IBM Rational Team Concert

*Accelerate enterprise agile development
and application lifecycle management (ALM) in
heterogeneous environments*

Wilhelm Mild
IT Architect
IBM Deutschland

Stefan Schneider
Q Group AG

al software

Innovation for a smarter planet

Business needs software development that supports IT agility….

Must Deliver:

✓ More business solutions ⬆

✓ More flexibility ⬆

✓ More quality ⬆

✓ More business value ⬆

-yet-

✓ Less risk ⬇

✓ Less costs ⬇

✓ Less or flat resources ⬇

Business Needs

Resources

Effective software development promotes a delicate balance of resources, reducing costs while delivering more, higher-quality business solutions.

Application Life-cycle Management Business Problems – In customers own words

- Wir entwickeln mit gleichen Tools wie in den letzten Jahrzehnten. Wir würden die manuellen Entwicklungs-prozeduren automatisieren.

  ▶ "We do progress reporting the same way we've been doing it for 40 years. It's all manual: weekly status meetings, progress reports, demonstrations. We'd love to get test results from nightly builds posted somewhere instead of having to run people down to ask them whether things are working yet." (Bank)

- Eine Beratungfirma hat uns eine neue Entwicklungs-Methodologie vorgeschlagen, aber ein methodologie/process sollte in Tools verankert sein.

  ▶ "We had a consulting company define a methodology for us. We still have it on a shelf somewhere. A process needs to live in the tools we use if it's ever going to be followed." (Transportation Co.)

- Automatisierte 'built' prozesse würden pro Entwickler, täglich 1 Std ersparnis sein.

  ▶ "Automating our build-deploy-test processes would probably save each of our developers about an hour a day." (Financial services company)

Traditional software delivery environments limit productive collaboration: Islands of People, Process and Information
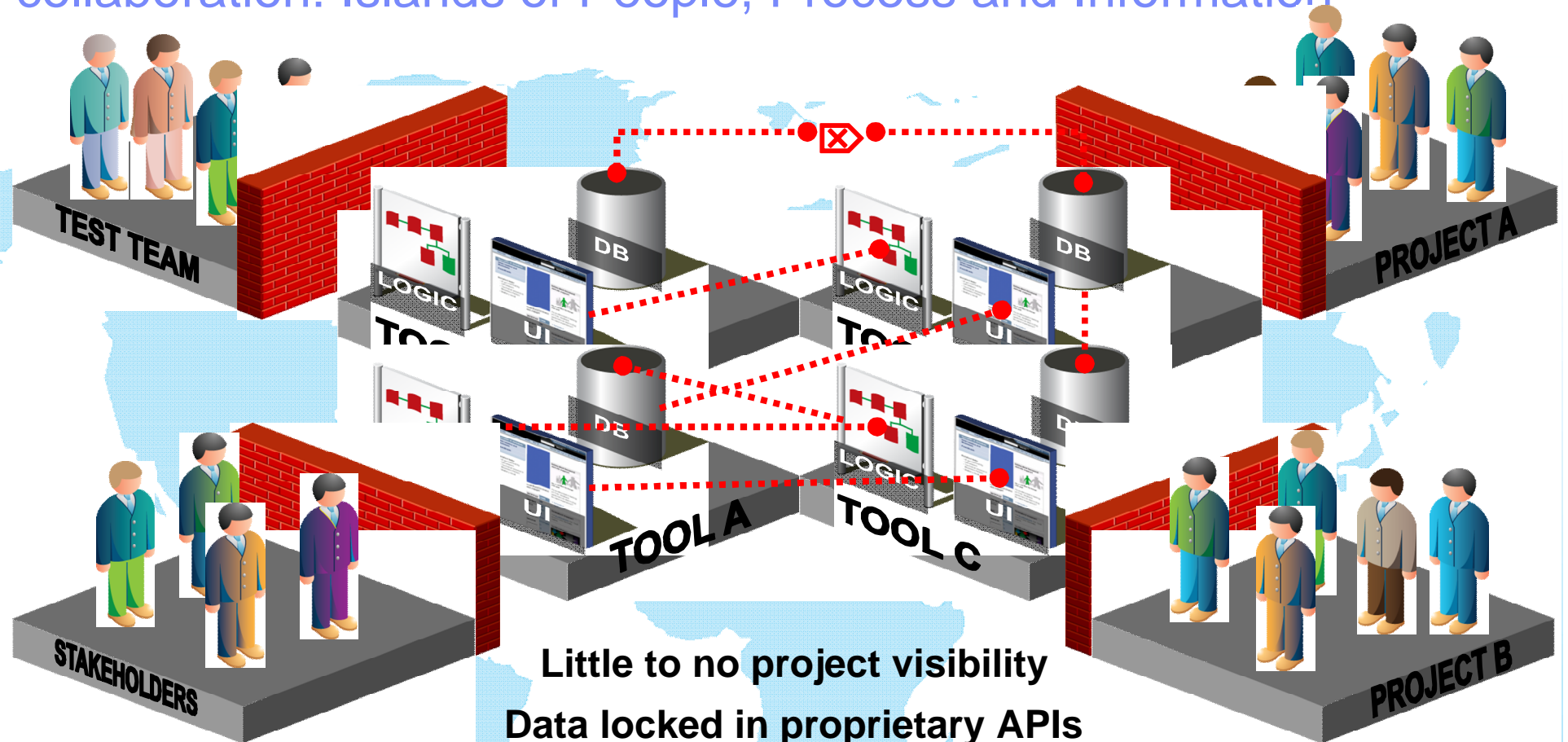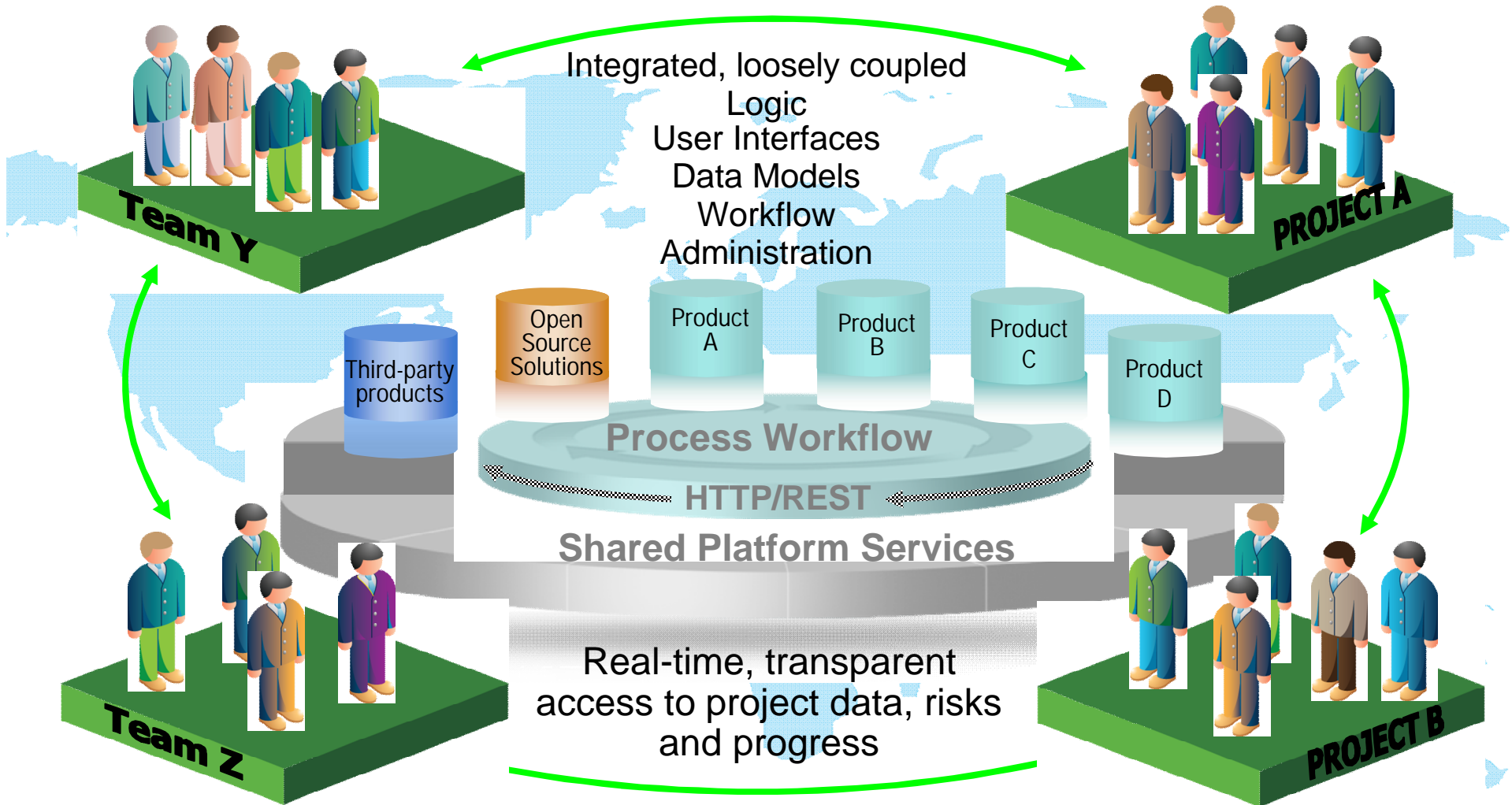

Little to no project visibility

Data locked in proprietary APIs

Poor process and workflow integration

High maintenance and administration costs

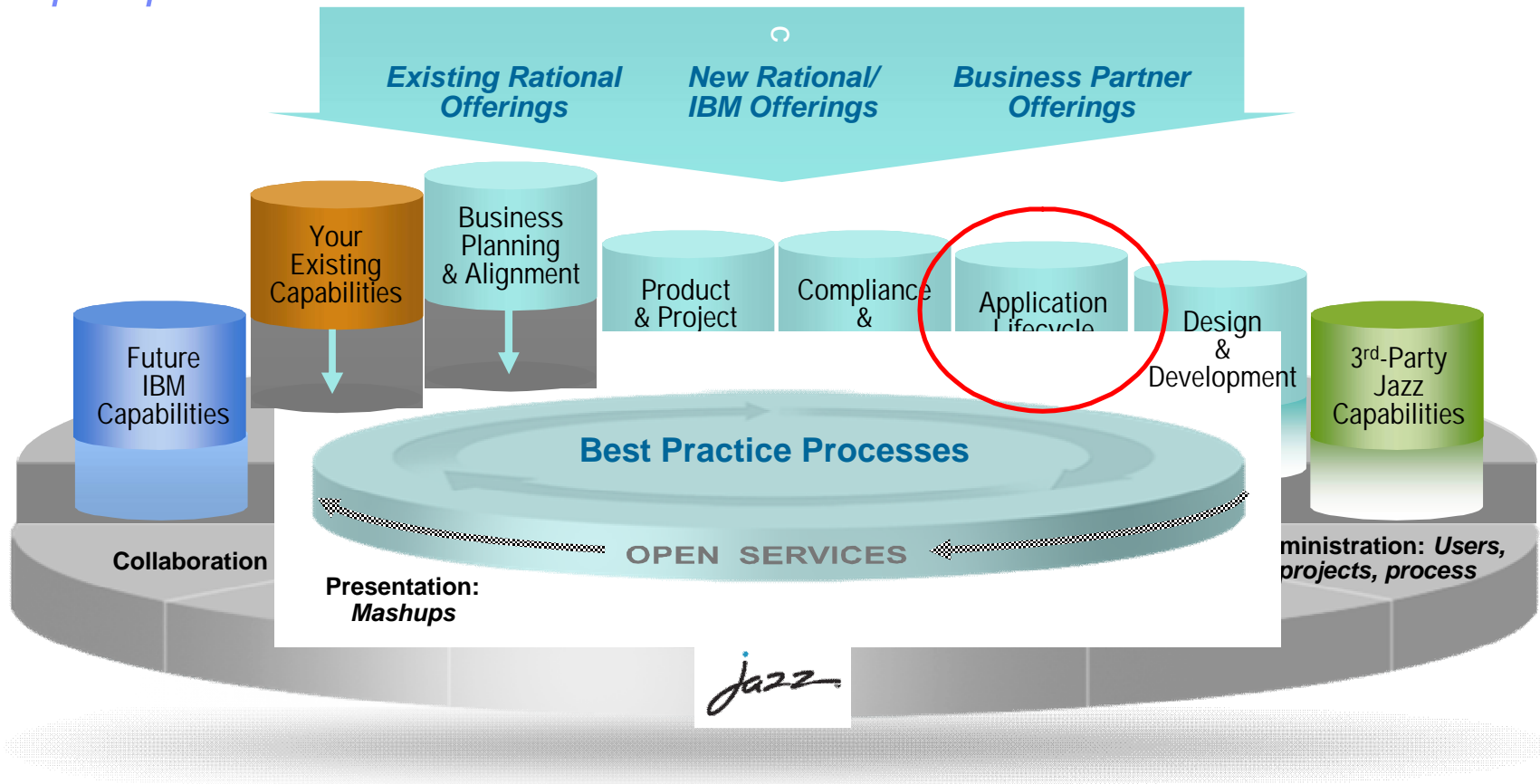**Persistent functional, geographic and organizational silos**

Jazz:
A platform for development integration and collaboration

Integrated, loosely coupled
Logic
User Interfaces
Data Models
Workflow
Administration

Team Y

PROJECT A

Open Source Solutions

Third-party products

Product A

Product B

Product C

Product D

Process Workflow

HTTP/REST

Shared Platform Services

Team Z

Real-time, transparent access to project data, risks and progress

PROJECT B

Rational Team Concert (RTC) is based on Jazz
An open platform with a shared set of services

- A scalable, extensible team collaboration platform

- A community at Jazz.net, where you can see Jazz-based products built in the open

- An open architecture for lifecycle integration (OSLC - www.open-services.net)

Process awareness
Making process executable and repeatable

Process Architect

Step 1: Customize

Project Manager

Step 2: Enact

Variant #1

Scrum

Variant #2

Iterative

Variant #3

Waterfall

Project A

Agile

Product Owner

Scrum Master

Team Member

Project B

Iterative

Professional Engineer

Project C

Waterfall

Analyst

Developer

Quality Professional

Release Engineer

Scrum agile template

Work Items | Plans | Source Control | Build

- Welcome to Work Items

Queries
- My Queries
- Shared Queries

Create Query
- New Query

Create Work Item
- Defect
- Task
- Story
- Epic
- Track Build Item
- Impediment
- Adoption Item
- Retrospective

Create Work Item Set
- Create from Template

Formal project mgt template

Work Items | Plans | Source Control | Builds

- Welcome to Work Items

Queries
- My Queries
- Shared Queries

Create Query
- Create Query

Create Work Item
- Defect
- Task
- Project Change Request
- Issue
- Business Need
- Risk
- Risk Action
- Milestone

Create Work Item Set
- Create From Template...

