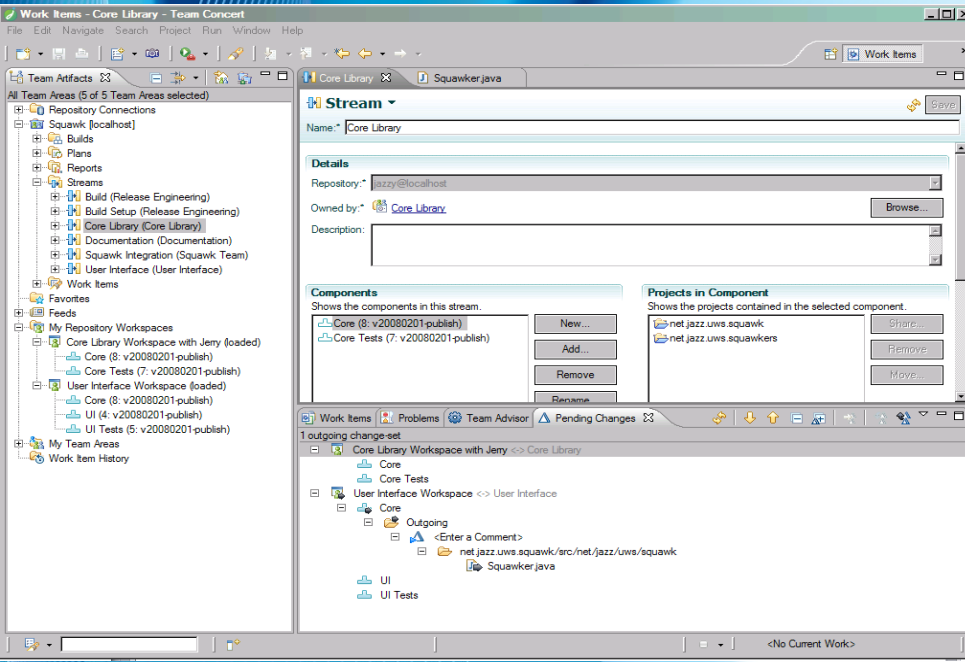


# Adding Value to Your Current Mainframe ALM Solution

Enterprise Optimization Supplement (EOS)



C&RM Worldwide Jam

Keith Allen

Rational Brand Architect



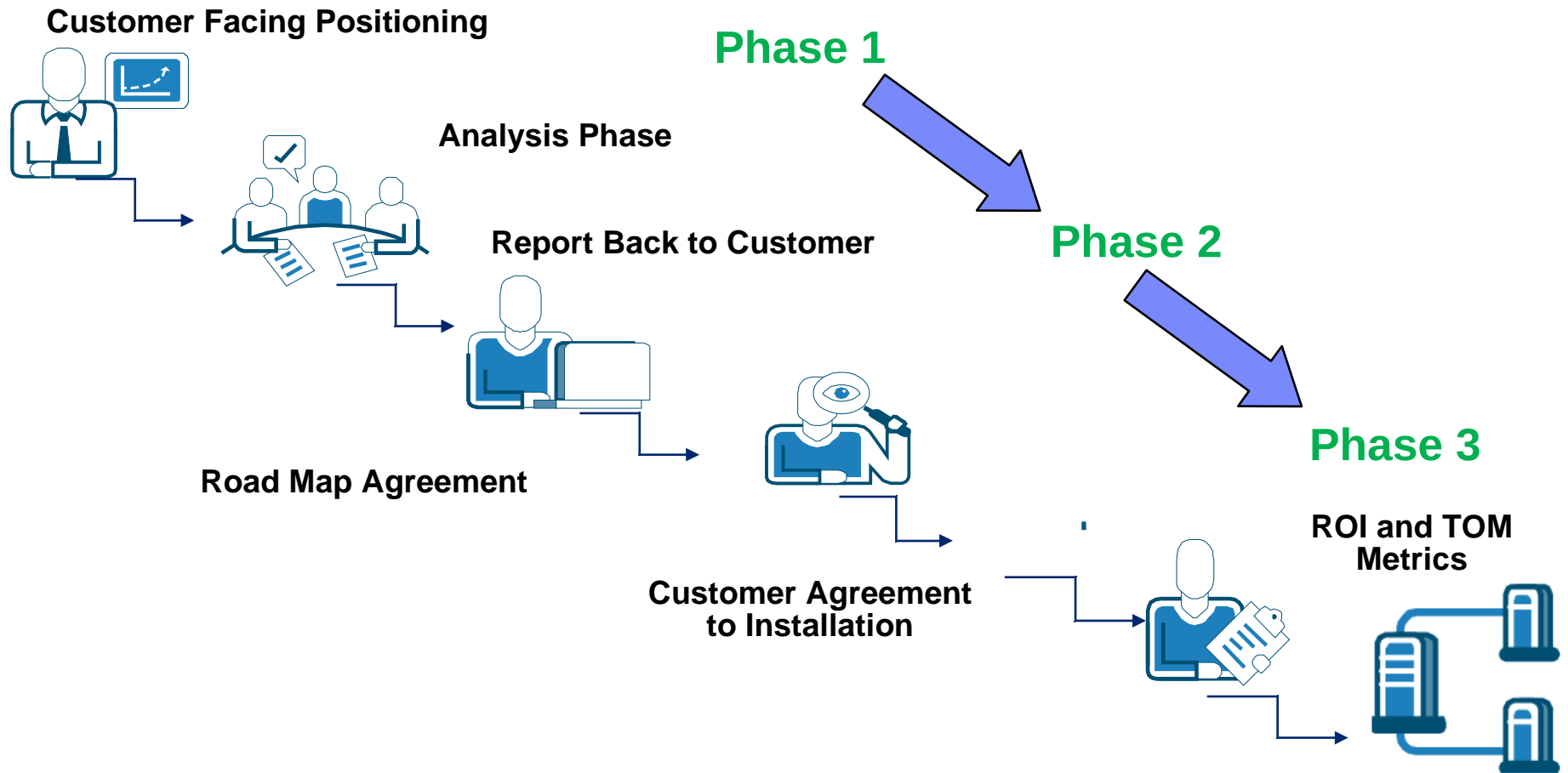
- The IBM “Enterprise Optimization Supplement (EOS) Offering
  - What is this ?
- The EOS Road Map
- How an EOS Strategy adds value
  - Both to a CA Endeavor and Serena Changeman ZMF Customer
- Your Next Steps

# IBM Rational already have active Customers with the EOS Solution.



- The IBM “Enterprise Optimization Supplement for the EM Accelerator for Developers” (internal EOS). What is this ?
- **The EOS Road Map**
- How an EOS Strategy adds value
- Your Next Steps

## Providing a 'Practiced' approach to Automating, Extending, and Adding value from the Mainframe to an Enterprise View Across The Application Lifecycle Management



## EOS - Initial Qualifying

### First steps..

- Phone Calls and initial Face to face:
- Review of the 'Business Messages' that are key for the customer.
- EOS presentation and positioning.

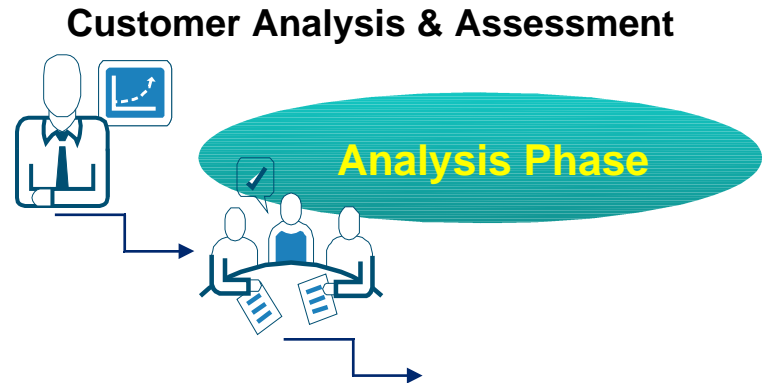


## EOS - Phase 1, Analysis and Assessment

### ➤ One to one interviews

- SCM Administration
- Development Areas
- Release Management
- Build Management
- Change Management
- Quality Control

- The result of phase 1 is the report covering recommendations and definitions upon which the organisation would be able to act in gaining the full value of the IBM Rational solution.
- The report will provide a current GAP Analysis and Maturity Model around the current Lifecycle Process Management practices.
- The analysis phase is a initial technical review report, with a base solution project implementation plan, as well as providing the profiler and maturity analysis.



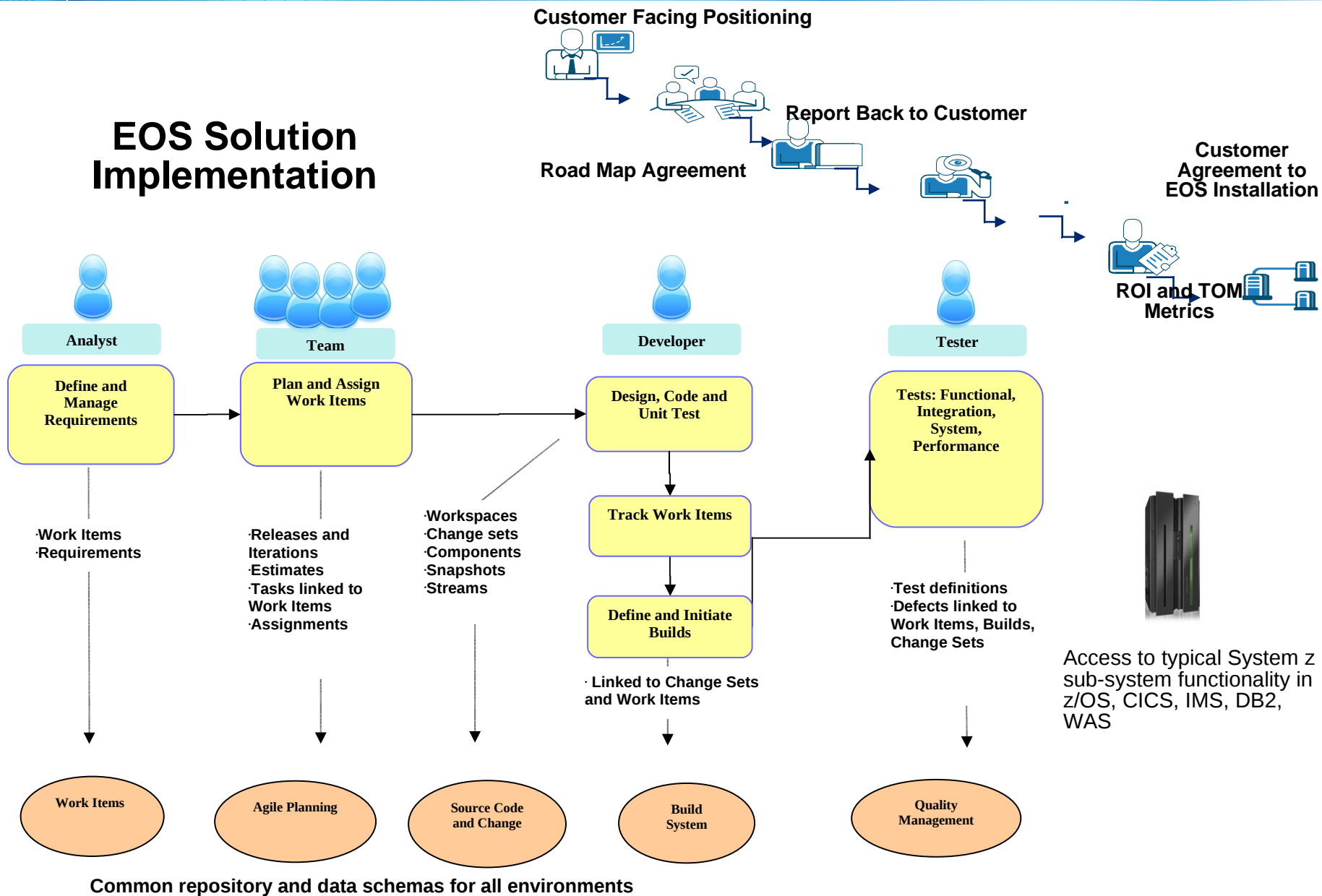
## EOS - Phase 1, Report Feedback



Document Overview
Executive Summary and Goals
Managing through ITIL and COBIT Best Practices
Business Model
Solution Definition
Solution Architecture Model
Detailed Physical Architecture
Solution Impact
Quality Attributes
Success Criteria and Test Plan
Phasing, Roadmap, and Implementation Plan
Appendix



## EOS Solution Implementation



## Customer Facing Positioning



## The EOS Technical Solution

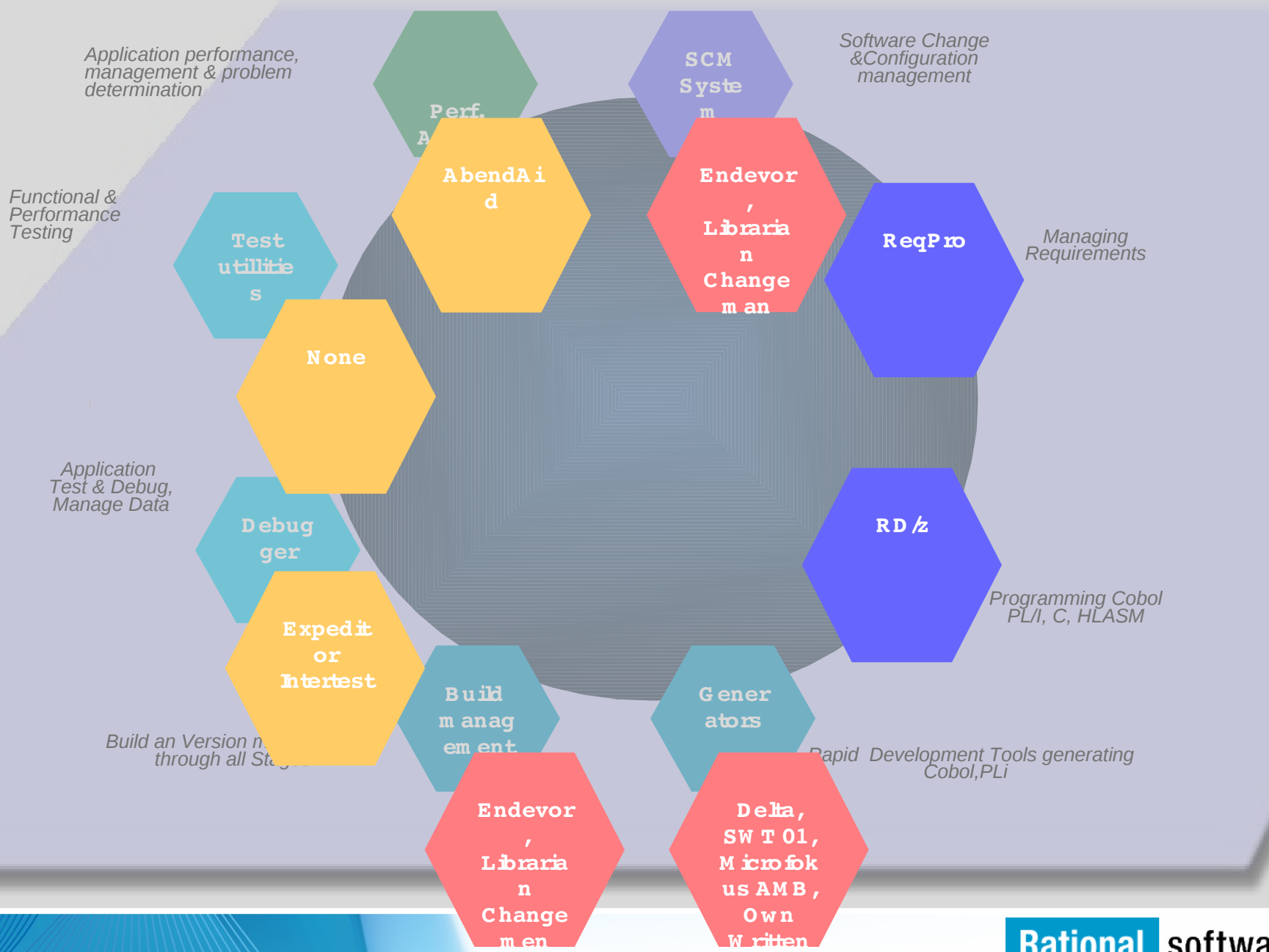
- A tightly integrated technology suite of RTC / RDZ / RAA
- Direct link to either the CA Endeavor or Serena Changeman ZMF via the EOS plug in's.
- Maximises current mainframe ALM processors and practices
- Provides added value to an enterprise ALM case.



