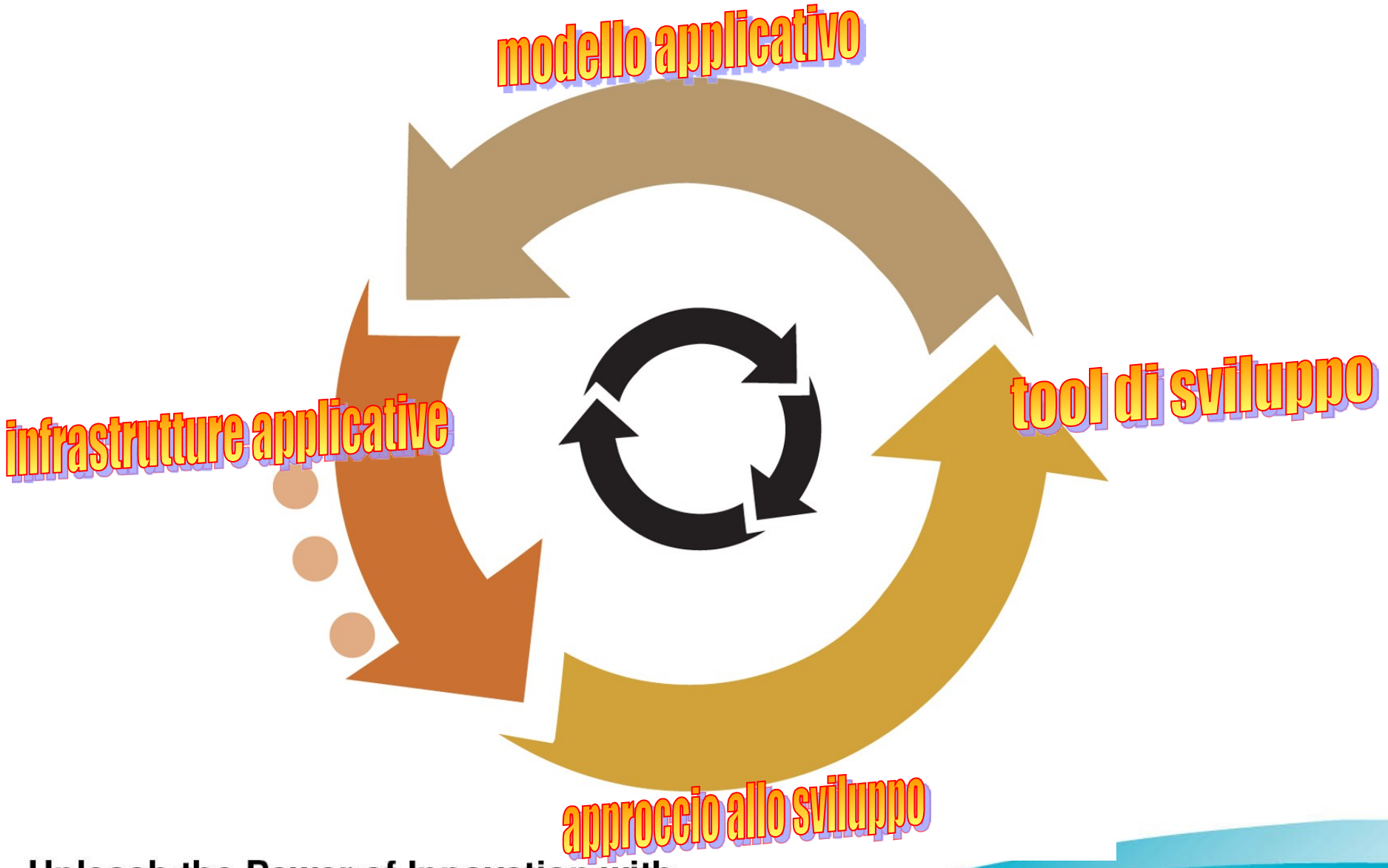
Unleash the Power of Innovation
with IBM Rational
Solutions for Power

Modernizzare lo sviluppo su Power: approcci e strumenti Rational

Milano, 1 Luglio 2010

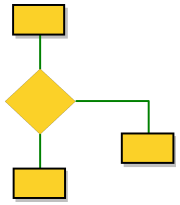
Roberto Pozzi
Rational Client Technical Professional

Il ciclo dello sviluppo applicativo

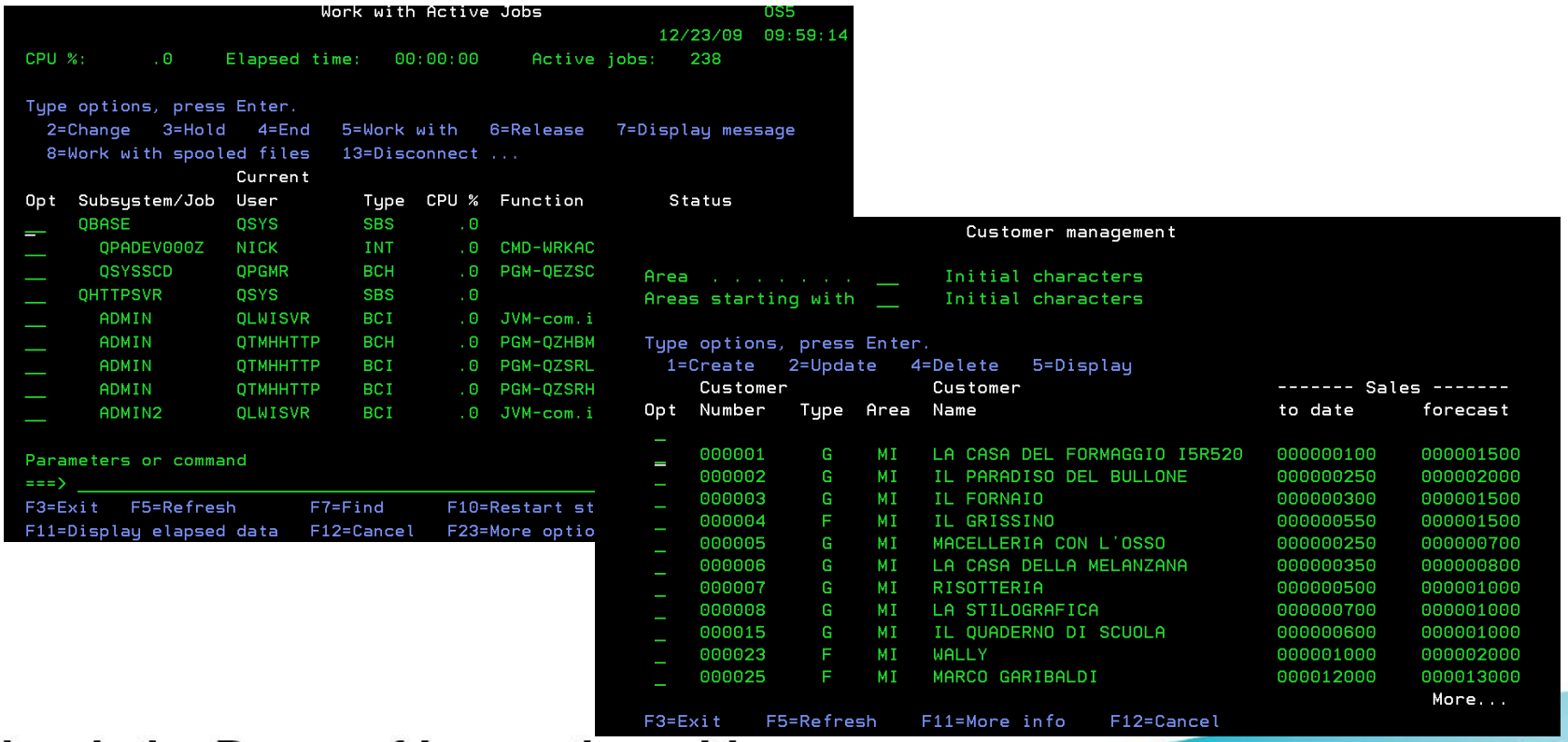


I modelli applicativi

- **Tradizionale**
  - interfaccia utente a carattere 5250
  - tutta la logica e i dati sul server



- prestazioni delle applicazioni
- data entry veloce e produttivo
- grande disponibilita' di software gia' sviluppato
- riutilizzo delle competenze aziendali



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I modelli applicativi

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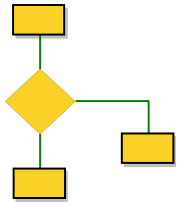

- prestazioni delle applicazioni
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- grande disponibilita' di software gia' sviluppato
- riutilizzo delle competenze aziendali

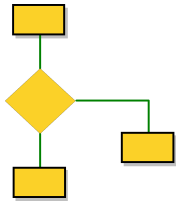
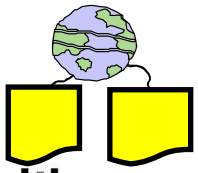
- **Rich Client**
  - interfaccia utente grafica evoluta gestita dal client
  - dati sul server
  - logica suddivisa tra client e server

