

# IBM Rational Software Development Conference 2008

WHERE TEAMS ARE **R-HEROES**



## Enterprise Modernization

*The Transformation of Application Development for All Platforms*

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# Agenda



- ▶ Enterprise Modernization
- ▶ Getting Started
- ▶ Q&A



# Change is at the Heart of Most Businesses

A view from over 2500 CXO's

**Business Model Innovation**  
**Global Integration**  
**Talent Management**  
**Business Transparency**

CFO Study



Human Capital Study



CEO Study

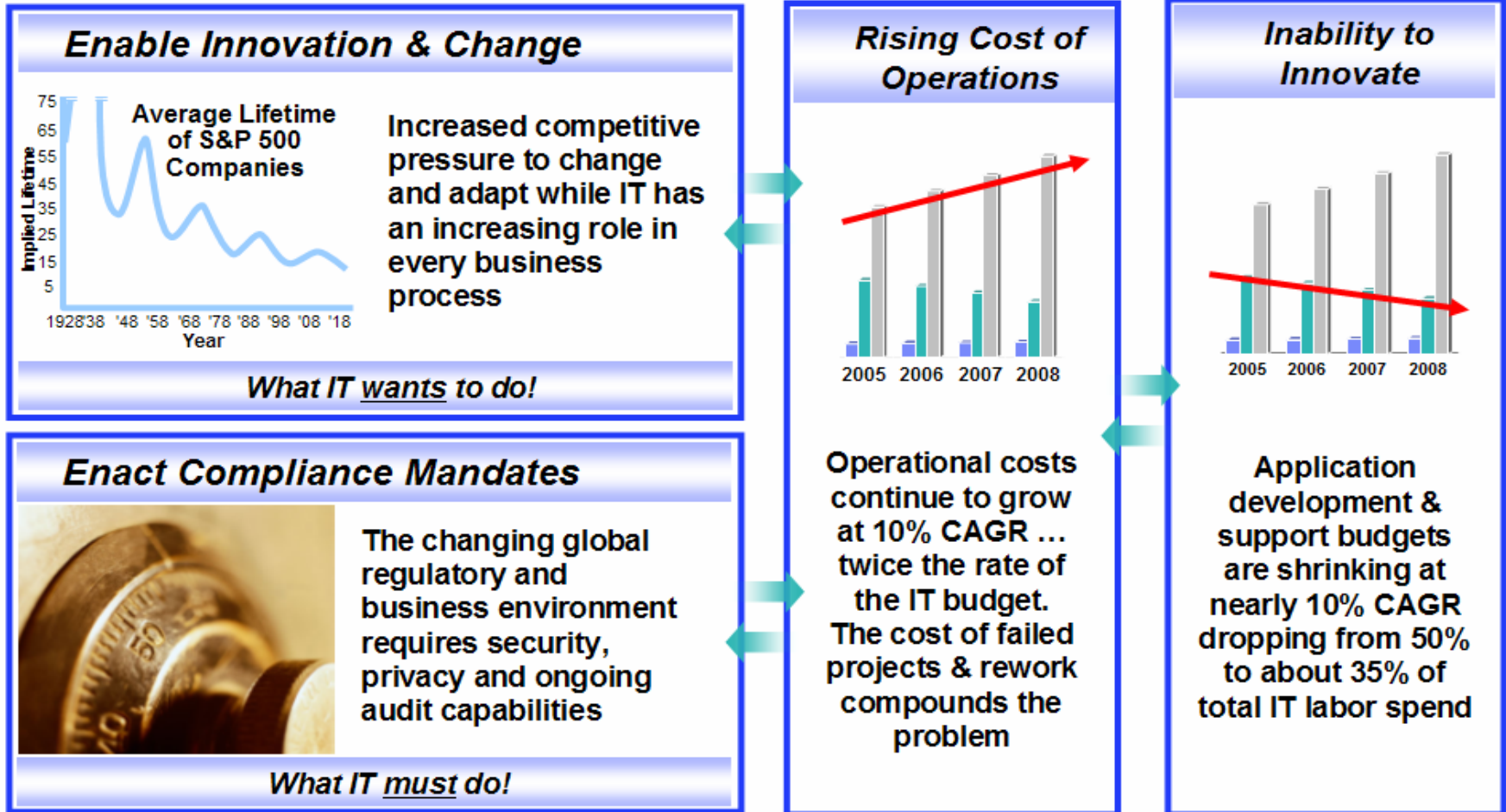


New!



# The business landscape facing IT & business leaders

## The need to innovate with less



**Bottom Line: Enable Business Flexibility...**



# To Enable Change, IT Must be Flexible

*But it's easier said than done...*

*“Aligning IT with the business relates directly with an IT group attaining real flexibility.” – Butler Group*



To enable flexibility, IT must overcome challenges such as:

- ▶ Poor understanding of current enterprise application assets
- ▶ Complex application architectures
- ▶ Skills lock-in
- ▶ Islands of development
- ▶ Limited funding for new investments

*“IT investments made 10 to 20 years ago are ... constraining the speed with which these businesses can change and respond to industry threats.” – Gartner’s Top Predictions for Industry Leaders, 2007 and Beyond*