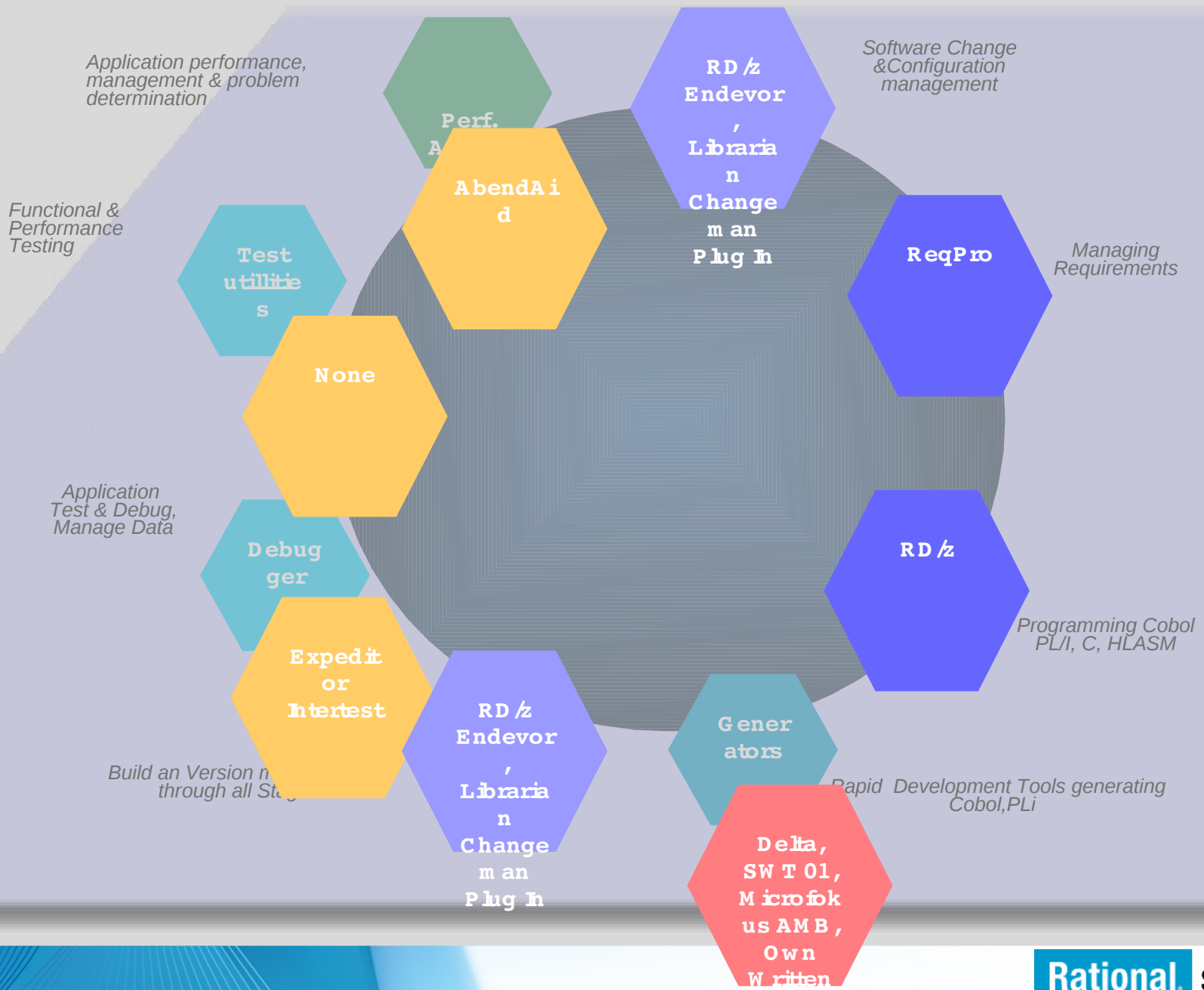
Access to typical System z sub-system functionality in z/OS, CICS, IMS, DB2, WAS

- The IBM “Enterprise Optimization Supplement for the EM Accelerator for Developers” (internal EOS). What is this ?
- The EOS Road Map
- **How an EOS Strategy adds value**
- Your Next Steps

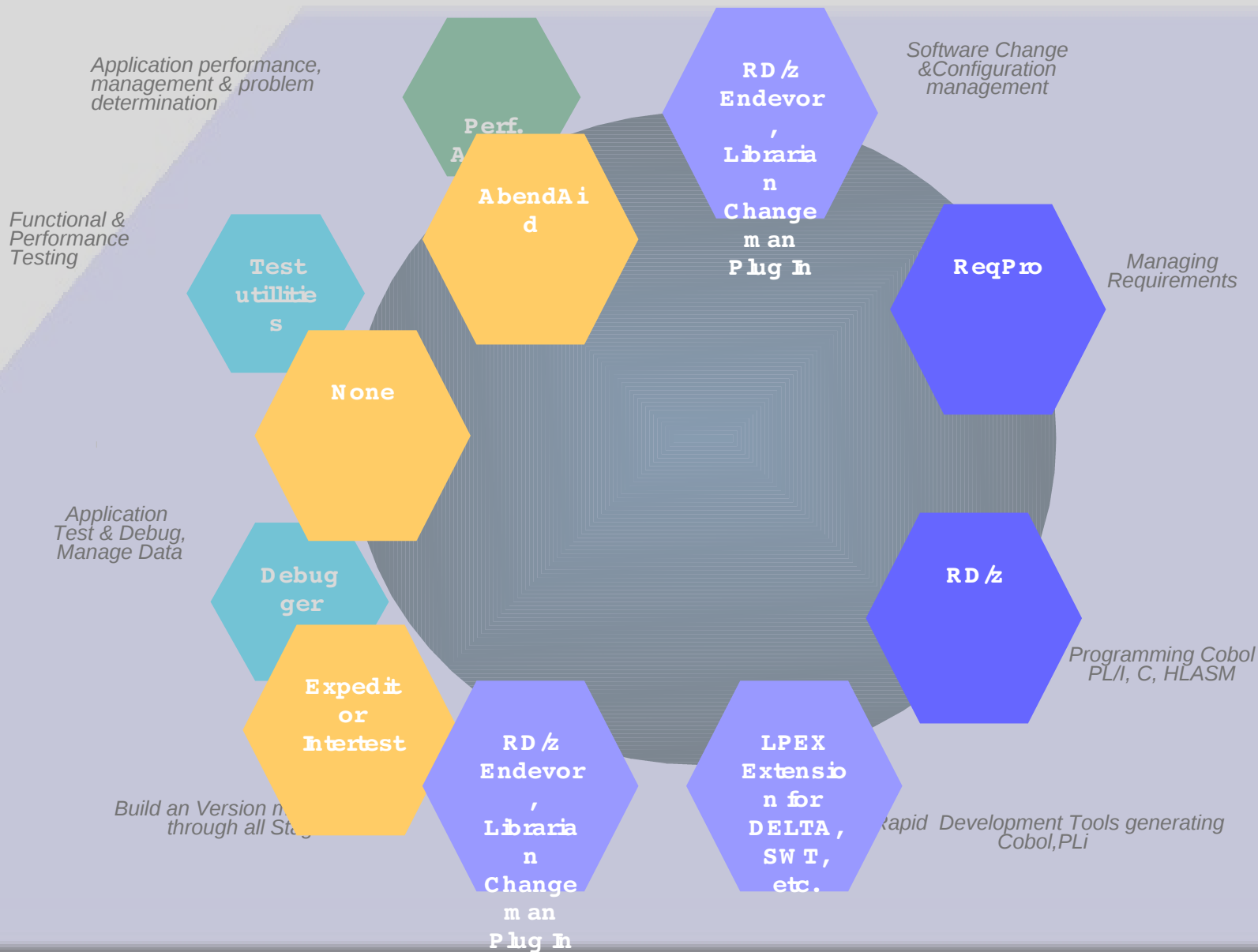
# Typical System Z Application Lifecycle



# Typical System Z Application Lifecycle



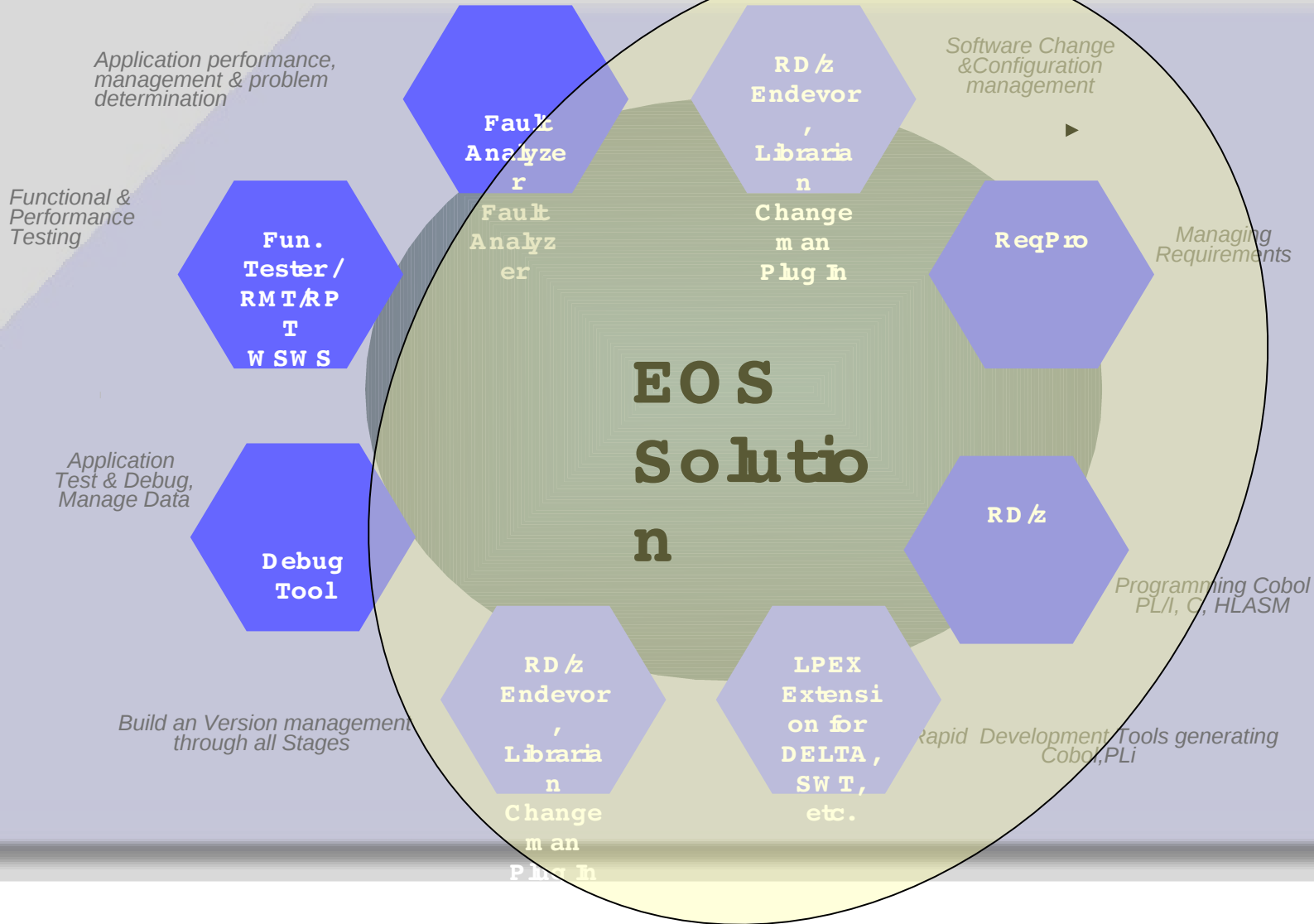
# Typical System Z Application Lifecycle



# Typical System Z Application Lifecycle



# Typical System Z Application Lifecycle





# Technology Strategy

Enterprise Optimization Supplement adds real value to current MF SCM technologies

Rational Quality management technologies adding value to current SCM tools

Rational team Management technologies adds value to current SCM tools

Create Test Data, Software Change Management, Regression Testing, Library Management, Patch and Fault Application, Quality Management, Testing and Debugging

## Enterprise Optimization Supplement

- Established Customer base Numbers
- Established User groups
- Growing New Sales independent of renewal

How to drive end to end ALM

Rational Testing technologies adds value to current SCM tools

# Whom you talk with - Provide a REAL End To End Solution



**Developer**

**CM / Build Team**

**Test / QA Team**

**Project Manager**

**VP / CFO**

**Will my code break the group build?**

**Which servers can run my project?**

**What errors occurred in the last build?**

**How can I recreate the last version to do a patch?**

**What changes occurred while I was sleeping?**

**How can I standardize when teams use different tools?  
Where are the bottlenecks in our processes?  
How can I speed up my builds?  
Are build times getting longer or shorter?**

**When will the build be ready to test?  
What has changed that I need to test?  
What automated tests have been run?  
What defects have been addressed since the last version?**