- produttivita' e operativita' delle applicazioni gestionali comparabili con le applicazioni PC
- integrazione con strumenti di informatica individuale
- managed clients

- **Rich Web**
  - interfaccia utente grafica HTML arricchita da Web 2.0 (AJAX, DOJO, ...)
  - tutta la logica e i dati sul server

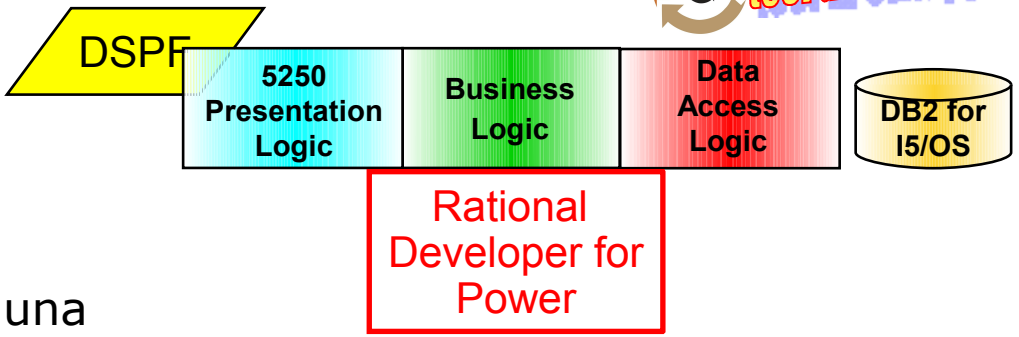
- fruibilita' delle applicazioni estesa ad utenti Extranet / Internet
- fruibilita' delle applicazioni estesa a cellulari, palmari, ...
- integrazioni con portali e strumenti di collaborazione avanzata

I modelli applicativi

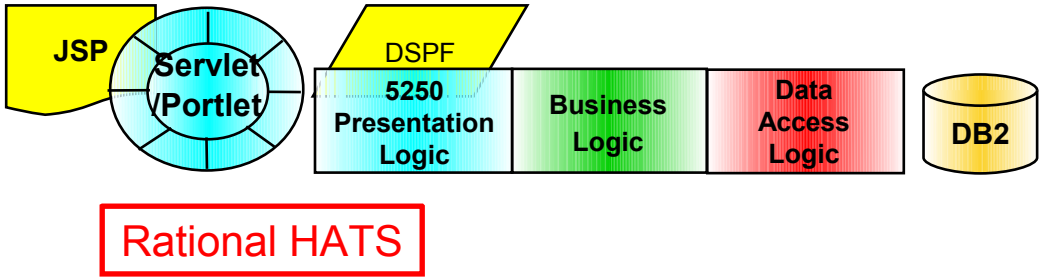
modello applicativo	
Tradizionale – interfaccia utente a carattere 5250 – tutta la logica e i dati sul server	
• prestazioni delle applicazioni • data entry veloce e produttivo • grande disponibilita' di software gia' sviluppato • riutilizzo delle competenze aziendali	
Rich Client – interfaccia utente grafica evoluta gestita dal client – dati sul server – logica suddivisa tra client e server	
• produttivita' e operativita' delle applicazioni gestionali comparabili con le applicazioni PC • integrazione con strumenti di informatica individuale • managed clients	
Rich Web – interfaccia utente grafica HTML arricchita da Web 2.0 (AJAX, DOJO, ...) – tutta la logica e i dati sul server	
• fruibilita' delle applicazioni estesa ad utenti Extranet / Internet • fruibilita' delle applicazioni estesa a cellulari, palmari, ... • integrazioni con portali e strumenti di collaborazione avanzata	
Web Services – servizi Web "batch" e transazionali – nessuna interfaccia utente, interazione "Program to Program"	
• integrazione di ambienti eterogenei • indipendenza dai linguaggi e dalla piattaforma • fondamento della SOA	

Riuso delle applicazioni AS400

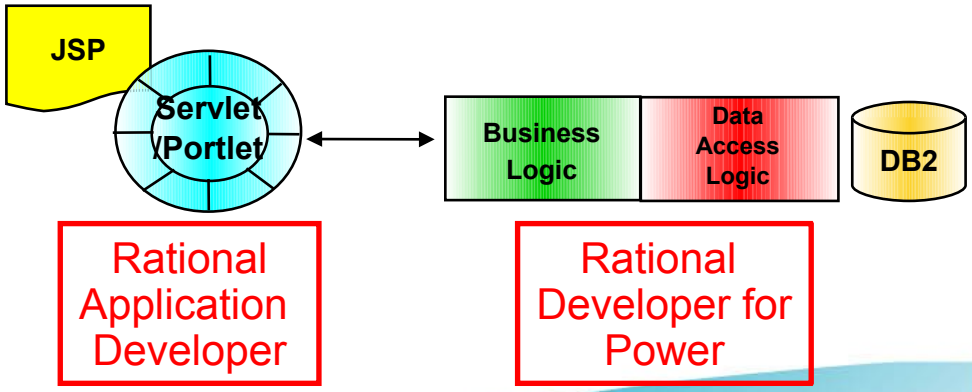
- ***Manutenzione***



- ***Reface***
  - generare automaticamente una GUI a partire dai pannelli 5250 esistenti
  - sovrapporre la nuova GUI all'interfaccia utente 5250



- ***Restructure***
  - separare la logica di business dalla logica di presentazione, quindi
    - sviluppare una nuova GUI e una nuova logica di presentazione da cui richiamare la logica di business esistente, oppure
    - pubblicare la logica di business esistente come Web Services



Refacing: Rational HATS

- Caratteristiche del prodotto
  - nessuna modifica ai programmi esistenti
  - possibilita’ di utilizzare la stessa applicazione in modalita’ 5250 o in modalita’ grafica (browser) sullo stesso sistema

- Rational Host Access Transformation Services (HATS)
  - conversione ***dinamica*** (a runtime) della data stream 5250 basata su regole
  - possibilita' di combinare o "skippare" schermate
  - esecuzione e registrazione di macro
  - possibilita’ di generare front-end di tipo Web, Portal o Rich Client Eclipse
  - Consente di estendere le applicazioni terminale direttamente come Web Services senza ristrutturazioni o scrittura di codice
  - Supporta device Mobile, tra cui Apple iPhone, iPod Touch,...

Power your planet.

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IBM Power Systems

Agenda

- *Rational Software*
  - *Rational Strategy for Power*
- *RD for Power*
  - *IBM i Tooling*
- *RTC for Power*
- *Customer testimonial & More Information*

POWER7™ BUILT ON Power™

Power your planet.

In February, IBM will introduce the next gener… Power Systems™ – the first of a family of systems and storage designed to meet the demands of a sm… planet. From the chip and virtualization capabilities all the way through to the operating system, middl… and energy management, Power Systems from IBM are integrated to help support the complex workloa… and dynamic computing models of a new kind of world. Power Systems – the future of UNIX® servers… …oy're coming. Smarter systems for a Smarter Planet.

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Rational Strategy for Power Systems

Extending the Software stack with "Power Tools"

Rational. software

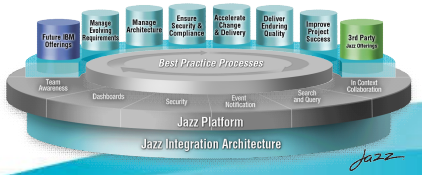
Accelerating importance of *compilers* in multi-core & parallel environments

Common developer desktop *(IDE)* across operating systems and languages

eclipse

AIX® i for Business Linux®

Common *development infrastructure* for Power and the world around Power



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Feb 9th Announcement summary

(1)

IBM Rational Developer for Power Systems Software

Common developer desktop delivering integrated **developer tools** for Power operating systems and programming languages.

(2)

IBM Rational Team Concert for Power Systems Software

Common server infrastructure enables **collaborative coordination** for multi-platform development teams.

(3)

IBM Rational Compilers

New **compilers** exploit Power Systems including the latest POWER architecture and multi-core technology, boosting performance, productivity and portability.