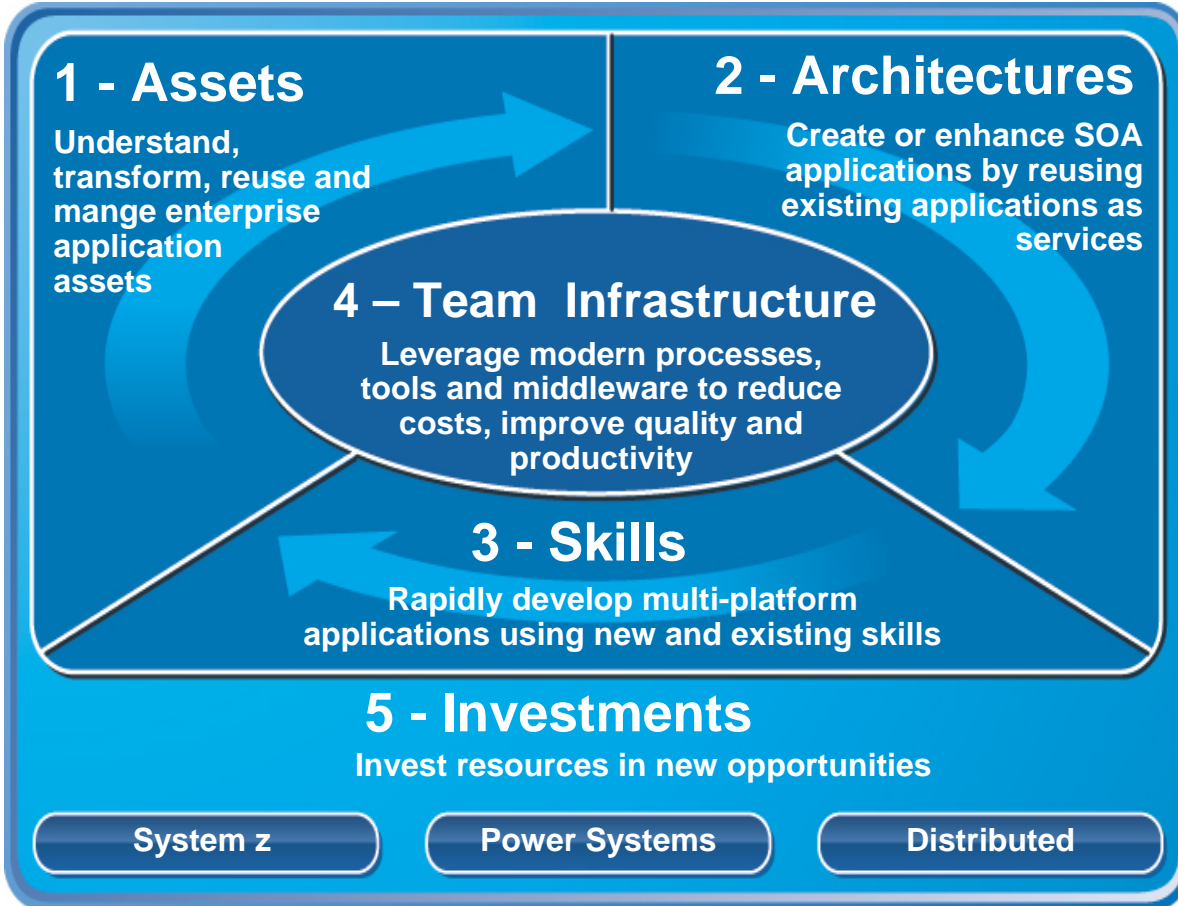
# Enterprise Modernization - The Road Ahead



- ▶ You need a unique modernization strategy based on:
  - Your business requirements
  - Your budget
  - Your staffing constraints
  
- ▶ Choose one or more of the options on the next pages to begin your modernization efforts
  
- ▶ Rational and our business partners can help you formulate your own customized strategy for modernization
  
- ▶ Let's look at our solutions ...



# Enterprise Modernization – Improving IT Flexibility



1. **Leverage value in existing assets**
2. **Drive innovation with SOA and web technology advancements**
3. **Leverage existing and new staff on multi-platform projects**
4. **Improve quality and flexibility with a consolidated team infrastructure**
5. **Reduce maintenance costs**

<http://www-306.ibm.com/software/info/developer/solutions/em/>





# 1 - Modernize your Asset Management

**Business Challenge**  
Difficulty understanding or leveraging existing systems

How can we...