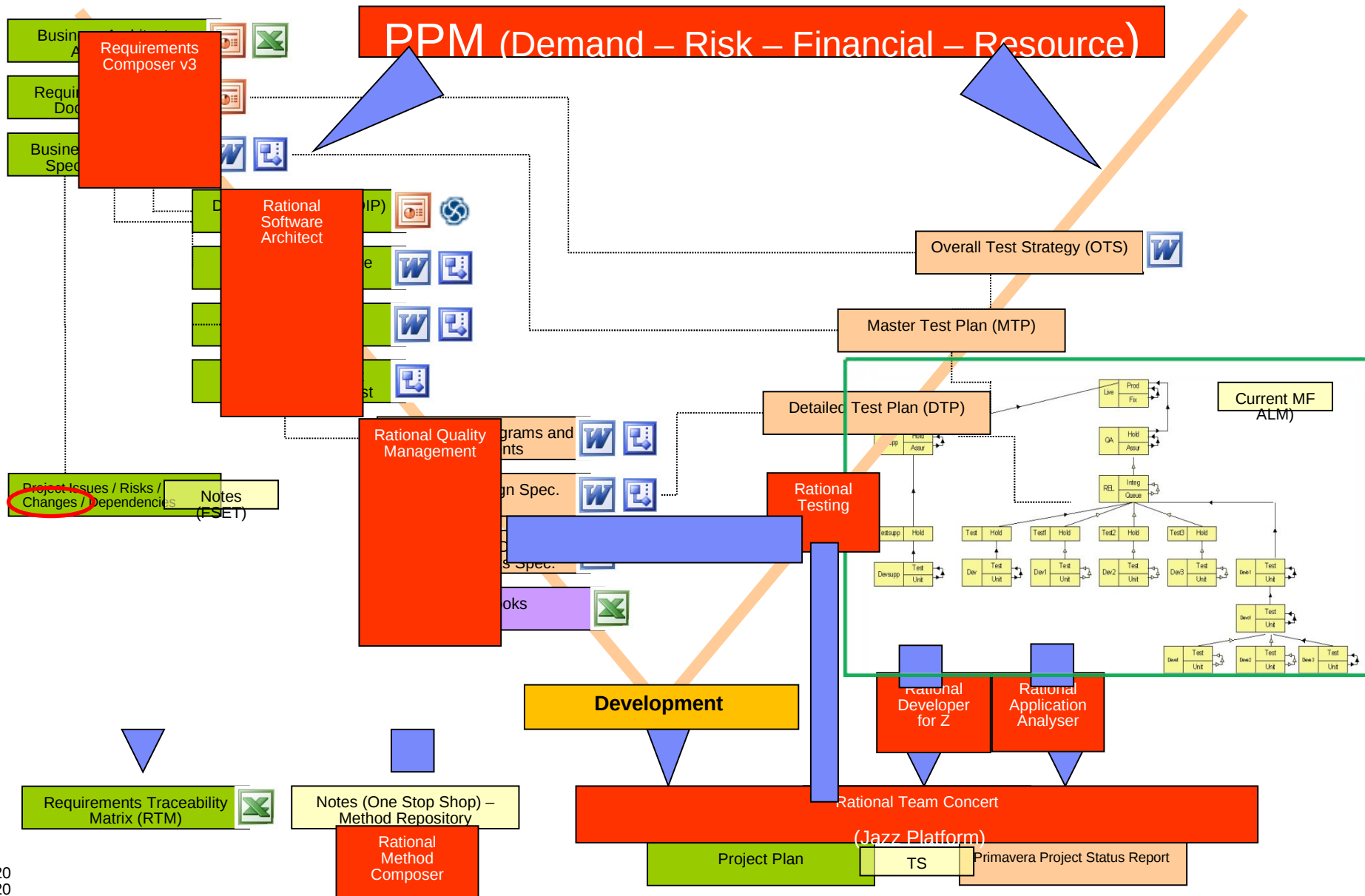
**What defects were resolved in this release?  
How far along is a specific fix in the development cycle?  
Why do my status reports give me different information for the same release?**

**Are we ready to release?  
What tradeoffs can we make to release on time?  
Which developers are most productive?  
Who generates higher quality code?  
Can we pass an audit?  
Are we being as efficient as we can.**

Collaborative communications between all parties involved in Application development is **key to success**.

- Development Area:
  - Application Development
  - Development Support
  - Quality Assurance
  - Release management
- Operation Area
  - Production Control (Service Desk activity)
  - Security
  - Systems Programming
  - Database Management
- Senior management
  - Internal Audit
  - Executive Sponsor

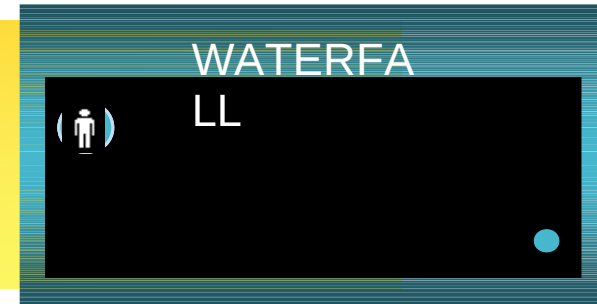
# Helping the Alignment of IT to Business



- Waterfall development

When *stability* is the primary

Example: CA Endeavor linked to - Rational Team Concert, driver



- Iterative development

When *stability and change* are equal players

Example: CA Endeavor linked to - Rational Team Concert And RDZ,



- Agile development

When *change* is the primary

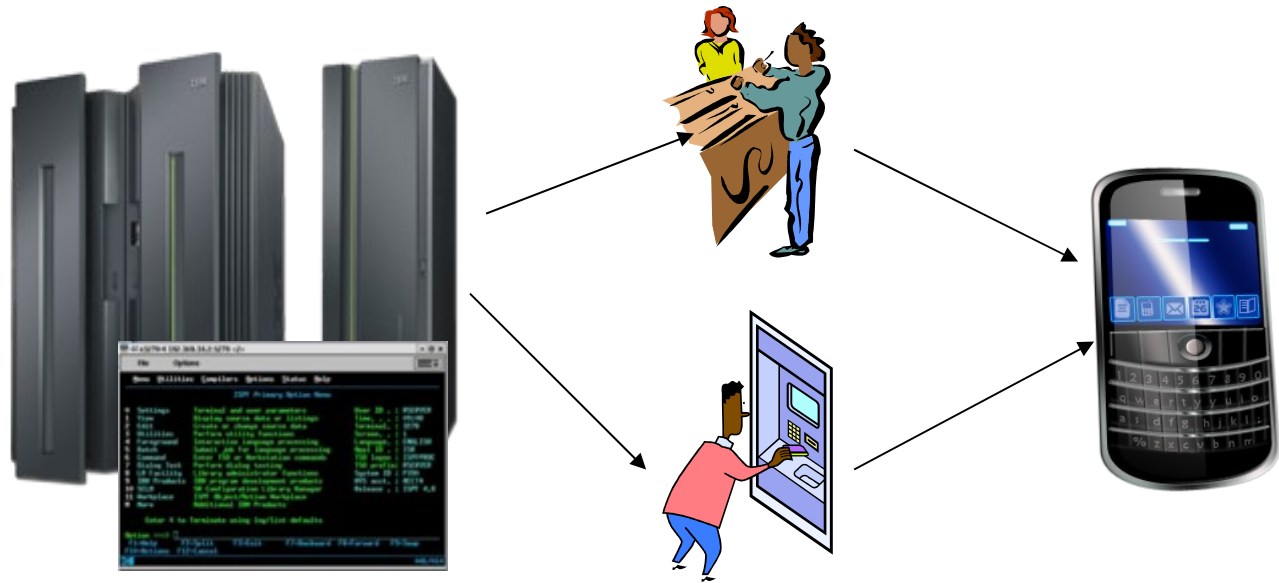
Example: CA Endeavor linked to - Rational Team Concert driver

And RDZ with RAA,



z/OS  
COBOL  
CICS  
DB2

Linux on System  
z  
WAS  
JEE

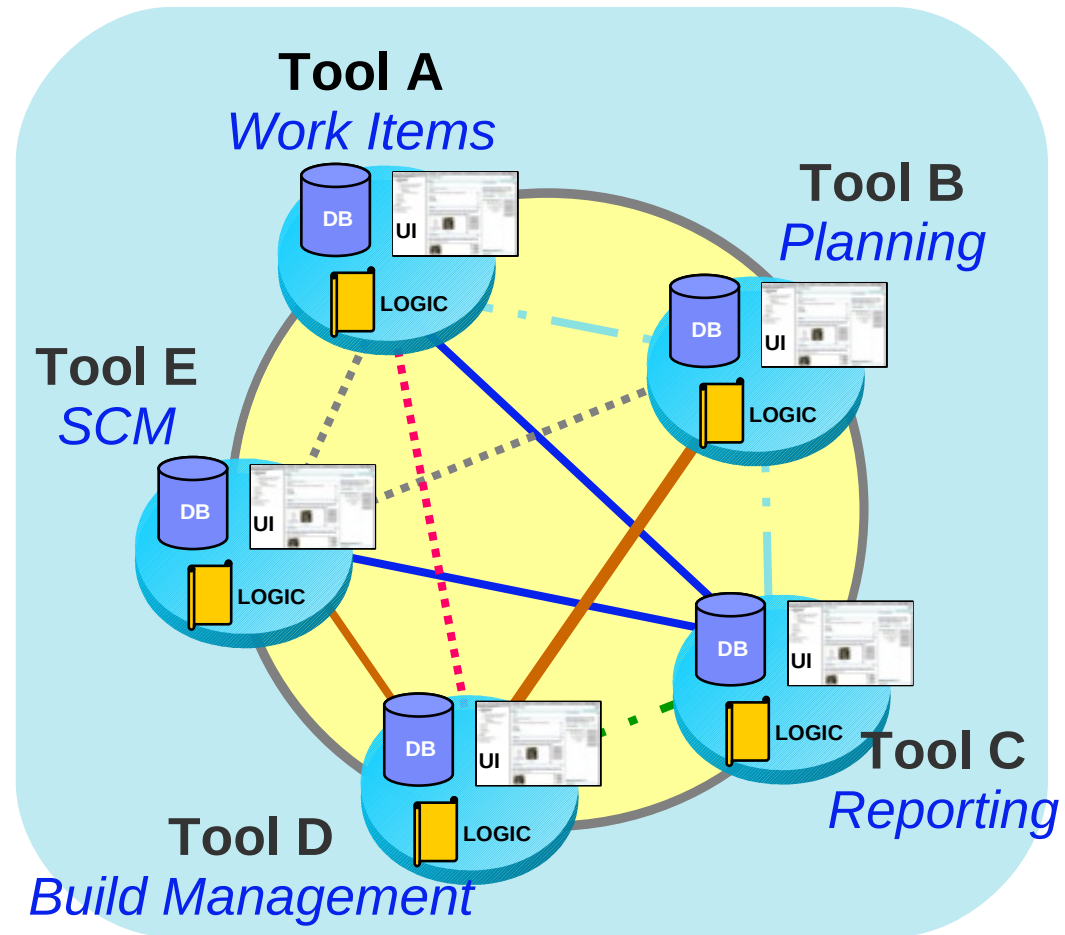


## IBM Technology supporting the Business to IT Alignment

# The Enterprise Optimization

# Customers have invested in a diverse set of ALM tools...

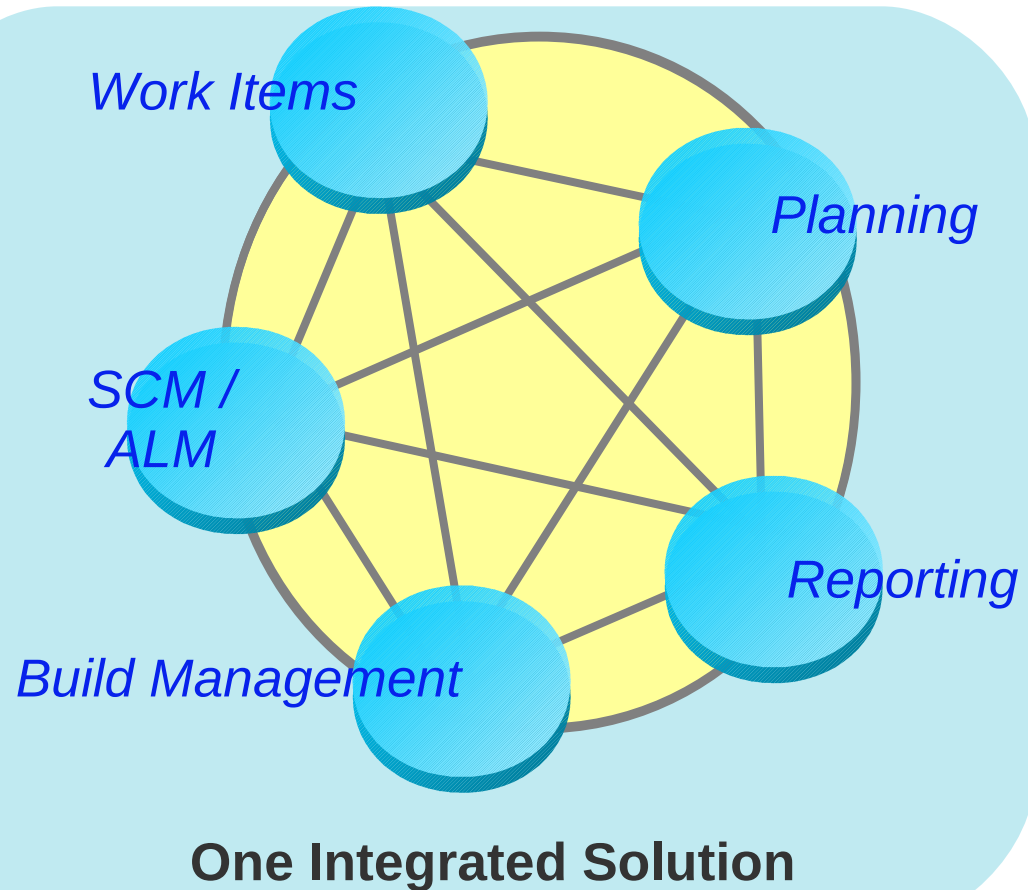
- Traditionally, each tool came with its own
  - UI - Web and desktop presentations of views and tasks
  - Logic – Workflow, process, search, query, scale, security and collaboration
  - Storage – Availability, traceability
  - Privacy, backup/archive
- Resulting in...
  - Brittle integrations
  - Silos everywhere
  - High cost to maintain and administer
  - Proprietary API's



*How do you solve this?*

- Unified Work Items, Agile Planning, Integrated Mainframe SCM with Build Mgmt, Enterprise Reporting
- Single UI, with process management
- Reduces Cost of Ownership
  - Administrative costs
  - Training/Adoption
  - Customisations

*A unified client*

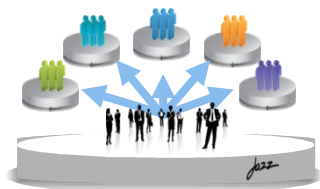




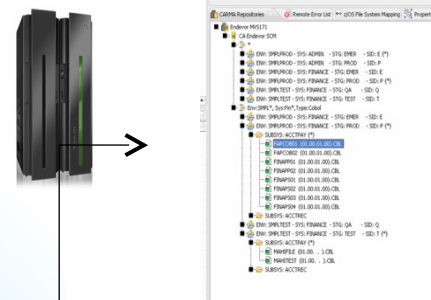
# Rational Enhancing Mainframe CA Endeavor

*Complete set of System z Development and Test capabilities for an integrated development environment*

Integration with Team Concert for Lifecycle and Source Management



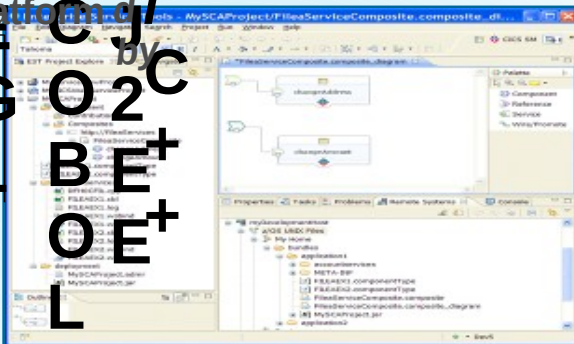
Access to CA Endeavor



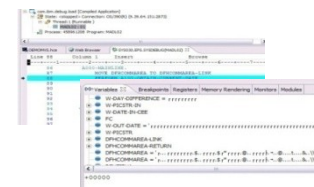
Integration with Asset Analyzer for Application Understanding and Impact Analysis