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Feb 9th Announcement summary (2)

- **Rational Developer for Power Family** v7.5
  - Enhanced RPG and COBOL features for IBM i
    - Visual Screen Designer
    - Visual Report Designer
  - Multiplatform development
    - Java, Java Script
    - EGL, EGL Rich UI
- **AIX Development** v2.0
  - IBM also added C/C++ and COBOL development tools for AIX to the Rational Developer for Power family
- **Rational Team Concert for Power Systems Software**
  - New IBM i build capabilities
  - Change management on AIX platform
  - Collaborative ALM and cross project dashboards
- **Rational Development Studio (Previously known as WDS)**

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Unleash the Power of Innovation with
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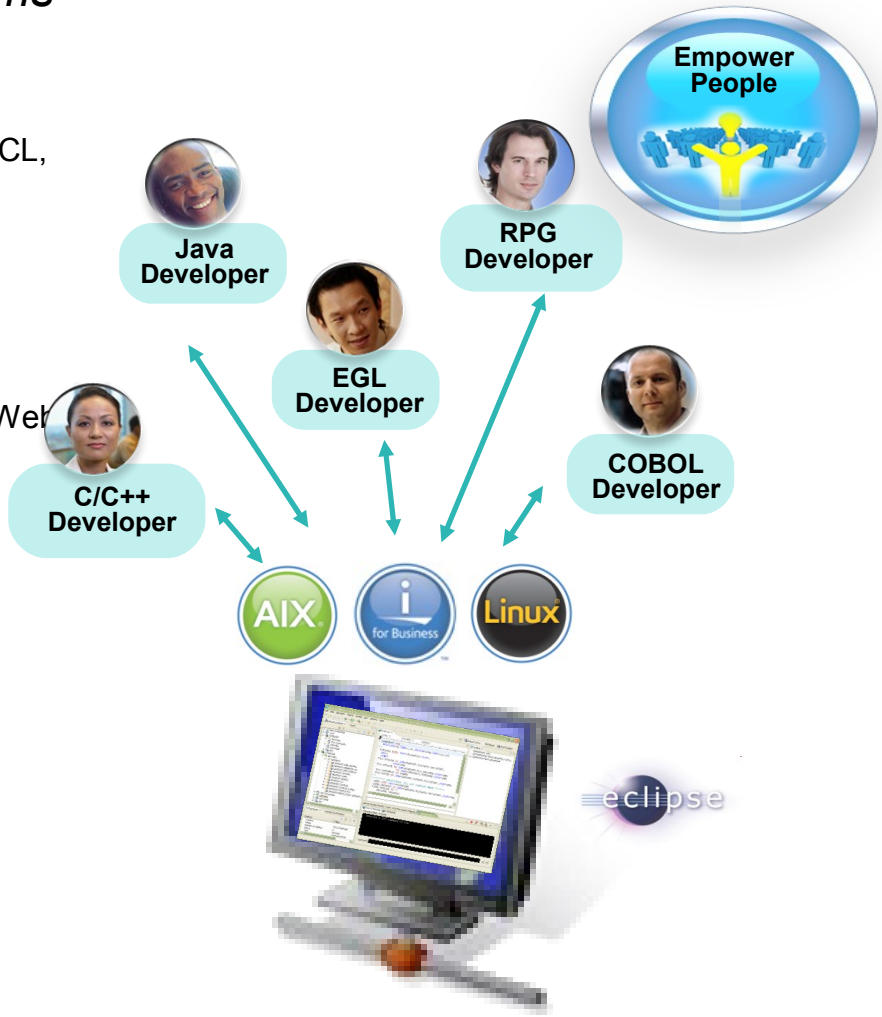
Rational Developer for Power Systems Software

Integrated tools for all Power operating systems and programming languages

- **Enhanced RPG and COBOL features for IBM i**
  - Lightweight, modern, development tools for RPG, COBOL, CL, and DDS
  - Integrated file access, search, edit, compile and debug
  - Rich editing features such as outline view, content assist, formatting, color tokenizing
  - Visualize program structure with Application Diagram
  - Easily debug batch, interactive, and Web applications and Web services
  - Visual Screen Designer and Report Designer
  - Integration with Rational Team Concert for Power Systems Software
- **One integrated solution – supporting multiple environments**
  - RPG, COBOL, CL, C, C++, DDS on IBM i
  - Java, EGL
- **Improves developer productivity**
- **Reduces training across disciplines**
- **Integrates skill silos**
- **Simplifies multiplatform development**



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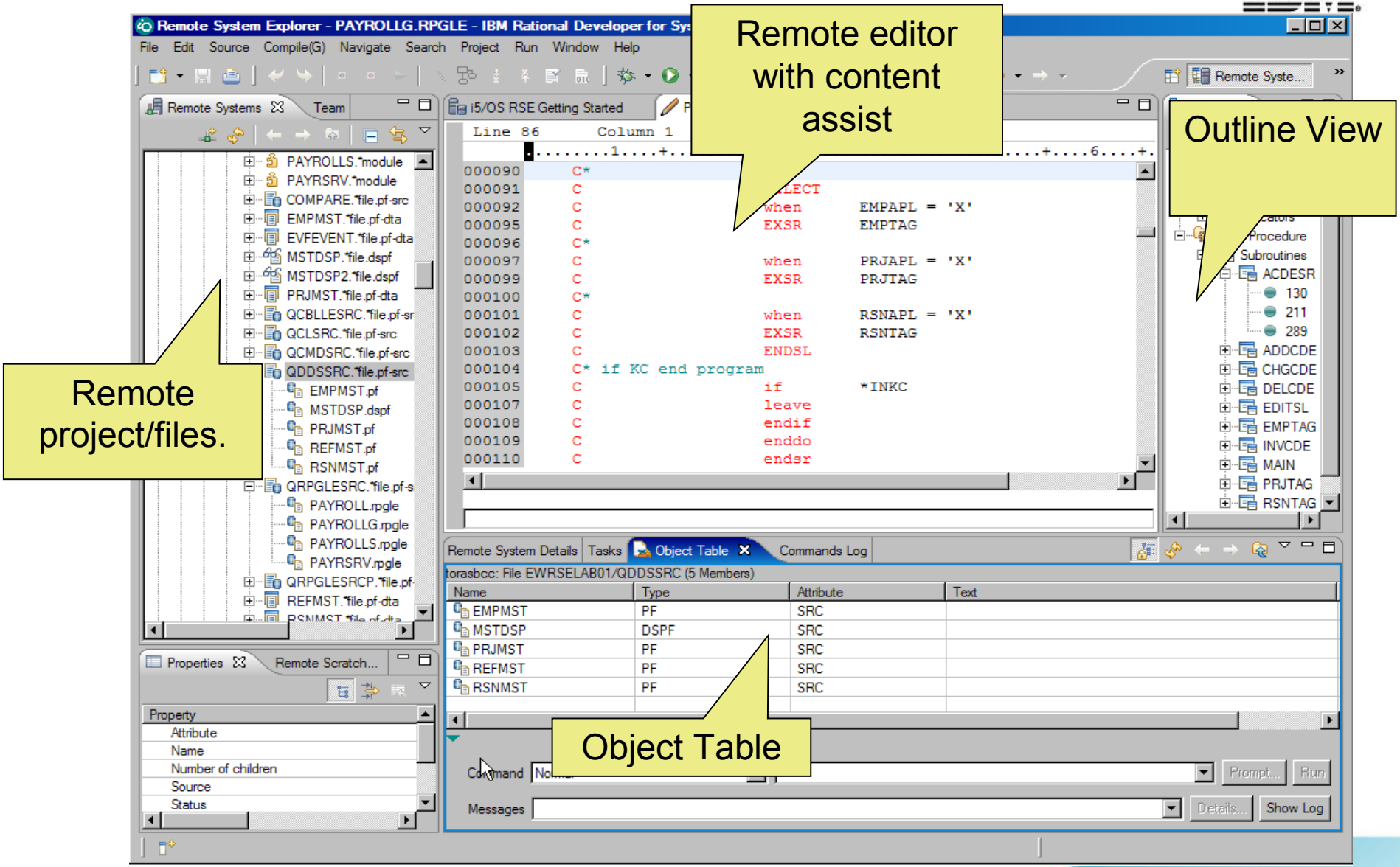
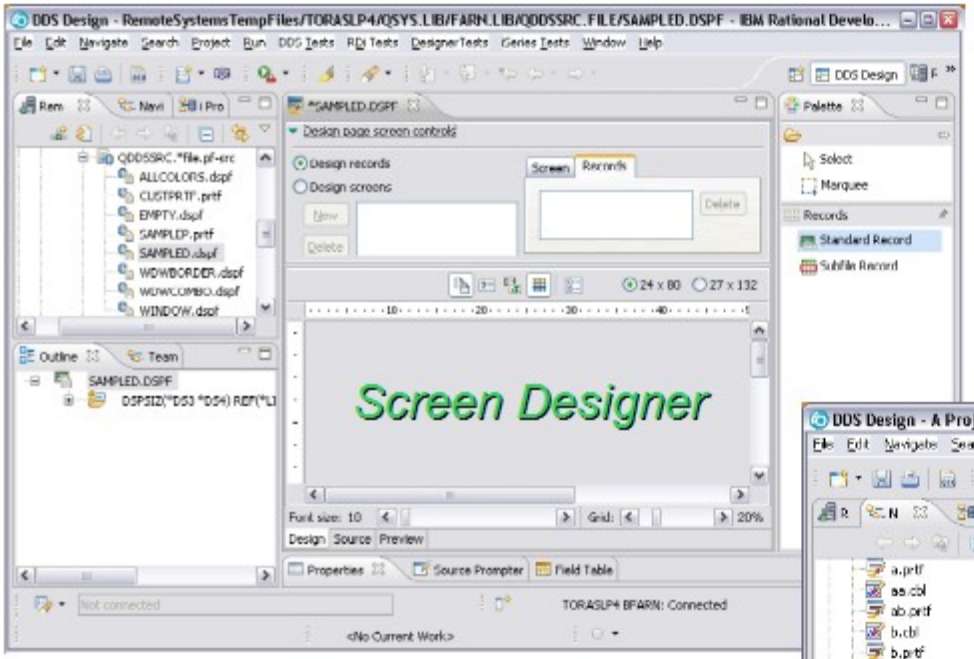
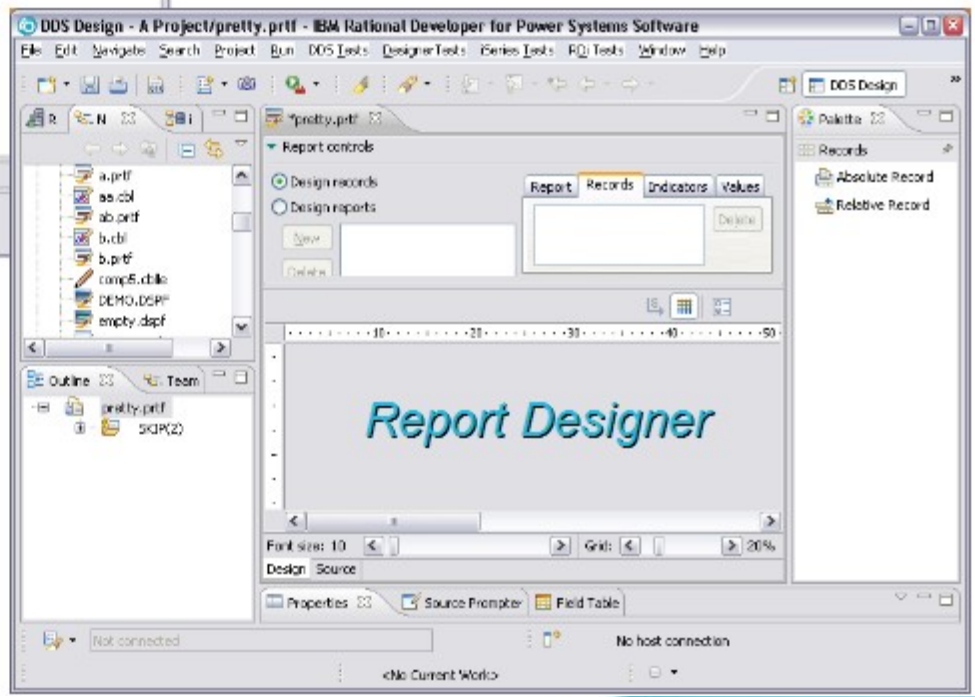
Remote Development Features of RDp



