IBM Software Group

Rational Developer for System z Overview, Demo and Hands-on

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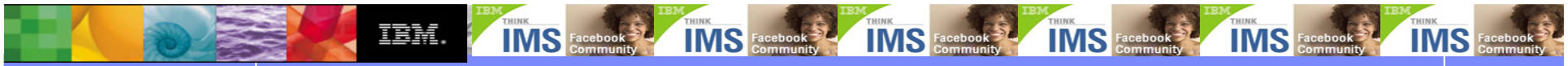
Agenda for this session

- Rational Developer for System z (RDz) overview
- Live Demo
- Hands-on Lab



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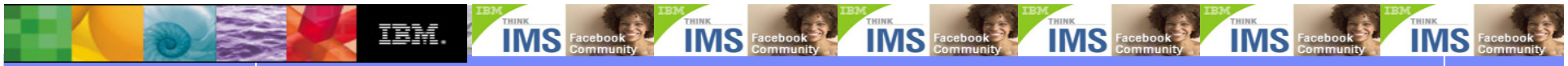
Overview



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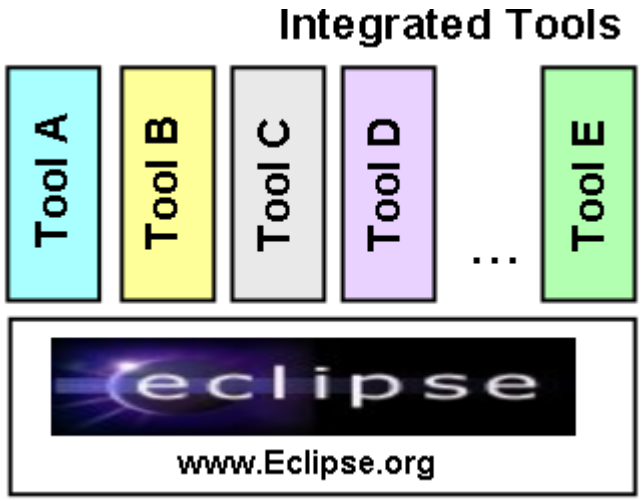
Rational Developer for System z (RDz) overview

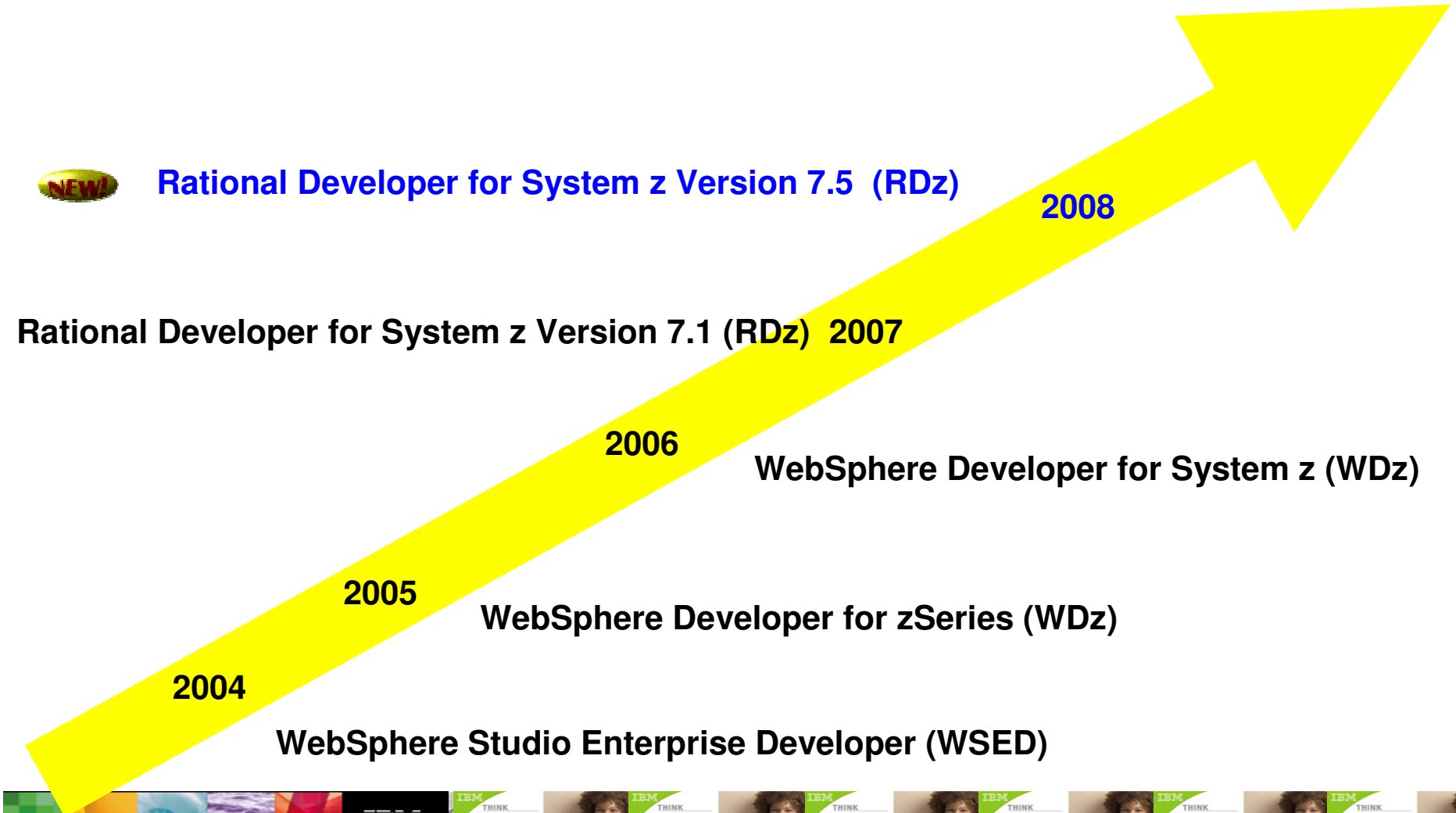
- **What is RDz**
  - Eclipse-based IDE
  - IDE (Integrated Development Environment) - make developing faster and easier

- **RDz supports development in the z/OS systems**
  - COBOL, PL/I, C, C++, HL ASSEMBLER, Java, and Web Services
  - Provides interactive access to z/OS systems
  - Supports CICS, IMS, Batch, USS, DB2 Stored Procedure, Application Servers.

- **RDz supports SOA**
  - Enables CICS and IMS applications for Web Services and SOA

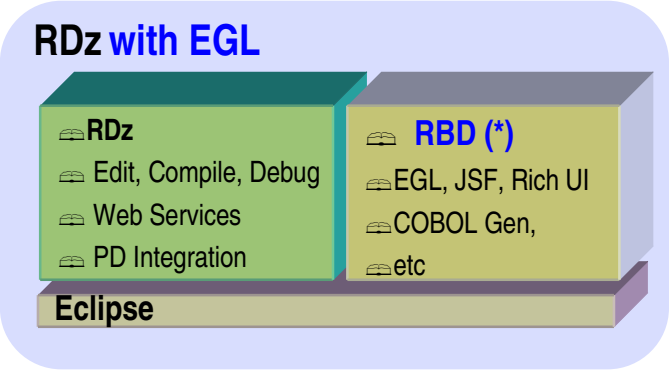


History of Rational Developer for System z

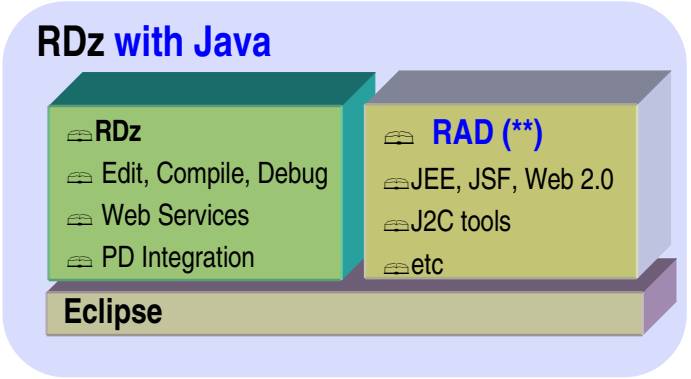


Two Rational Developer for System z (RDz) Offerings

- **IBM Rational Developer for System z with EGL (Enterprise Generation Language)**
  - Bundles RDz capability with Rational Business Developer (RBD)
  - Best for creating System z applications with **EGL** web or Rich UI front-end applications (Web 2.0)