**Rational Asset Analyzer – eGA 7/2008**

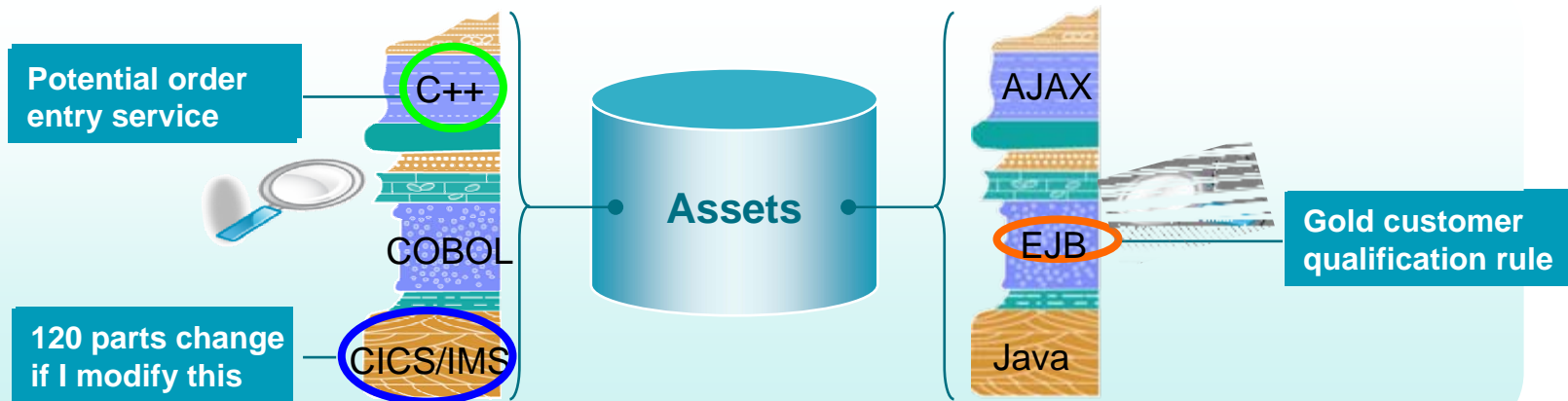
- ✓ Provide view of S/W assets across enterprise
- ✓ Perform enterprise-wide impact analysis
- ✓ Workstation-based solution for quick ROI
- ✓ Create/update RAM with relevant RAA artifacts
- ✓ View dead code in source files

maintain control over code provided by outsourceers, business partners, or acquired through a merger?

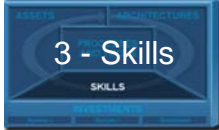
- ▶ Accelerate SOA efforts?
- ▶ Improve portfolio evolution decisions?

**Solutions**  
Comprehensive inventory of assets for impact analysis & reuse

- ✓ Understand existing assets and relationships
- ✓ Identify services, refactor for reuse
  - *WebSphere Studio Asset Analyzer*
  - *Rational Asset Analyzer*
  - *X-Analysis (Databorough)*
  - *Rational Transformation Workbench*
- ✓ Manage assets during development
  - *Rational Asset Manager*
- ✓ Manage deployed services
  - *WebSphere Service Registry & Repository*







# 3 - Modernize your Skills - Languages

## Business Challenge

Staff in "islands of knowledge" silos

How can we exploit existing skills without retraining?

Use new employees on any project, independent of the target platform?

Businesses need to utilize existing skills

**RBD 7.1 – 3/2008**

- ✓ Standalone offering
- ✓ TUI, Webtrans
- ✓ IMS, DL/I, MQ
- ✓ Portal support
- ✓ BIRT reports
- ✓ VAGen migration