Resource Allocation and Scheduling

- **Resource Allocation**

  - Search and add a resource to your plan based on availability

  - You can now allocate ranges of availability to a project or team.

Provide both agile and traditional views on a plan

NEW!

Gantt charts
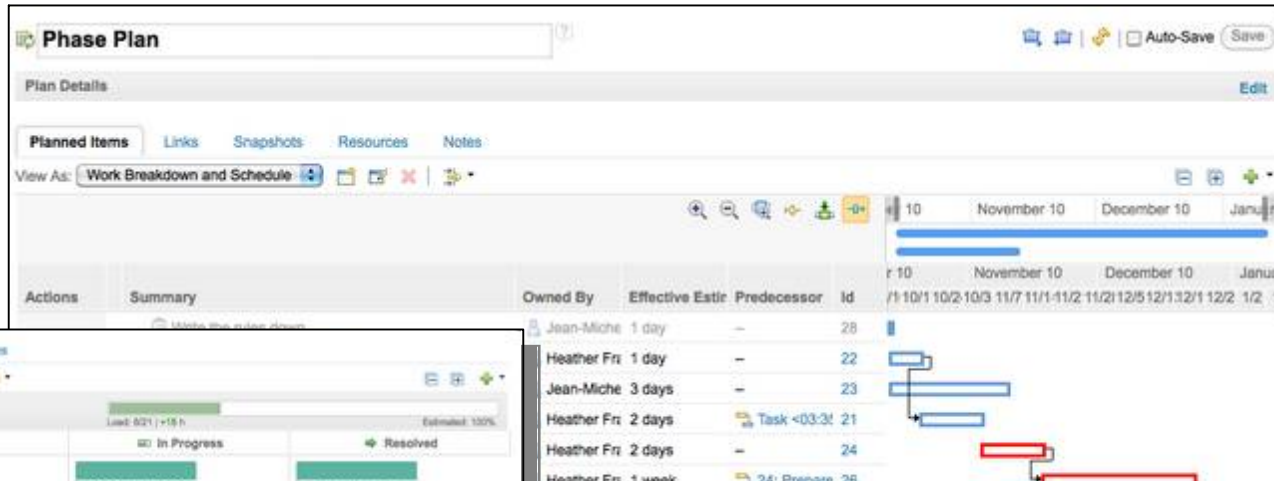
Taskboards
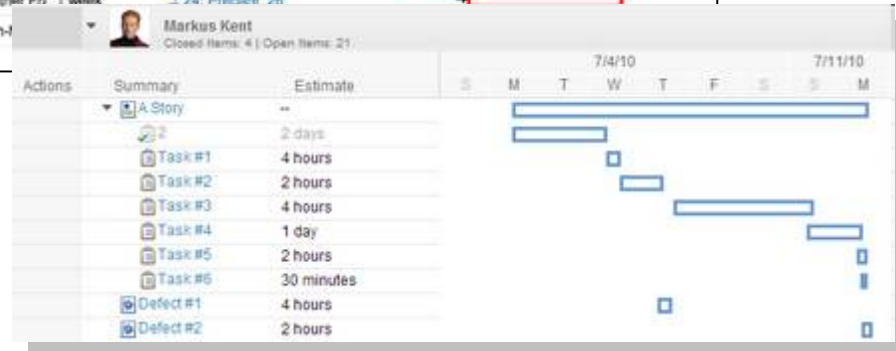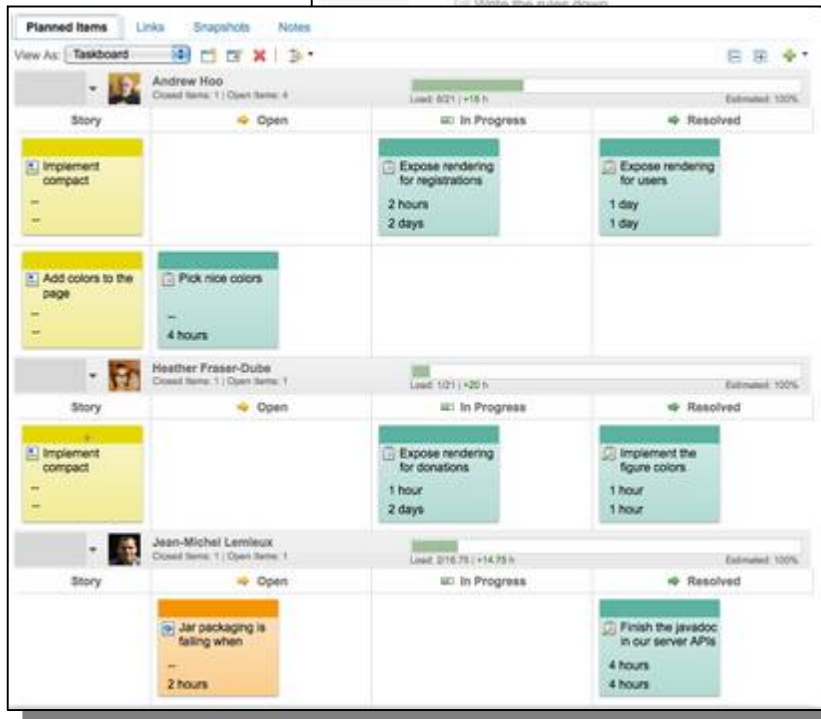
Roadmap charts

Support any planning method
Enable success w/ transparency

Automated dashboards

- Role based dashboards - Personal, Team, Project dashboards

- Dashboards populated with data from across the silos

- Review status on-line – Stay informed – Automated Project Status w/o having to ask.

Personal Dashboard

Team Dashboard

Enhanced Access Control for Work Items

- Set the project area governing read access on a per work item basis. This project area is independent of the project area where the work item was created.
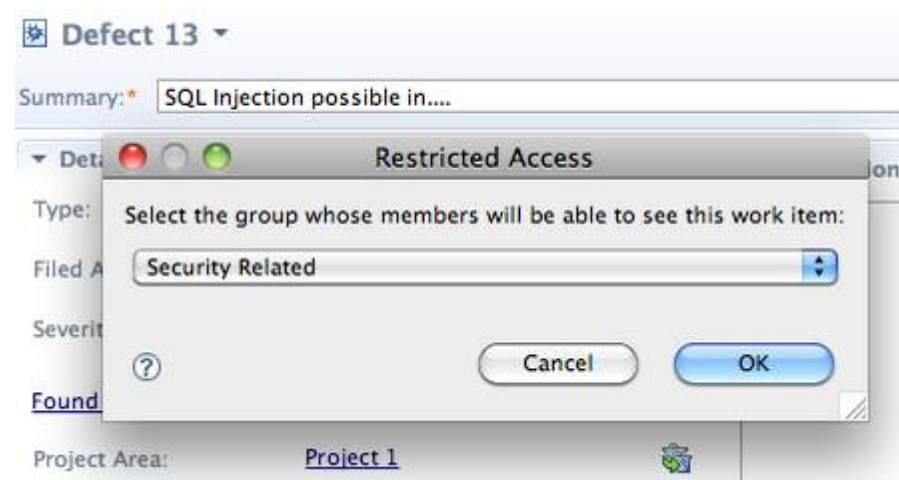
- Depending on how often individual read access has to be configured, you can use the action in the Work Item Editor header or configure a presentation that exposes the "Restricted Access" attribute right within the editors. Queries and bulk modification are also supported.

Advanced source code management
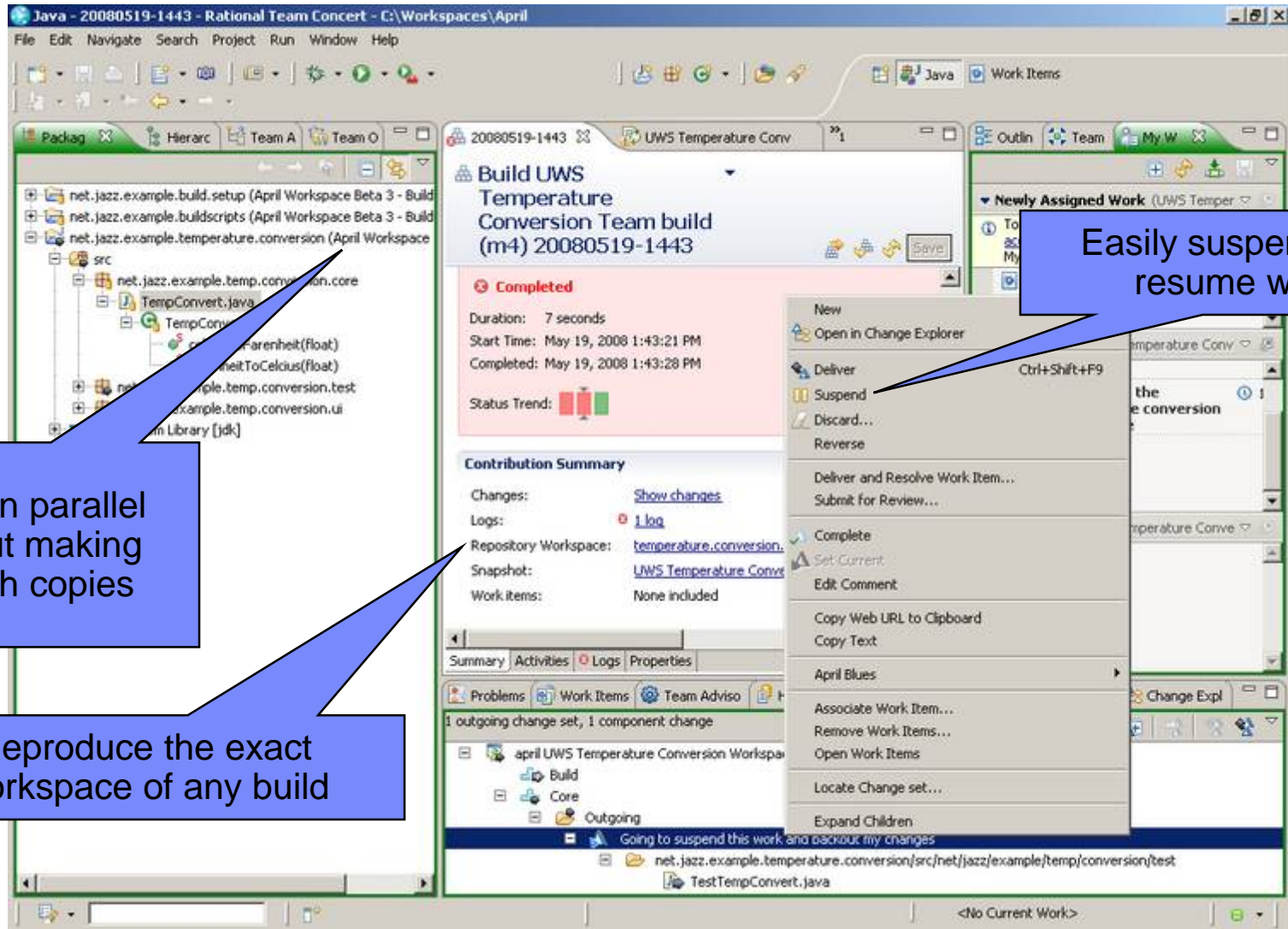
Easily suspend and resume work

Work in parallel without making branch copies

Reproduce the exact workspace of any build

Govern change-mgmt

- **Establish and enforce approval and review checkpoints in your change workflow**

- **Require approvals and reviews before a workflow state change**
  - ▶ Example: Rejecting a submitted workitem, moving a defect from submitted to planned, moving an enhancement from resolved to implemented

- **Establish multiple approvals and reviews integrating comments and discussion**

- **Require an electronic signature when changing the state**
  - ▶ Example: As part of an approval, when moving an enhancement or defect from submitted to rejected or accepted.
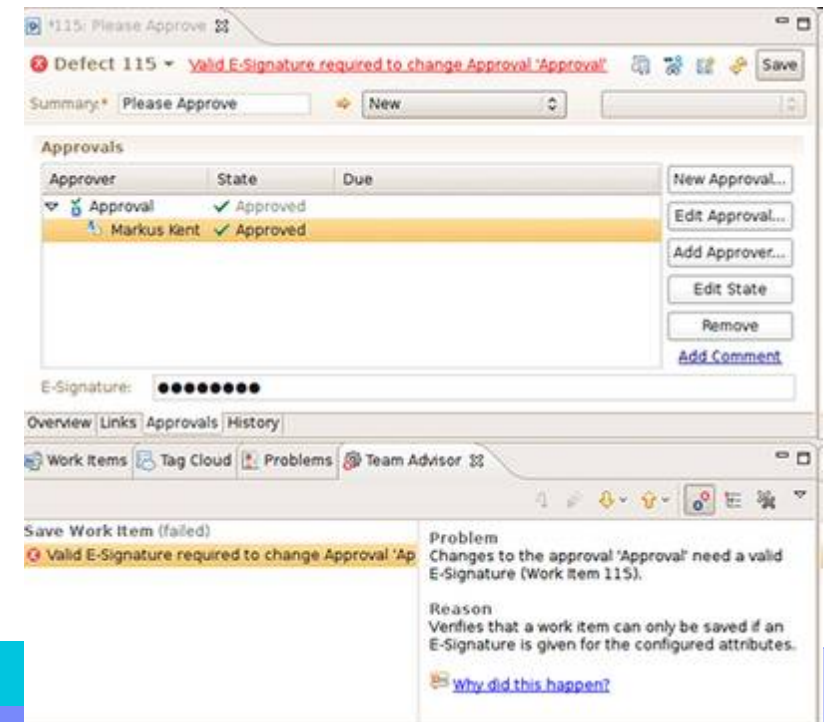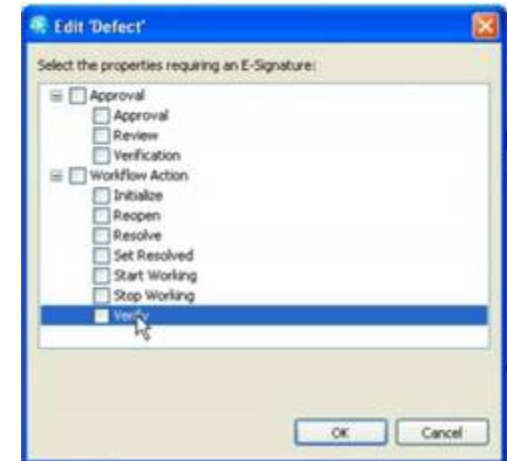
Transparency and Status for Everyone
Every stakeholder knows project status without having to ask