- **IBM Rational Developer for System z with Java**
  - Bundles RDz capability with Rational Application Developer (RAD)
  - Best for creating System z applications combined with **Java Enterprise Edition** front-end applications



* **RBD** = Rational Business Developer

** **RAD** = Rational Application Developer

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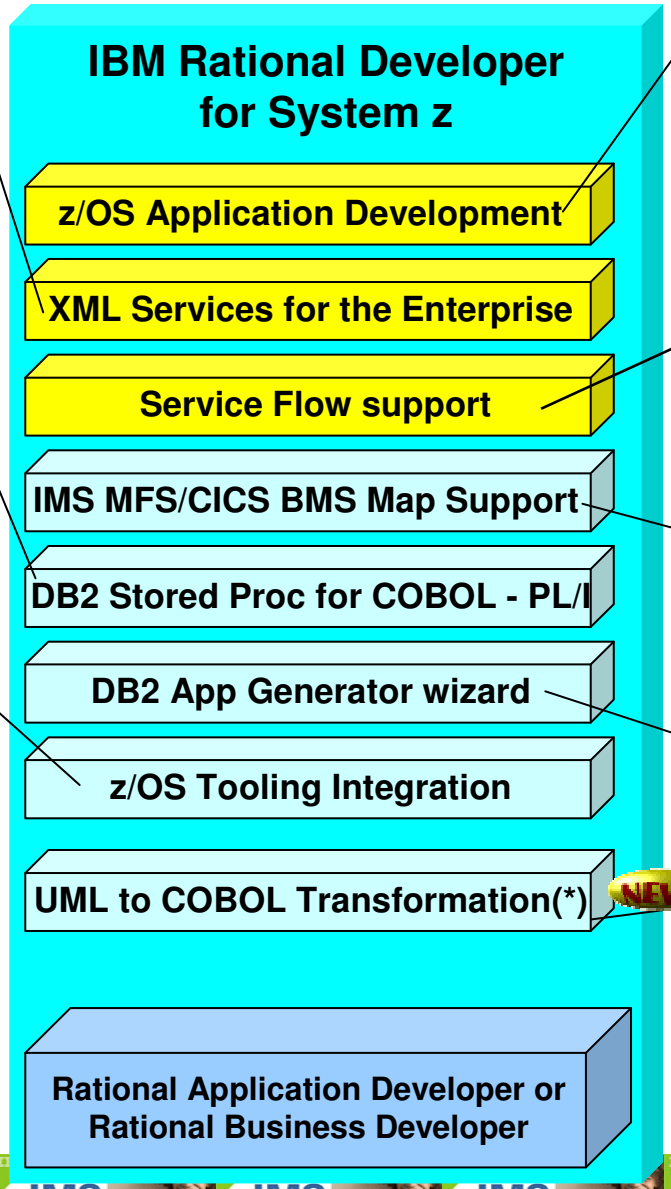
IBM Rational Developer for System z version 7.5



XML Services for the Enterprise

- SOA support for COBOL or PL/I using IMS or CICS
- Bottom-up/Top-down or meet-in-the-middle COBOL/PLI to XML mapping support
- meet-in-the-middle development scenario tooling wizards. for CICS, IMS, and batch applications

DB2 Stored Procedure for COBOL and PL/I

- Create DB2 stored procedures on z/OS in either COBOL or PL/I
- Build and catalog support for the DB2 stored procedure
- Debug z/OS based stored procedures from workstation

z/OS Tooling Integration

- Read/Write/Update VSAM datasets via integration with **IBM File Manager**
- Access **IBM Fault analyzer** reports for analyzing ABENDS and associating back to source code

z/OS Application Development

- Work with z/OS resources like COBOL, PL/I , C, C++, JCL, etc.
- Interact with the Job Entry Subsystem (JES) to submit jobs, monitor jobs, and review job output
- Perform dataset management actions
- Perform typical edit, compile, and debug tasks on remote z/OS resources from the workstation

Service Flow support

- Supports CICS Service Flow Feature
- Wizards to build service flows out of your existing COMMAREA WSDL and Terminal based CICS applications.

BMS/ IMS MFS Map Support

- Visually create and modify BMS Map sets or IMS/MFS
- Generates JCL
- Work with local or remote maps

DB2 App Generator wizard

- Generate WSDL, JCL and CICS COBOL program to access DB2
- Generate CRUD programs code from existing

UML to COBOL Transformation(*)

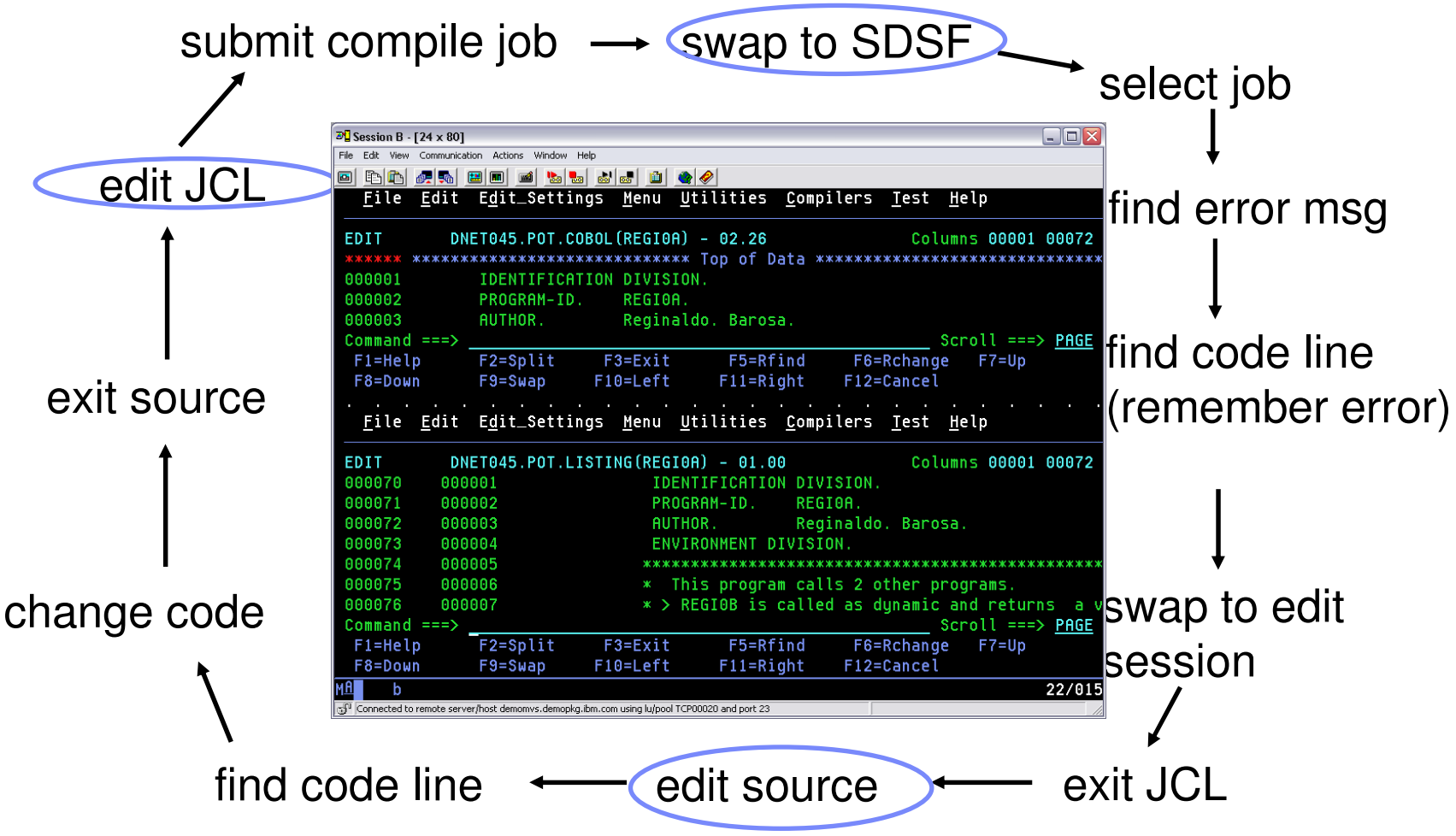
- Provide UML assets in order to represent COBOL in UML (Models, Profiles, Patterns)
- UML transformations generate models more specific to COBOL target
- Final transformation generates COBOL source