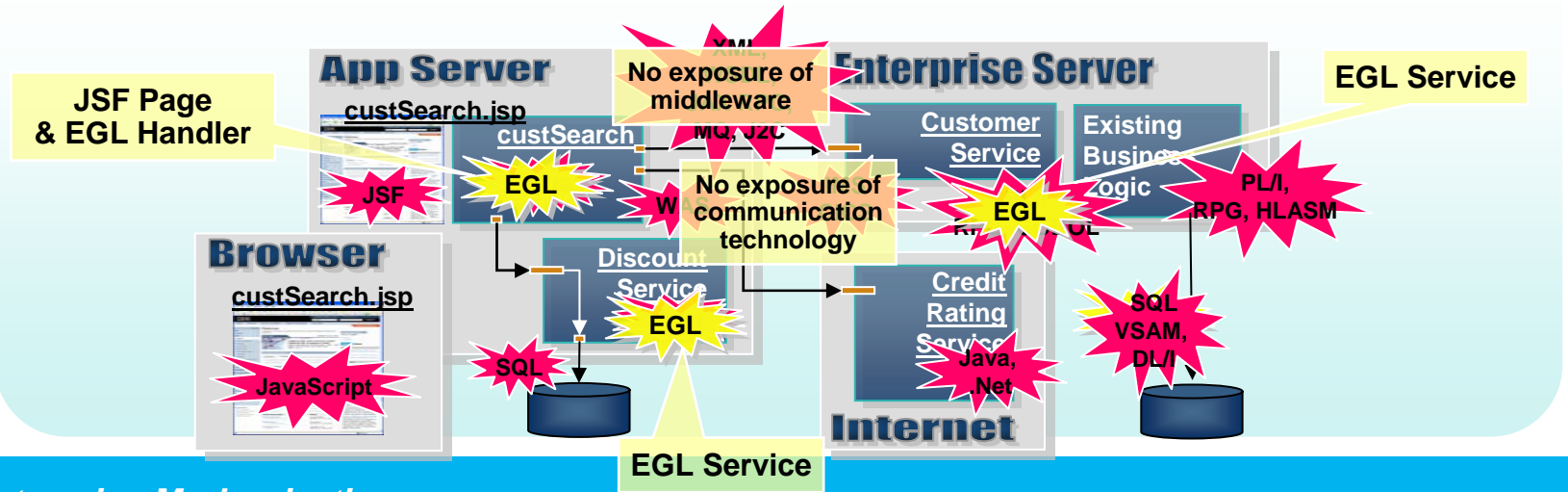
**RBD 7.5 – 4Q08**

- ✓ Web 2.0 - rich internet applications

## Solutions

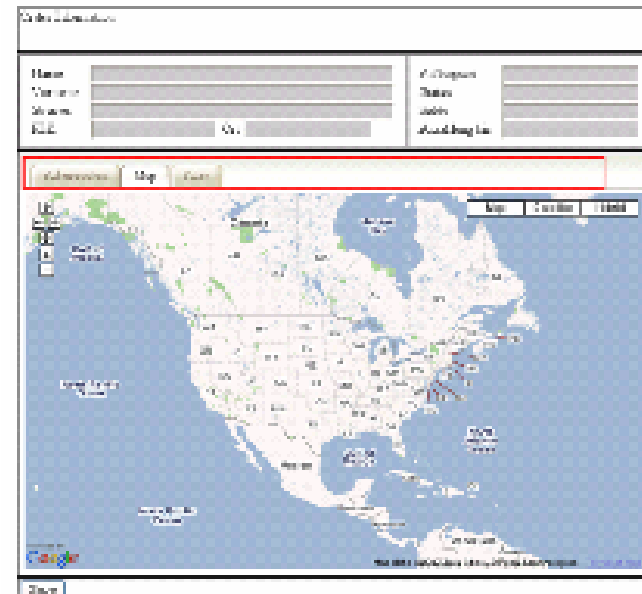
### Powerful tools & abstractions for multi-platform development

- ✓ Apply existing business-knowledgeable staff to build all elements of multi-platform applications ... end-to-end from Web 2.0 to services to business transactions
- ✓ Attract new staff with "IBM's newest business language"
  - Rational Business Developer (EGL)



# Web 2.0 - Rich Internet Apps

- ▶ Users now expect modern, interactive UIs: Dojo, Google Maps, etc.
- ▶ Browsers are ubiquitous and increasingly powerful
- ▶ Reap the benefits of Client-Server architectures:
  - Presentation logic within the browser
  - Server used for business and data access logic
  - Server bandwidth and response times increase
- ▶ But typically, many low-level technologies to learn:
  - JavaScript, HTML, CSS, Ajax, Dojo, SilverLight, SOAP, WSDL, Flex, XML, JSON, Google Maps, HTTP, etc
  - Focus is on “how” instead of “what”
- ▶ EGL Rich UI hides these details and complexities:
  - Focus is on “what” instead of “how”
  - Improves developer productivity
  - Enables more developers to build Web 2.0 solutions
  - Easily extensible with new widget sets

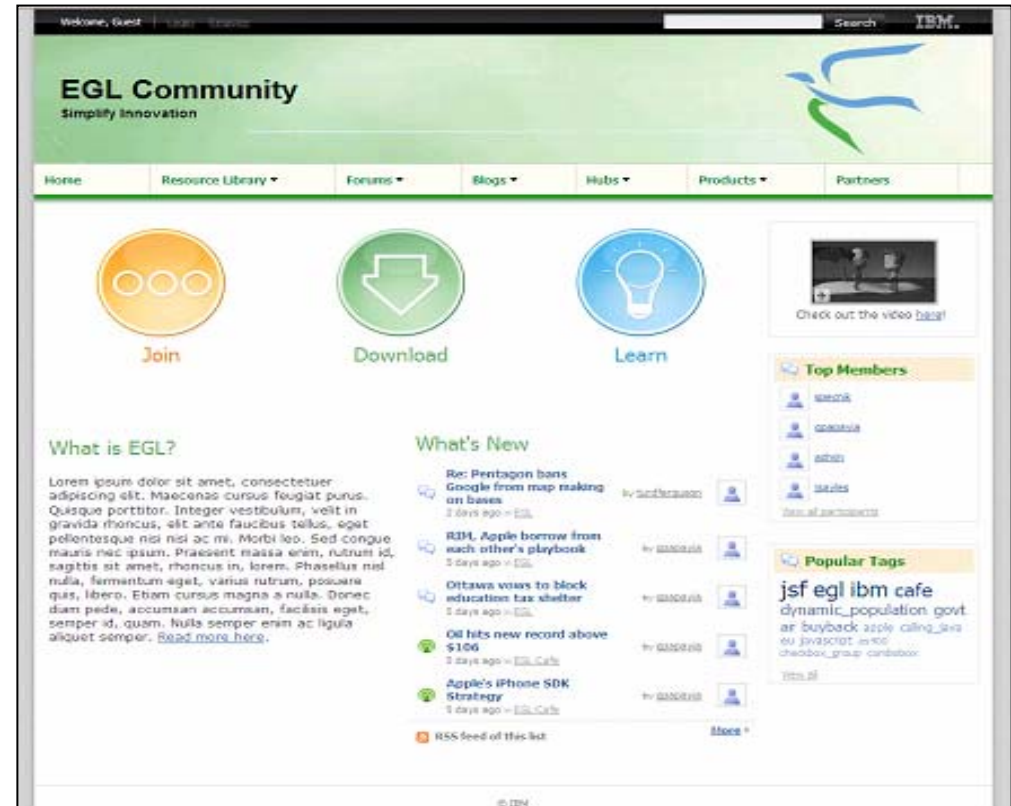


# Rational Business Developer - EGL Café

## Building a Community for Business Developers

- ▶ Attract participation with compelling experience - Partners, Users, Prospects
- ▶ Capture “Wisdom of the Crowd” – Experience knowledge base
- ▶ Sustainable Participation – Team, Users
- ▶ Leverage re-use to reduce effort
- ▶ Extending community to CICS, IMS, COBOL, RPG, and PL/I developers

[www.ibm.com/rational/eglcafe](http://www.ibm.com/rational/eglcafe)



Resources:  
Community:  
Collaboration:  
Testimonials:

Download, Learn, Presentations, Video/viewlet, Sample Code  
Clients, Partners, Influencers, Press, News & Events  
Blogs, Forums, Tips & Techniques Comments, Ratings  
Case Studies, Celebrations!