Collaborate in real-time and in context of project work - maximize progress
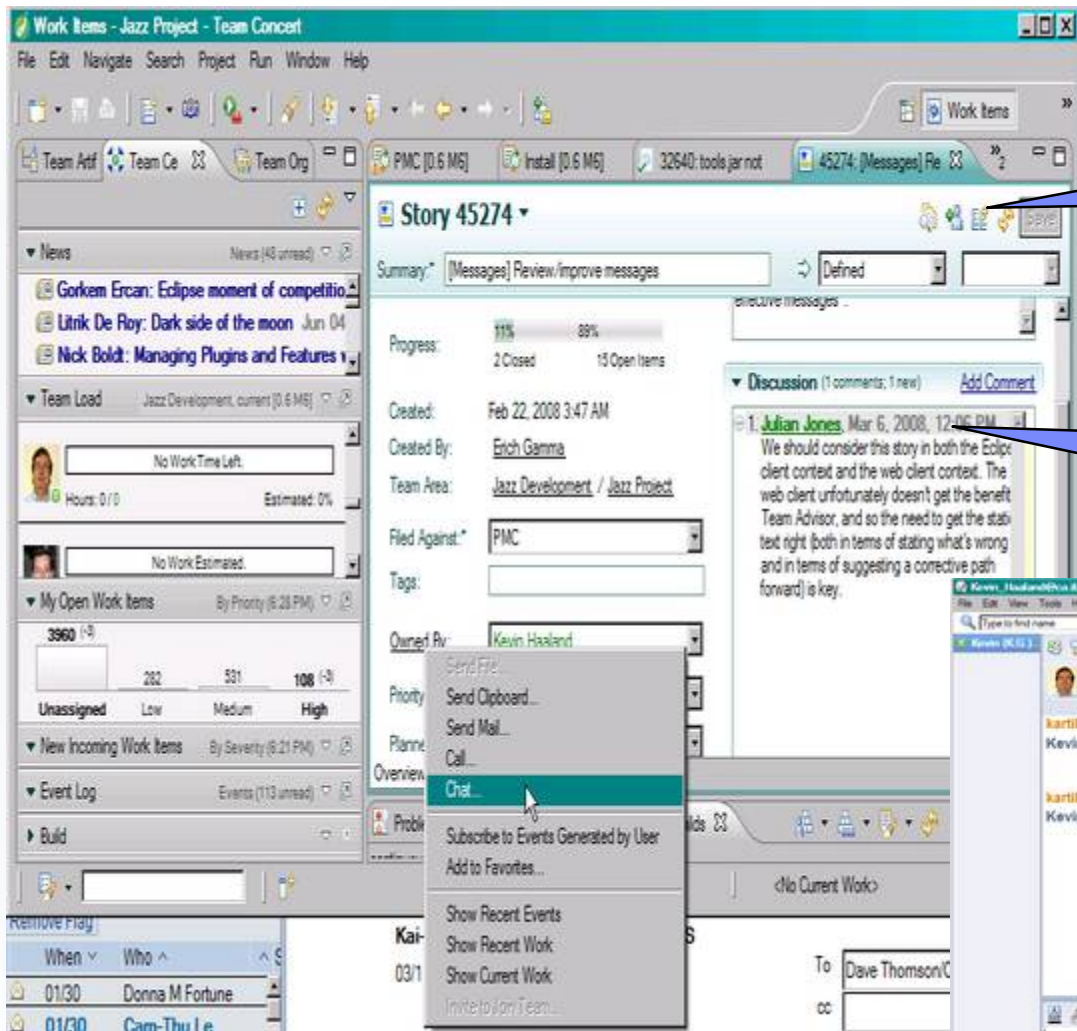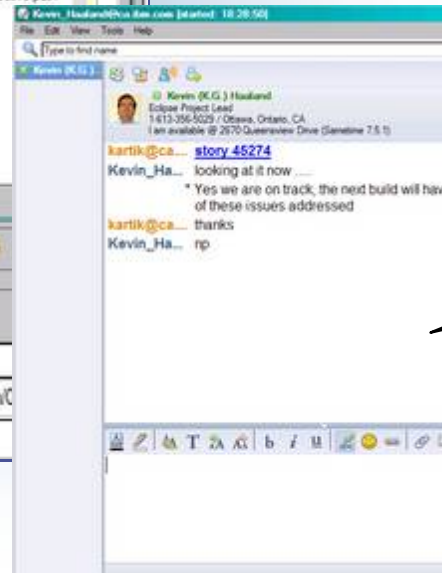

Avoid Duplication
- Find potential duplicates
- Subscribe team members
- Move / Copy work between projects

Team Awareness
- Shows team members and their online status
- Discussions kept with work for all time

Change Awareness
- Automatically links to changes if mentioned in chat
- Drag and drop any work item or query into chat

Provide transparency and focus to what matters to you

- **Create feeds for**
  - ▸ work items, queries
  - ▸ builds, build definitions
  - ▸ team events

- **A consolidated view of events in your team area/project area**

- **Feeds are available in both the Visual Studio and Eclipse IDE**

- **You can customize feeds by filtering**
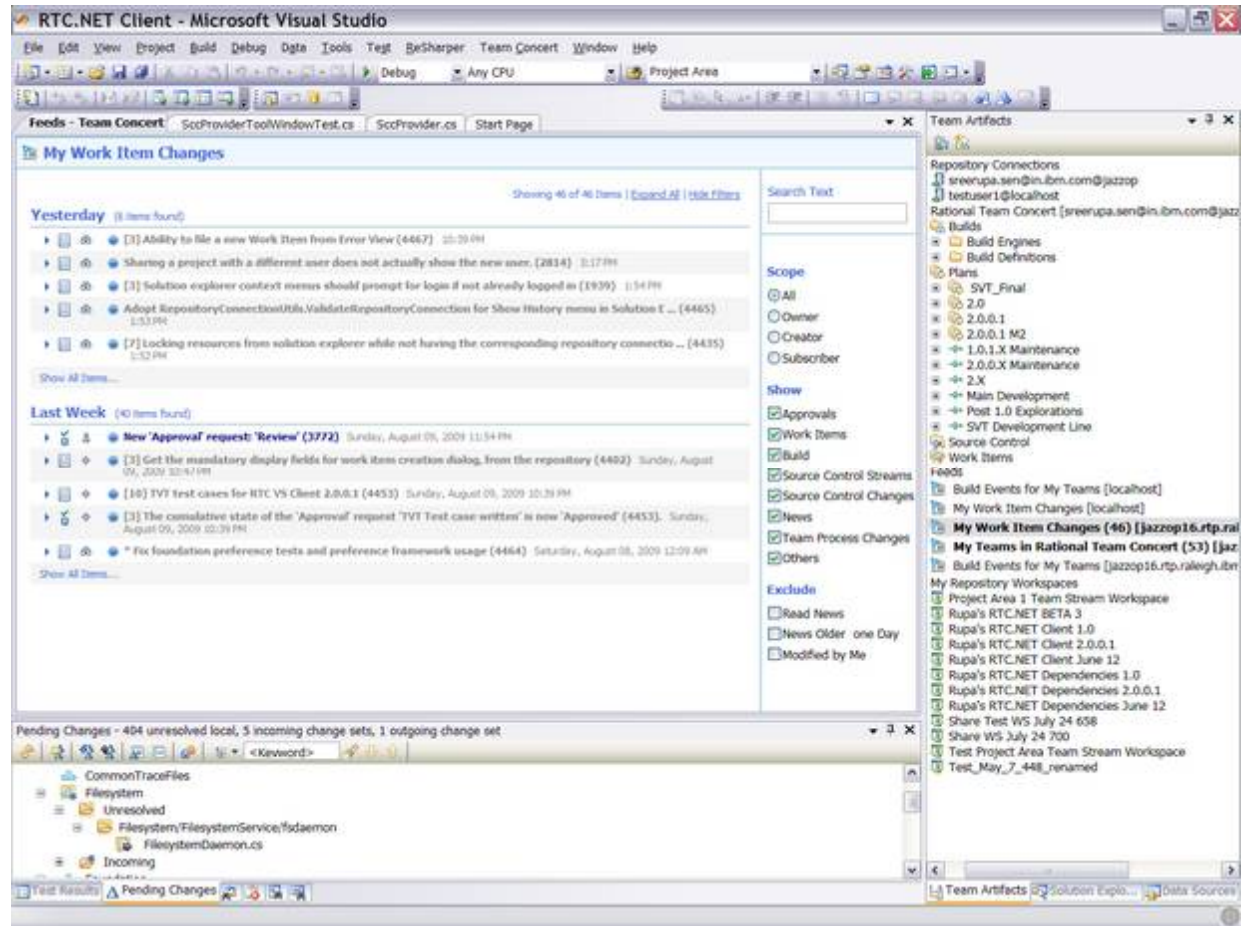
RTC works with your existing tools

- Easily import Bugzilla, Jira*, or any other change tracking system with CSV file support into RTC Work Items

- Easily import Subversion and CVS repositories into RTC SCM

- Importers also available for ClearCase / ClearQuest for those moving to RTC

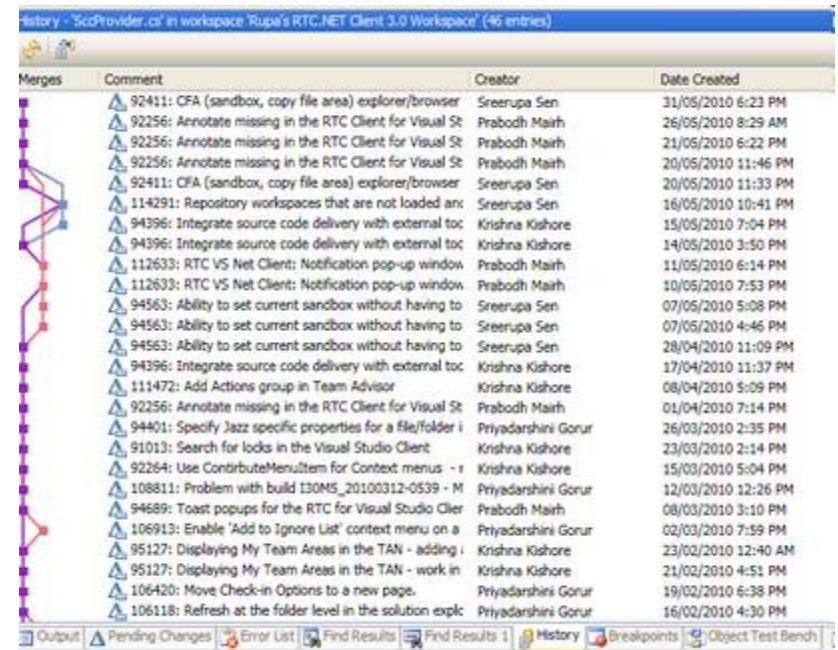- Connectors available to provide dynamic integrations with Subversion, ClearCase, ClearQuest, Synergy, Change
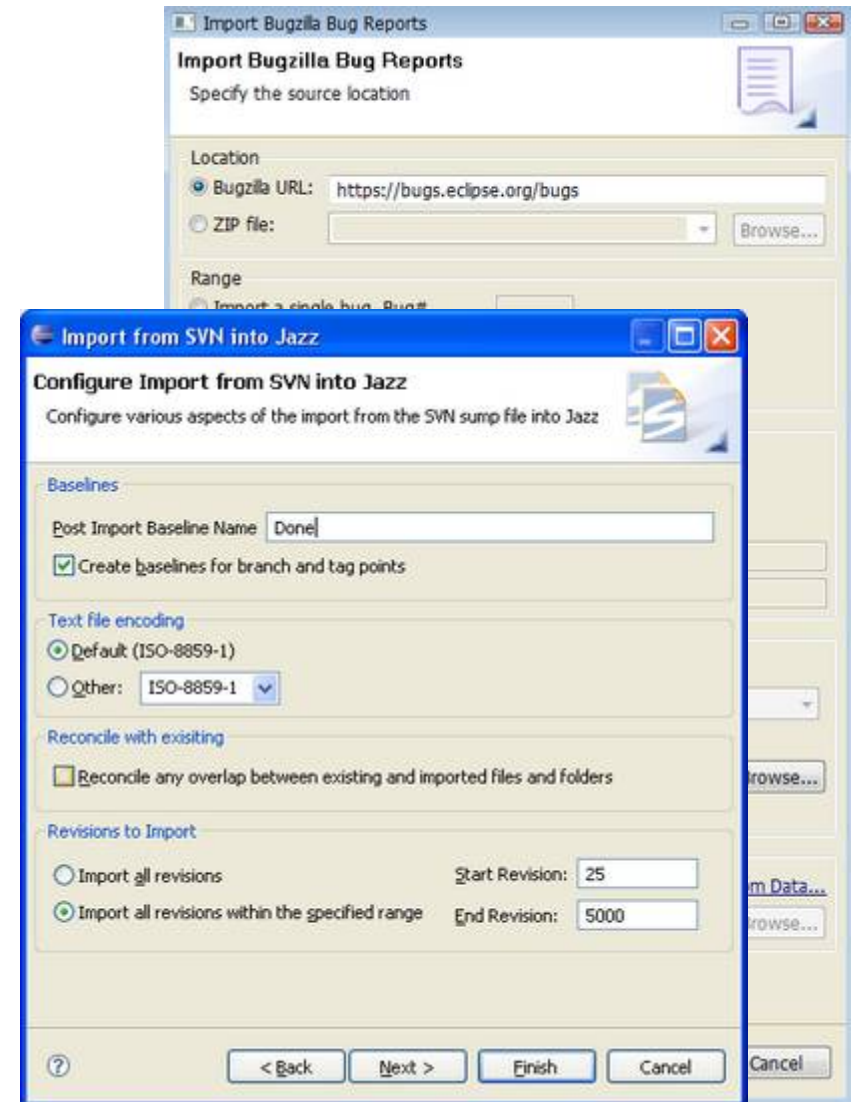
Enhanced RTC Client
for Microsoft Visual Studio IDE

NEW!

- **Team Advisor Support**
  - ▶ Pre-built rules – Static Analysis FxCop
- **Rich History with Visual Merge**

Rich history view in VS client (Merge info displayed)

Team Advisor Support – with Guidance

Visual Studio: Agile Planning from inside the IDE!