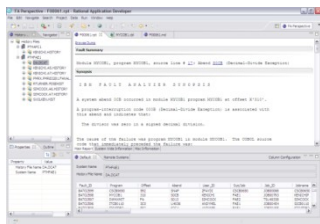
**Rational Enterprise Optimization  
Supplement for the EM Accelerator for  
Developers Solution  
Platform**



Integration with Debug Tool for Development and Test

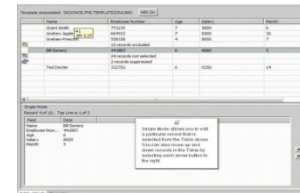


Integration with Fault Analyzer for Dump Analysis



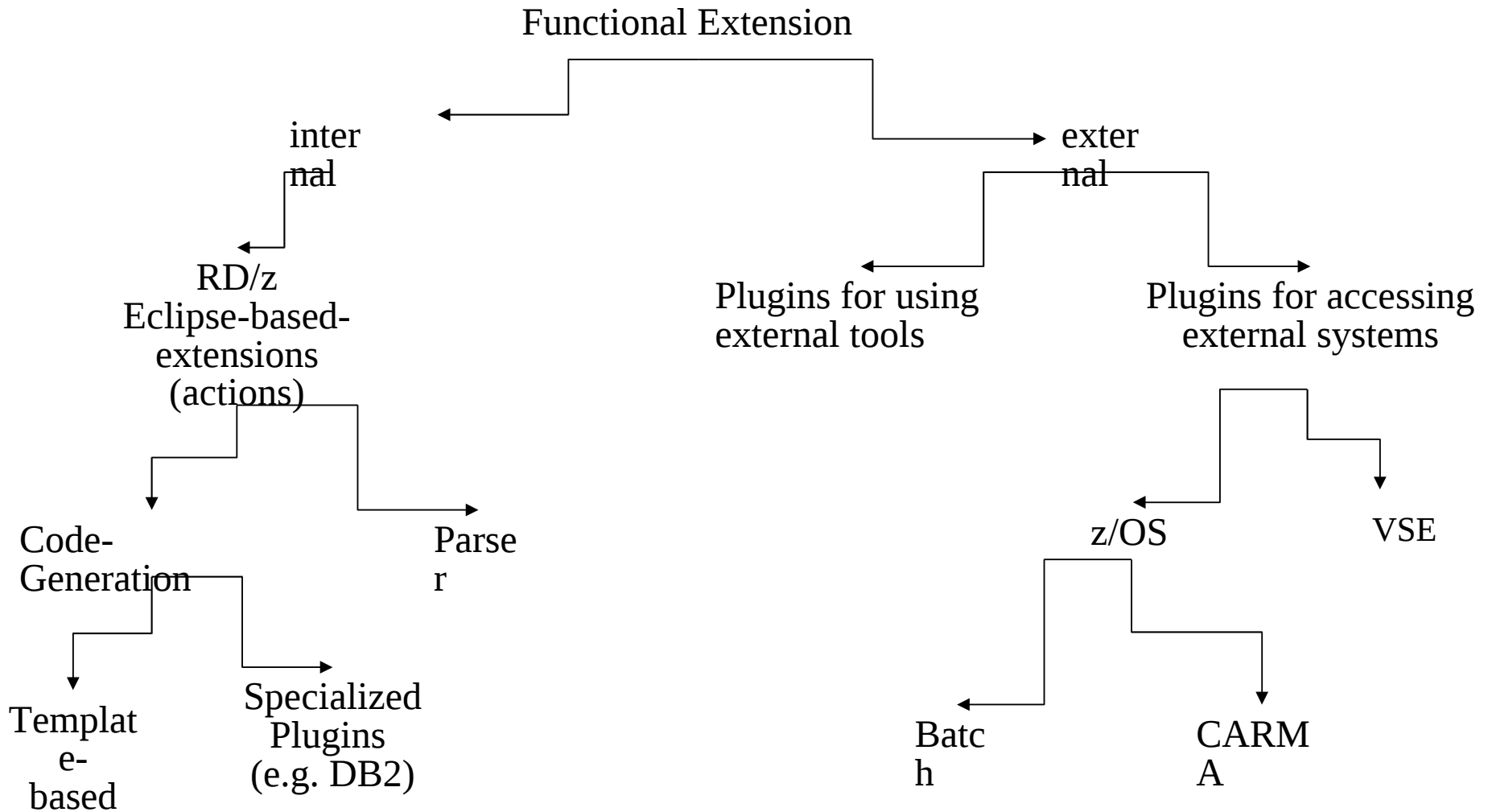
A modern IDE for productive development of cross-platform applications written in COBOL, PL/I, ASM, Java, EGL or C/C++ in System z CICS, IMS, DB2, Batch applications

Integration with File Manager for file and test data handling

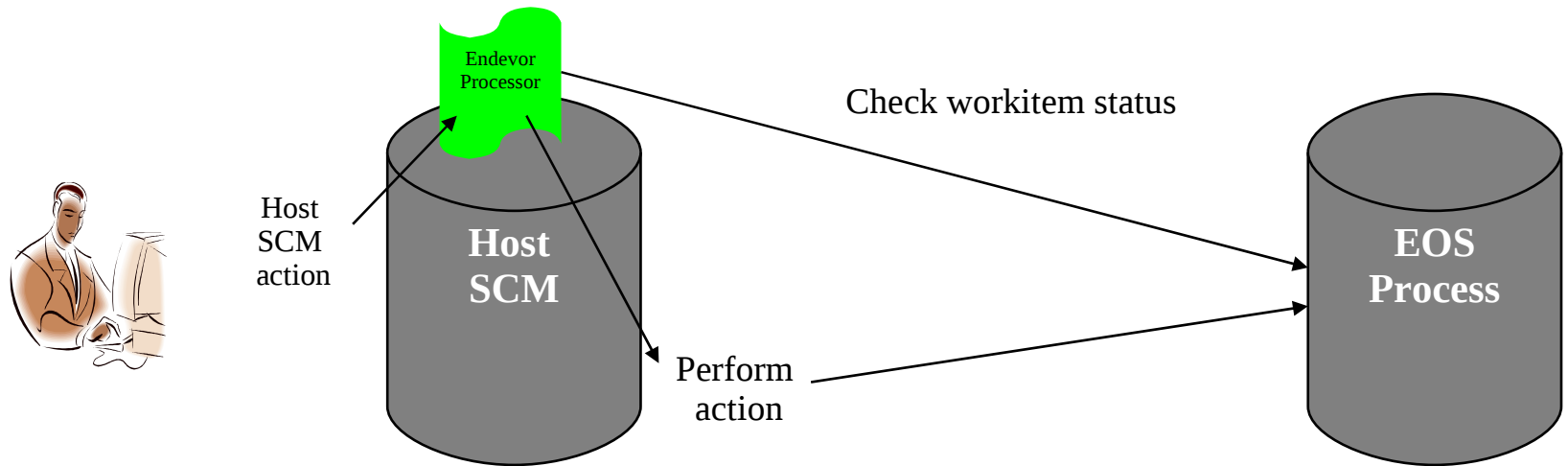


Integration with RDz UT for flexible access to System z environment

# Integrations and Extensions



- Enables Jazz governance with Endeavor or Changeman
- Query from the host SCM a property of a work-item to allow/disallow an action



- Takes advantage of Work Item REST API (cURL)
- Provide on the mainframe a « WI query gateway »
- Endeavor action update work item(s)
- Prevent Endeavor action based on work item status
- Endeavor action updates work item status
- Endeavor action can add comments to work item

**Communication :**  
Endeavor Processor's  
Changeman Skels  
OMVS Rexx using cURL  
Simple batch JCL

# The General View

The screenshot displays the IBM Rational Developer for System z interface. The main editor window shows a COBOL program with the following code:

```
Line 129      Column 46      Insert
-----+*A-1-B-----+2-----+3-----+4-----+5-----+6-----+7--|-----+8
          TO PARM-OUT-VSAM-CODE.
          PERFORM Close-files.
          goback.

* *****
* Utility method to open the input and/or output file
* *****
Open-files.
* Open the input file
  OPEN I-O IN-INTERNAL-FILE
  if not inputfile-success
    display 'Error opening input file ' IN-FILE-STATUS
    stop run
  end-if
* Open the output file
  OPEN I-O OUT-INTERNAL-FILE
```

Below the code, a message states: "The quick mark was set at the cursor location."

The Project Browser on the left shows the following structure:

- LINKAGE SECTION.
- ... COPY COBKAC1.
- Procedure DIVISION
- Open-files.
- Open-files-EXIT.
- Close-files.
- Close-files-EXIT.
- Copy-input-to-output.
- Copy-input-to-output-EXIT.
- Read-input-data.
- Read-input-data-EXIT.
- Start-next-input-data.
- Start-next-input-data-EXIT.
- Read-next-input-data.
- Read-next-input-data-EXIT.
- Write-output-data.
- Write-output-data-EXIT.
- Rewrite-output-data.

The Remote Error List at the bottom shows a filter of "Filter matched 0 of 0 messages" and an empty table with columns: ID, Message, S..., L..., Location, Host..., Date.

# The General View

The screenshot displays the IBM Rational Developer for System z interface. The main editor window shows COBOL source code for file COBKAC1.cbl. The code includes a utility method for opening files, with comments and a quick mark at the cursor location. The project navigator on the left shows the project structure, including the COBKAC1.cbl file. The bottom status bar indicates the current file path: Endeavor Cobol KA/Generation/COBOL/Copy/COBKAC1.cbl.

z/OS Projects - Endeavor Cobol KA/Generation/COBOL/Source/COBKAP1.cbl - IBM Rational Developer for System z

File Edit Navigate Search Project Endeavor Run Window Help

z/OS Projec Repos

COBKAP1.cbl COBKAC1.cbl

Line 129 Column 46 Insert

```
-----*A-1-B-----2-----3-----4-----5-----6-----7--|-----8
      TO PARM-OUT-VSAM-CODE.
      PERFORM Close-files.
      goback.

* *****
* Utility method to open the input and/or output file
* *****
Open-files.
* Open the input file
  OPEN I-O IN-INTERNAL-FILE
  if not inputfile-success
    display 'Error opening input file ' IN-FILE-STATUS
    stop run
  end-if
* Open the output file
  OPEN I-O OUT-INTERNAL-FILE
```

The quick mark was set at the cursor location.

Remote System Team

New Connection Local

Remote Error List z/OS File System Mappi Property Group Manage Remote System Details AllFusion CM Enterprise Element View Endeavor Log Navigator

LINKAGE SECTION.  
COPY COBKAC1.  
Procedure DIVISION  
Open-files.  
Open-files-EXIT.  
Close-files.  
Close-files-EXIT.  
Copy-input-to-output.  
Copy-input-to-output-EXIT.  
Read-input-data.  
Read-input-data-EXIT.  
Start-next-input-data.  
Start-next-input-data-EXIT.  
Read-next-input-data.  
Read-next-input-data-EXIT.  
Write-output-data.  
Write-output-data-EXIT.  
Rewrite-output-data.

Endeavor Cobol KA  
Generation  
COBOL  
Copy  
COBKAC1.cbl  
Driver  
JCL  
Model  
Source  
COBKAP1.cbl  
.project

Endeavor Cobol KA/Generation/COBOL/Copy/COBKAC1.cbl

# The General View

The screenshot displays the IBM Rational Developer for System z interface. The main window shows the source code for a COBOL program named COBKAP1.jcl. The code includes a header section with job information and a procedure definition for COBCOMPL.

```
Line 1      Column 1      Insert
//-----1-----2-----3-----4-----5-----6-----7-----8
//USERIDC JOB ,
//  MSGCLASS=H, TIME= (, 4) , REGION=28M, COND= (16, LT) , NOTIFY=USERID
//*****
//* @START_RRS_COPYRIGHT@                               *
//* LICENSED MATERIALS - PROPERTY OF IBM                 *
//*                                                         *
//* RESTRICTED MATERIALS OF IBM                         *
//*                                                         *
//* (C) COPYRIGHT IBM CORP. 2007                       *
//*                                                         *
//* @END_RRS_COPYRIGHT@                                 *
//*****
//* COBCOMPL -- PROCEDURE FOR DOING A                   *
//*               - COBOL COMPILE OF BATCH PROGRAMS     *
```

The interface also features a Project Explorer on the left showing the project structure, a Properties view, and a Remote System Explorer on the right. The bottom status bar indicates the editor is System z LPEX Editor.

# The General View

The screenshot displays the IBM Rational Developer for System z IDE interface. The main editor window shows a COBOL source file with the following code:

```
Line 102 Column 21 Insert 2 changes
-----*A-1-B-----2-----3-----4-----5-----6-----
      05 IN-FILE-STATUS pic xx value "00".
      88 inputfile-success value "00".
      05 OUT-FILE-STATUS pic xx value "00".
      88 outputfile-success value "00".
      05 Input-eof pic x value "0".
      77 DO-COPY-DATASET          PICTURE X(8) VALUE 'DO-COPY-DATASET'
LINKAGE SECTION.
COPY COBKAC1.

*
  Procedure DIVISION USING PARM5.
* Open the input and/or output files
  PERFORM Open-files.

* Process the user request
```

A tooltip message reads: "Unable to find copybook cobkac2".

The left sidebar contains a Project Explorer showing the project structure:

- 10 OUT-VSAM-CODE-R15-RETUR
- 10 OUT-VSAM-CODE-FUNCTION
- 10 OUT-VSAM-CODE-FEEDBACK
- 01 Temp-data
- 01 Program-flags
  - 05 IN-FILE-STATUS
    - 88 inputfile-success
  - 05 OUT-FILE-STATUS
    - 88 outputfile-success
  - 05 Input-eof
- 77 DO-COPY-DATASET
- LINKAGE SECTION.
- COPY COBKAC1.
- Procedure DIVISION
  - Open-files.
  - Open-files-EXIT.
  - Close-files.
  - Close-files-EXIT.
  - Copy input to output

The bottom-left pane shows the Project Explorer for the "Endevor Cobol KA" project, with the "Source" folder expanded to show "COBKAC1.cbl".

The right sidebar contains a Search pane with the following content:

- Search expression: local cobol compile
- Search scope: Default
- Local Help (1-10 of 189 hits)
  - The active locale: Developer for System z COBOL for Windows, Version 7.5, Programming Guide The active locale A locale is a collection of data that encodes information about a cultural environment. The active locale
  - Locale considerations: Developer for System z COBOL for Windows, Version 7.5, Language Reference Appendix G. Locale considerations A locale is a collection of language-specific and culture-specific conventions for inform
  - Setting the locale: Developer for System z COBOL for Windows, Version 7.5, Programming Guide Setting the locale You can write applications to reflect the cultural conventions of the locale in effect when the applicati
  - Building a local COBOL CICS transaction with TXSeries: Building a local COBOL CICS @ transaction with TXSeries Creating the project. In the z/OS @ Projects perspective, right-click the z/OS Projects view. Select New -> Project. The New Project wi
  - Tutorial: Building a local batch COBOL DB2 application: This tutorial explains how to build a local

At the bottom of the search pane, there are links for "Go To:", "All Topics", "Related Topics", "Bookmarks", and "Index".