(*) Requires Rational Software Architect (RSA)

Core functions

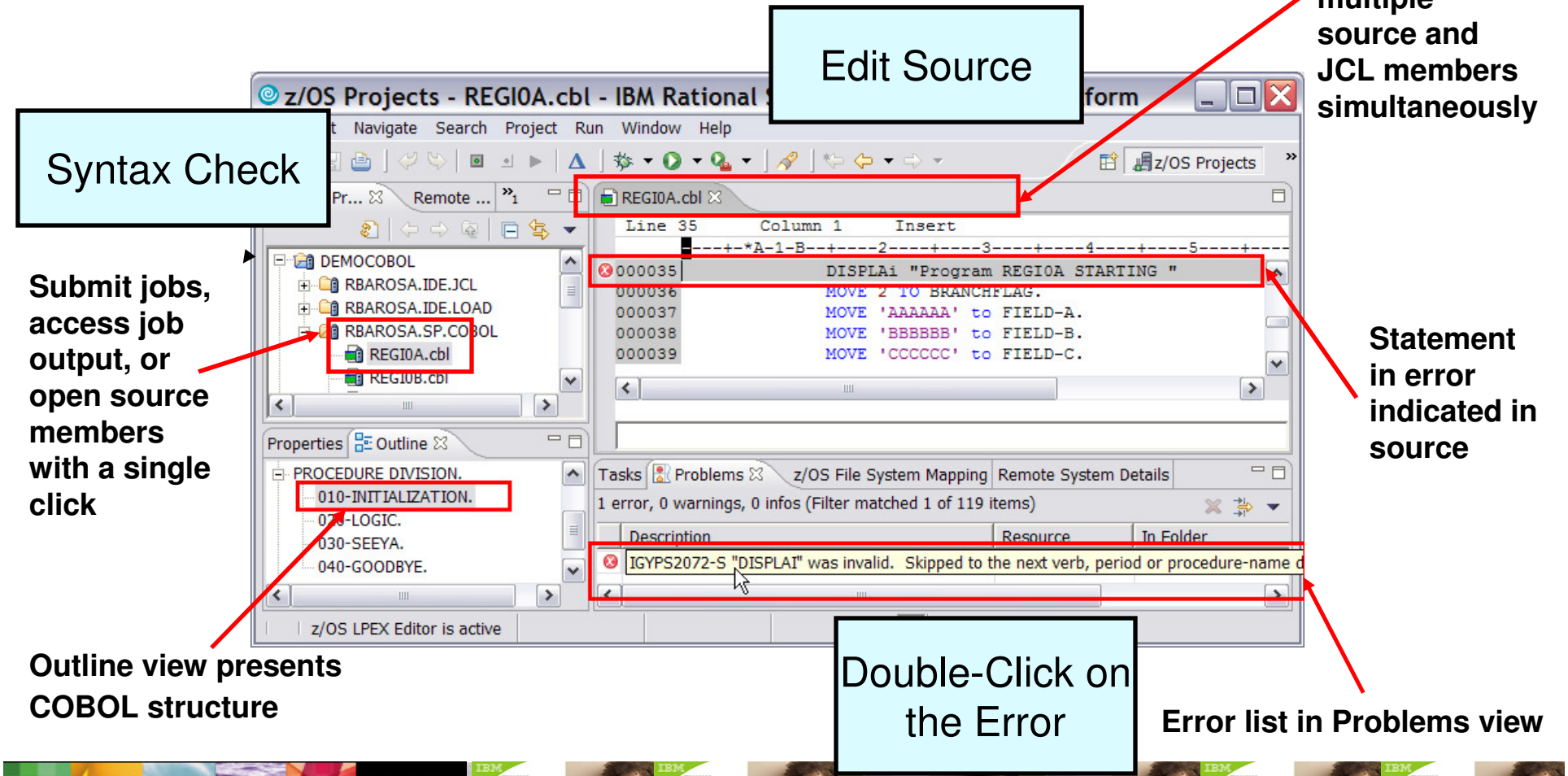
Other functions

ISPF based z/OS development environment

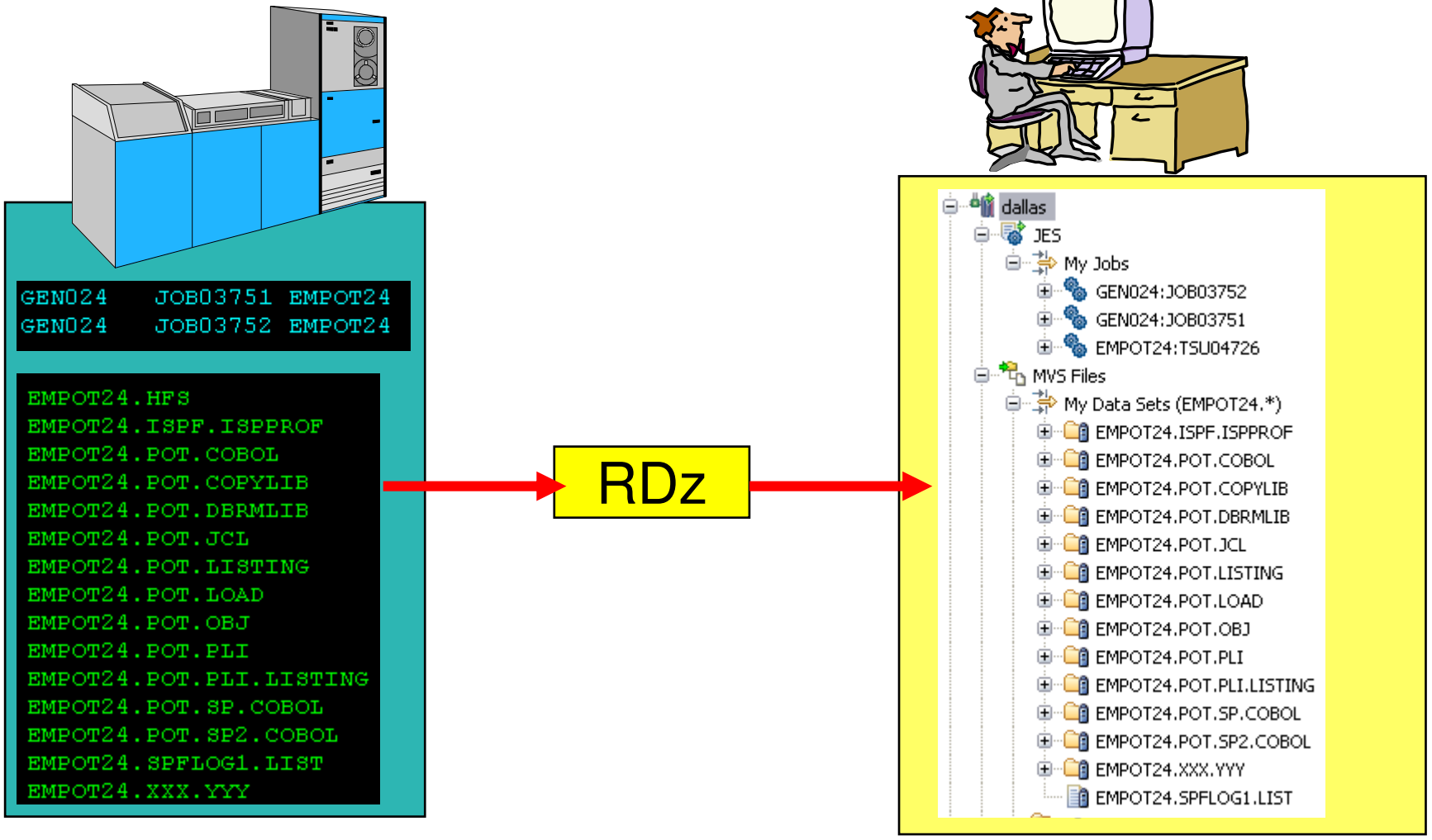


RDz based z/OS development environment

- Common development environment for COBOL, PL/I, C/C++, and Java