- **Visual Studio users**
  - ▶ Access project plans from within the IDE
  - ▶ Create/update plans
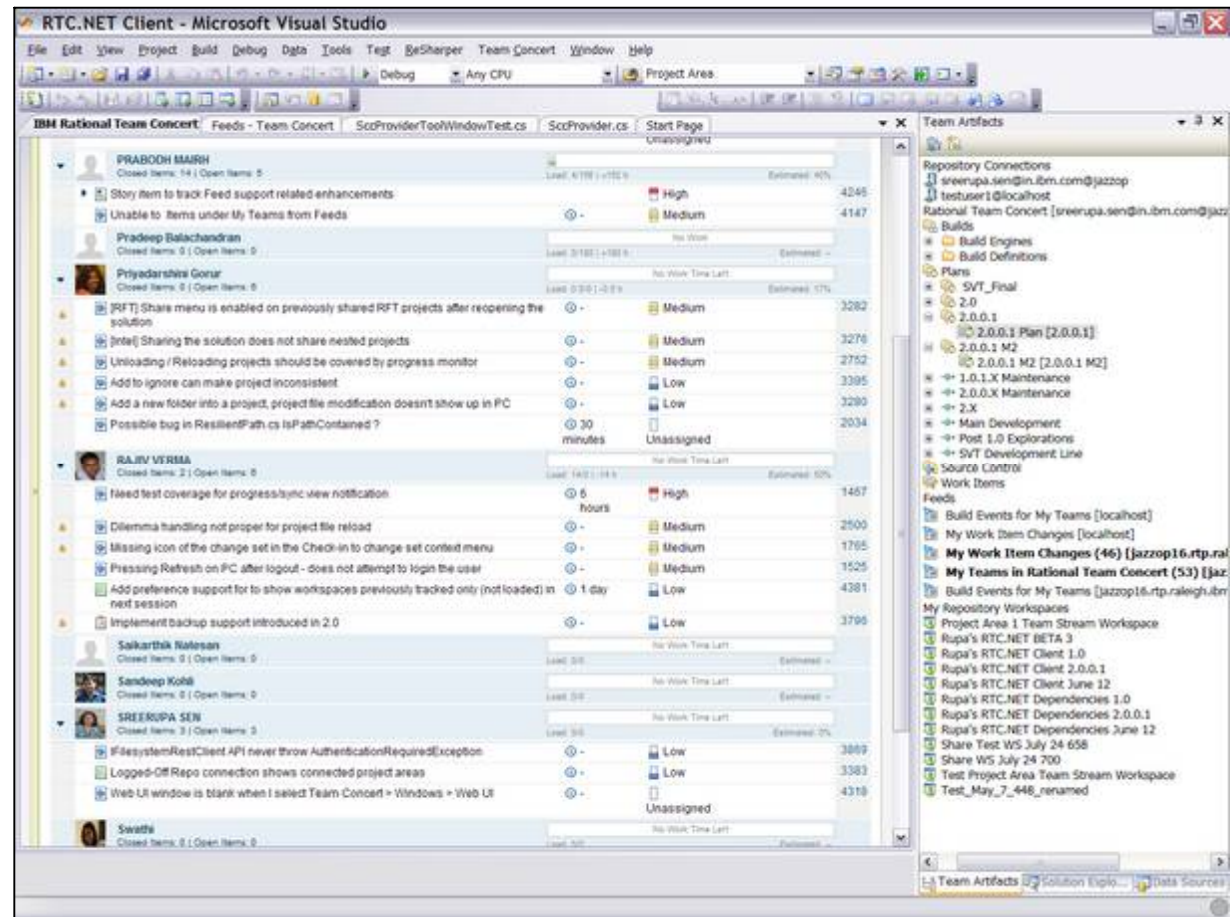
Open Services for Lifecycle Collaboration (OSLC)

Open Services for Lifecycle Collaboration

Open interfaces. Open possibilities.

An industry initiative for making it easier to use software delivery tools in combination.

Barriers to sharing resources across the software lifecycle

- Multiple vendors, open source projects, and in-house tools
- Private vocabularies, formats and stores
- Entanglement of tools and data

▸ **The Open Services initiative is**

- *Building* a community of vendors, open source projects, integrators and IT teams, at **open-services.net**
- *Creating* public specifications of resources and services, like change requests, test cases, defects, requirements and user stories
- *Delivering* loosely coupled resource formats and services with "just enough" standardization

SIEMENS

dbMAESTRO

iTKO LISA™

GM

BSD GROUP
Better Software Development

ascendant
TECHNOLOGY

Tasktop

ORACLE

Open Source vs. Team Concert
Cut administration costs and increase productivity with Team Concert

Open Source

Web View		Eclipse View

| Bugzilla, Jira, etc. | ✖ | Cruise Control, ANT, etc. | ✖ | SubVersion, CVS, etc. |
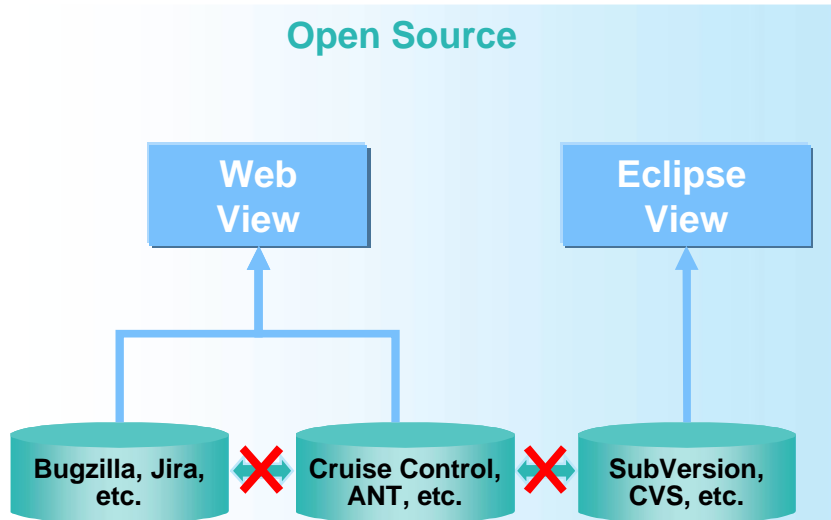
Point Solutions for individual productivity

- Significant costs to maintain and administer federated databases
- No concept of project, teams or schedules
- No single, consolidated view into project status and health
- SCM, work items, build functionality unaware of each other providing little to no insight into relationships between artifacts

Increased productivity with Rational Team Concert
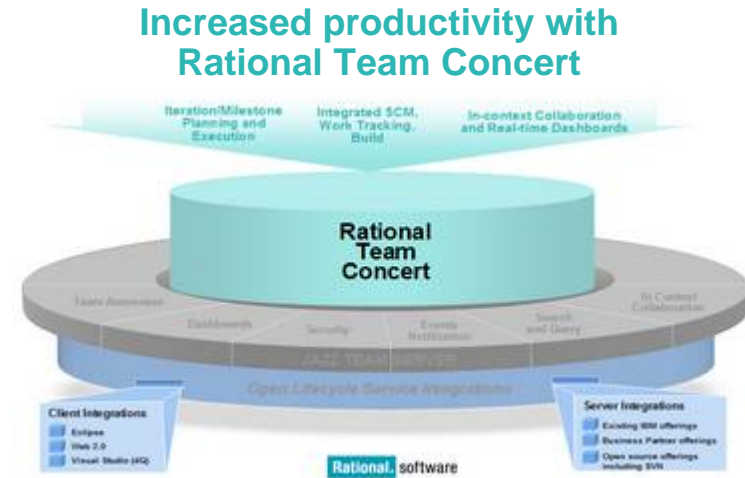
Fully integrated collaborative application lifecycle management solution

- ✓ Designed for agile and distributed teams
- ✓ Fully aware of projects, team process, team composition, who's doing what and by when, in-context collaboration with instant messaging discussions, discussion threads kept with work items
- ✓ All-in-one ALM solution for the core development team with planning, SCM, work items, workflow, build management, dashboards and reporting fully integrated
- ✓ Single download package, easy to install and get started, minimal administration, easy startup of projects, onboarding and offboarding of team members quickly

jazz.net
Creating a higher-fidelity connection to our customers

Suppose we did our development out on the Internet?

A transparent software delivery laboratory where you can...

- ✓ Get answers and insights directly from engineering
- ✓ Communicate with the development team
- ✓ Track the progress of builds and milestones
- ✓ Get the latest product trials and betas
- ✓ Join developers and product managers in discussion groups
- ✓ Submit defect and enhancement requests

Jazz momentum continues …

300,000+ Jazz seats in the market place

Over _50,000_ members active on Jazz.net

- _Almost **2,000** new members a month_

- Averaging **30,000+** unique visitors per month

- Since last year's Rational conference:

  - _Averaging over **400,000** page views per month more, than a 2X increase over the same period 08/09_

  - _Monthly downloads average over **9,000,** up 3X over the same period 08/09_

  - _Forum postings have averaged over **1,500** per month and forum searches are averaging over **6,000**/month_

What Analysts are saying:

Liz Barnett, Ez-Insight: _"With the Jazz project, Rational has developed **breakthrough technology** and is **poised to set the standard for collaborative ALM**..._

Paul Herzlich, Ovum: _"IBM has taken the opportunity to exploit the Jazz platform's power inventively. Its 'living' test plan is a **masterpiece of applying new technology to a familiar problem**… What is being delivered will demonstrate convincingly that IBM is raising the standard for a test management product."_

Julie Craig, EMA: _"Rational's differentiators are **difficult for competitors to equal,** and the new Jazz platform foundation may well turn out to be one of the best investments the Rational team has made."_

Community Feedback and Testimonials

"Rational Team Concert has **excellent team collaboration** with automated project management dashboards that are transparent to everyone — not just managers. This immediate and automated feedback helps **keep teams on track and motivated** to achieve project goals."
— Han Jie, Siemens

http://jazz.net/community/feedback/

Forrester Wave report:
Rational Team Concert "best current offering"

Yphise Award for Rational Team Concert

Boosting Team Collaboration during software projects. Download the report in the agility@scale e-Kit.
→ Get the e-Kit

Customer feedback

"By helping us to make project deliveries more repeatable and predictable, we anticipate that Rational Team Concert will **reduce project overrun costs by 20%."**

    --Matt Pomroy - Executive, Software Engineering, Ascendant Technology

"Its automated project management dashboards are transparent to everyone – not just managers. This immediate and **automated feedback helps keeps teams on track and motivated** *to achieve project goals."*

    --Han Jie - Senior Consultant, Siemens

"Where we previously used separate systems, with Rational Team Concert we now have well integrated functionality. **Our developers are more efficient because they are better able to focus on important issues**. *Our project managers greatly value the ability to customize these dashboards and* **instantly provide status** *on their milestones!"*

    --Mika Koivuluoma - Production Manager, TietoEnator

"Having a **unified and extensible environment is very compelling for us**. *Rational Team Concert provides* **the team transparency and visibility needed to keep work progressing** *so everyone knows what's going on without finger-pointing."*

    --Carson Holmes - Unified ALM Services Manager, Noblestar

"With IBM Rational Team Concert we've seen a **30% productivity gain** *on our global projects. The ability to* **easily suspend and resume work, along with advanced SCM features**, *helps team members juggle multiple tasks and priorities without missing a beat."*

    --Alain Bergeron - VP Consulting Services, CGI

Integrated AD Lifecycles with RDz

Stefan Schneider
Q Group AG

Stefan.Schneider@Qgrp.com

**Rational** software

Agenda

- ➢ **System z application lifecycle**

- ➢ **Integration and Extensions for RDz**

- ➢ **Productivity Enhancements**

- ➢ **RDz for VSE**

- ➢ **References**

Rational software

Agenda

- ➢ **System z application lifecycle**

- ➢ Integration and Extensions for RDz

- ➢ Productivity Enhancements

- ➢ RDz for VSE

- ➢ References

Rational software

Typical System z application lifecycle

Application performance,
management & problem
determination

Perf. Analyzer
Fault Analyzer

SCM System

Software Change
&Configuration
management

Functional &
Performance
Testing

Test utilities

Analyzer

Application
understanding

Application
Test & Debug,
Manage Data

Debugger

Editors

Programming Cobol
PL/I, C, HLASM

Build an Version management
through all Stages

Build
management

Generators

Rapid Development Tools generating
Cobol,PLi

Rational. software

Typical System z application lifecycle

AbendAid

Endevor, Librarian
Changeman

None

None

RD/z

Expeditor
Intertest

Endevor, Librarian
Changemen

Delta, SWT 01,
Microfokus AMB,
Own Written

Integrating RDZ in System z application lifecycle

RD/z
Endevor, Librarian
Changeman
Plug In

AbendAid

None

None

RD/z

Expeditor
Intertest

RD/z
Endevor, Librarian
Changeman
Plug In

Delta, SWT 01,
Microfokus AMB,
Own Written

Rational software

Integrating RDZ in System z application lifecycle

RD/z
Endevor, Librarian
Changeman
Plug In

AbendAid

None

None

RD/z

Expeditor
Intertest

RD/z
Endevor, Librarian
Changeman
Plug In

LPEX Extension for
DELTA, SWT, etc.