Similar User Interfaces

- The designers have been architected with the same 'easy to learn and use' user interface elements
- Learning how to use one reduces the learning curve for the other





Screen Designer is no longer a Technology Preview

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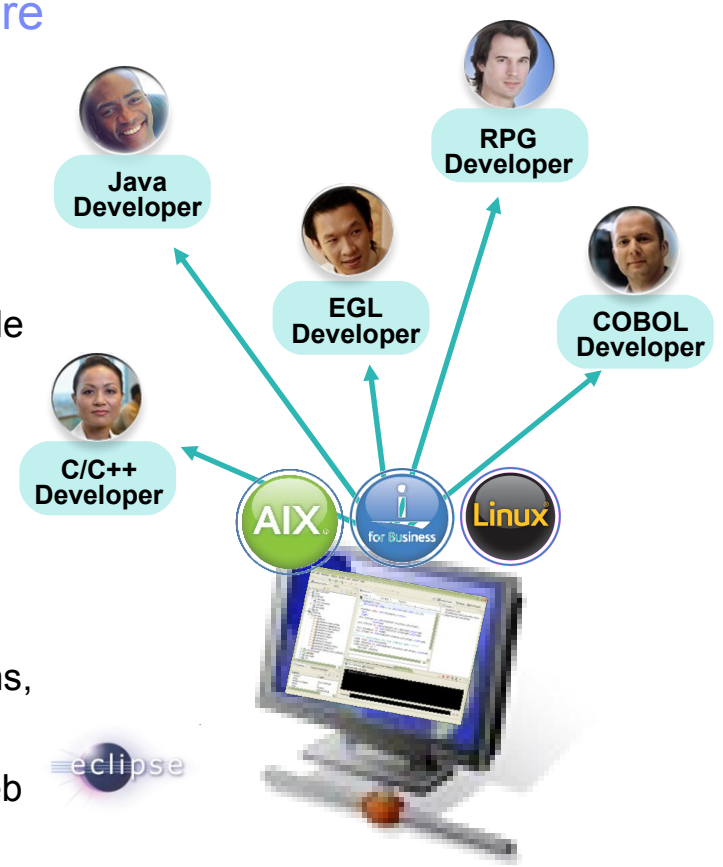
Business Value
RPG and COBOL Development Tools for IBM i Feature

- Improve Developer Productivity
  - Easier to read, write, and understand source code → Improved maintenance efforts
  - Visual design tools → Easier to create and maintain DDS
  - Visualizations (Application Diagram) → Understand source code and program relationships
  - Tightly integrated tasks → Quickly switch from search / edit / compile / debug
  - Code assist and Outline view
- Common Tooling Platform
  - Same development tool experience across languages, platforms, and technologies
    - Java, RPG, COBOL, C/C++, EGL, PHP, XML, Web 2.0, Web services, 5250, batch
- Developer Skills
  - Developers can use the same tools regardless of platform, language, or technology
  - Improved developers skills / developer portability
  - Attract new talent and retain existing talent



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POWER7™ BUILT ON Power™

Unleash the Power of Innovation with
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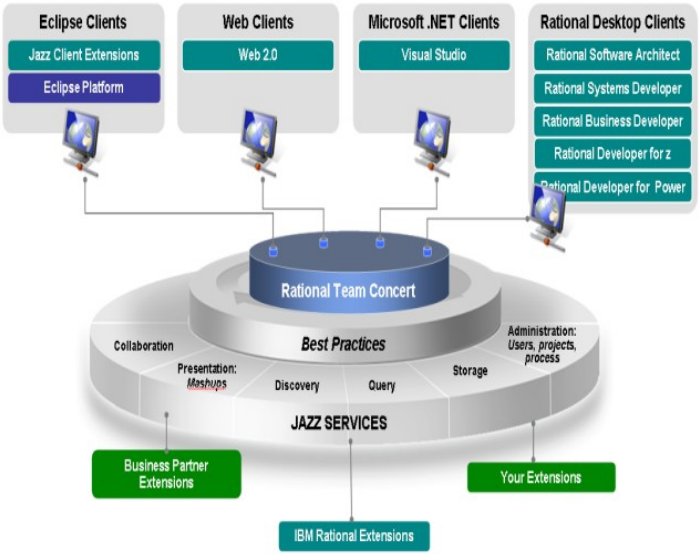
Rational Team Concert for Power 2.0

Enables developers on Power (AIX and IBM i) and other platforms to collaborate together using:

- ✓ Integrated Planning (with full support for Agile development)
- ✓ Source Control of Java, C/C++, COBOL, RPG, .NET, PHP and other language source
- ✓ Work Items (change management/defect tracking)
- ✓ Build
  - ❖ C/C++ or COBOL applications on AIX
  - ❖ RPG or COBOL applications on IBM i
  - ❖ Java on any platform
- ✓ Dashboards and Reports to track status, and
- ✓ Process Support and Enforcement



- RTC clients are supported with RTC for Power
  - Eclipse RTC client (Java / Web development)
  - Visual Studio client (.NET development)
  - Web client