# The General View

hsbc001

- >AVRKKK.COBOL
- AVRTEST1.A5MPGM
- >AVRTESTC.COBOL
- >BARYANN8.COBOL
- >BBBBBBBBBBBBBBBBBBBB
- >CCCCCCCCCCCCCCCC
- >>COBKAC2.CBL
- >>COBKAC3.CBL
- >>DOUG1.COBOL
- >>DOUG3.COBOL
- >>EP001.COB COPY
- >EXPRPT.JCL
- >EXPRPT0.JCL
- >EXPRPT1.JCL
- >EXPRPT2.JCL

```

Line 72      Column 12      Insert      5 changes
-----+-----+-----+-----+-----+-----+-----+-----
  *A-1-1-2-3-4-5-6-
Data Division.
File section.

FD IN-INTERNAL-FILE
  record contains 80 characters
  data record is IN-FILE-RECORD.
01 IN-FILE-RECORD.
   05 IN-RECORD-KEY PIC X(8) .
   05 FILLER PIC X(72) .
FD OUT-INTERNAL-FILE
  record contains 80 characters
  data record is OUT-FILE-RECORD.
01 OUT-FILE-RECORD.
   05 OUT-RECORD-KEY PIC X(8) .
   05 FILLER PIC X(72) .

The quick mark was set at the cursor location.

```

Remote System

- New Connection
- Local
  - Local Files
  - My Home
  - Drives
  - C:\
  - D:\
  - F:\
  - Local Shells

COBKAP1.cbl

Revision Time

- 06/01/2009 13:49
- 06/01/2009 13:38
- 06/01/2009 13:36
- 06/01/2009 09:50
- 06/01/2009 09:06
- 06/01/2009 09:06

Prope Outlin Search

- Identification Division.
- Environment DIVISION.
- Data Division.
  - File section.
    - FD IN-INTERNAL-FILE
      - 01 IN-FILE-RECORD
        - 05 IN-RECORD-KEY
        - 05 FILLER
    - FD OUT-INTERNAL-FILE
      - 01 OUT-FILE-RECORD
  - Working-Storage Section.
    - 01 IN-VSAM-CODE
      - 10 IN-VSAM-CODE-R15-RE
      - 10 IN-VSAM-CODE-FUNCTI
      - 10 IN-VSAM-CODE-FEEDBA
    - 01 OUT-VSAM-CODE
      - 01 Temp-data
      - 01 Program-Flow

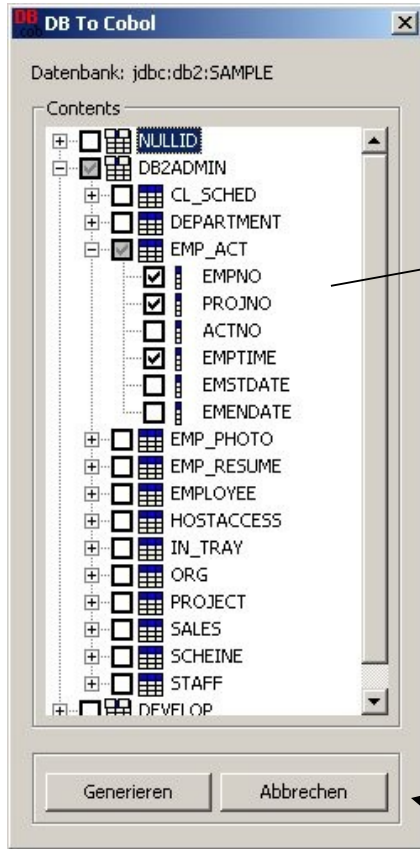
Remote Er z/OS File Property Remote S Element Vi Endevor L Navigator Search AllFusion

Message

- 100000012: Endevor Action getAllSubSystems Tue Jan 06 07:51:47 EST 2009 Return Code 0, Reason Code 0Copyright (C) 2007 CA. All Right...
- 100000012: Endevor Action getElementsByMap Tue Jan 06 07:55:27 EST 2009 Return Code 0, Reason Code 100Copyright (C) 2007 CA. All R...
- 100000012: Endevor Action getElementsByMap Tue Jan 06 07:55:29 EST 2009 Return Code 0, Reason Code 100Copyright (C) 2007 CA. All R...
- E00000012: Endevor Action addElement Tue Jan 06 08:11:13 EST 2009 Return Code 12, Reason Code 0(C) 2004 Computer Associates Inter...
- E00000012: Endevor Action addElement Tue Jan 06 08:20:47 EST 2009 Return Code 12, Reason Code 0(C) 2004 Computer Associates Inter...
- 100000012: Endevor Action retrieveElement Tue Jan 06 08:22:20 EST 2009 Return Code 0, Reason Code 0Copyright (C) 2007 CA. All Rights ...
- 100000012: Endevor Action addElement Tue Jan 06 08:26:20 EST 2009 Return Code 0, Reason Code 0(C) 2004 Computer Associates Interna...
- 100000012: Endevor Action getElementsByMap Tue Jan 06 08:26:32 EST 2009 Return Code 0, Reason Code 100Copyright (C) 2007 CA. All R...
- E00000012: Endevor Action addElement Tue Jan 06 08:29:56 EST 2009 Return Code 12, Reason Code 5(C) 2004 Computer Associates Inter...
- 100000012: Endevor Action addElement Tue Jan 06 08:40:02 EST 2009 Return Code 0, Reason Code 0(C) 2004 Computer Associates Interna...
- 100000012: Endevor Action getElementsByMap Tue Jan 06 08:40:18 EST 2009 Return Code 0, Reason Code 100Copyright (C) 2007 CA. All R...
- 100000012: Endevor Action getElementsByMap Tue Jan 06 08:41:45 EST 2009 Return Code 0, Reason Code 100Copyright (C) 2007 CA. All R...
- E00000012: Endevor Action addElement Tue Jan 06 08:46:54 EST 2009 Return Code 12, Reason Code 0(C) 2004 Computer Associates Inter...
- 100000012: Endevor Action addElement Tue Jan 06 08:47:10 EST 2009 Return Code 0, Reason Code 0(C) 2004 Computer Associates Interna...
- 100000012: Endevor Action getElementsByMap Tue Jan 06 08:47:22 EST 2009 Return Code 0, Reason Code 100Copyright (C) 2007 CA. All R...
- 100000012: Endevor Action addElement Tue Jan 06 08:47:59 EST 2009 Return Code 0, Reason Code 0(C) 2004 Computer Associates Interna...



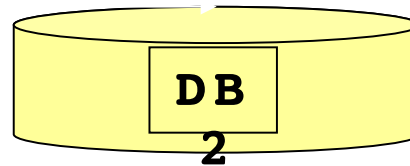
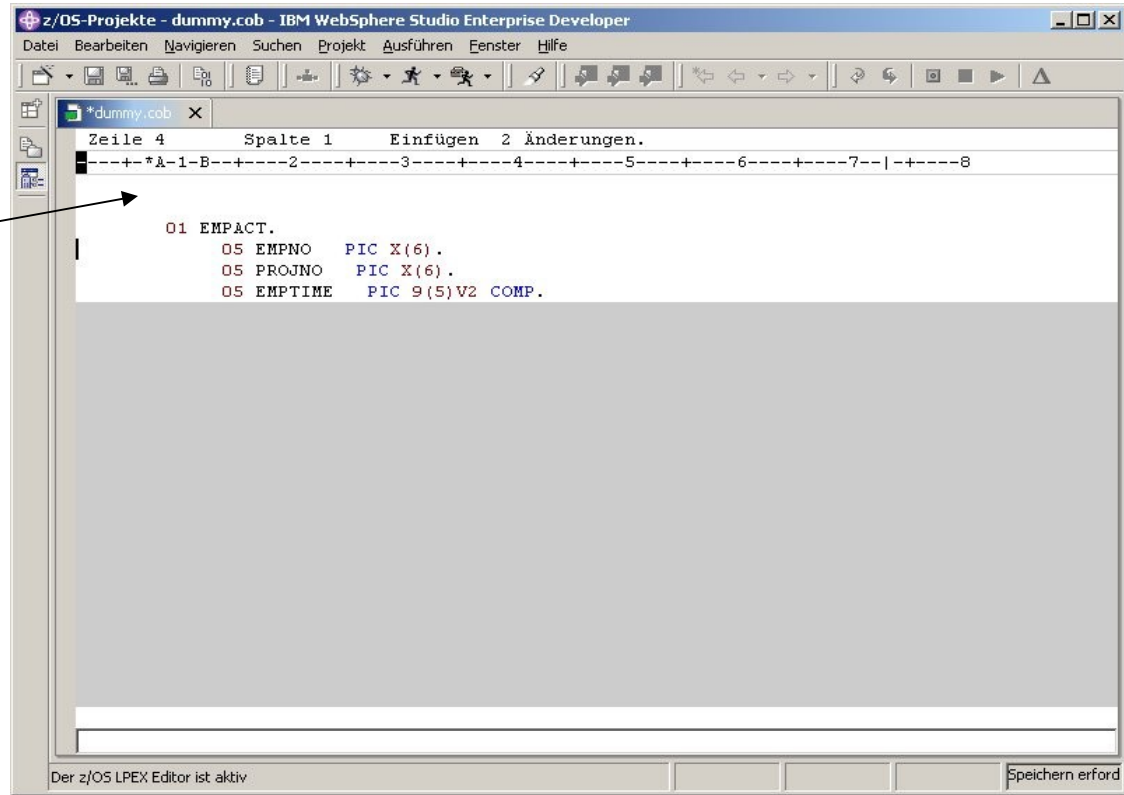
# Code Generation Plug Ins (DB2)



Generate appropriate  
Data structures

Retrieve  
Metadata

From catalog



# Code Generation Plug Ins (DB2)

**DB2 Tabellen Auswahl**

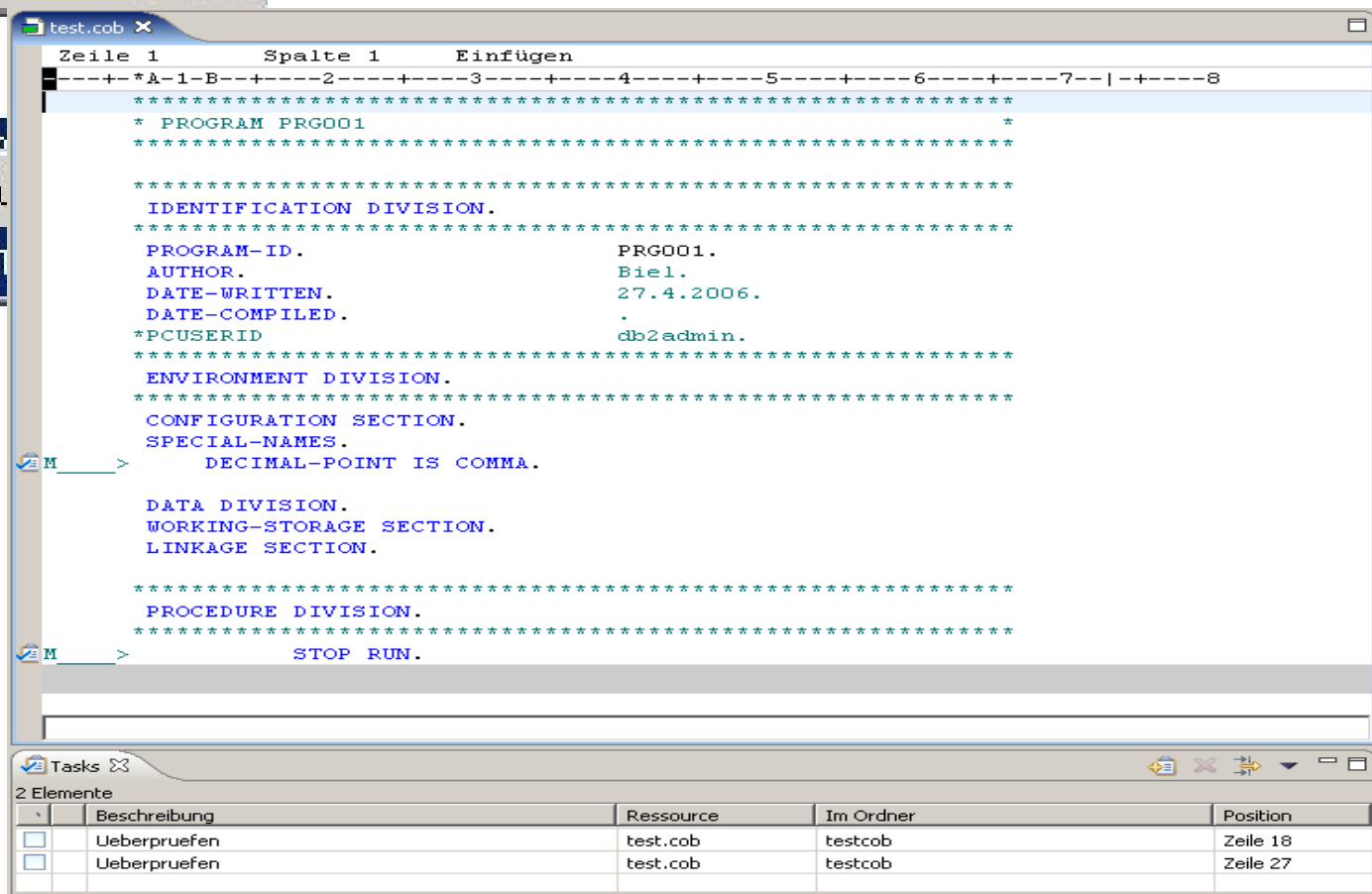
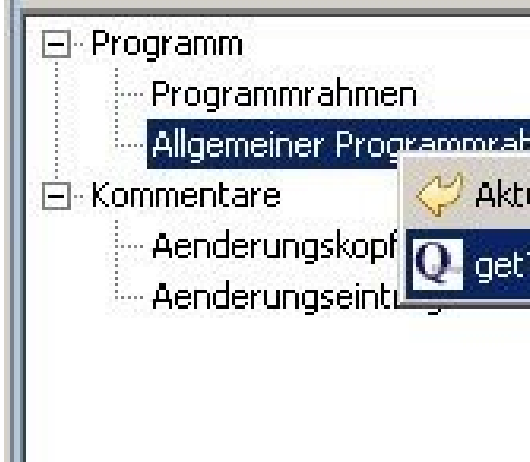
Schema: DB2ADMIN    Tabelle: EMP\_ACT    Schema:  Verwenden    Tabllenkürzel: T4

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

<< >>

```
Zeile 2            Spalte 24            Einfügen 1 Änderung
-----+*A-1-B--+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7--|-----8
|
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..)



# Embedded Languages (SWT01, Delta, Natural ...)

The screenshot shows the Eclipse IDE interface for a z/OS project. The main editor displays a JCL program with the following content:

