful.
 - ▶ This adds a high level of security to any online transaction (transactions like passport verification, unique ID of a person, online banking etc)

Requirements Management and Traceability



Role: Requirements Engineer

Tool: Rational DOORS

In this section of the demonstration, the requirements engineer uses DOORS to explore the requirements for the Embedded Security Device

You will see how a DOORS user can easily navigate requirements traceability links across multiple levels of documents. For example, from stakeholder requirements to system requirements to software requirements and test.





System\Software Engineering Best Practices

Roles: Requirements, Systems, Software Engineers, Project Managers

Tool: Rational Team Concert

In this section of the demonstration, you will see how Rational Team Concert enables process enactment by providing best practices and work item (task) creation from templates based on the various activities described in the best practices.



Model-Based Systems Engineering

Role: System Engineer

Tool: Rational Rhapsody

In this section of the demonstration, you will see how Rhapsody enables a system engineer to do functional analysis, capture the system architecture and trace model artifacts back to the requirements. Furthermore, the analysis and architecture is validated using model execution.



Team Collaboration and Embedded Software Development

Roles: Project Manager, Embedded Software Developer

Tools: Rational Team Concert, Rational Rhapsody

In this section of the demonstration, you will first see how a project manager can see the current health and status of the project and assign work items using the Rational Team Concert web client.

Also in this section, you will then see how artifacts from the systems model can be handed off to the embedded software developers. An embedded software developer can use Rhapsody to generate production quality code specifically fine tuned for embedded applications running on real-time operating systems.



Quality Management

Roles: Requirements Engineer, Tester

Tools: Rational DOORS, Rational Quality Manager

In this section of the demonstration, you will see how a tester can organize and execute test cases using Rational Quality Manager.

You will also see how requirements from DOORS can be traced to test cases and test execution results.



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Demo

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Questions

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Thank You

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