# 3 - Modernize your Skills - IDEs

**Business Challenge**  
 Low productivity, non-competitive

**Solutions**  
 Achieve high productivity, attract new talent with modern IDEs

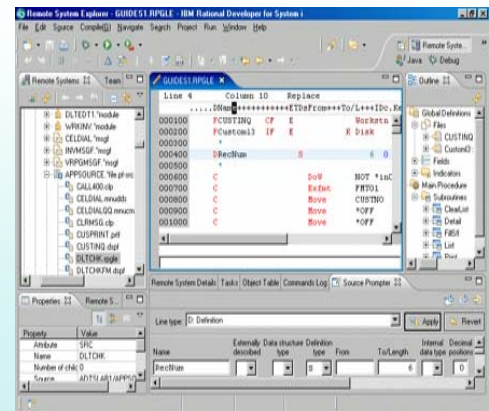
**How can we...**

- ▶ Achieve high productivity in development
- ▶ Attract new and younger developers to backfill retiring System z and IBM i developers?
- ▶ Simplify license management by standardizing on a single, multi-platform development IDE?
- ▶ Free up System z MIPS for production use?

**RDz 7.5 – 4Q08**

- ▶ Real-time syntax checking
- ▶ Simpler integrated build tooling
- ▶ Integrated program analysis tools
- ▶ Generate VSAM and QSAM access
- ▶ Generate COBOL from UML activity diagrams
- ▶ Decrease client & host resource usage

- ✓ Use modern IDEs to develop and maintain code
- ✓ Debug and test from workstation
  - Rational Developer for System z
  - Rational Developer for System i
  - Rational Business Developer
  - Rational Developer for System i for SOA Construction
  - Rational Application Developer



# 4 - Modernize Your Team Infrastructure



## Business Challenge

**Inefficient in multiple development teams**

**How can we**

- ▶ Increase quality and improve responsiveness for multi-platform development teams?
- ▶ Simplify management of team infrastructure for multiple development teams?
- ▶ Reduce team infrastructure costs across the enterprise?

**CC 7.1 – 2H08**

- ✓ Template builds via CC Explorer
- ✓ IPv6 support
- ✓ Implementation Guide improvements
- ✓ ISPF client performance improvements

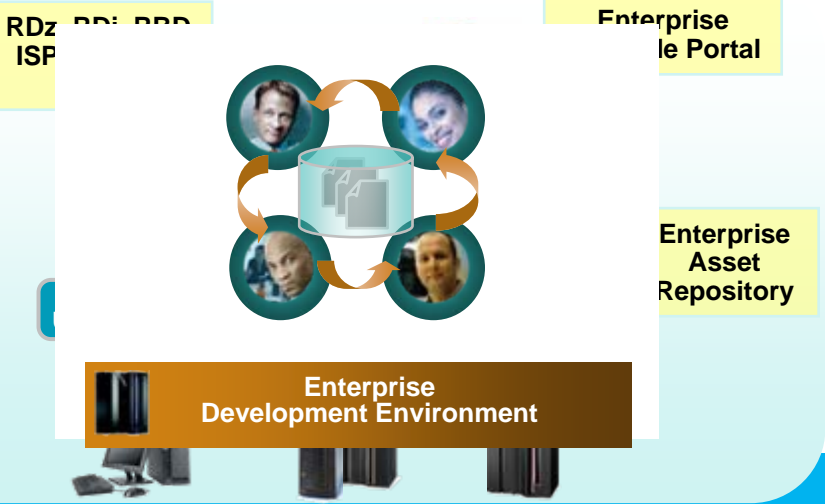
## Solutions

**Provide coordination, traceability, consistency across platforms**

- ✓ Consolidate enterprise and distributed source code management
  - *Rational ClearCase*
- ✓ Automate and orchestrate defect tracking and configuration management across the enterprise
  - *Rational ClearQuest*
- ✓ Produce coordinated, traceable, automated, and cross-platform builds
  - *Rational BuildForge*



**Distributed Development Environment**



**Enterprise Development Environment**



# Software Innovation through Collaboration

## ▶ Real time, in-context team collaboration

- Make software development more automated, transparent and predictive

## ▶ "Think and work in unison"

### Rational Team Concert for System z – beta starts 7/2008

### Rational Team Concert for IBM i – beta starts 7/2008

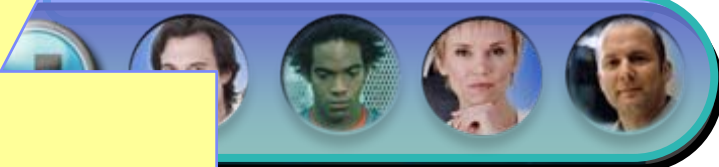
- ✓ Collaborative team environment for z/OS, IBM i, and distributed
- ✓ Specialized support for all language artifacts such as COBOL, PL/I, RPG, EGL, Java
- ✓ Native z/OS & IBM i file system support
- ✓ z/OS & IBM i artifact builds
- ✓ Hosted on z/OS, IBM i or distributed