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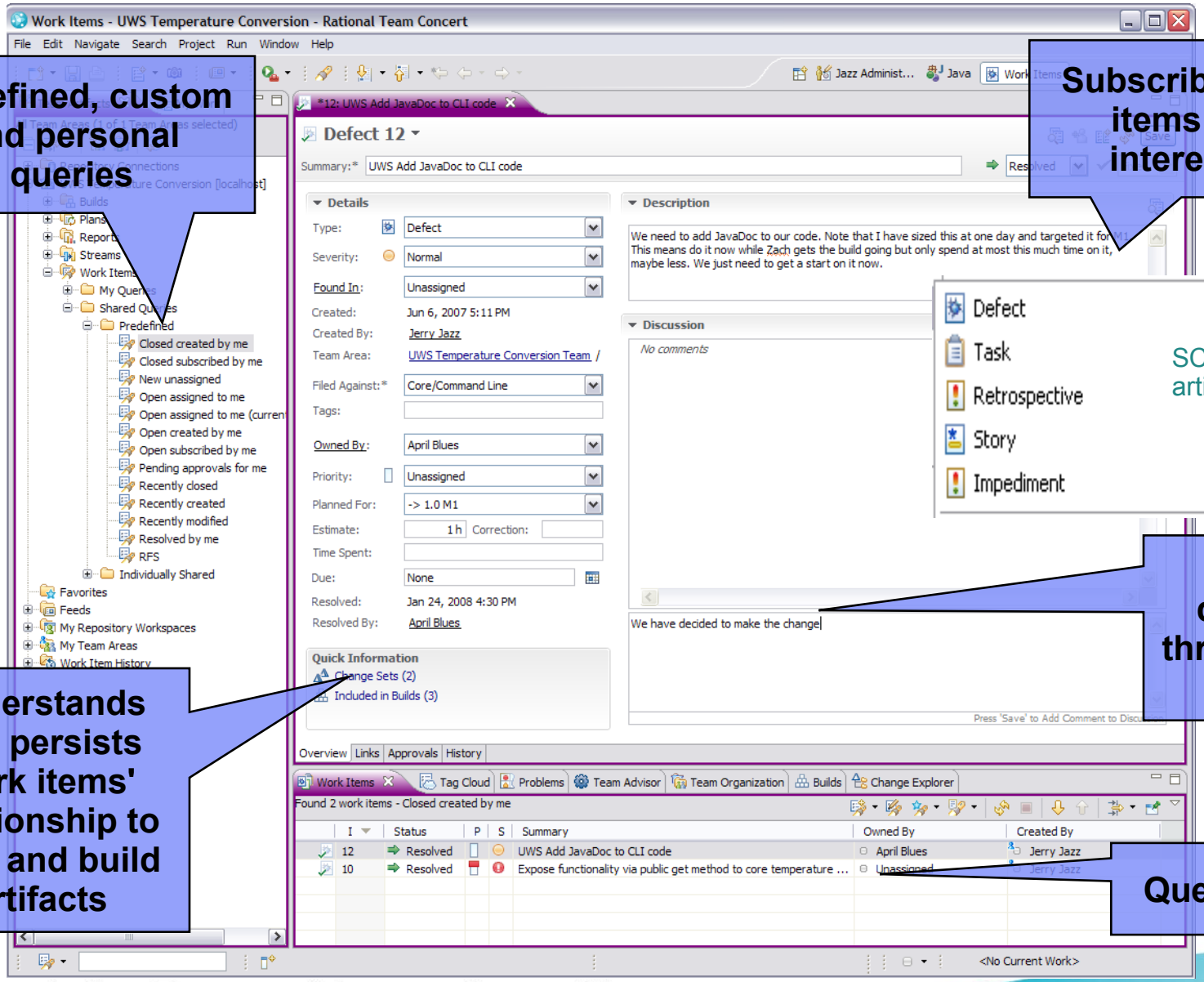
Work Items Capture Traceability and Effort



Predefined, custom and personal queries

Subscribe to work items you're interested in

Integrated discussion threads & chat sessions

Understands and persists work items' relationship to SCM and build artifacts

Query results

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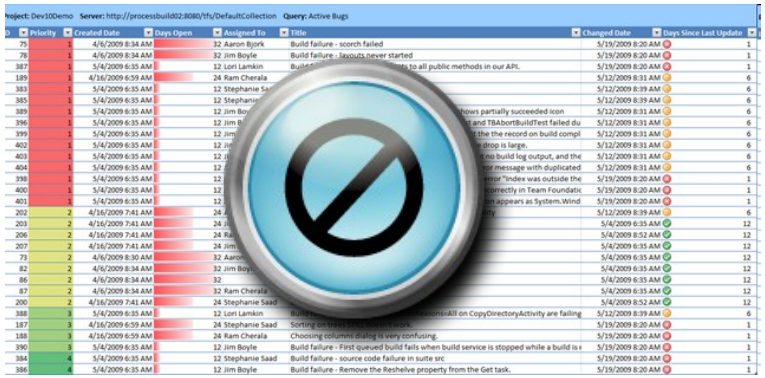
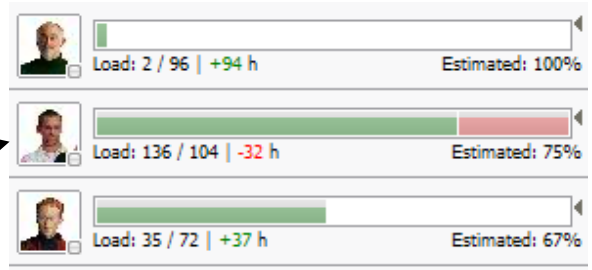
Team Concert Planning is Directly Linked to Execution



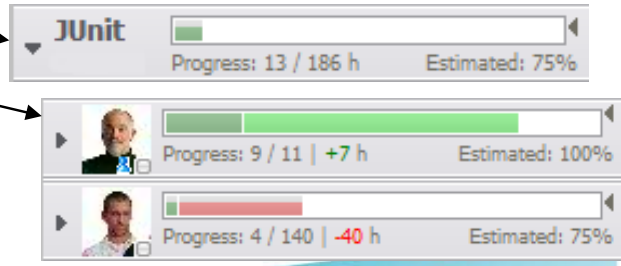
- NOT just a disconnected spreadsheet
  - With brittle cross product integration
  - Synchronization issues for admins…backup
  - No web access for non-developers
- NOT just a planning tool
  - Designed for project leads
  - Not connected to execution of scm and builds
  - No process control of scm, builds

Work Load Bar



- With Rational Team Concert
  - Live work load bars show who is overbooked …
  - Live progress status bars show Individual and Team progress
  - All planning is 100% Web based so all can access it
  - Full process control across both VS.NET and Eclipse teams
  - Engages development in planning to produce better predictability

Progress Bar



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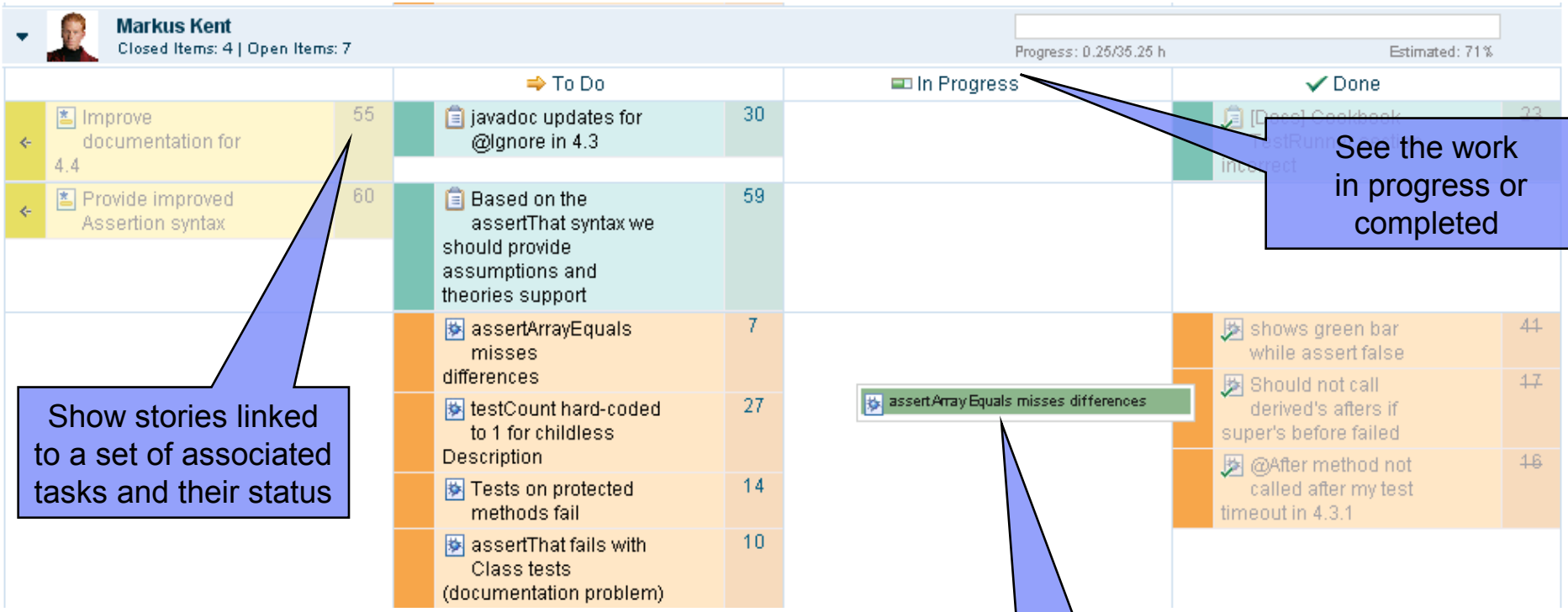
Web-based Taskboards Increase Team Visibility