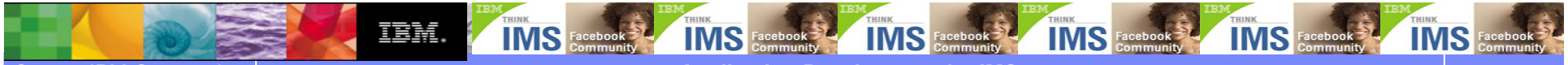


Host ☾ Workstation Overview



Files on the host look as they are workstation files

DEMO



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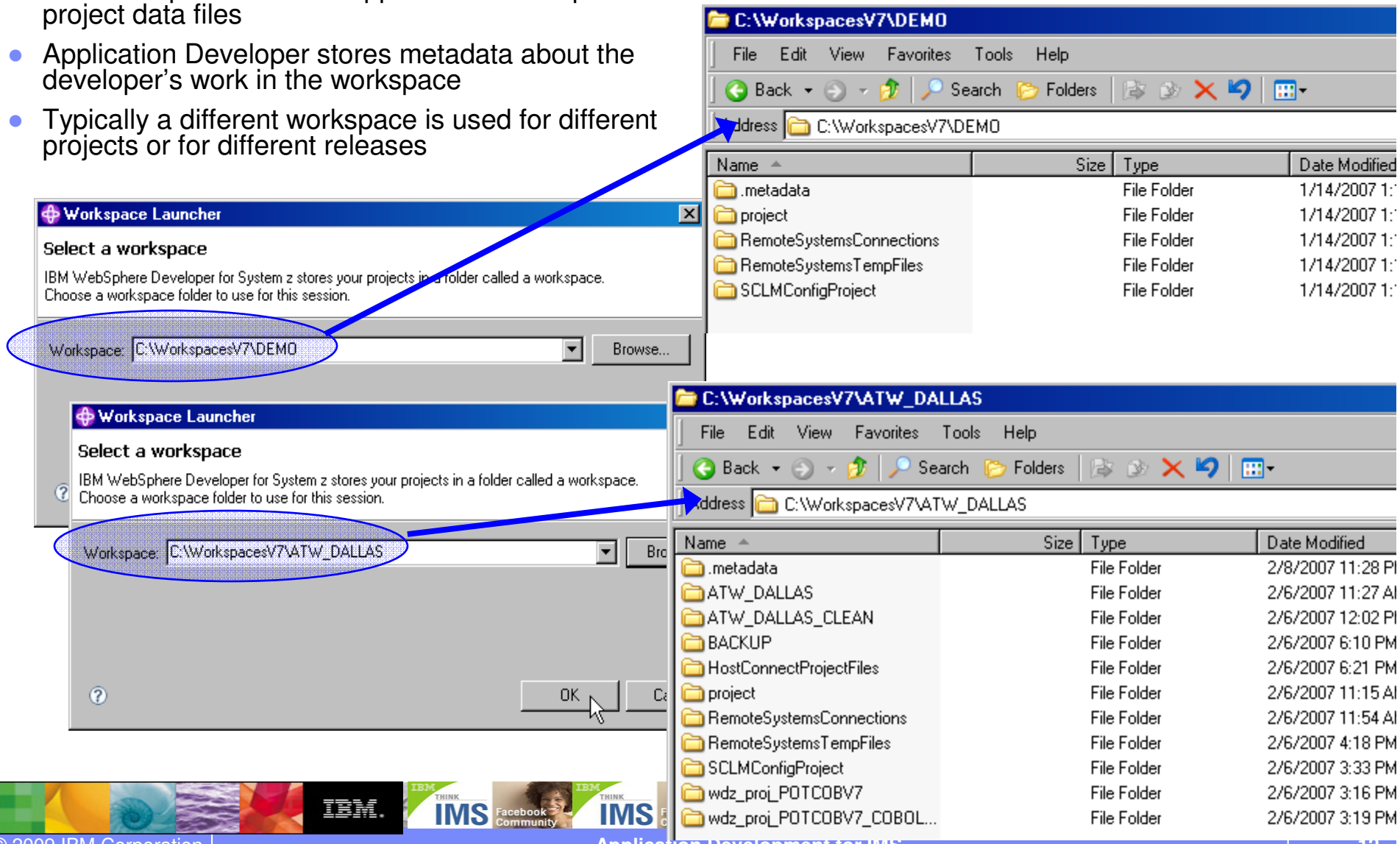
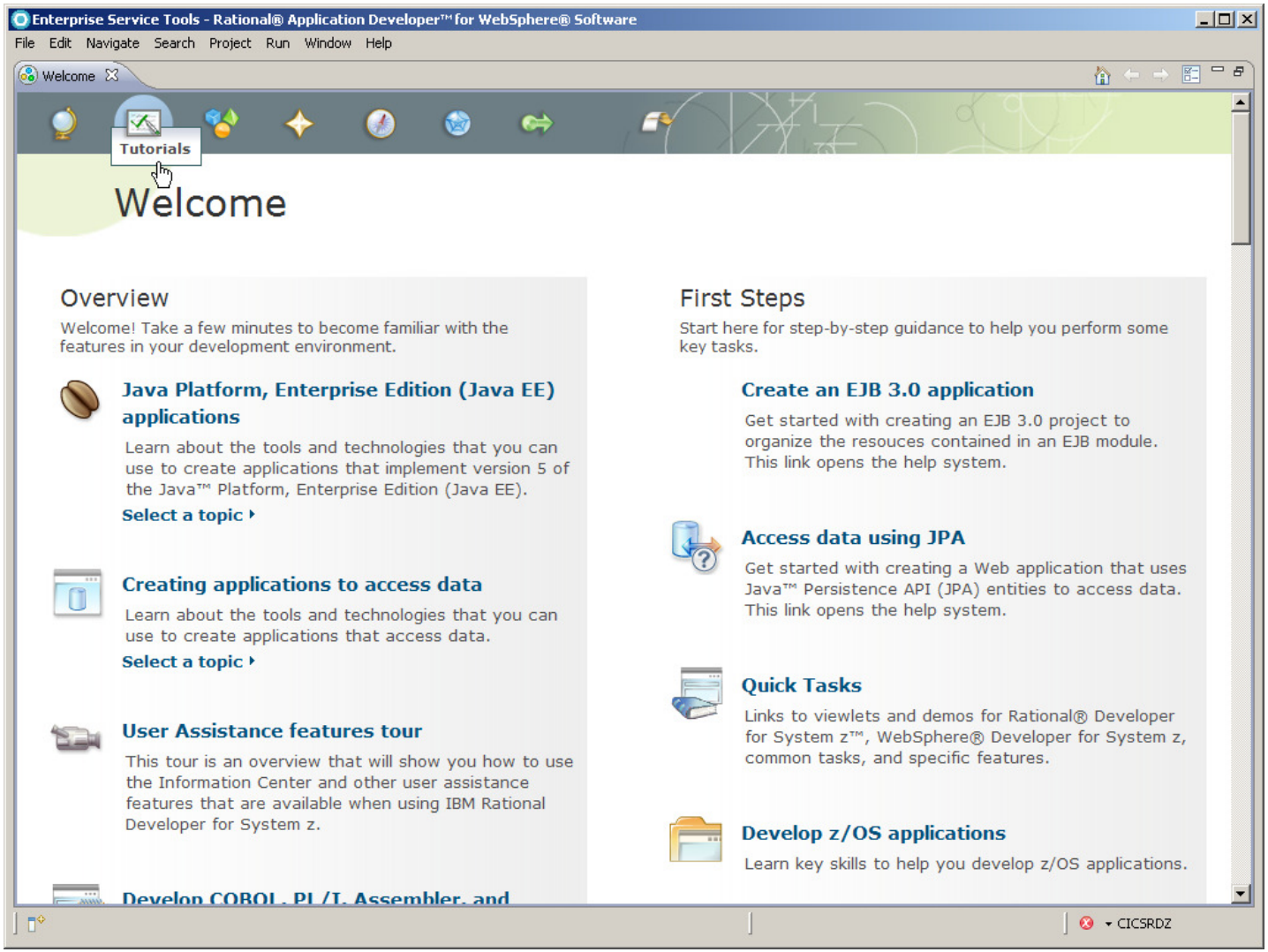
Workspace - Introduction