### Beta program information:

<https://www14.software.ibm.com/iwm/web/cc/earlyprograms/rational/RTCiz2008/>

- Extend the value of ClearQuest and ClearCase
- Support for System z and IBM i servers (beta 3Q)

## IBM Rational Team Concert



transparent *integrated presence*  
 wikis OPEN real-time reporting  
 chat automated hand-offs Web 2.0  
*custom dashboards* automated data gathering  
**EXTENSIBILITY** *Eclipse plug-ins* services  
 architecture **FREEDOM TO CREATE**  
 JAZZ TEAM SERVER

Open and extensible on

- ✓ Collaborate in context
- ✓ Right-size governance
- ✓ Day one productivity



# 5 - Modernize your Development Investments

**Business Challenge**  
Archaic green screen applications

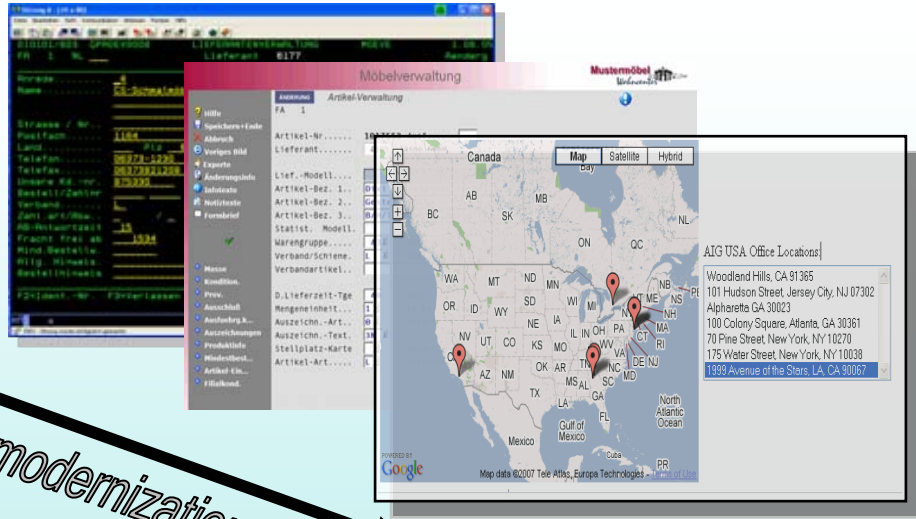
**Solutions**  
Create impressive UIs quickly

How can we

- HATS 7.1 3/2008**
- ▶ ▶ Mobile device support
  - ▶ ▶ Visual macro editor (tech preview)
  - ▶ ▶ JSR 168 support (portlet standard)
  - ▶ ▶ Web services usability improvements

▶ Create modern Web 2.0 non-Web 2.0 without training staff in Javascript, XML, JSON, etc?

- ✓ Quickly and easily extend your 3270 and 5250 applications to the web
  - *Host Access Transformation Services*
- ✓ Leverage rich UI and Web 2.0 technologies with existing or new developers
  - *Rational Business Developer 7.5 (2H08)*
  - *On AlphaWorks today!*



*modernization*



# 5 - Modernize your Development Investments



**Business Challenge**  
 Unsupported legacy development platforms

**Solutions**  
 Save money by moving off old platforms and languages

- Rational Migration Extension for Natural – eGA 6/2008**
- ✓ Transform Natural/ADABAS apps to EGL/DB2 to move to modern language and tools platform, save money
- Rational Migration Extension for IBM i – eGA 6/2008**
- ✓ Transform RPG apps to EGL for customers and ISVs requiring multi-platform solutions

- ✓ Migrate from out-of-date and expensive legacy development platforms onto the IBM Rational Software Delivery Platform (SDP)
  - EGL, DB2
  - All SDP tools

**Non IBM Technologies**

HPS/AppBuilder

COBOL

ca Ideal TELON

COOL: GEN

COOL: Enterprise

Maestro

IDMS ADS/Online

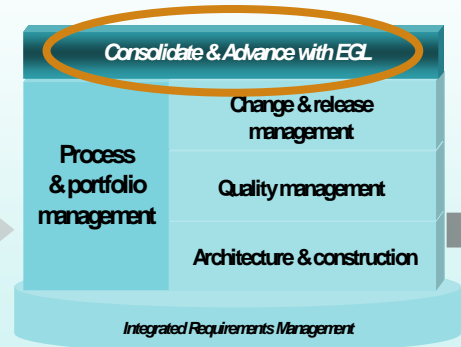
NATURAL ADABAS

Microsoft Visual Studio

SYBASE PowerBuilder

Microsoft Visual Basic 6.0

RPG



**Deploy to:**

Linux  
 AIX  
 Solaris  
 HP-UX  
 IBM i  
 System z  
 Windows  
 WAS



# IBM Rational Software Delivery Platform

*and so much more*

## Rational RequisitePro

- ✓ Reduce risk of project failure by managing shared common requirements

## Rational Functional Tester

- ✓ Reduce time and guarantee repeatability with automated testing, including 3270, 5250, and VT