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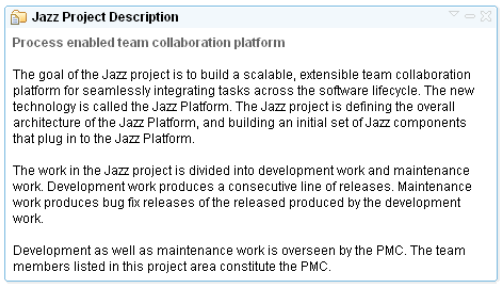
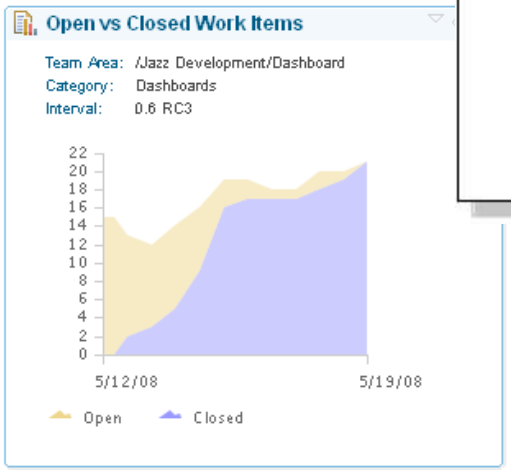
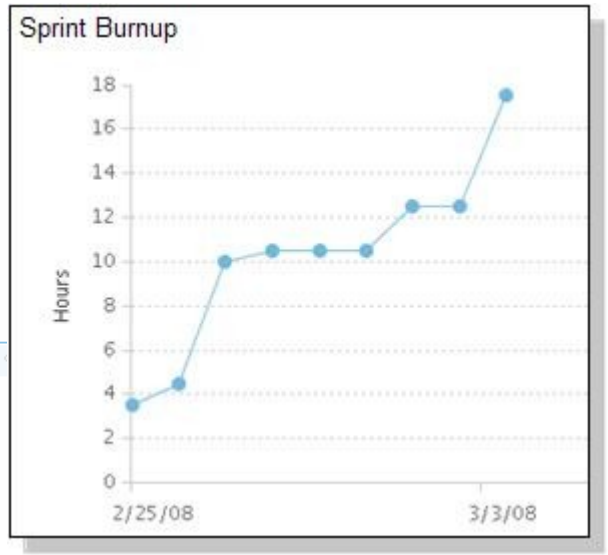
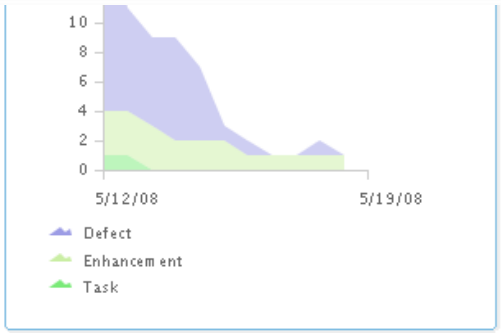
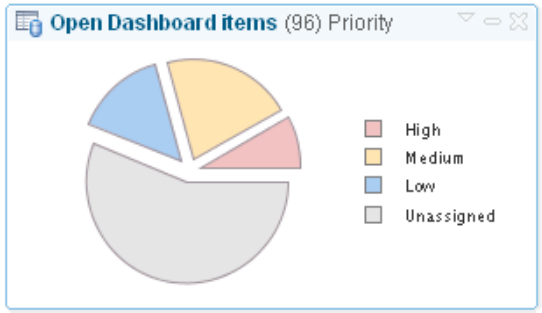
Web Based Project and Portfolio Dashboards

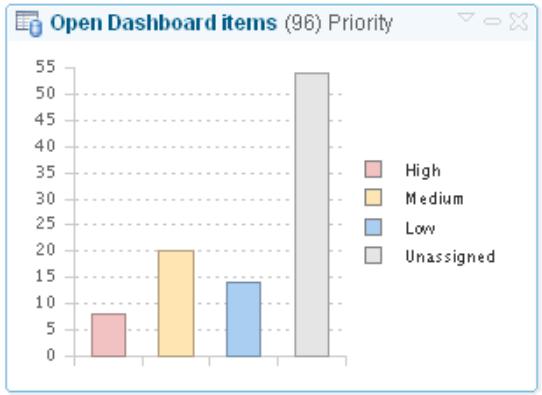


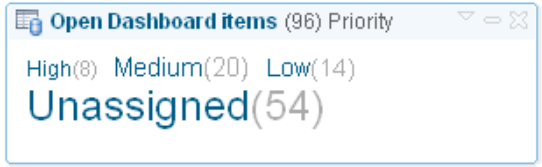


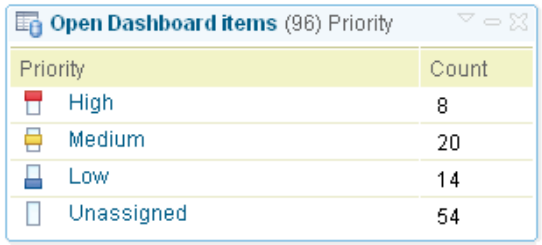












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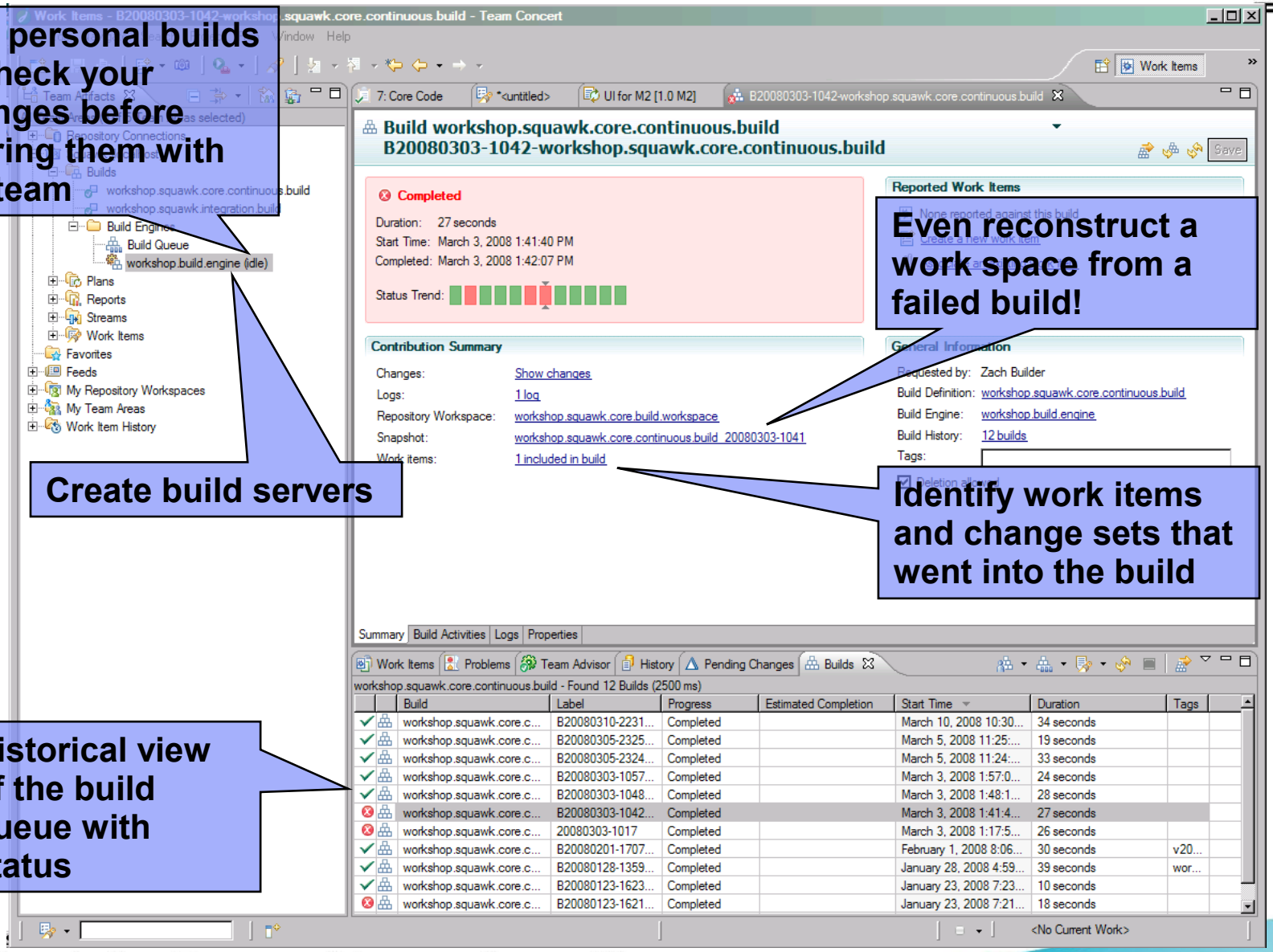
Builds – Extensible Continuous Integration