Rational software

Integrating RDZ in System

Fun. Test
RMT/R
WSV

D

RTC

Agenda

- ➢ **System z application lifecycle**

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- ➢ **Productivity Enhancements**

- ➢ **RDz for VSE**

- ➢ **References**

Integrations and Extensions
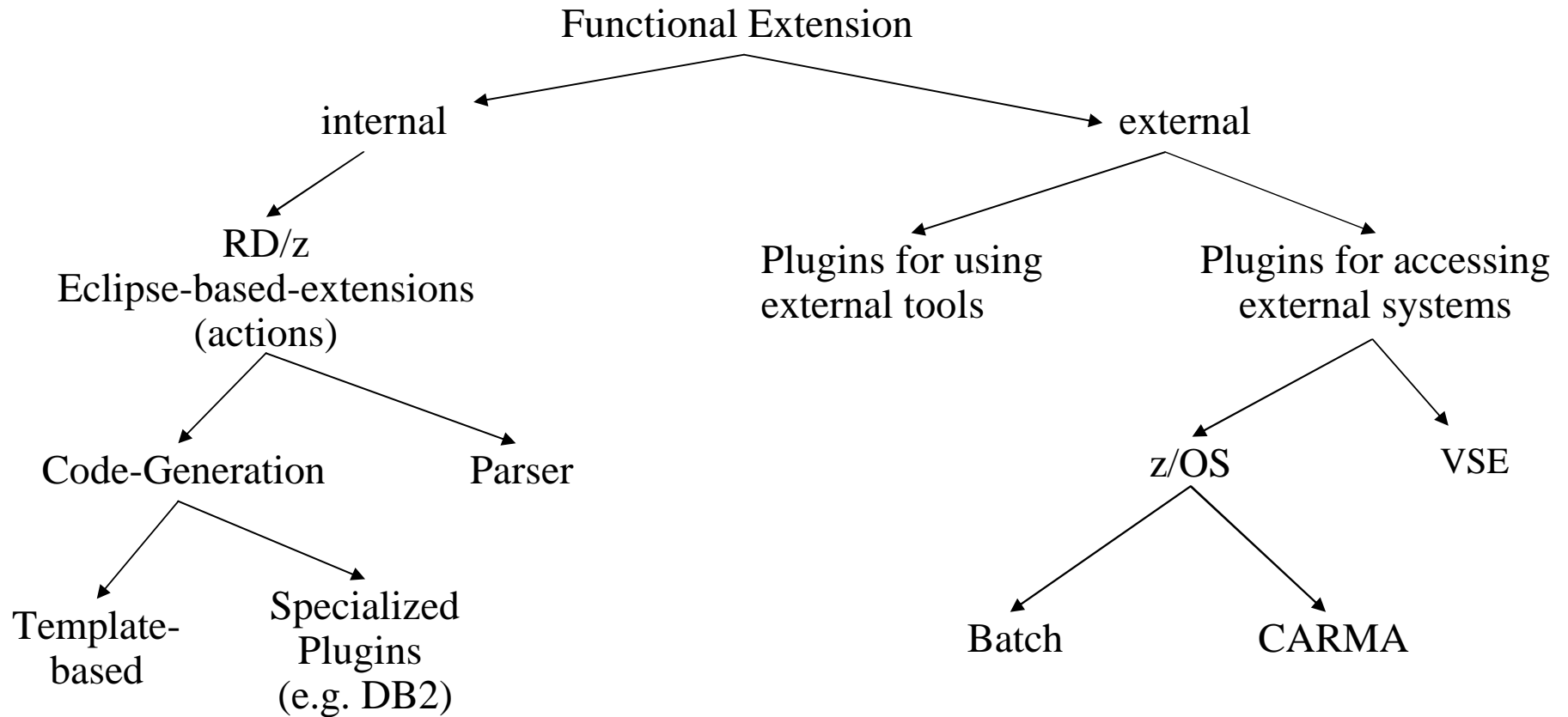
Functional Extension

internal   external

RD/z
Eclipse-based-extensions
(actions)

Plugins for using
external tools

Plugins for accessing
external systems

Code-Generation   Parser

z/OS   VSE

Template-
based

Specialized
Plugins
(e.g. DB2)

Batch   CARMA

Rational software

Agenda

- ➢ **System z application lifecycle**

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- ➢ **RDz for VSE**

- ➢ **References**

Rational software

Code Generation Plug Ins (DB2)
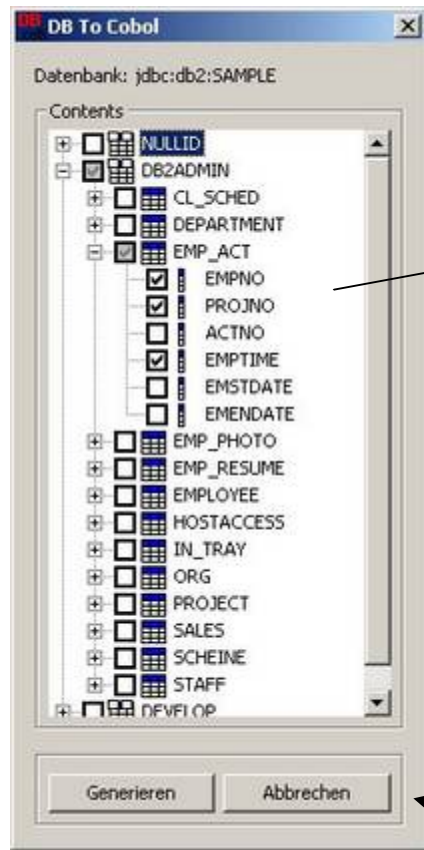
Generate appropriate
Data structures

Retrieve Metadata
From catalog

DB2
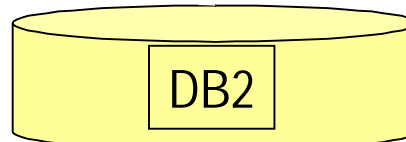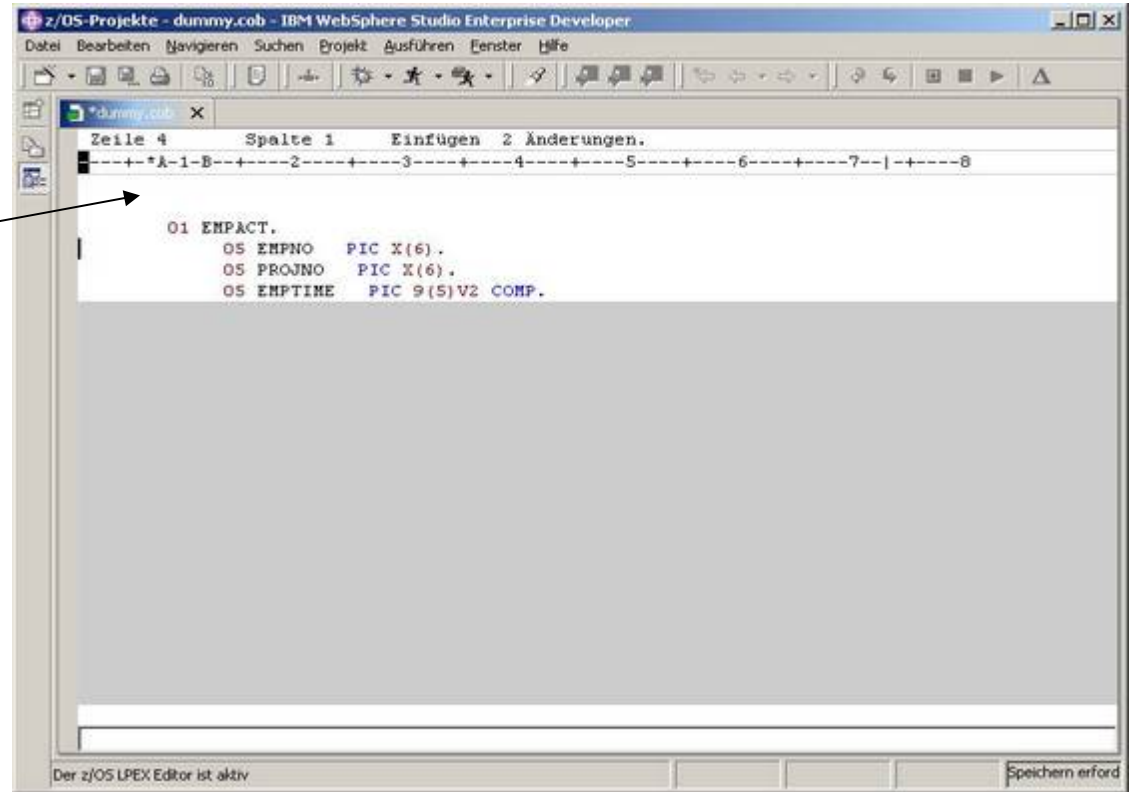
Code Generation Plug Ins (DB2)

DB Tabellen Auswahl

Schema	Tabelle	Schema	Tabllenkürzel
DB2ADMIN ▼	EMP_ACT ▼	☑ Verwenden	T4

Hinzufügen

Schema	Tabelle	Kürzel	Use	
DB2ADMIN	EMPLOYEE	T1	X	
DB2ADMIN	PROJECT	T2	X	
DB2ADMIN	EMP_ACT	T3	X	

Entfernen

Auf

Ab

<<   >>   Abbrechen

erung

+----5----+----6----+----7--

```
EXEC SQL
  SELECT
  T1.EMPNO, T1.FIRSTNME, T1.LASTNAME, T2.PROJNAME
  INTO
  :EMPNO, :FIRSTNME, :LASTNAME, :PROJNAME
  FROM
  DB2ADMIN.EMPLOYEE T1, DB2ADMIN.PROJECT T2, DB2ADMIN.EMP_ACT T3
  WHERE
  T1.EMPNO = '000100' AND T1.EMPNO = T3.EMPNO AND T3.PROJNO =
  T2.PROJNO
END-EXEC.
```

Template Generation (Codeframes, JCL..)

www.Qgrp.com

Embedded Languages (Delta, SWT01 ...)

Embedded Languages (Delta, SWT01 ...)

Agenda

- ➢ **System z application lifecycle**

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- ➢ **Productivity Enhancements**

- ➢ **SCM Integrations**

- ➢ **RDz for VSE**

- ➢ **References**

Rational software

RDz and SCM without integration

PDS

LOCAL/REMOTE EDIT
SYNTAX CHECK
REMOTE BUILD

Endevor
Changeman

RDZ
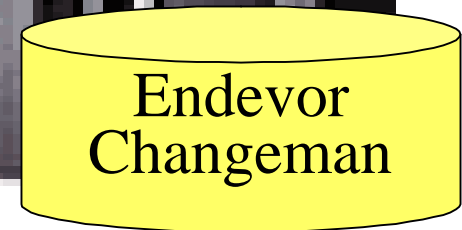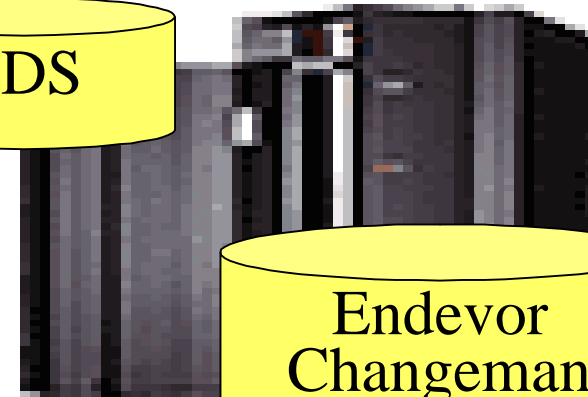
SOURCES
VERSIONS
PACKAGES
DEPENDENCIES
BUILD
PROMOTE

Rational. software

Challanges integrating SCM systems in RDz

- ➢ **Search Sources stored in SCM out of RDz**

- ➢ **Get Version and Dependency Information**

- ➢ **Check Out to PDS and Check In back**

- ➢ **Run Build Jobs under SCM Control out of RDz**

- ➢ **Get Build Results back to RDz from SCM ….**

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RDz CSAR Integration

EDIT
BROWSE
SYNTAX CHECK
COMPILE

PDS

Endevor
Changeman

SYNTAX CHECK (lokal)

RDZ

CHECK OUT
COMPARE
CHECK IN
BUILD
PROMOTE

Rational software
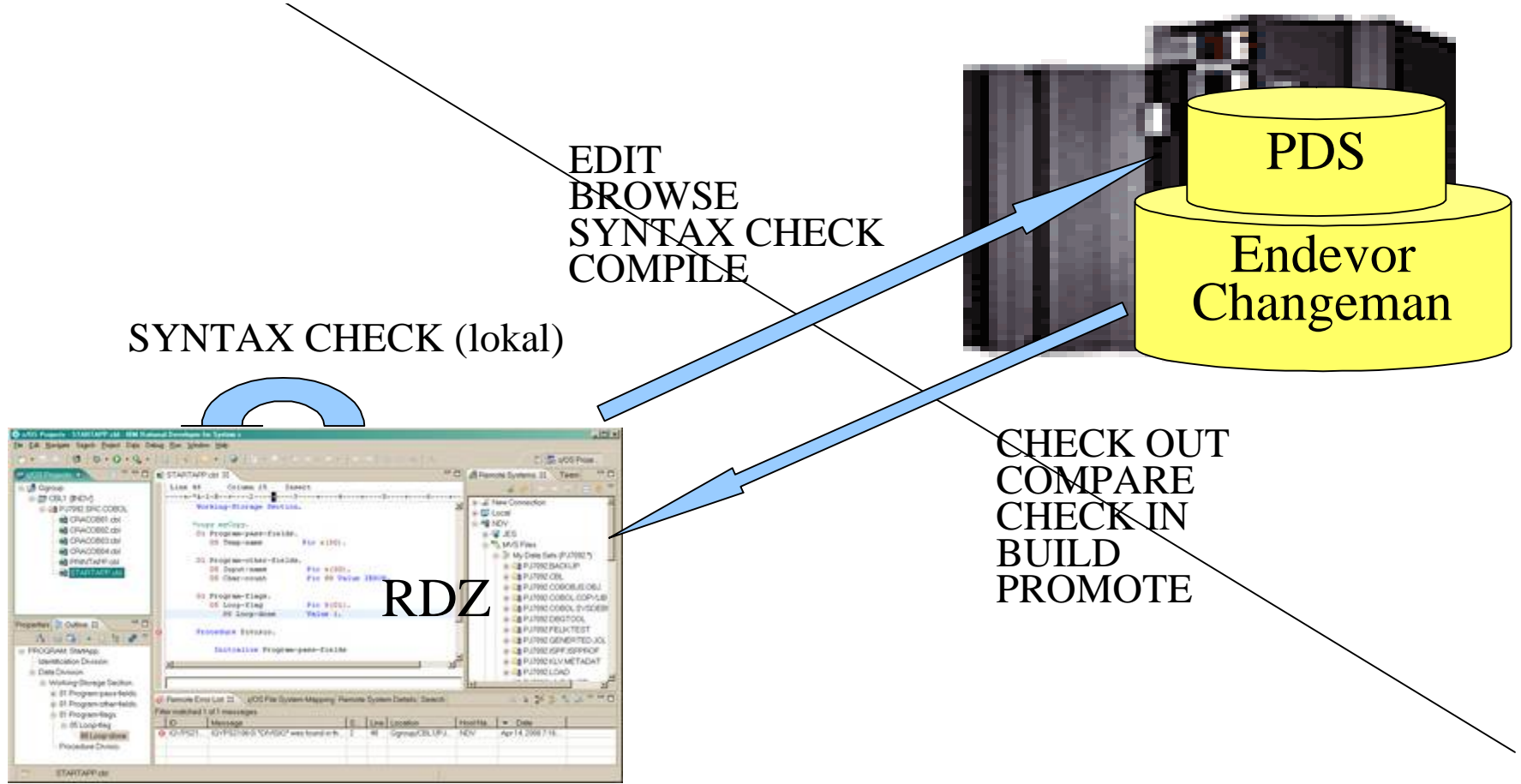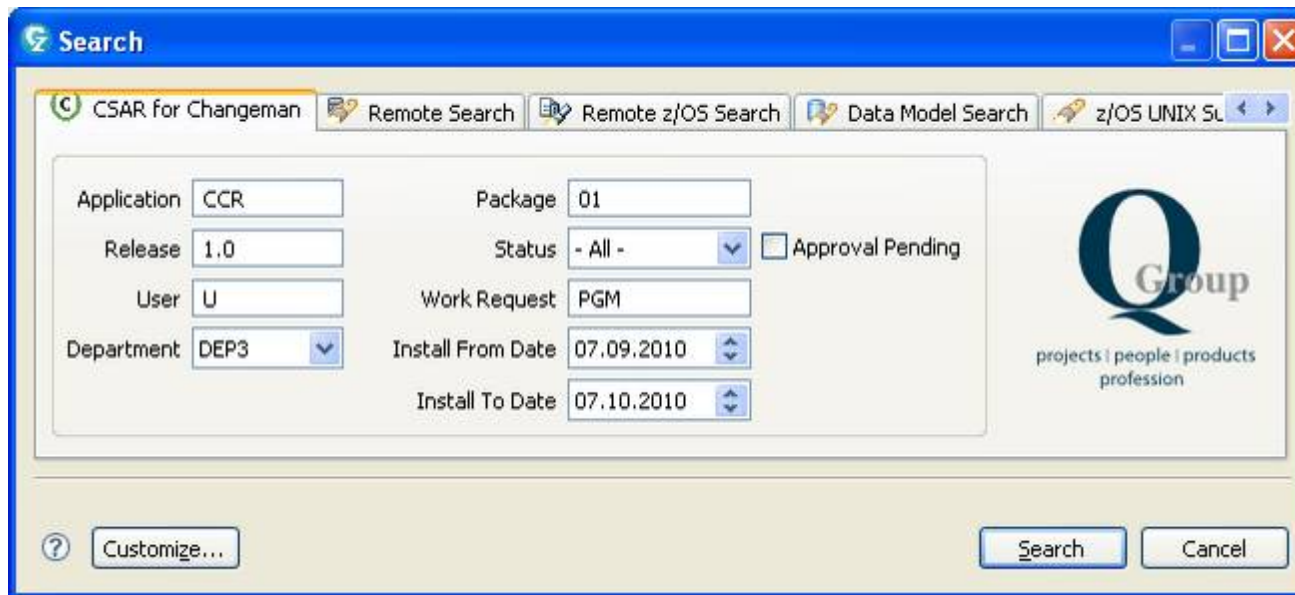
CSAR Basic Architecture