## Rational Method Composer RUP for System z

- ✓ Take advantage of best practices

## Rational Performance Tester

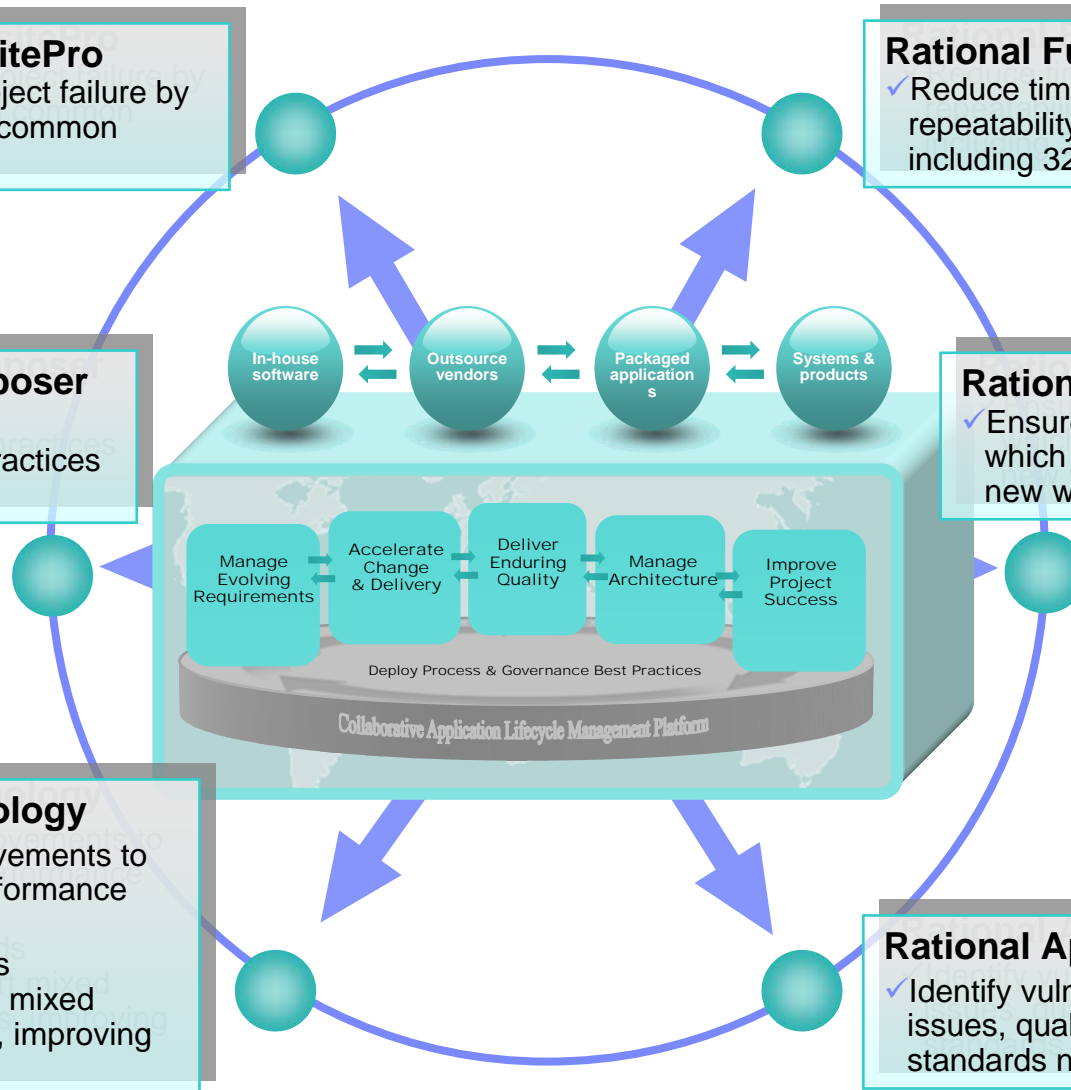
- ✓ Ensure scalability of applications which expose existing assets in new ways (e.g. services)

## IBM Compiler Technology

- ✓ Exploit hardware improvements to improve application performance and "gain capacity"
- ✓ Use language standards conformance to support mixed language environments, improving flexibility

## Rational AppScan

- ✓ Identify vulnerabilities, privacy issues, quality exposures, and standards non-compliance



# Accelerating software innovation

## Customer successes

- ▶ Create web UIs for existing host applications
- ▶ Identify business services to leverage across the enterprise
- ▶ Extend COBOL and RPG applications for SOA transformation
- ▶ Gain staff flexibility by breaking skills silos
- ▶ Unify enterprise and distributed teams



### User interface modernization

- ✓ Decreased development cycle time from 11 to 6 months with HATS
- ✓ Sped creation of new customer services
- ✓ Improved operational efficiency



### Enterprise portfolio management

- ✓ Identified obsolete code within automotive systems, and begin "decommissioning"
- ✓ Performed impact analysis across massive systems with WSA and RTW
- ✓ Communicated impacts to potentially affected development teams



### Rapid application development

- ✓ Developed new application framework based on IBM COBOL standard
- ✓ Used RDz to design new COBOL to provide online banking services



### Cross-platform application development

- ✓ Standardized on EGL/RBD and RAD to unify application development across all platforms and transaction managers (e.g., WAS, IMS)
- ✓ Achieved rapid time to market