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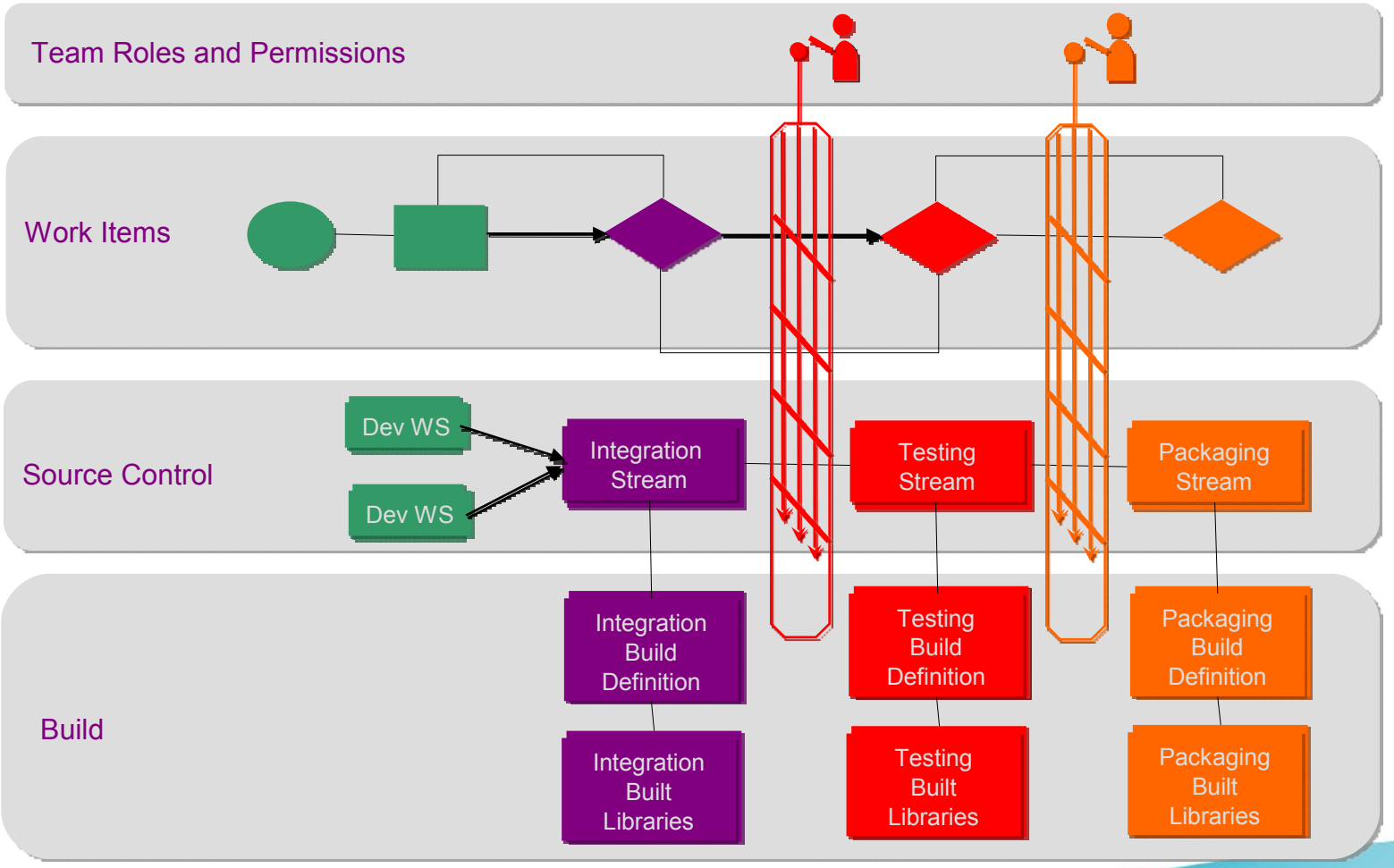
Promote Application Artifacts

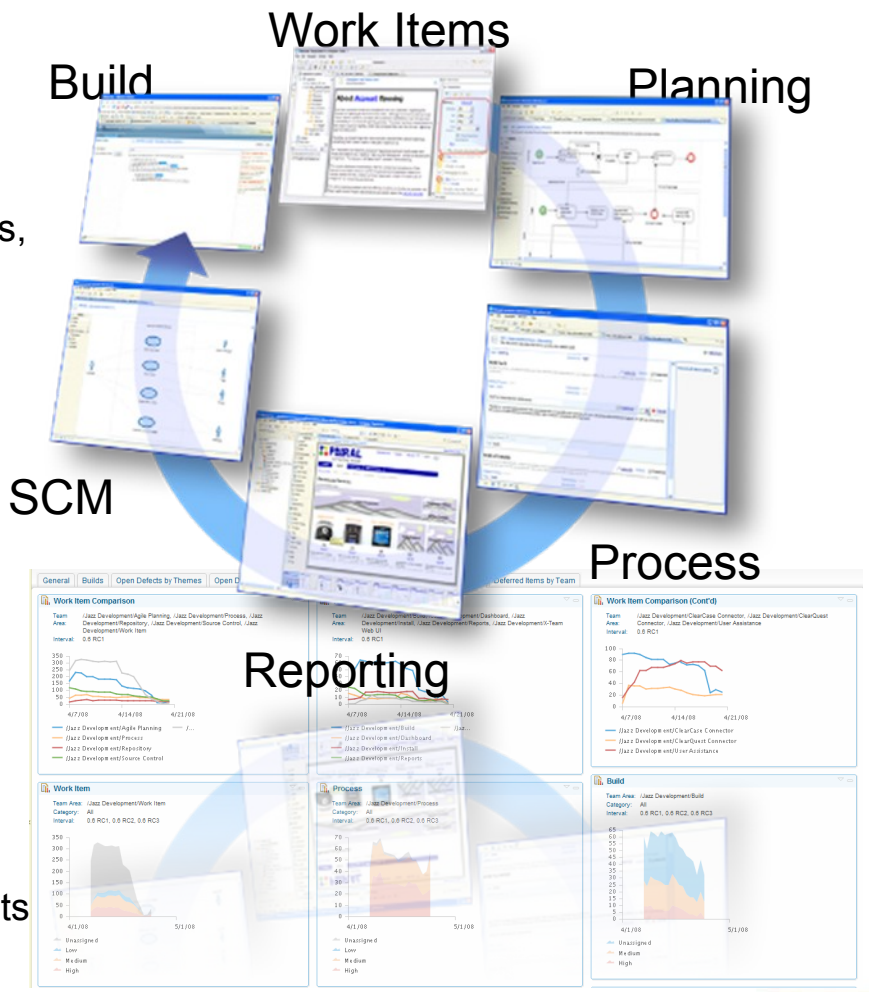
Promote objects from integration to test and from test to packaging using a controlled, enforceable process



Business Value

Rational Team Concert for Power Systems Software

- **Team Collaboration**
  - Connect dispersed development teams
  - Bring all stakeholders together
    - Business analysts, IT managers, project managers, team leads, developers, and testers
- **Governance**
  - Implement single process for all teams
  - Help teams move towards Agile development
  - Track development tasks
  - Source Control
- **Transparency and Reporting**
  - Automate project status
  - Traceability (links) between artifacts
  - Team, role, and personalized dashboards
- **Consolidation and lower costs**
  - Single solution for multiple platforms and languages
    - Single server, database, administration
  - Single tool for everyone to learn → lower training costs