Projekt-View

Editor

CSAR-Plug-In

CARMA-Transport

Workstation

RAM

ISPF

Host

SCM-API

REXX

Endevor / Changeman / ….

Rational software
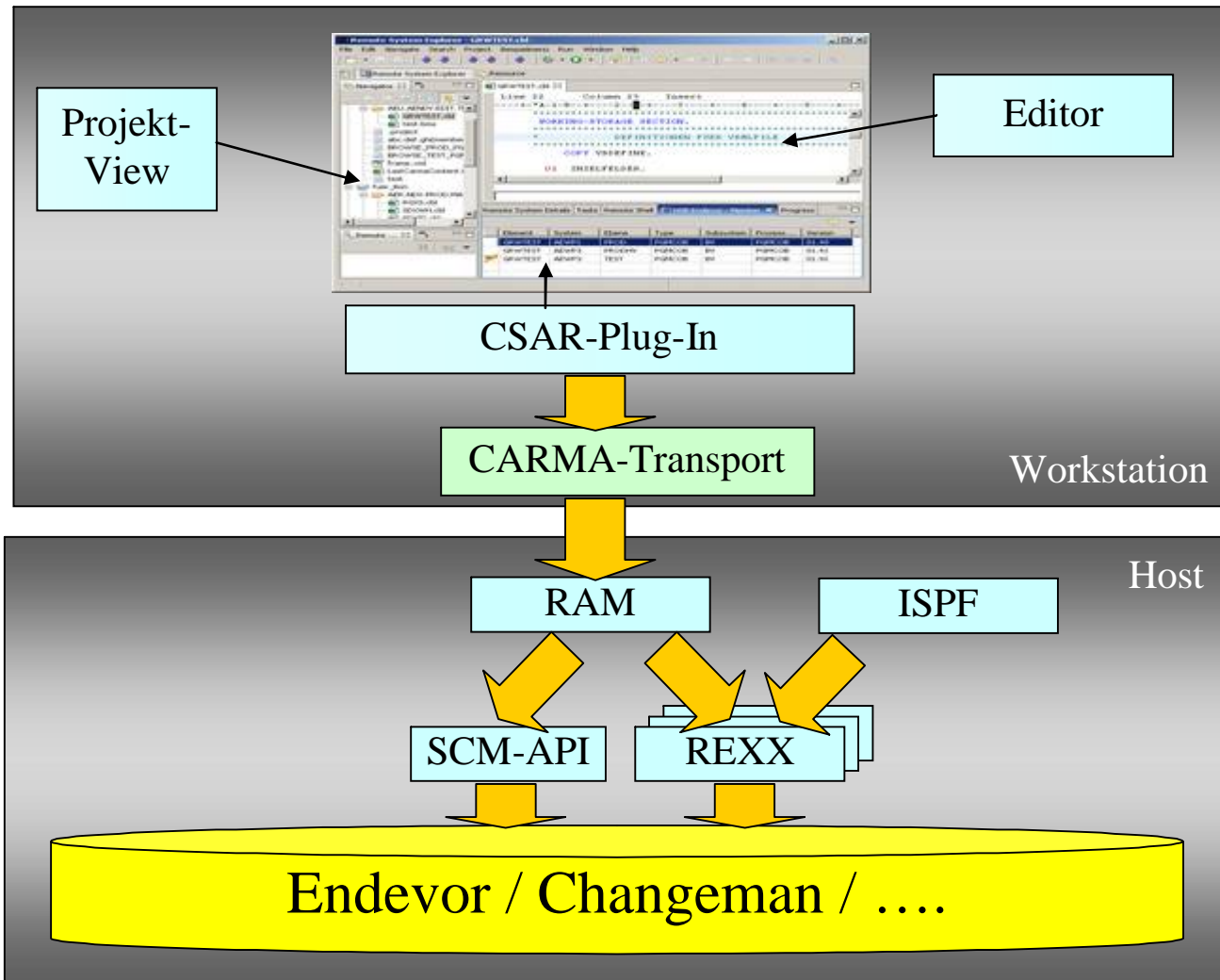
CSAR Lifecycle (Changeman)

Create Package

Add Component

Use Package ?

Component in Package ?

Personal Checkout

Edit

Personal Checkin

Stage/Build

Promote to Test

Revert

Reject

Audit

Freeze

Promote QM

Approve

Rational software
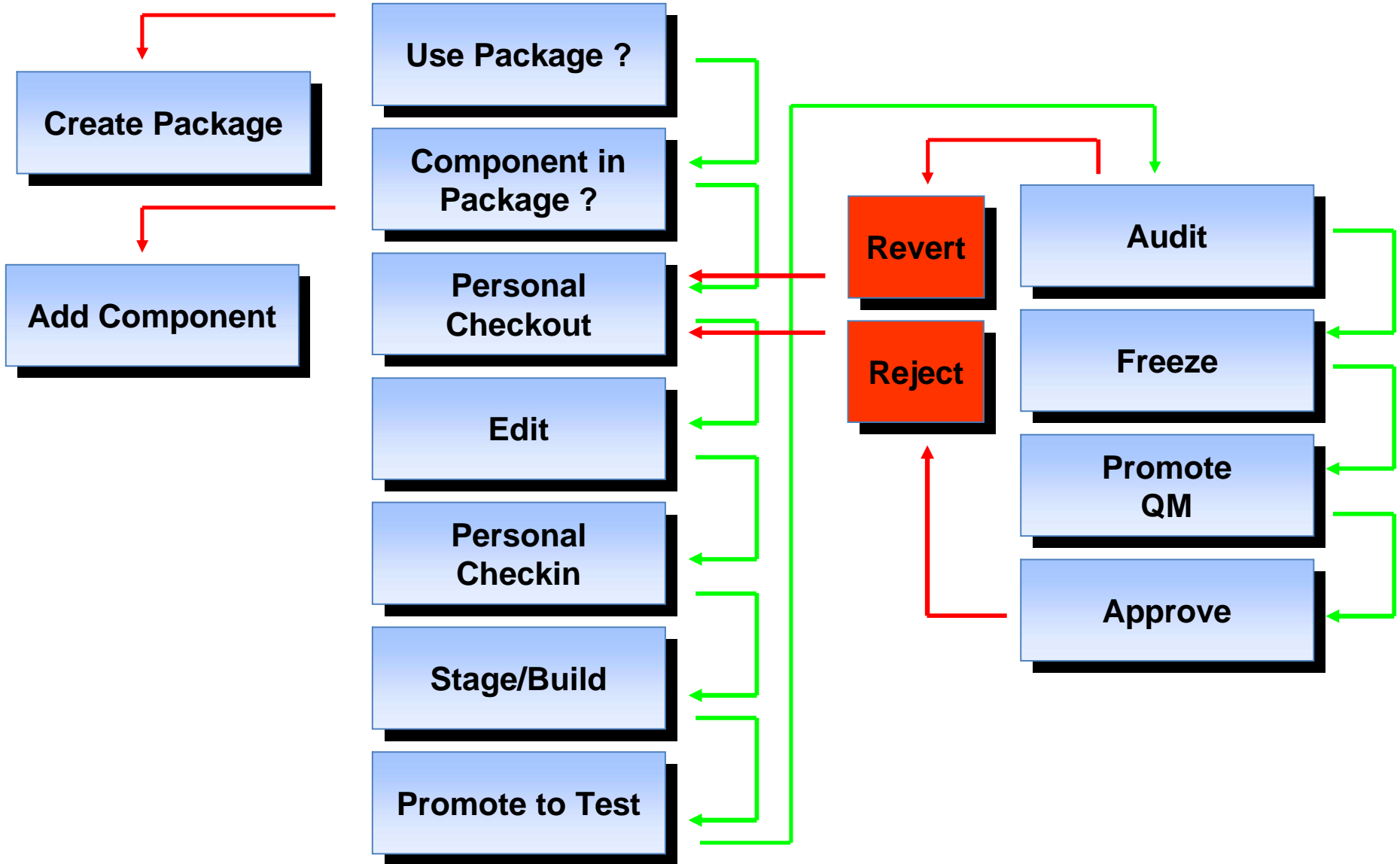
CSAR for Changeman (Search)

CSAR for Changeman Component List)

CSAR for Changeman (Create Package)

CSAR for Changeman (Package List)

CSAR for Changeman (Freeze, Promote)

Agenda

- ➤ **System z application lifecycle**

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- ➤ **References**

Rational software

VSE Plug In for RDz (Overview)