### Unified change and release management

- ✓ Created highly automated cross-platform solution using ClearCase to manage and support the software lifecycle for COBOL and Java development





# Agenda



- ▶ Enterprise Modernization
- ▶ Getting Started
- ▶ Q&A



**New!**

# How to get started?

*Resources to help you kick-start your Enterprise software innovation*

## System z, IBM i Sandboxes

*Fully hosted online System z and IBM i environments to experiment, try and buy*

## System z, IBM i Starter Packs

*Software bundles to simplify getting started on your modernization journey*

- ▶ Discover, Reuse, & Grow
- ▶ Analyze & Modernize
- ▶ Develop & Manage
- ▶ Test & Track

## Education Series

### Modern Application Architecture for COBOL Developers

*Learn how to design and integrate composite applications across CICS and WebSphere*

### EGL Distance Learning

*10 days of FREE instructor-led virtual class!*

*Jump-start your modernization projects!*

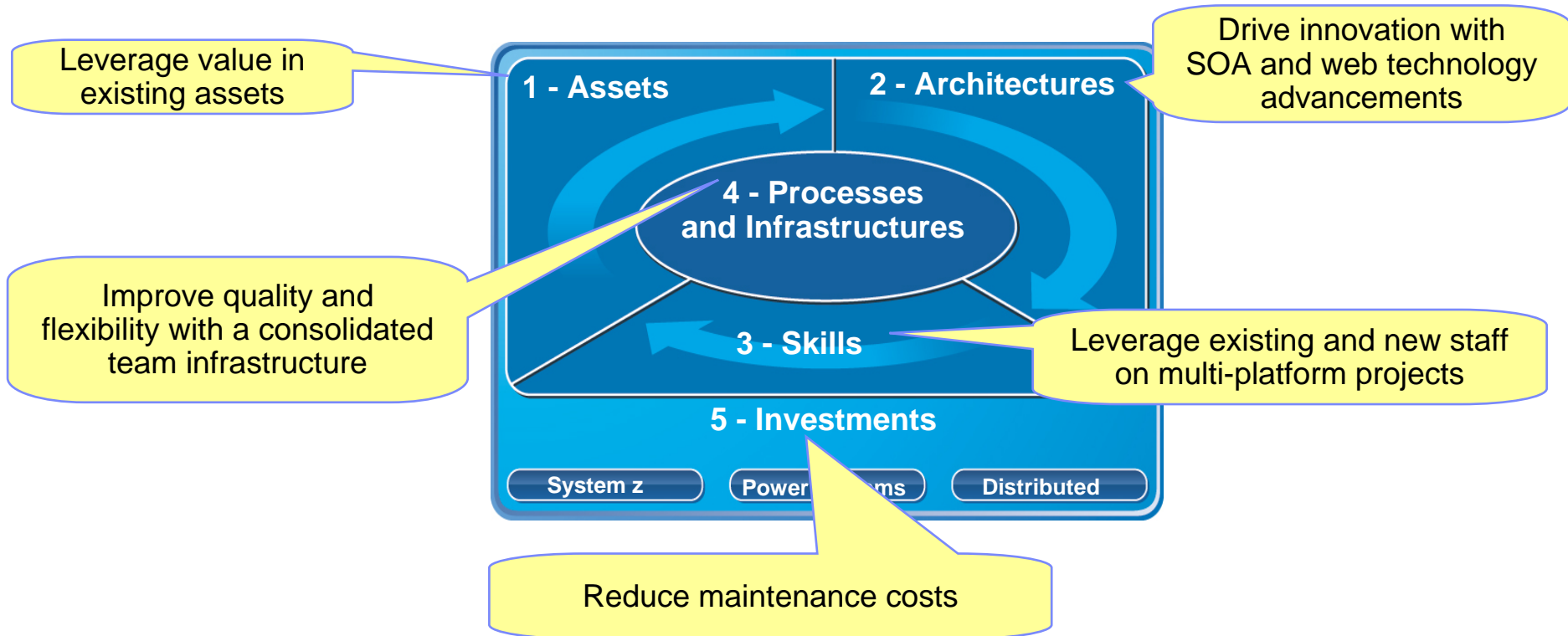
**Learn more at:**

[www.ibm.com/rational/modernization](http://www.ibm.com/rational/modernization)



# Summary

- ✓ Change is at the heart of most businesses
- ✓ IT flexibility is a key enabler of change
- ✓ Rational EM solutions provide this flexibility
- ✓ You can get started today



## Collaborate with us

Design Partner Program

Lab Advocacy Program

Board of Advisors

Voice of the Customer Events

Rational Software Development Conference

jazz.net

developerWorks

Beta Programs

RFE Community

Rational User Groups

Customer Acceleration Program



➔ Learn more at [www.ibm.com/software/rational/collaborate](http://www.ibm.com/software/rational/collaborate)





# QUESTIONS







# THANK YOU

## Learn more at:

- ▶ [IBM Rational software](#)
- ▶ [IBM Rational Software Delivery Platform](#)
- ▶ [Process and portfolio management](#)
- ▶ [Change and release management](#)
- ▶ [Quality management](#)
- ▶ [Architecture management](#)
- ▶ [Rational trial downloads](#)
- ▶ [Leading Innovation Web site](#)
- ▶ [developerWorks Rational](#)
- ▶ [IBM Rational TV](#)
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