- The workspace is where Application Developer stores project data files
- Application Developer stores metadata about the developer's work in the workspace
- Typically a different workspace is used for different projects or for different releases



Uses Eclipse 3.4 - Welcome Experience

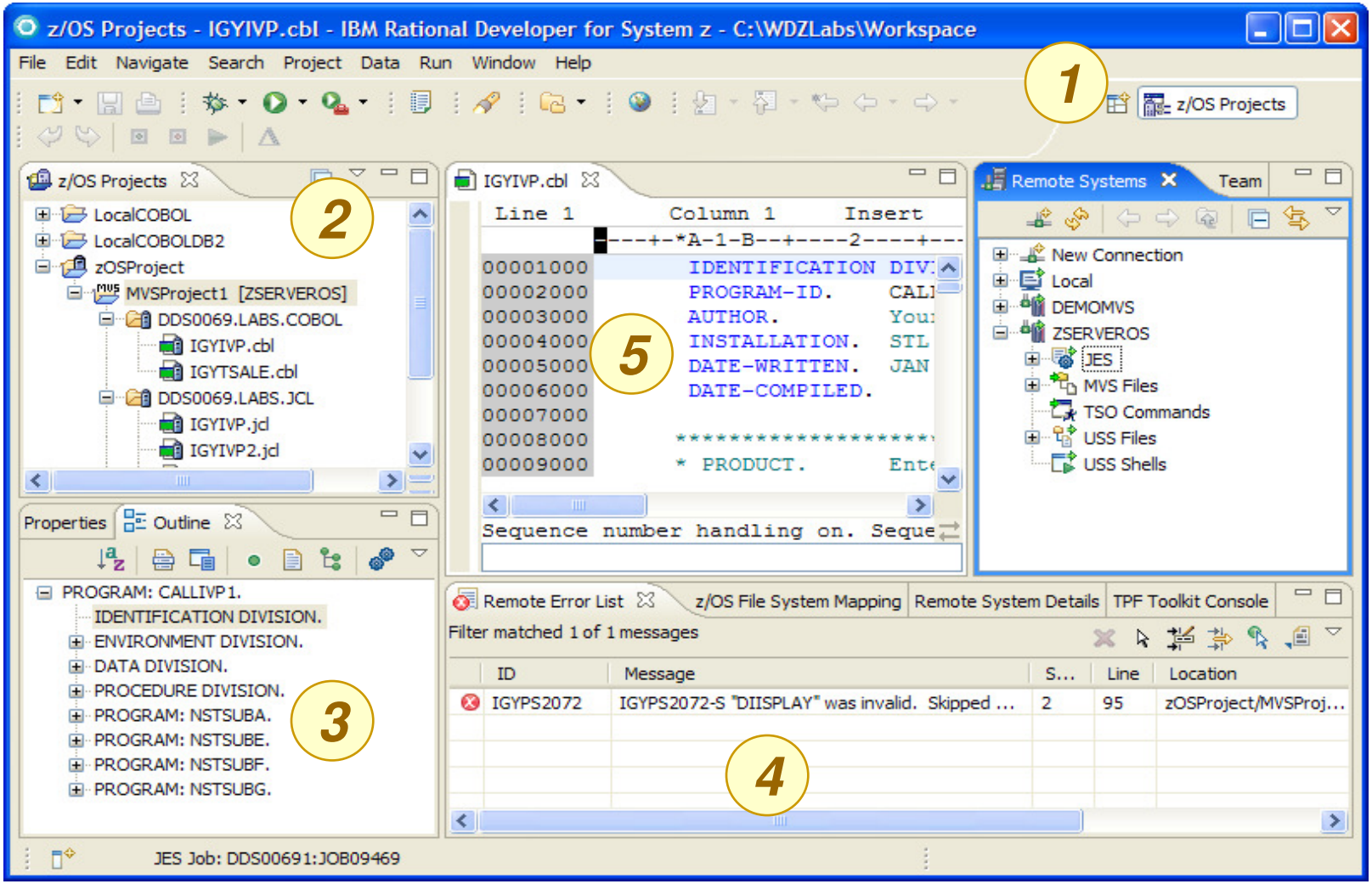
- Get running quickly with prioritized getting-started and out-of-box content
- New “Quick Tasks” topic provides a quick reference to help for some of the most commonly performed tasks



User Assistance Features Tour

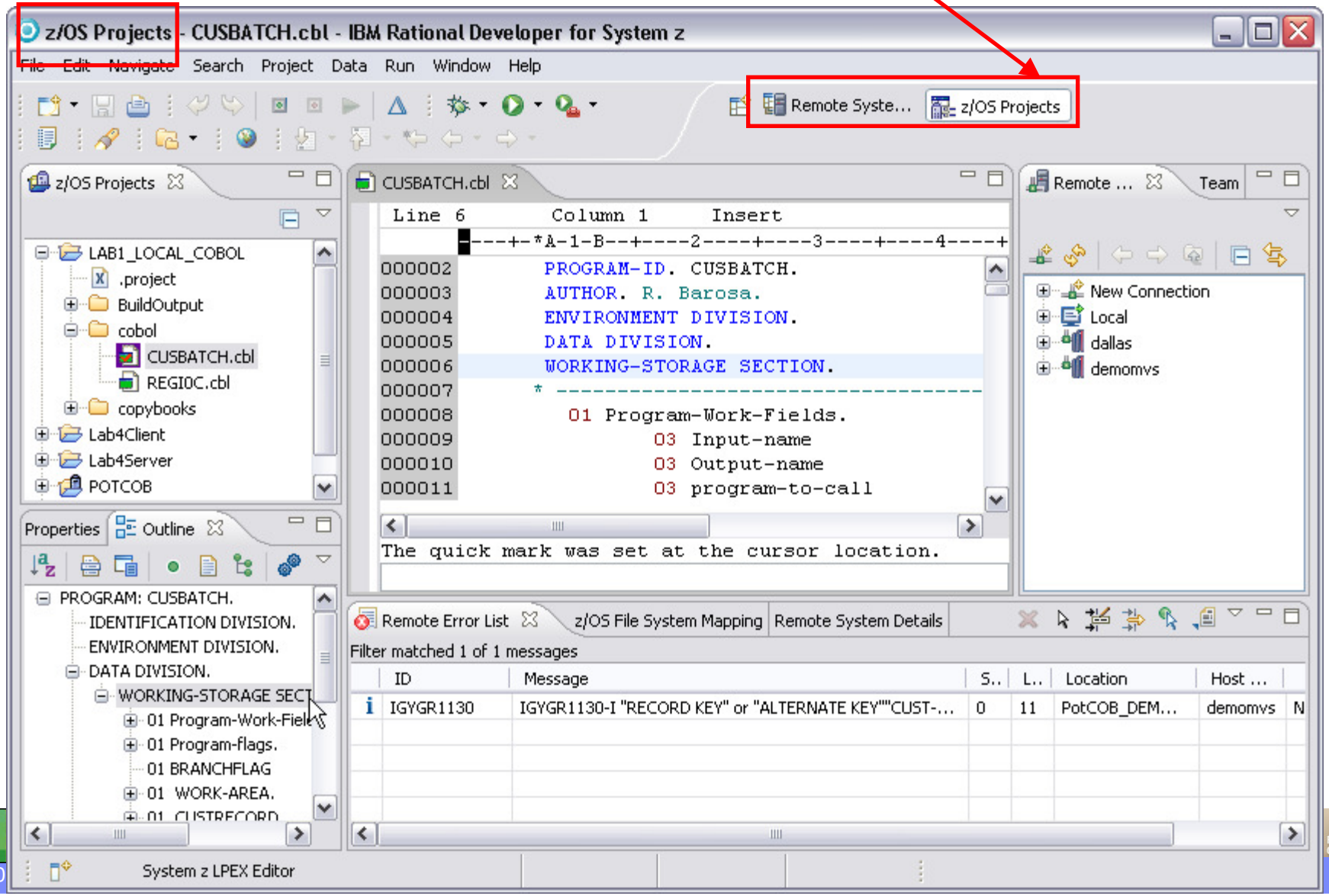
- Multimedia addition: User Assistance Tour provides an overview of user assistance features
- Embedded in the Welcome and in the Information Center
- Also available from the IBM Education Assistant
- Features audio and close-captioned text
- Translated into 4 languages
  - Brazilian Portuguese
  - French
  - German
  - Japanese