Host

| Console | Power | VSAM | LIBR | ICCF |

VSE Connect Server

| COBOL Parser | SQL CICS Parser | | VSE Plug in | | VSE Connect Client |

JLPEX Editor

Rational Studio Workbench

local COBOL Compiler

Eclipse

Rational Developer for system z

Rational. software
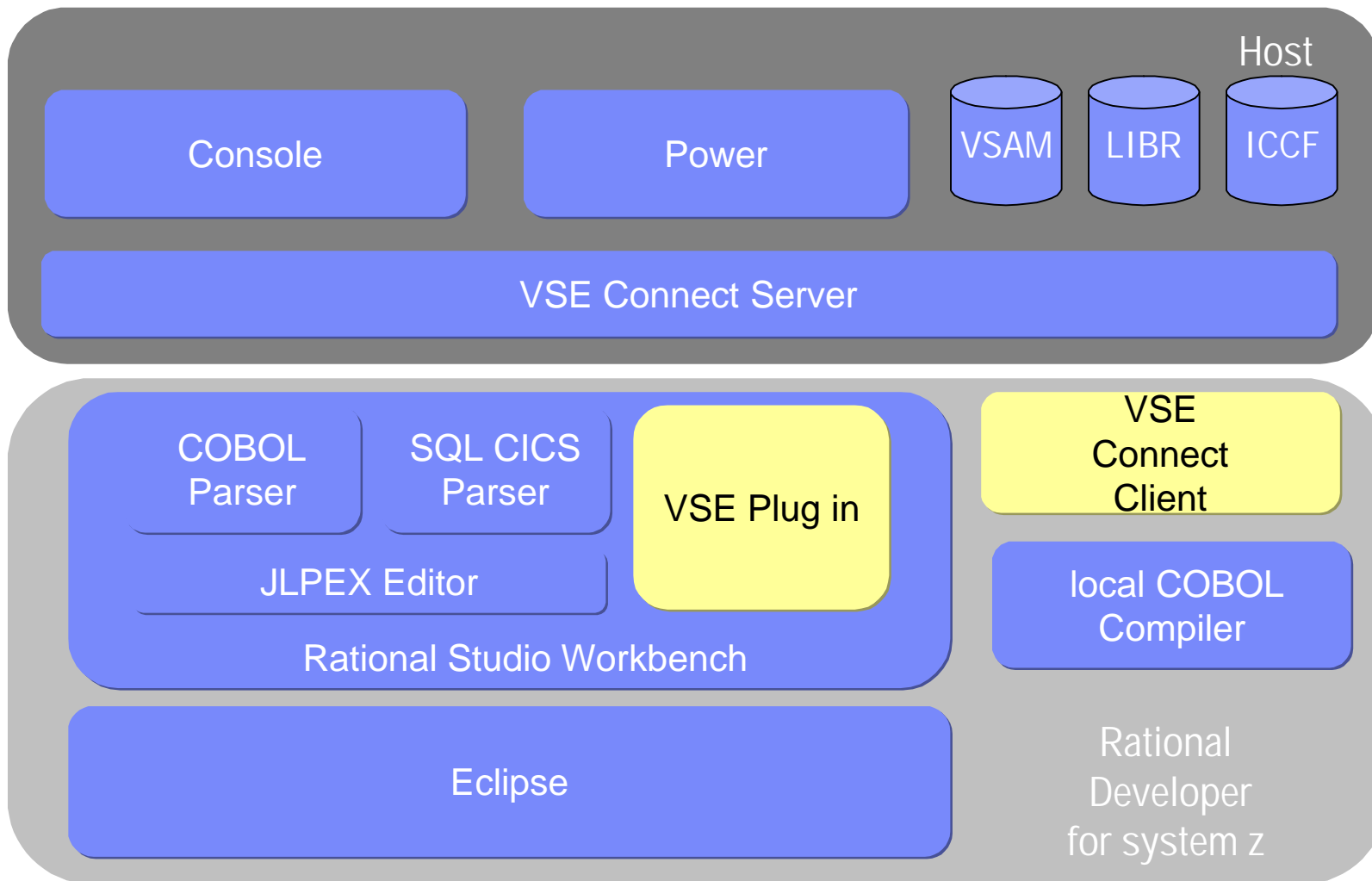
VSE Plug In for RDz (Features)
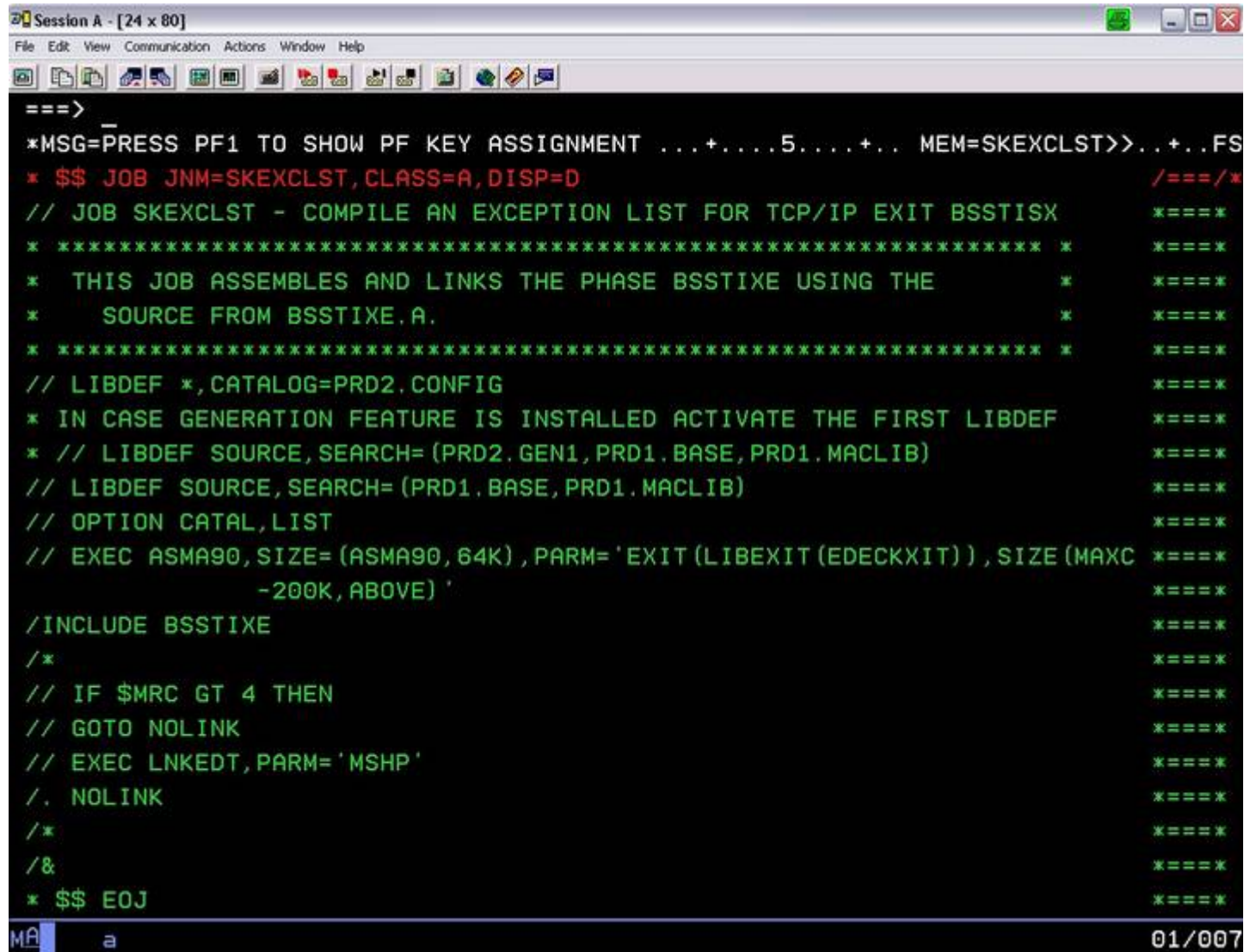
➢ **Browse VSE System (Library, Power, ICCF VSAM (Catalog/Cluster)**

➢ **Filter VSE System Views**

➢ **Download Library Member in local project**

➢ **Edit Source via LPEX Editor (Syntaxhighlighting, Outline View, Filter)**

➢ **Grafical compare of Source Files**

➢ **Upload Source to VSE System**

➢ **View Jobs in Power**

➢ **View content of ICCF members**

➢ **Submit of a local JCL to VSE/Power**

➢ **…**

Rational software

VSE Plug In for RDz (Features)

➢ **View job outputs**

➢ **View console outputs from VSE**

➢ **Submit console commands**

➢ **Mapping of ICCF Library numbers to user defined names**

➢ **Mapping of Library Member typs to RDz source code extensions.**

➢ **Property view for VSE components**

➢ **VSAM Record viewer**

➢ **Remote compile for Cobol, PL/I, C …**

➢ **Error Feedback for remote compile**

➢ **configurable phase build via link books**

Look and Feel (TodayVM Edit)

Rational software

Look and Feel (Syntax Check)
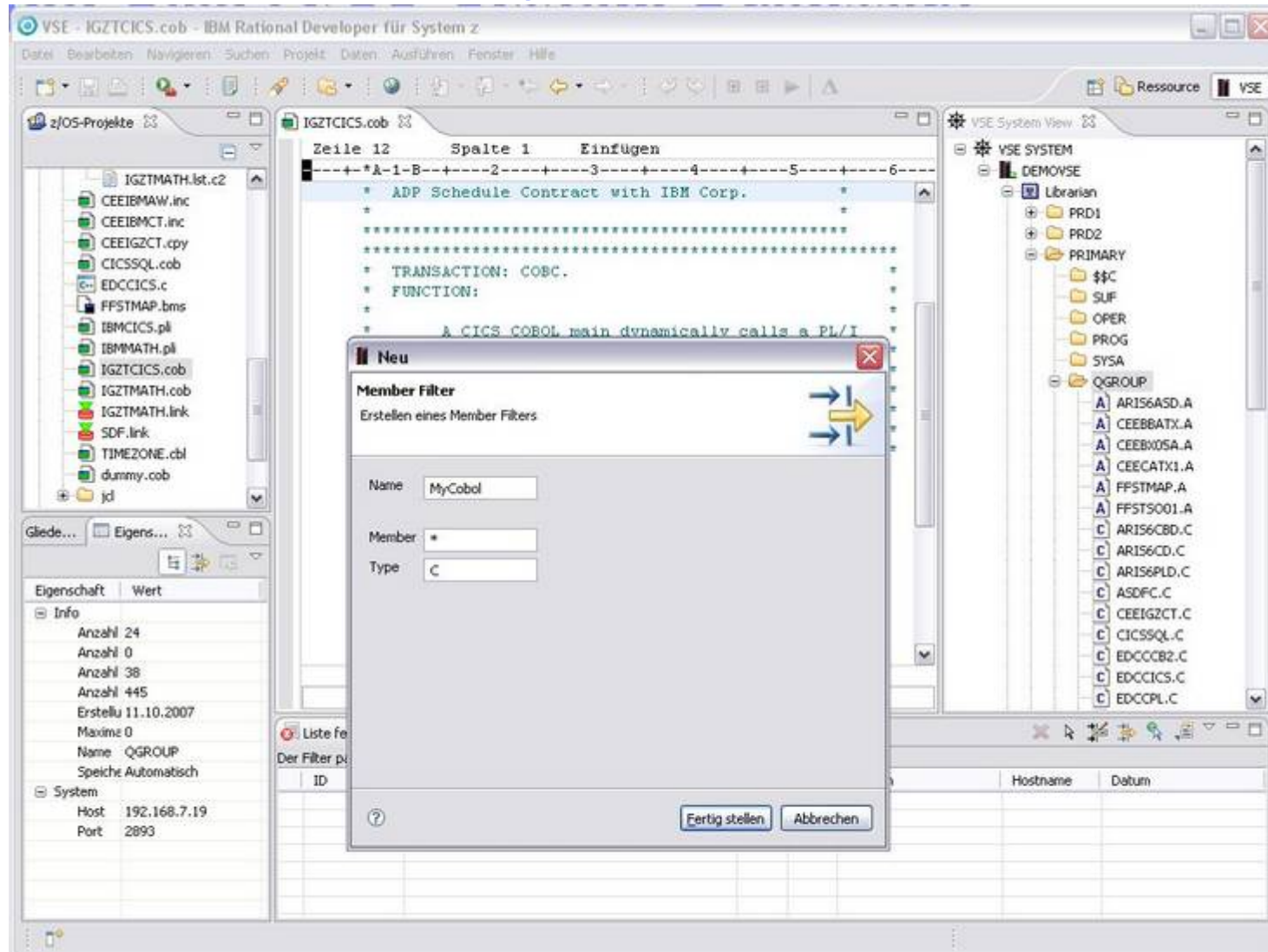

Local or Remote Syntax Check
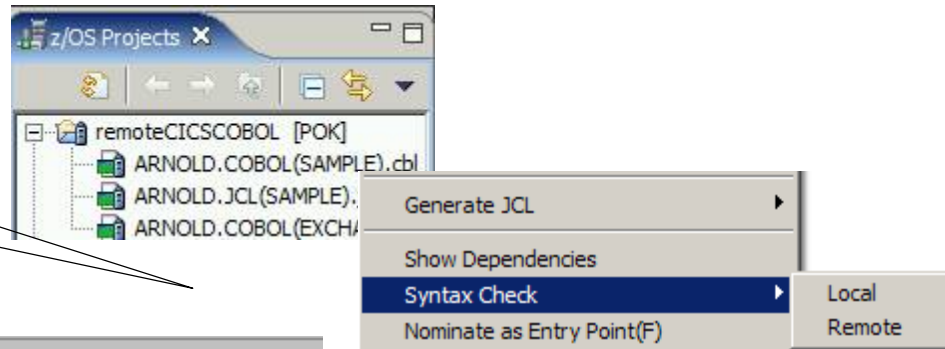
Double click to locate error