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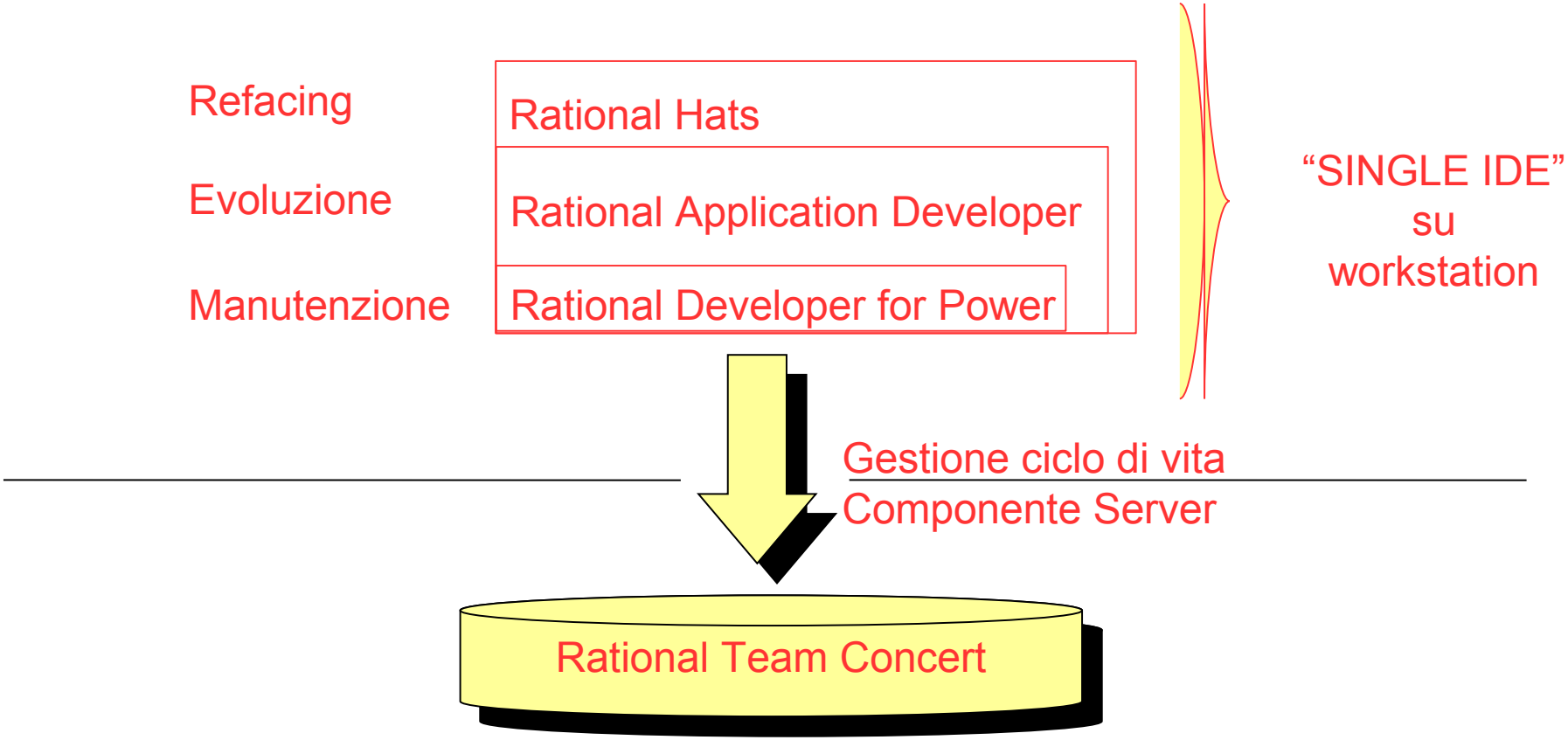
IBM Rational Solutions for Power

L'ambiente di sviluppo per Power: visione d'insieme



Power your planet.

Smarter systems for a Smarter Planet.

IBM Power Systems

Agenda

- *Rational Software*
  - *Rational Strategy for Power*
- *RD for Power*
  - *IBM i Tooling*
- *RTC for Power*
- *Customer testimonial & More Information*

POWER7™ BUILT ON Power™

Power your planet.

In February, IBM will introduce the next gener… Power Systems™ – the first of a family of systems and storage designed to meet the demands of a sm… planet. From the chip and virtualization capabilities all the way through to the operating system, middle… and energy management, Power Systems from IBM are integrated to help support the complex workloa… and dynamic computing models of a new kind of world. Power Systems – the future of UNIX® servers… …ey're coming. Smarter systems for a Smarter Planet.

ibm.com/poweryourplanet

Unleash the Power of Innovation with
IBM Rational Solutions for Power

UniCredit

Improves developer productivity and testing efficiency for IBM i development

The challenge

- Modernize its development platform for core financial business software
- Development and testing efficiency for new and existing applications
- Make COBOL development more attractive to younger programmers

Business value

- Similar development environment for COBOL and Web applications — attractive to younger developers
- Estimated 15% increase in development and 10% increase in testing productivity

Solution

"Our approaches are consistent throughout the entire software development life cycle, from planning, definition and implementation to test and configuration"

Unleash the Power of Innovation with IBM Rational Solutions for Power

UniCredit HVB Group

- One of Europe's largest financial services organizations
- 9,000 branch locations
- 40 million customers
- Employing over 170,000 people

"We at UniCredit Leasing Austria have opted for the combined toolset of Rational Team Concert for IBM i (RTCi) and Rational Developer for IBM i (RDi) because they provide us with the best support for modern approaches to software engineering for the IBM i platform."

- Mircea-Dan Antonescu, IT Leader, UniCredit Leasing Austria

AAA Cooper Transportation

Improves developer productivity and time to market

The challenge

- 12 green-screen developers who needed more flexible tools to improve productivity
- Company wanted to improve the time to market
- They needed a “source control" solution that integrates with Rational Developer for i

- Family owned trucking firm
- 78 terminals
- 4,000 employees

Business value

- Within a month they are seeing between 10 - 20% productivity improvements

“Within a month the use of the green screen development was almost completely gone, and our team was excited about working entirely on the new IDE.
…My advice, try it. You will never go back.”

- Bruce Collins
Manager of Systems Administration

Solution

- Rational Developer for i
- Rational Team Concert for i

Unleash the Power of Innovation with
IBM Rational Solutions for Power

AAA COOPER TRANSPORTATION

Oxford International, Inc.

Improves developer productivity and time to market

The challenge

- Cross-platform development teams needed better communications, project visibility
- Looking for a single enterprise-wide solution

Business value

- "The new RTC for Power release is not just a series of enhancements but now provides a complete software configuration management solution across the enterprise."
- "True cross-platform software capabilities"

- IBM Business Partner for Rational Power and System z solution
- Participated in the beta programs for RD for Power and RTCi

Solution

- Rational Developer for i (Power)
- Rational Team Concert for i (Power)

*"We estimate **between 20-30% improvements in team productivity** and quality across the development process. RTC for IBM i and Power solutions truly hits the mark of the most demanding business and IT department."*
- Steve Norton, President

Unleash the Power of Innovation with
IBM Rational Solutions for Power

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Join
a community of industry leaders in modernization technology

Download
trials of new technology

Learn
to take full advantage of the latest tools

Share
knowledge through forums, blogs and wiki documents

EGL

- Partners
- John's Corner - Learn
- Rich UI
- for IBM i
- Migration/Transformation
- Japan Street

RPG

- Partners
- RDi
- RDi SOA
- RTCi

C/C++

- Commercial Computing
- Parallel and Multi-Core Computing
- Scientific Computing
- Standards

COBOL

- Partners
- RDz
- RDz with EGL
- RTCz
- HATS
- Standard
- Migrations

Unleash the Power of IBM Rational Solution

*Content subject to change

Additional Information

- To learn more visit: **ibm.com/software/rational/announce/power/**
- Rational Developer for Power Systems Software Product Page
  - http://www.ibm.com/software/rational/products/rdp/
- Rational Team Concert for Power Systems Software Product Page
  - http://www.ibm.com/software/rational/products/rtcp/
- Rational Team Concert for Power Systems Software Sales Kit

  Internal: http://w3-103.ibm.com/software/xl/portal/content?synKey=M303001B90889Y50#overview
  Partners: http://www.ibm.com/partnerworld/wps/servlet/ContentHandler/M303001B90889Y50
- IBM Rational Developer for Power Systems Software Sales Kit
  Internal: http://w3-103.ibm.com/software/xl/portal/content?synKey=J384733T70541Z83#overview
  Partners: http://www.ibm.com/partnerworld/wps/servlet/ContentHandler/J384733T70541Z83
- IBM Rational Jazz Overview
  - Overview: http://www-01.ibm.com/software/rational/jazz/
  - Community: https://jazz.net/

Getting Started

- Take advantage of no-charge distance learning and social networking at IBM Cafes
  - RD for Power: RPG & COBOL Development tools - http://www-949.ibm.com/software/rational/cafe/community/rpg
  - EGL - http://www-949.ibm.com/software/rational/cafe/community/egl
- Leverage the Enterprise Modernization Sandbox - http://www.ibm.com/developerworks/downloads/emsandbox/?S_TACT=105AGX28&S

Additional Information

- RTC Power product page:
  - http://www-01.ibm.com/software/rational/products/rtcp/
- RTC Power support page:
  - http://www-01.ibm.com/software/rational/products/rtcp/support/
- RTC Power project page on jazz.net:
  - https://jazz.net/projects/rational-team-concert-power
- RTC Power 2.0 download page on jazz.net:
  - https://jazz.net/downloads/rational-team-concert-power/releases/2.0
- Articles, videos, wiki entries, forums, blog posts, etc. on jazz.net