IBM Rational Developer for System z workbench

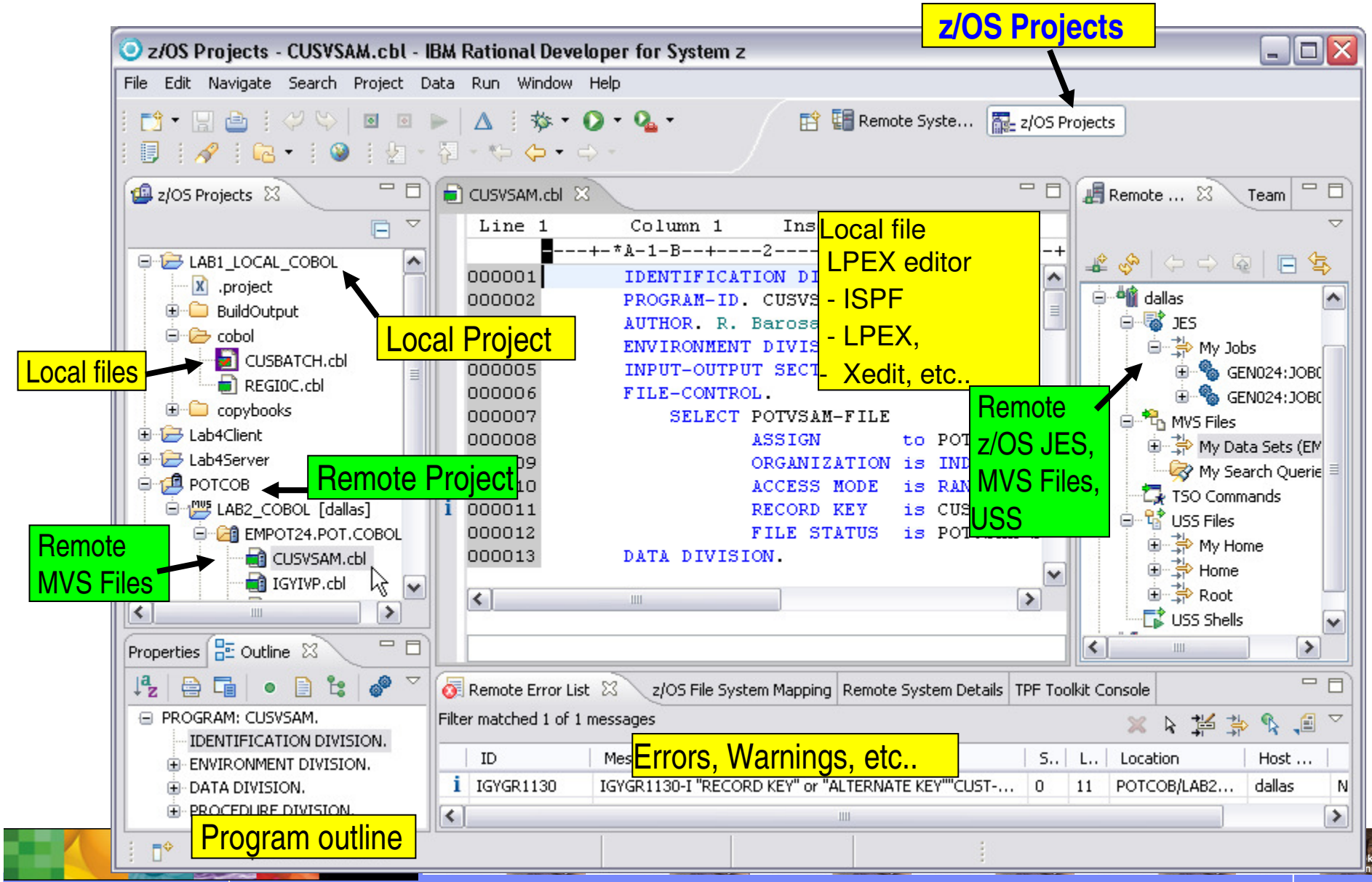


Perspectives and Views

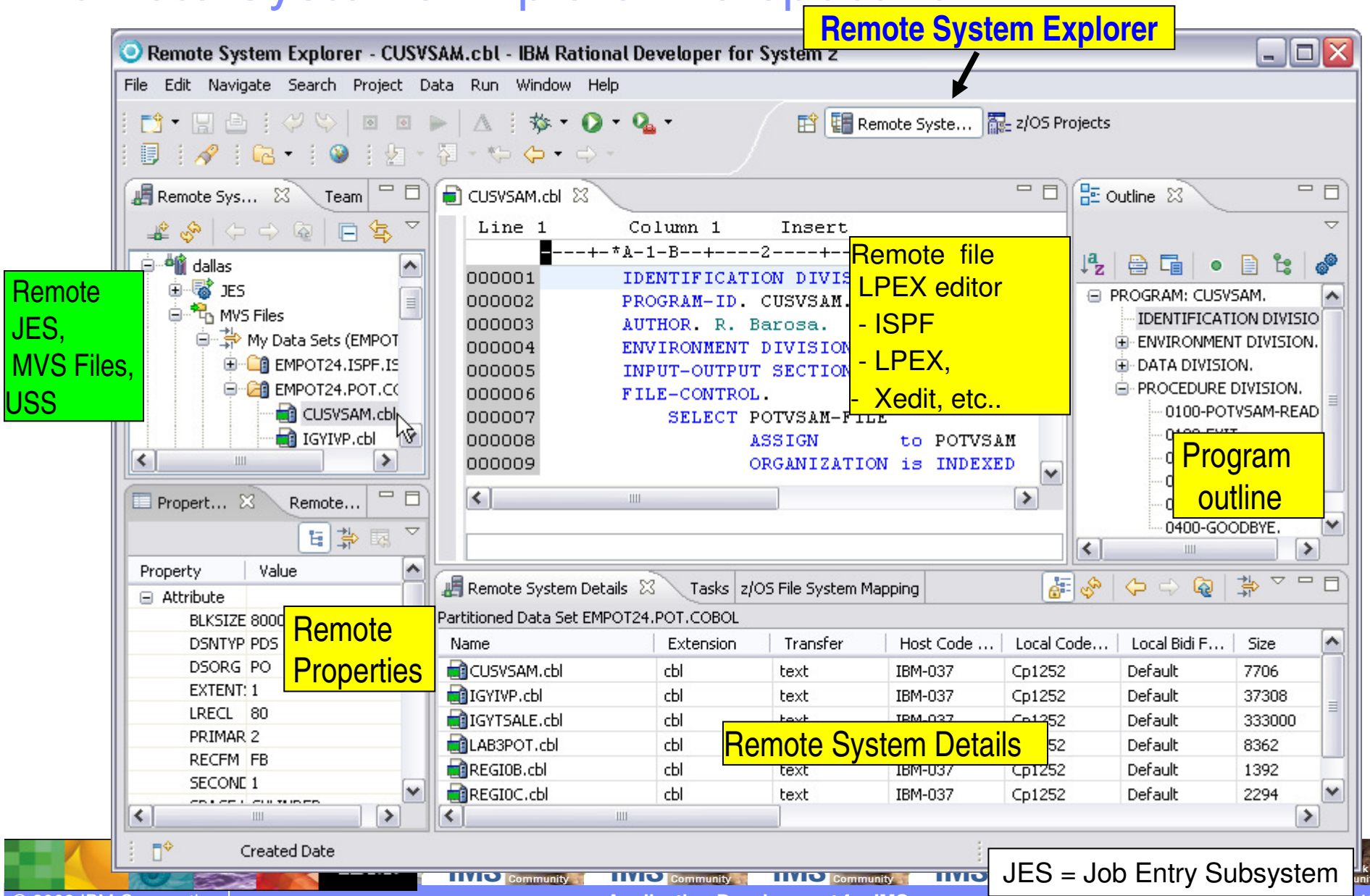
- Always ONE or MORE **VIEWS** in ONE **PERSPECTIVE**