```
Zeile 18      Spalte 60      Einfügen
-----+*A-1-B-+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7--|-----
001000          VERSION          (02/16)
001100          LANGUAGE          (C2R2)
001200          GENERATE          (STATISTICS DISPLAY NOACCEPT)
001300          NOINTERRUPT-PROCESSING
001400./PHASE S05-PHASE-1 LINKAGE-TYPE (STANDARD)
001500./GROUP (90 L-FILE)
001600./FILE FU158AV1
001700 DESCRIPTION
001800 (
001900 DDNAME          ( FU158AV1 )
002000 RECORD-FORMAT  ( F )
002100 LRECL           ( 80 )
002200 BLKFACTOR       ( 0 )
```

The left sidebar shows the project structure:

- com.qgrp.bender
- Endevor
- SWT\_Source
- testMtocE6

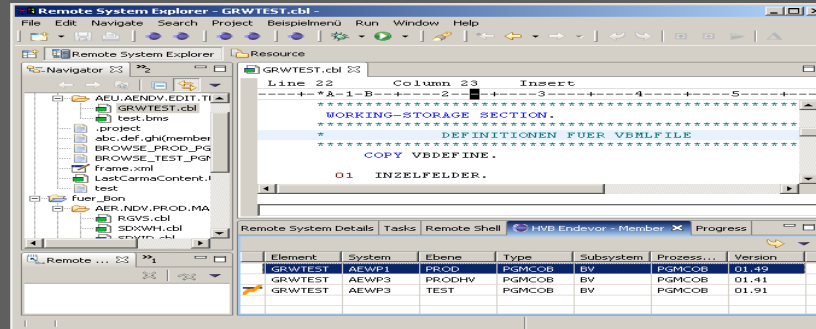
The bottom-left pane shows the 'Eigenschaften' (Properties) view with a tree structure:

- OPTIONS OUTPUT
- PROGRAM FU158A
- PHASE S05-PHASE-1
- GROUP (90
- FILE FU158AV1
- FILE FU158AV1
- USER WORKING-77.
- 77 IDENT
- 77 PIC
- 77 PIC
- 77 FU257U
- USER Fehlerzeile
- 01 FEHLERZEILE.
- USER FU158AV1-Vorlaufkarte

The bottom-right pane shows the 'Stammverzeichnis Verbindungen' (Base Directory Connections) table:

Name	Übergeord...	Typ des fer...	Verbindung...	Hostname	Standard-B...	Beschreibung
Lokal	qdesk3	Local	Keine Subs...	LOCALHOST	qdesk3 (Üb...	
local	qdesk3	Local	Keine Subs...	LOCALHOST	qdesk3 (Üb...	
Quxsrv03	qdesk3	Linux	Keine Subs...	192.168.19...	bon	

# Accessing foreign Systems (batch)



RDz-Plug-In

JCL-Submit

Workstation

JES

Host

REXX

Cobol

PL/I

# Accessing foreign Systems (batch)

The screenshot displays the Eclipse IDE interface for a z/OS project. The main editor shows JCL code for a program named 'SWT\_Source/fu158a2.swt'. A dialog box titled 'Select Checkout Options' is open, allowing configuration of SCL options for a checkout operation.

**Project Structure (Left):**

- z/OS-Projekte
  - com.qgrp.bender
  - Endevor
  - SWT\_Source
  - testMtocE6

**Code Editor (Center):**

```
Zeile 18 SWT_Source/fu158a2.swt Einfügen
A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+
      LANGUAGE      (C2R2)
      GENERATE      (STATISTICS DISPLAY NOACCEPT)
      NOINTERRUPT_PROCESSING
```

**Select Checkout Options Dialog (Center):**

**SCL Options**

Member:  Subsystem:

CCID:  Override signout:

Type:

Buttons:

**Remote Systems View (Right):**

- Eigenes Ausgangsve
  - bin
  - Documents
  - public\_html
  - dummy.txt
  - dummy1.txt
  - DV110
  - list2.txt
  - listing.txt
  - test.id

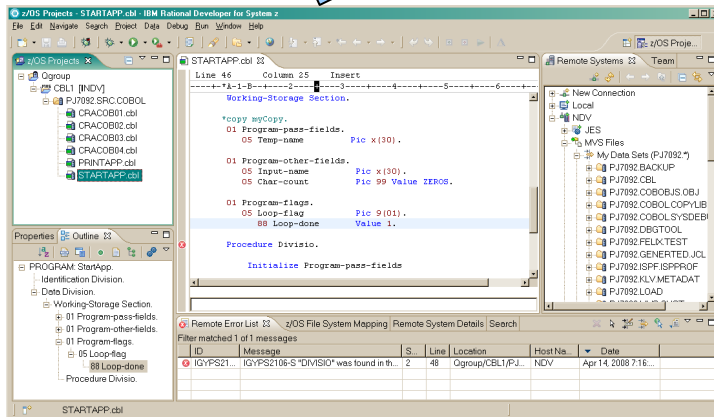
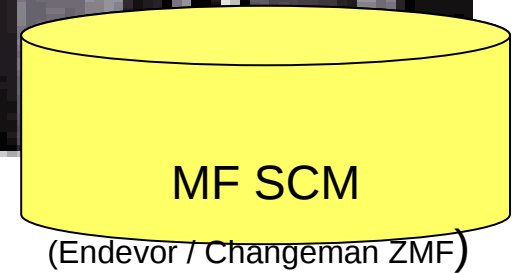
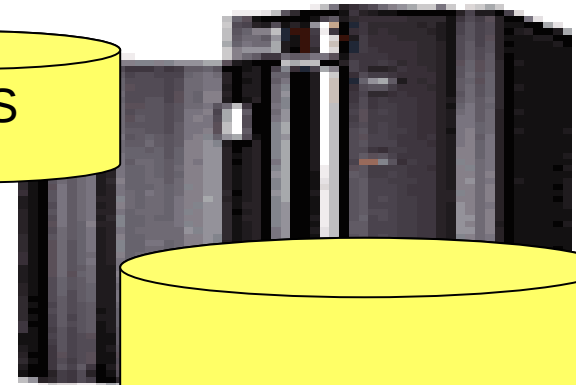
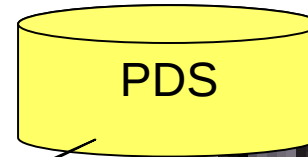
**Properties View (Bottom Left):**

Eigenschaft	Wert
Anzahl unt...	0
Filterzeiche...	/home/bon/*
Größe	80 Byte
Kanonische...	/home/bon/public_html
Klassifizierung	directory
Lesezugriff	Nein
Letzte Änd...	23. Juni 2005 14:54:28
Name	public_html
Position	/home/bon
Typ	Ordner
Verdeckt	Nein

Order: /home/bon/public\_html

# EOS and SCM

LOCAL/REMOTE EDIT  
SYNTAX CHECK  
REMOTE BUILD

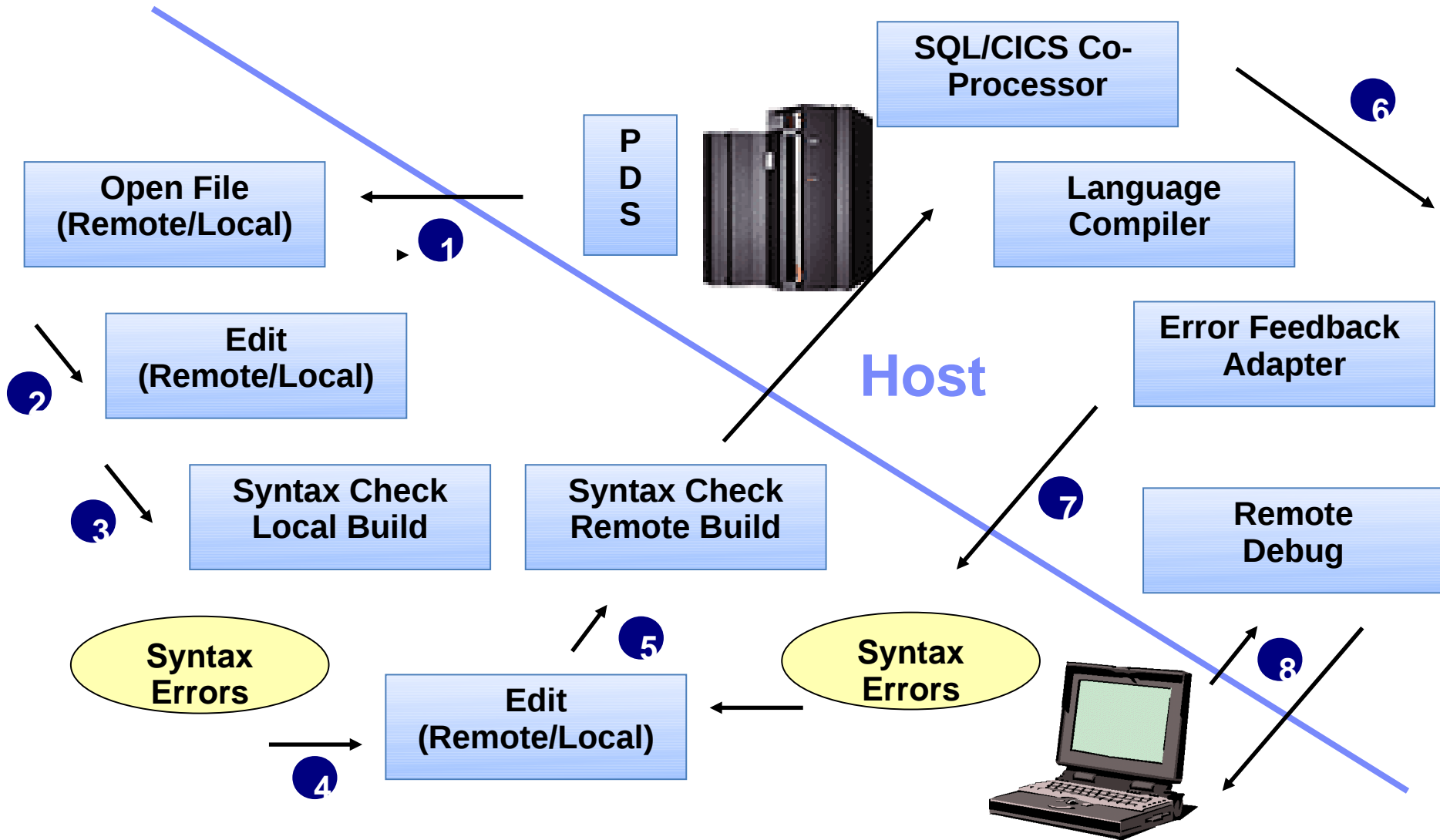


CCIDs  
PACKAGES  
ELEMENTS  
BUILD/  
GENERATE  
PROMOTE

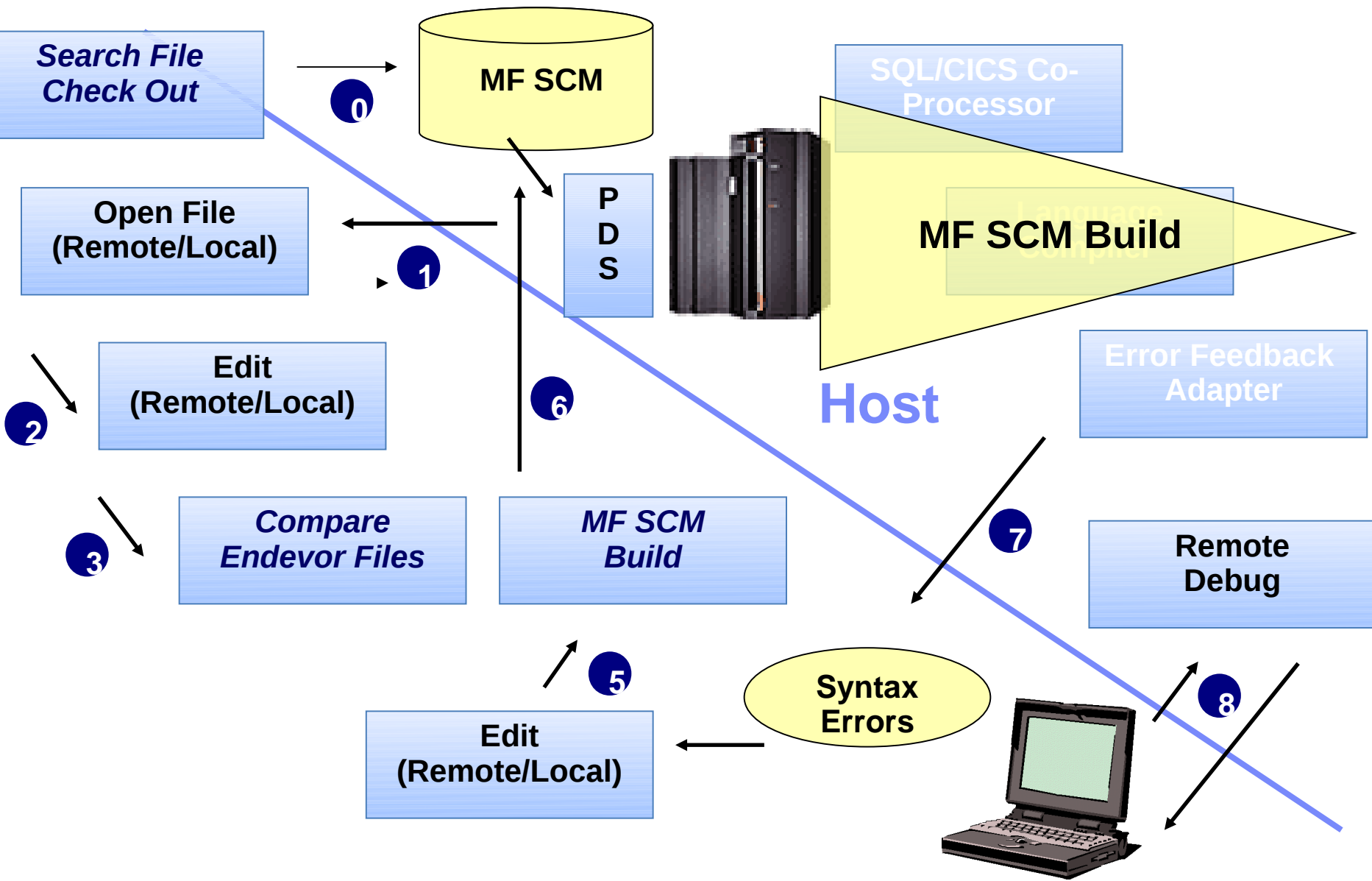
- Search Sources stored in MF SCM out of EOS
- Get CCID / Package Element Information
- Check Out to PDS and Check In back
- Run Build Jobs under MF SCM Control
- Get Build Results back from MF SCM



# Basic EOS Development Workflow



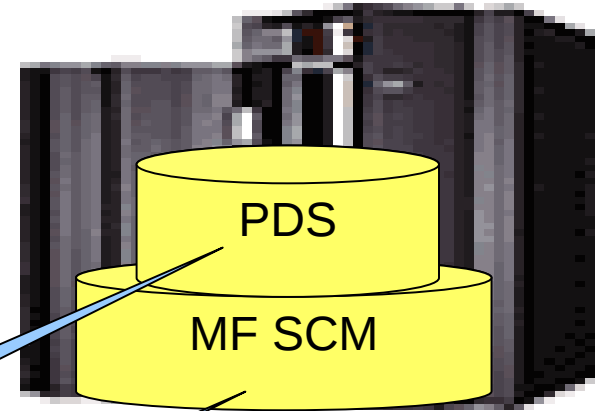
# EOS Development Workflow



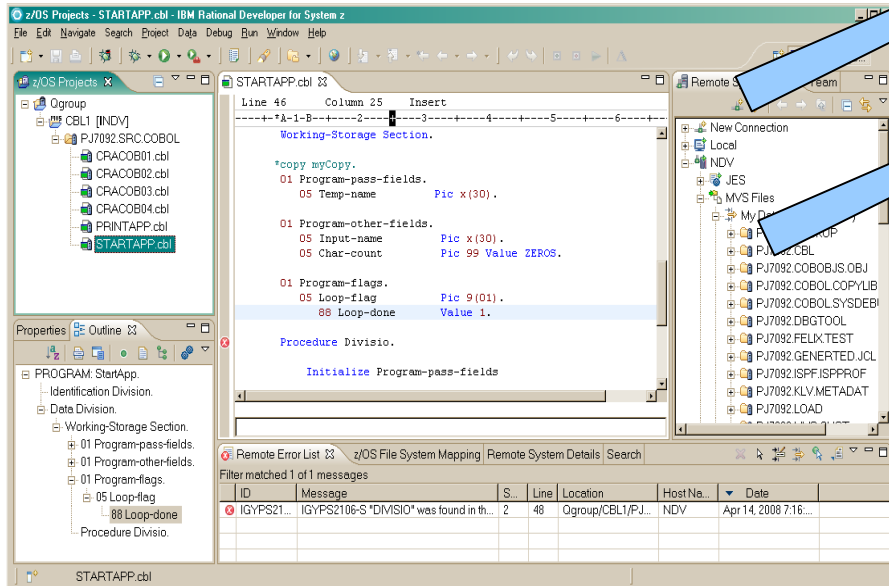
# Integration of SCM into the EOS Solution

~~EDIT  
BROWSE  
SYNTAX CHECK  
COMPILE~~

SYNTAX CHECK

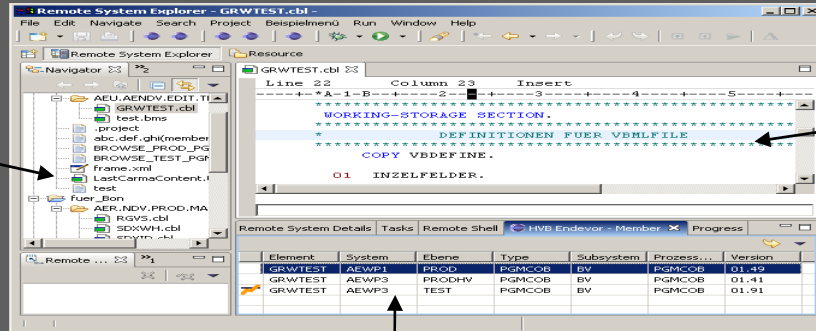


~~CHECK OUT  
COMPARE  
CHECK IN  
BUILD  
PROMOTE~~



# Several ways to connect...

Projekt-View



Editor

EOS-Plug-In

JCL-Submit

CARMA-Transport

Workstation

JES

RAM

Host

NDVSTAN

NDVR-API

REXX

MF SCM (Endevor / Changeman ZMF)

# EOS for Endevor standard Plugin

The screenshot displays the Rational software IDE interface. The main editor window shows a COBOL program named 'StartApp.cbl' with the following code:

```
Line 25      Column 1      Insert
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----+
                                     Program-flags.

/*****
 *
 * LESEN DER VIEW : BONTAB
 *
 *****/

SELECT-BONTAB SECTION.

EXEC SQL
SELECT
  ID
  , SPALTE2
  , SPALTE3

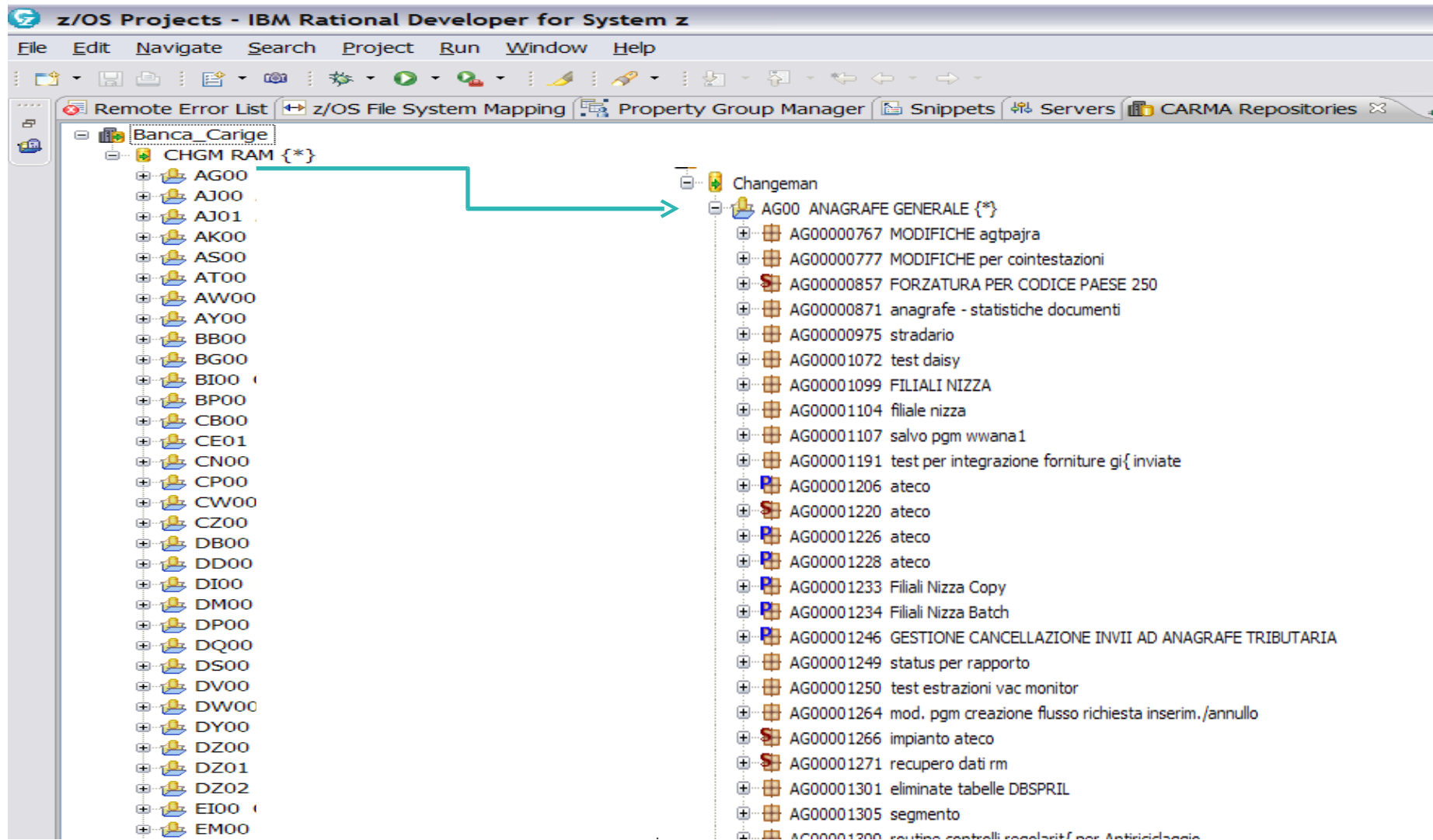
Class "com.qgrp.lpex.swt.CobolSwtParser" not found.
```

The Navigator pane on the left shows a project structure with folders like 'cobTest', 'cobTest1', 'BuildOutput', 'COPY', 'MAIN', 'MODULE', and files like '.project', 'test.lsd'. The Outline pane shows a hierarchical view of the program structure, including 'PROGRAM: StartApp', 'Identification Division', 'Data Division', 'Working-Storage Section', and 'Procedure Division'. The Search pane at the bottom shows a table of search results for 'DanskeSearch'.

	Name	Repos...	Type	Version	Stage	Proce...	System	SubS...	Modifi...	Modified	Descri...	SignO...	Last ...
(Y)	KASVCBSG	Endev...	CBSH	01.05	SYST...	PG	DDB	EV	U0II401	2007-...		U0II401	Promote
(S)	KASVCBSH	Endev...	CBSH	01.06	TS.P...	PG	DDB	EV	U0II401	2007-...		U0II401	Add
(S)	KASVCBSH	Endev...	LINK	01.00	TS.P...	PG	DDB	EV	U0II401	2007-...		U0II401	Gener...
	KASVCOBA	Endev...	COB	01.00	APPT...	PG	DDB	EV	U0II401	2007-...		U0II401	Gener...
(S)	CCSHAPO	Librarian	PKS	01.02	TEST(T)	master			U0II401	2007-...	STOR...	U0II401	
		Librarian		00.90	PROD...	master			U0II401	2007-...	STOR...	U0II401	
(V)		Librarian		01.01	FRYS(F)	master			U0II401	2007-...	STOR...	U0II401	
		Librarian		01.00		master			U0II401	2007-...	STOR...	U0II401	

# EOS for Changeman standard Plugin

## The Carma View



## The Carma View

Simple packages are displayed with











Super packages are displayed with



Participating packages are displayed with  
Choose a super package and *click* on "+" to get the list of the participating packages



-   AG00001200 ateco
-   AG00001220 ateco {\*}
-   AG00001206 ateco
-   AG00001226 ateco
-   AG00001228 ateco
-   AG00001226 ateco

# 3rd Party CSAR - Customized-Plugin

Endevor-Options

### Filterdefinitionen für ENDEVOR-Zugriffe

Element	Typ	Ebene	System
MB*	*	TEST	PGM
GRW*	TEST	PROD*	PGMCOB

Neu  
Bearbeiten  
Löschen

Tasks Snippets HVB Endevor - Member x HVB Endevor - Filter CARMA Repositories

Element	System	Ebene	Type	Subsystem	Prozessor-Gr...	Version
GRWTEST	TEST		PGMCOB	BV	PGMCOB	01.49
GRWTEST	TEST		PGMCOB	BV	PGMCOB	01.41

- Filter bearbeiten
- Aktualisieren
- Abmelden
- Browse
  - Browse
  - Browse Listing
  - Browse History
  - Browse Select
- Edit
- Generate
- Delete
- Vergleichen



# 3rd Party CSAR - Customized-Plugin

The screenshot displays the Rational software interface with a search dialog box open. The background shows the 'Resource' window with a project tree containing folders like 'cobTest', 'cobTest1', 'BuildOutput', 'COPY', 'MAIN', 'MODULE', and files like '.project', 'test.lsd', 'Endevor', and 'ultimateDanske'. The 'Outline' window shows a hierarchical view of the 'PROGRAM: StartApp' with sections like 'Identification Division', 'Data Division', 'Working-Storage Section', and 'Procedure Division'.

The 'Search' dialog box is titled 'Search' and has three tabs: 'Repository Search', 'File Search', and 'Java Search'. The 'Repository Search' tab is active. It contains the following fields and options:

- Member Name:
- Endevor(DDB)
  - Stage:
  - System:  Type:
  - Subsystem:  Processor Group:
- Librarian
  - Stage:
  - Master:  Language:
- Endevor(Danica)
  - Stage:
  - System:  Type:
  - Subsystem:  Processor Group:
- Content:

At the bottom of the dialog are buttons for 'Customize...', 'Search', and 'Cancel'.

On the right side of the interface, a code editor shows a snippet of COBOL code with asterisks and line numbers 6 through 9. Below the code editor is a table with the following data:

Location
line 92
line 93
line 69
line 105
line 169
line 170
line 217

# 3rd Party CSAR - Customized-Plugin

Suchen

Endevor(KLV) Ferne Suche Ferne z/OS-Suche Prozess-Suche Dateisuche Datenmodellsuche USS-Unterprojekte

CCID:   User:

Element:  Typ:

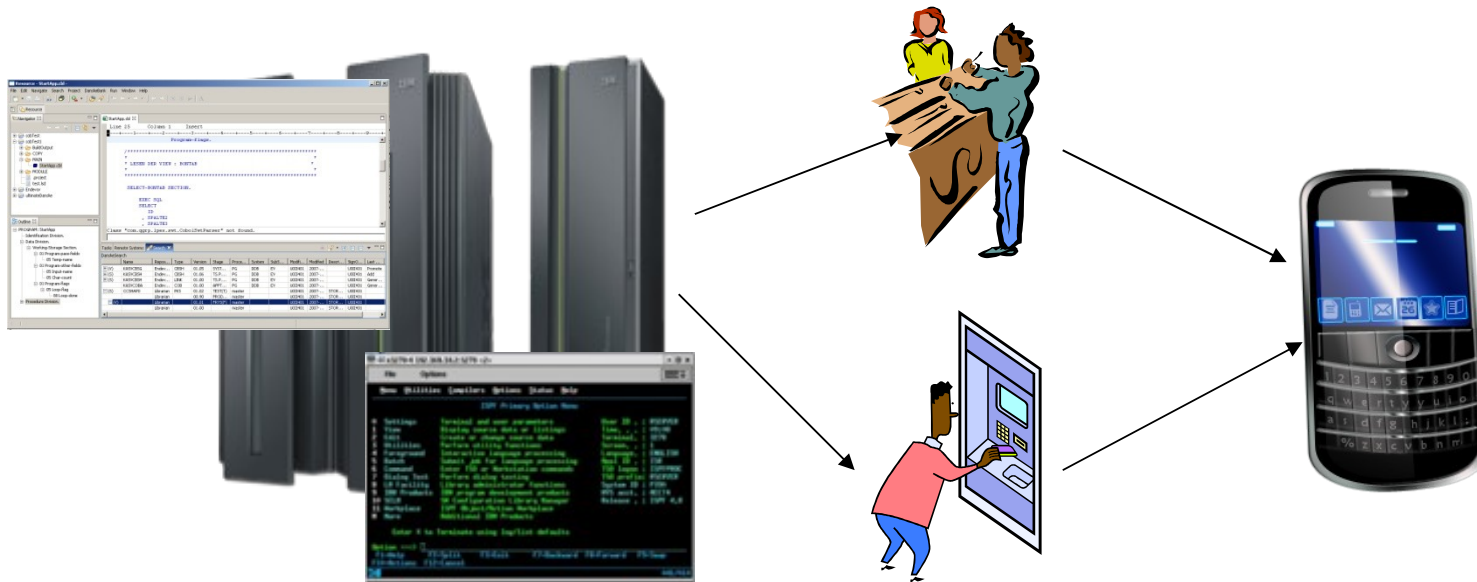
System:  Subsystem:

Stage:  Mapping

**CCID wählen**

**CCIDs**

CCID	Bezeichnung	Release
3056	CSP -> COBOL UMSTELLUNG	TECHNOLOGIE 2007.4
3165	GWG ANTITERROR	PART./KUIS 2007.4
3712	BASISKOMPONENTEN/MAPPING I	SHUR 2007.4
3713	MAPPING II	SHUR 2007.4
3714	MAPPING III	SHUR 2007.4
3715	MAPPING IV	SHUR 2007.4
3752	UMIEVO	LEBEN CLAS. 2007.4
3985	LABELING AE-SHUR	SHUR 2007.4
3996	W+W ANBINDUNG SAP-FI/CO AN	W&W SAP 2007.4
4019	ERP-OBERFLÄCHE FÜR KI-DIAL	OG SHUR 2007.4