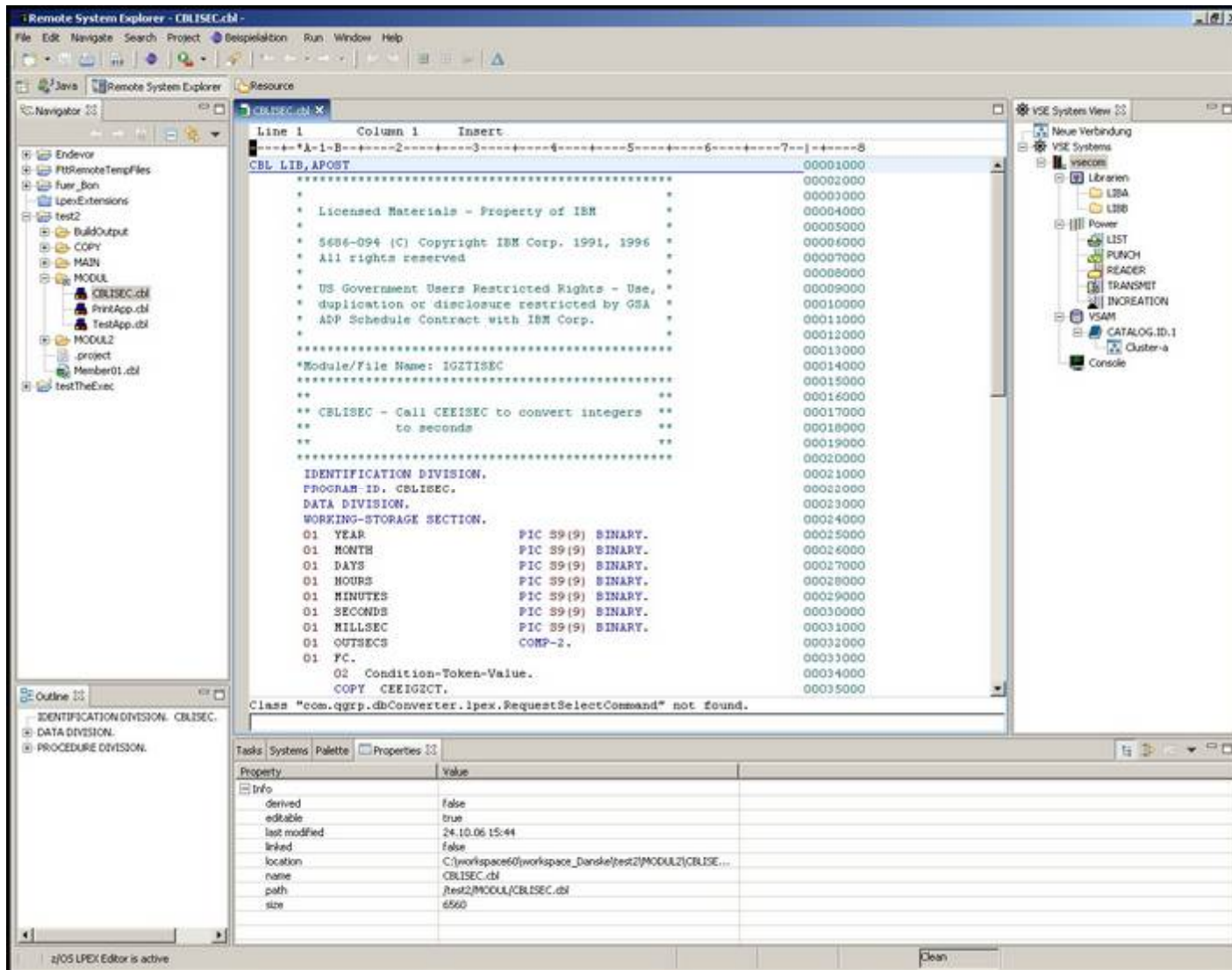# Look and Feel (Local History/Compare Files)
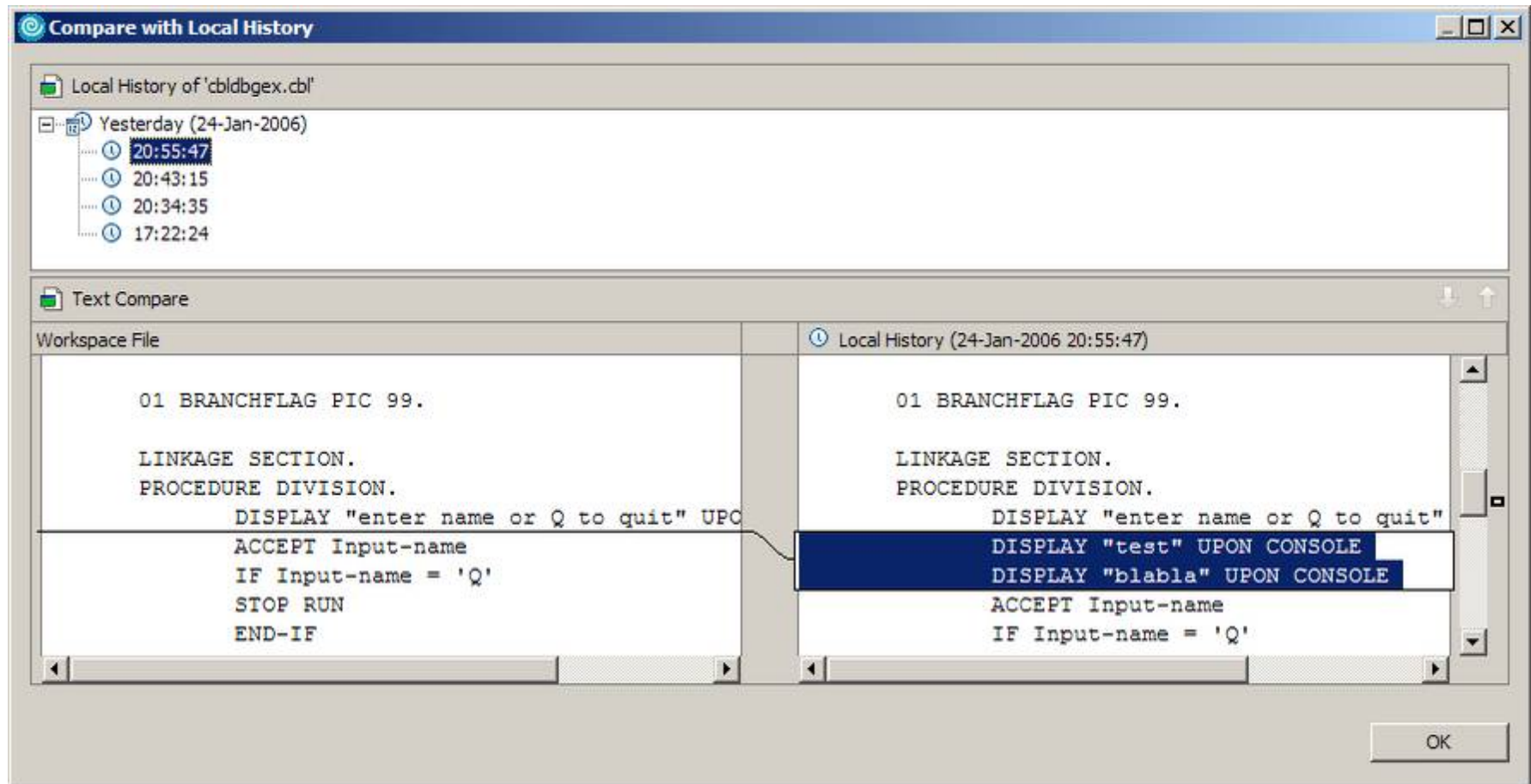
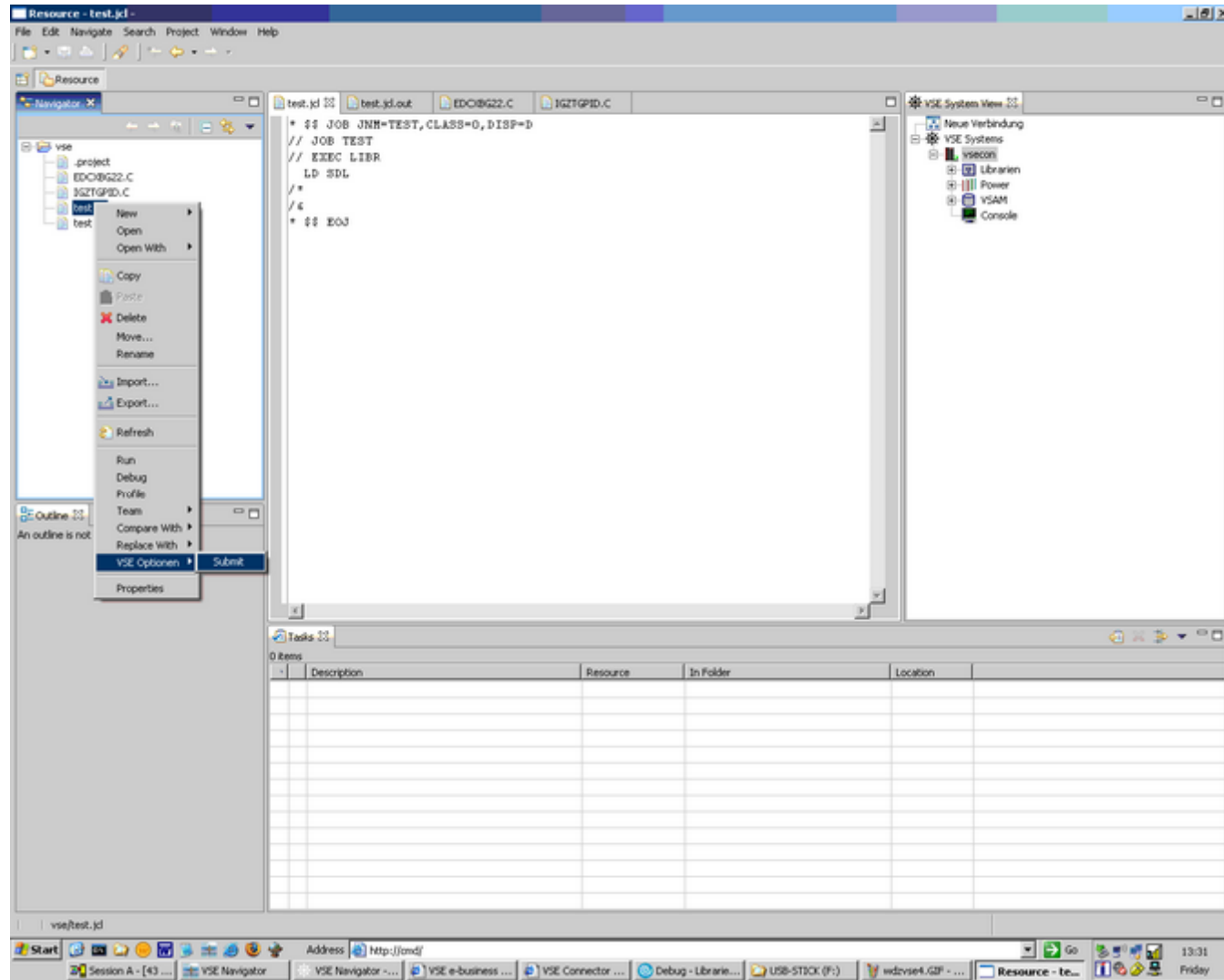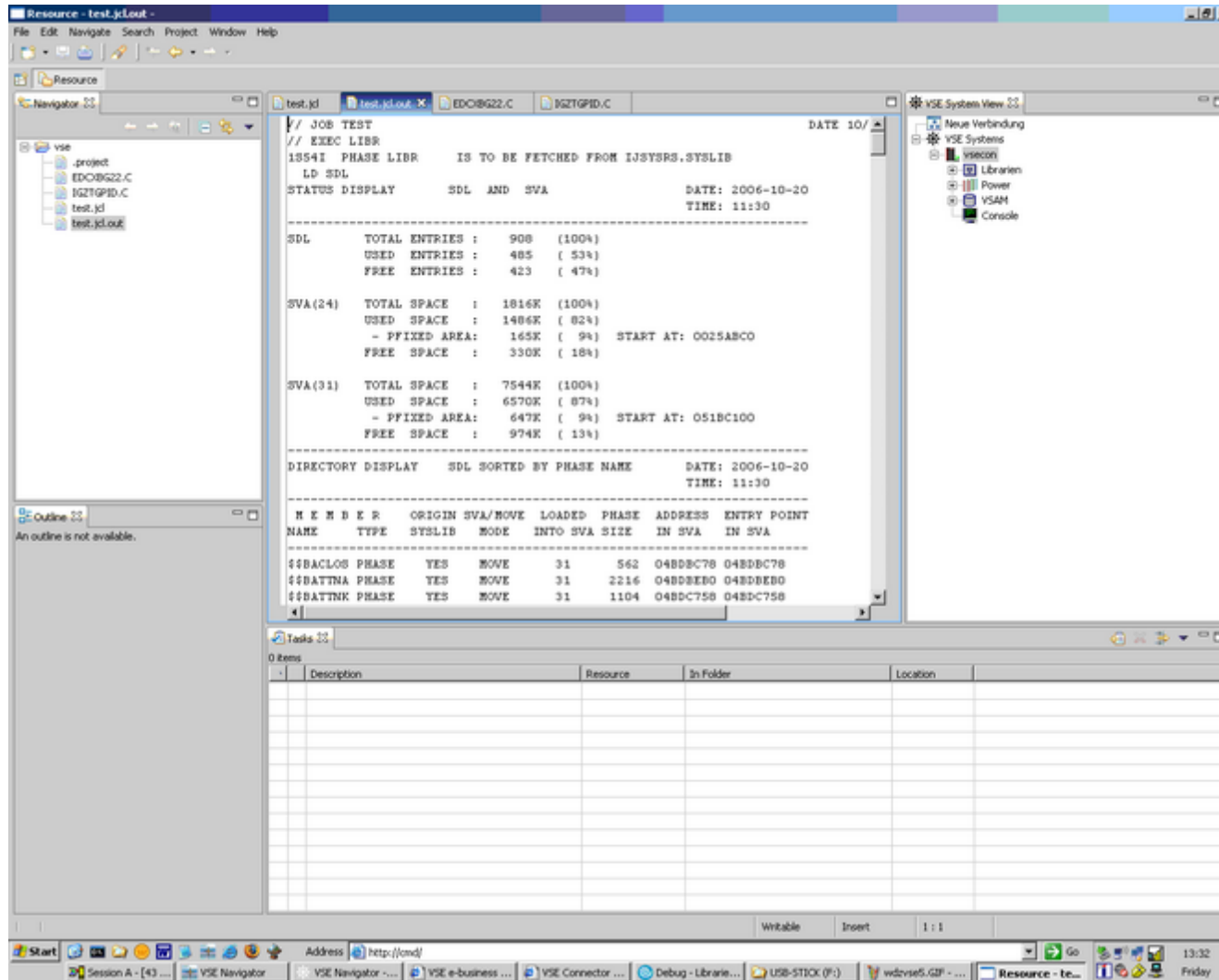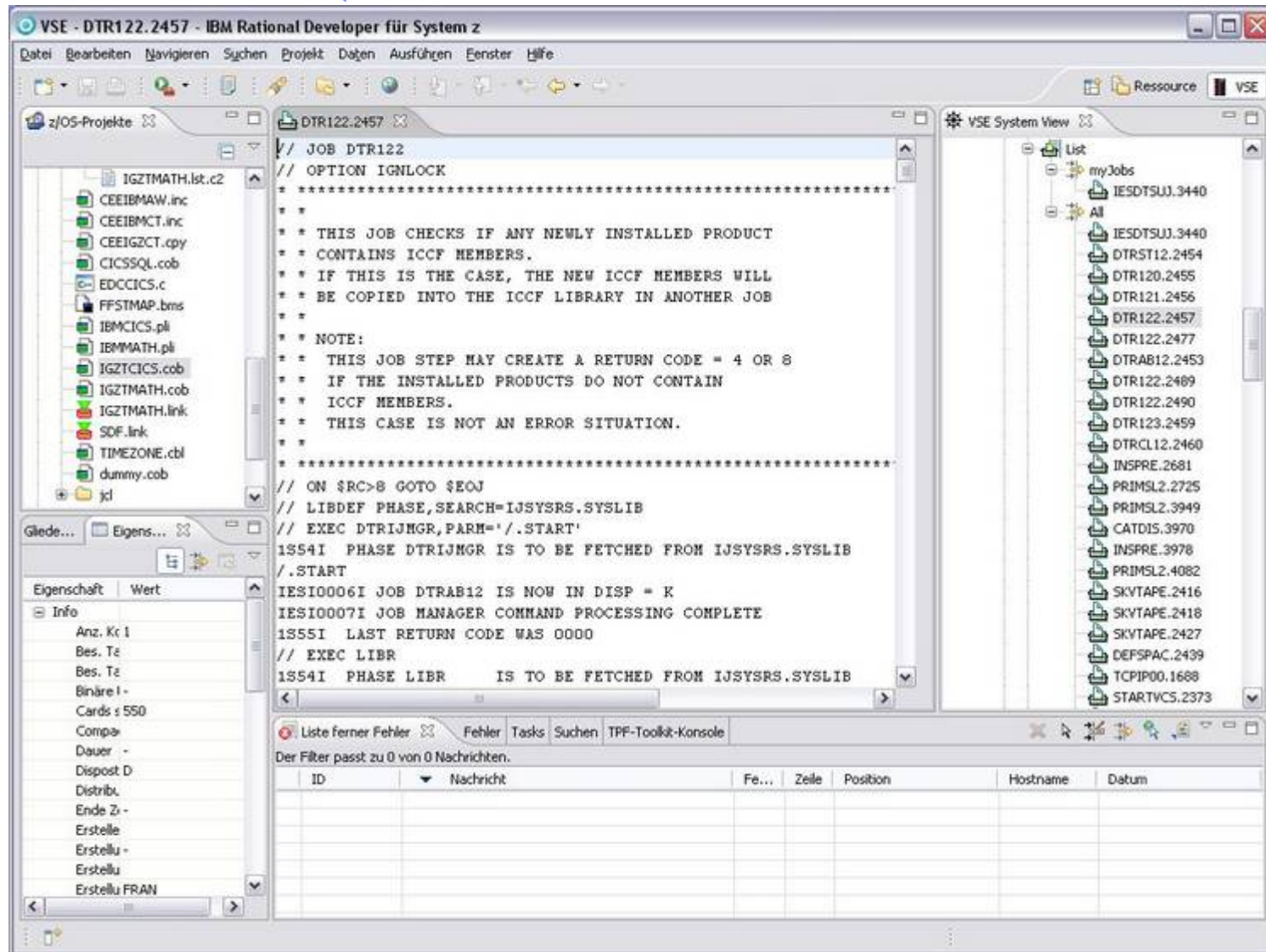# Look and Feel (VSE System Browser)

Look and Feel (VSE Cobol source in RDz)

Look and Feel (submit JCL)

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Look and Feel (view submitted job output)

Look and Feel (browse & view POWER content)

RDz Customers

Visit us at **www.Qgrp.com**

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