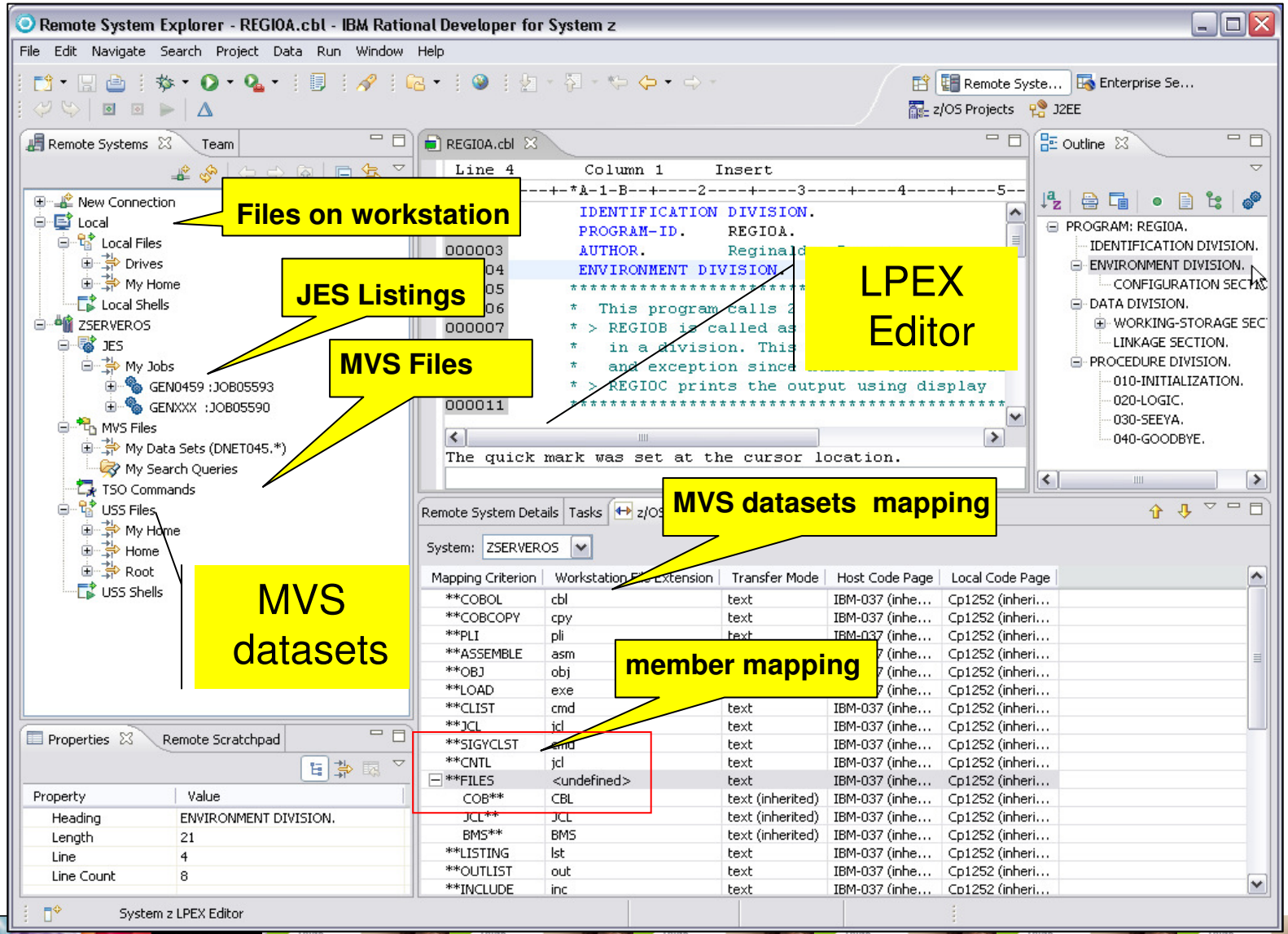
z/OS Projects Perspective



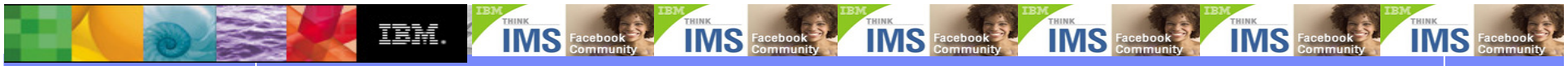
Remote Systems Explorer Perspective



Interactive access to z/OS



Lab



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Lab: COBOL application development in z/OS using RDz

Maria Querales – querales@us.ibm.com

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LAB: COBOL application development in z/OS using RDz

Overview of development tasks

1. Connect to a z/OS System:
   → Prepare your Workspace to connect to the zOS system, defining a Remote System and connecting to it

2. Allocate z/OS Data sets:
   → Allocate and load assets required for this lab.

4. Send the COBOL or PL/I program to the z/OS
   → You will copy a COBOL or PL/I program from the workstation to the z/OS

5. Create a z/OS Project
   → Specify which data sets you will use in this tutorial, specify properties, etc..

6. Work with z/OS remote assets – edit, syntax check, submit, execute and see the output.

7. (Optional) Working offline using z/OS Projects

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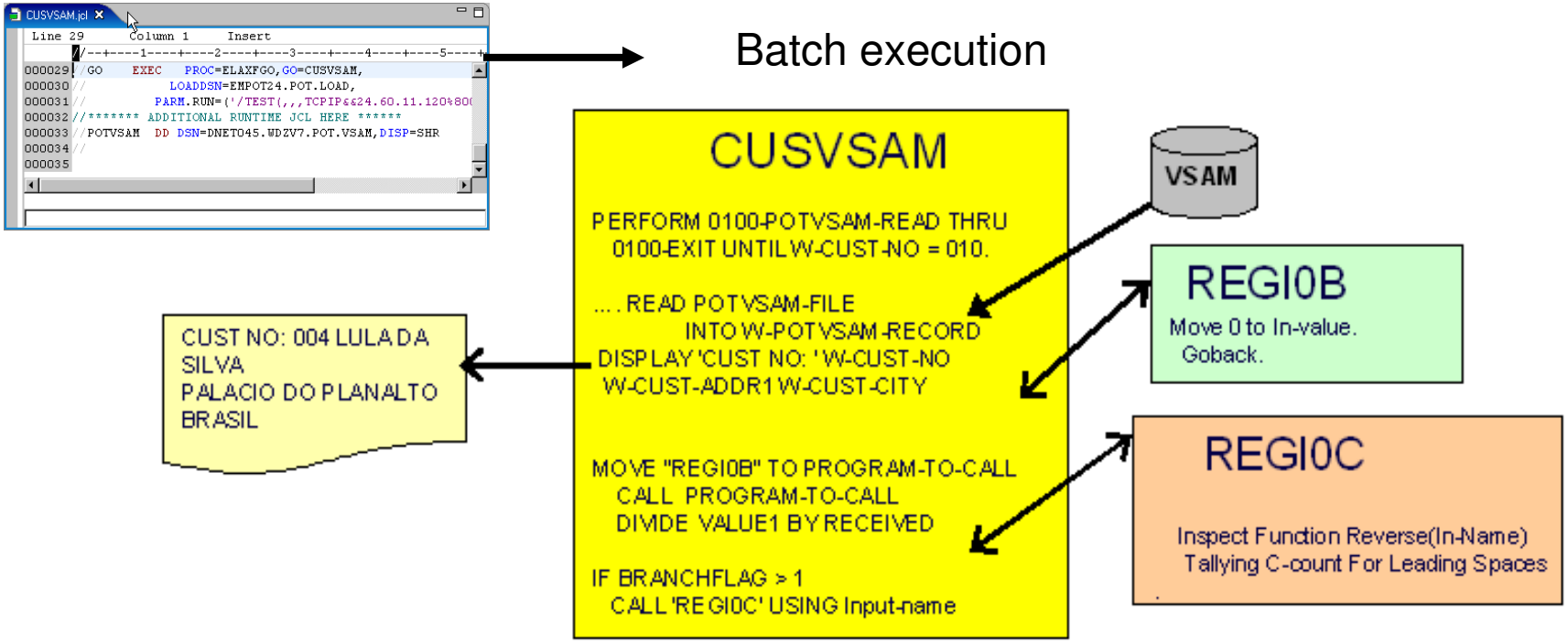
LAB: COBOL application development in z/OS using RDz