4028	BERÜCKSICHTIGUNG SÜ	LEBEN NEU 2007.4
4049	LABELING AE-LEBEN	LEBEN CLAS. 2007.4
4053	LABELING AE-KFZ	KFZ 2007.4
4054	LABELING AE-SAP	SAP 2007.4
4111	NEUE VERSCHMELZUNGEN	SHUR 2007.4
4140	W+W ERWEIT. DTA UM KOMM.NR	./CP PART./KUIS 2007.4
4145	NR - BILANZ	LEBEN CLAS. 2007.4
4168	EASYTRIEVE IN ENDEVOR	TECHNOLOGIE 2007.4
4200	KEST 40B MUSS-ANFORDER. 20	07.2 LEBEN CLAS. 2007.4
4207	RAN - LEBEN CLASSIC ZU U20	07.4 LEBEN CLAS. 2007.4
4229	AP1, AP3, AP4	LEBEN CLAS. 2007.4
4230	AP2 FORTSCHREIB. GEWICHTE	LEBEN CLAS. 2007.4
4231	AP5, AP6	LEBEN CLAS. 2007.4
4232	AP7 BEACHTUNG BBR	LEBEN CLAS. 2007.4
4234	AP8, AP9 RESTL. GESCHAEFTS	VOR. LEBEN CLAS. 2007.4
4236	BAKO-IVS-ERWEITERUNG	PART./KUIS 2007.4
4237	CHERRY - HARMONIS. UNTERSC	HR. KFZ 2007.4
4238	BEITRAGSANGLEICHUNG	KFZ 2007.4
4240	UMSTELLUNG JES3/JES2 IM ND	V TECHNOLOGIE 2007.4
4242	SG-REL. 2007.4 ADS	ADS 2007.4
4243	SG-REL. 2007.4 BV	BV 2007.4
4244	SG-REL. 2007.4 DWH	DWH 2007.4
4245	SG-REL. 2007.4 KFZ	KFZ 2007.4
4246	SG-REL. 2007.4 KUORD	KUORD 2007.4
4247	SG-REL. 2007.4 LEBEN CLASS	IC LEBEN CLAS. 2007.4
4248	SG-REL. 2007.4 LEBEN NEU	LEBEN NEU 2007.4



## IBM Technology supporting the Business to IT Alignment

# The Enterprise Optimization

# A Walk Through a EOS Solution Exercise

- “Project management process”
- Single Timeline, Enhanced Scheduling
  - Gantt Charts and Critical Paths
  - Risk and Risk Actions
  - MS-Project Import/Export

The project timeline defines a start and end date along with an iteration breakdown. Additional timelines can be defined to track secondary activities.

- Main Development [Project Timeline]
  - Release 1.0 [5/10/10 - 8/8/10]
    - Requirements [5/10/10 - 6/9/10]
      - Design
      - Implementation
      - Testing
    - Backlog

Buttons: Edit Properties..., Duplicate..., Create Timeline..., Create Iteration..., Delete...

**Formal Project Template**

Work item types:

- Defect
- Task
- Change Request
- Issue
- Plan Item
- Risk
- Risk Action

Overview Links Approvals History

**Details**

Type: Risk Probability: 40% - Unlikely

Creation Date: Jun 1, 2010 11:58 AM Impact: Major

Created By: ADMIN Exposure(%): 24

Project Area: Formal Project Management Project

Team Area: Development

Filed Against: Development

Tags:

Owned By: Unassigned

Priority: Unassigned

Risk Category: Cost Control Precision: Medium

Identification Date: Consequence Cost: 0

Occurrence Date: Probability Cost: 0

Probability(%)

100	Yellow	Yellow	Red	Red
80	Green	Yellow	Yellow	Red
60	Green	Green	Yellow	Yellow
40	Green	Green	Green	Yellow
20	Green	Green	Green	Yellow

Impact(%)

**Risk Work Item**

Planned Items Links Snapshots Resources Notes

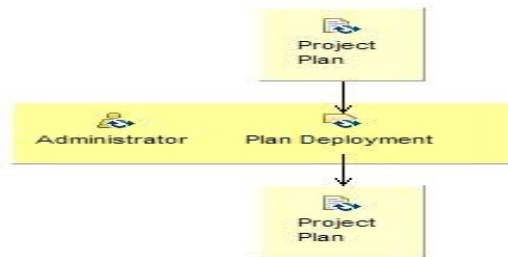
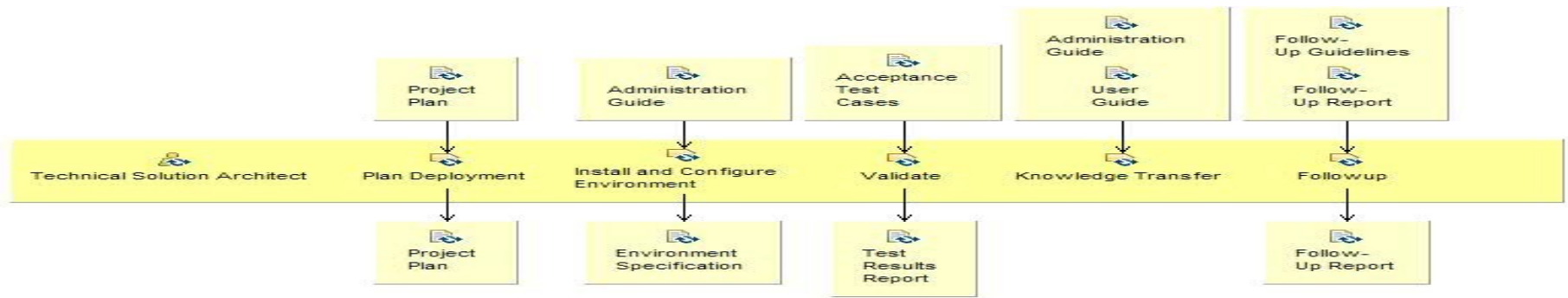
View As: Work Breakdown and Schedule

Bill Cassavelli (Closed Items: 0 | Open Items: 3)

Actions	Summary	Estimate	Constraint Type	Constraint Date	Predecessor	Id	Progress	Estimated	Priority
	T3	2.2 days	As Soon As Possible	--	--	11	0:53 h	100%	High
	T2	1 day	As Soon As Possible	--	--	10	0:40 h	100%	Medium
	T1	3.4 days	As Soon As Possible	--	--	9	0:40 h	100%	Low
	T4	1 week	As Soon As Possible	--	--	37	0:40 h	100%	Unassigned

**Gantt Chart with Critical Path**

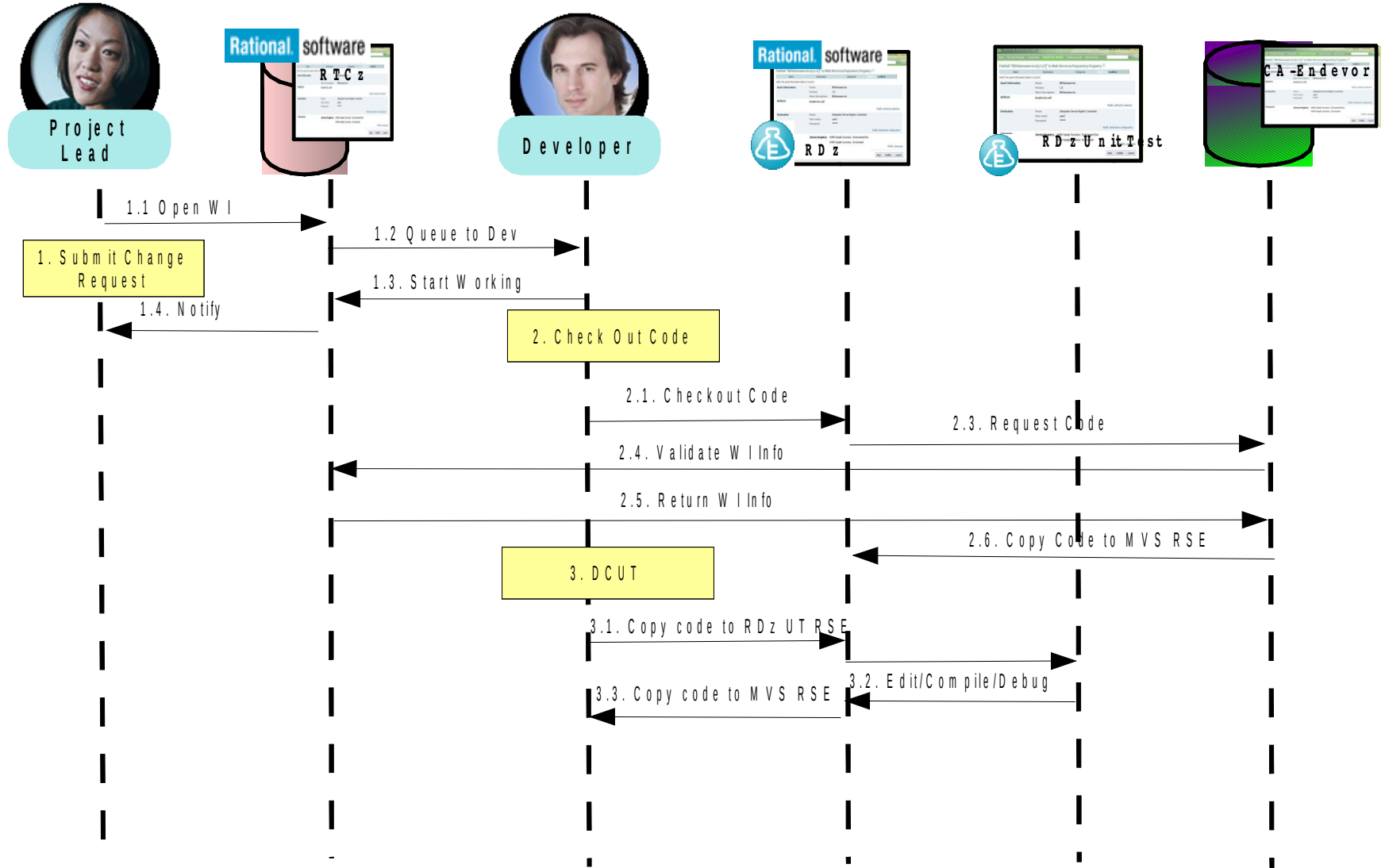
# The Suggested Service offering Work Flow



- Rapidly establish a working solution to enhance and modernize your enterprise development environment.
  - Typical engagement is 10 working days.
  - Typical full EOS engagement based upon an EOS report - 60 Days
- Implements a field-tested usage model, targeting a sub-set of developers to ensure successful deployment.
  - Run pre defined TESTS to show added value
- Provides knowledge transfer to enhance your skills and productivity in an integrated modern development environment.

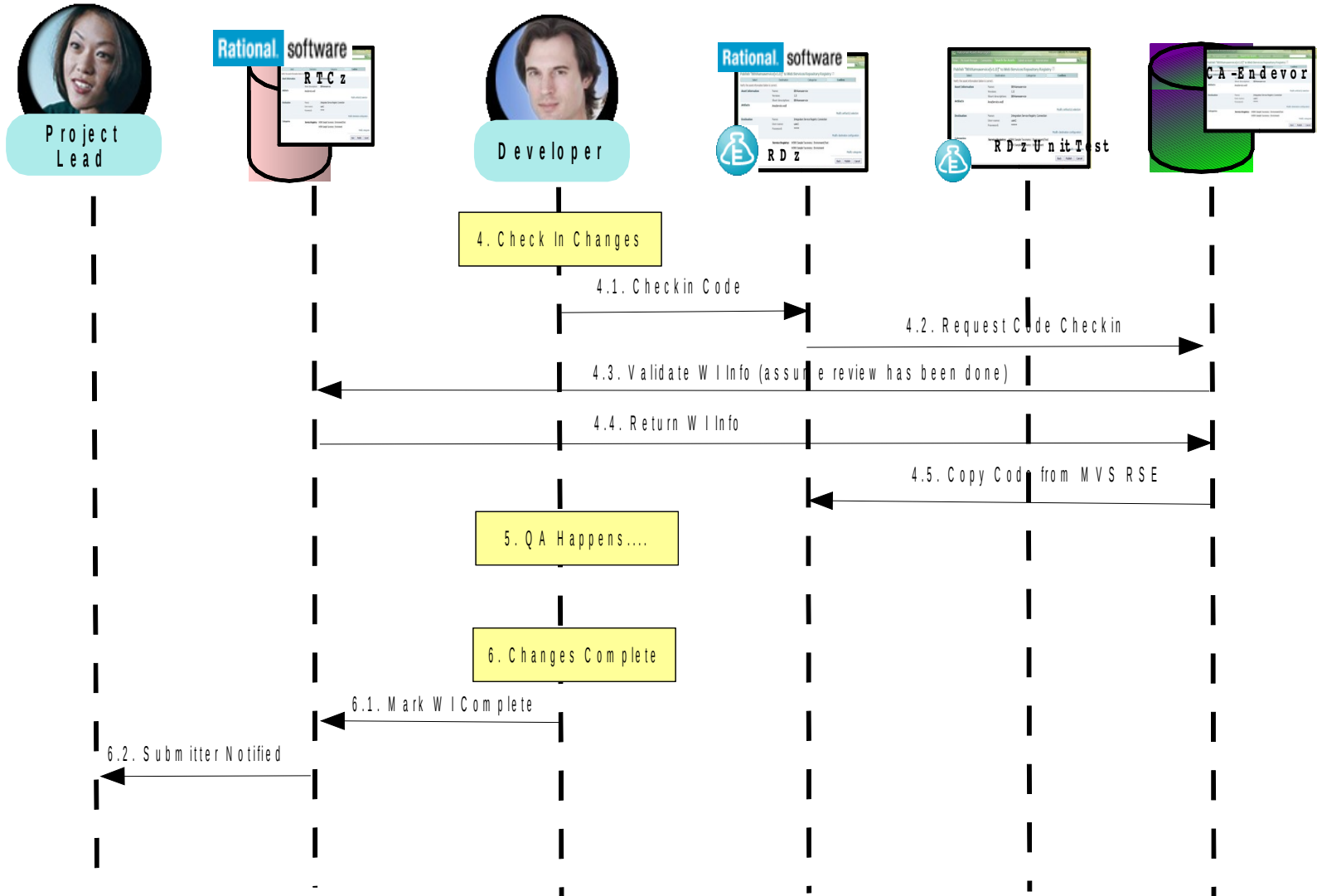
# A Walk Through a EOS Solution Exercise

## Usage Scenario (\*simplified)



# A Walk Through a EOS Solution Exercise

## Usage Scenario (\*simplified)





# Questions





## *Your Next Steps*

### Learn more at:

- IBM Rational software
- Rational launch announcements
- Rational Software Delivery Platform
- Accelerate change & delivery
- Deliver enduring quality
- Enable enterprise modernization
- Ensure Web security & compliance
- Improve project success
- Manage architecture
- Manage evolving requirements
- Small & midsize business
- Targeted solutions
- Rational trial downloads
- developerWorks Rational
- Leading Innovation
- IBM Rational TV
- IBM Business Partners
- IBM Rational Case Studies

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