The Display Application

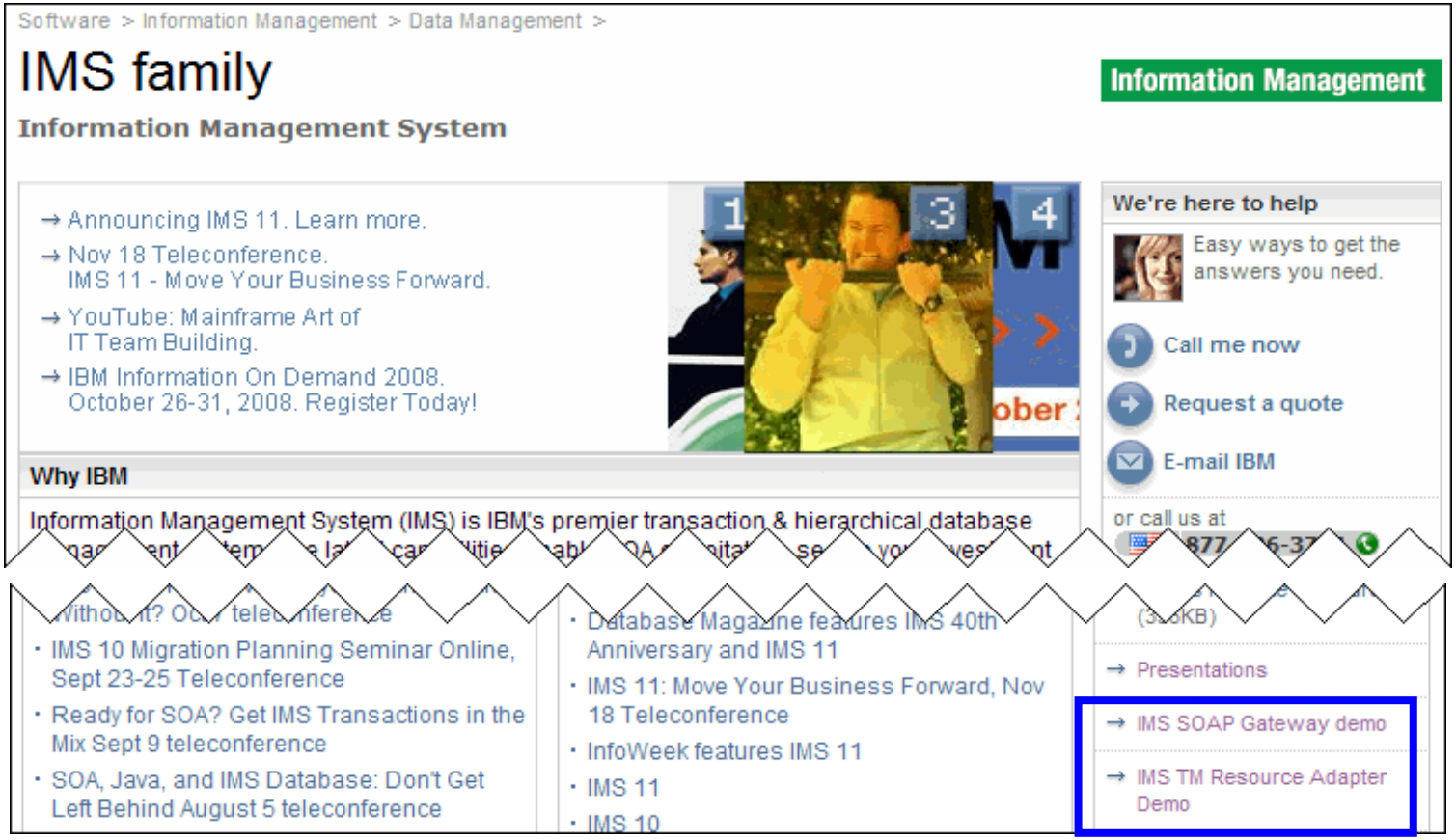


IBM® Enterprise Modernization Sandbox

- The Enterprise Modernization sandboxes let you evaluate the IBM Enterprise Modernization solutions
- Sandboxes make it easy and fun to quickly try practical scenarios guided by self-paced exercises
  - You can integrate, test, and deploy applications in a live test environment
- IBM provides a mix of full version software trials and "try online" hosted environments
- Sandboxes are available to everyone

Where to find EM4Z

- Enterprise Modernization Sandbox for System z (EM4Z)
- http://www.ibm.com/developerworks/downloads/emsandbox/
- **ibm.com/ims**



LAB: COBOL application development in z/OS using RDz

Each of you gets **two** different set of credentials:

- The sandbox credentials – Use it to start the lab and connect to the image in the sandbox. This image is a windows systems with RDz installed. You get an ip port, ID and password

- The z/OS ID credentials - Use it during the lab it to connect to the remote z/OS systems. You get an z/OS ID and password

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LAB: COBOL application development in z/OS using RDz

Credentials for the lab

You get **two** different set of credentials:

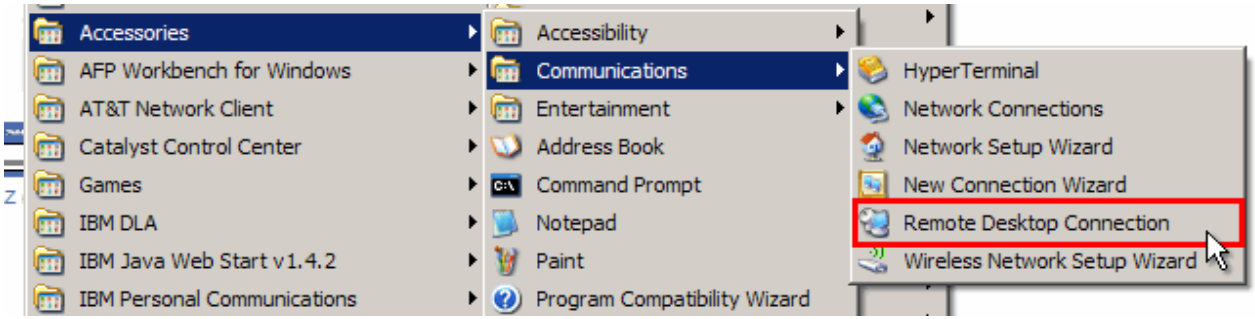
- **The sandbox credentials –**
  Computer: 204.90.115.210:111xx
  ID: db2admin
  Password: xxxxxxxxx

RDP computer

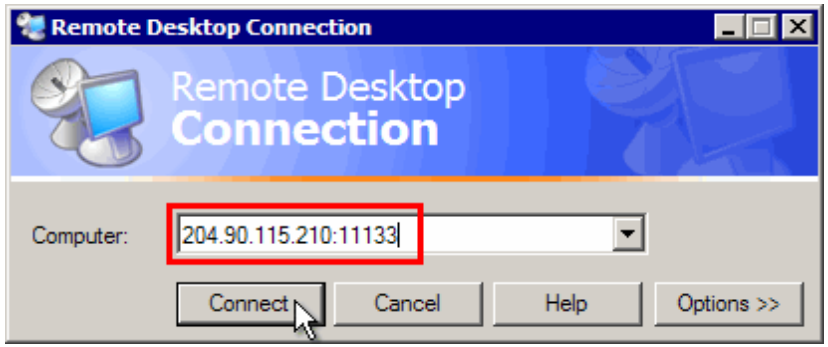
- **The z/OS credentials –**
  ID: IMPOTxx
  Password: IMSxx

Connecting to EM4Z (RDP)

- Click **Start → All Programs → Accessories → Communications → Remote Desktop Connection**



- Enter RDP computer (204.90.115.210:11**XYZ**)
- Click **Connect**



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