ZI4: Modernising Your UIs and IDEs: Enterprise Modernisation for SOA with HATS, WDHT and WDz

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IBM Rational Software Development Conference UK 2007

























What keeps me Rational?









ZI4: Modernising Your UIs and IDEs: Enterprise Modernisation for SOA with HATS, WDHT and WDz





Agenda

- Transforming enterprise application interfaces with Host Access Transformation Services (HATS) – 15 mins
- HATS Demo 15 mins
- Integrate existing mainframe applications with SOA with WebSphere Developer for System z (WDz)
- WDz Demo
- Q&A

Rational. software

Transform

Building new SOA components and reusing core applications

IBM Rational Software Development Conference UK 2007

























What keeps me Rational?















- The Reality of Legacy Applications200 billion lines of COBOL code exist today
 - 5 billion lines are added each year
 - Similar inventory of RPG and PL/I code
- The typical mainframe customer has:
 - 30M lines of COBOL code
 - Worth \$600M
 - Automating 100,000 business processes
- The 250,000 iSeries customers also have inventories of RPG code

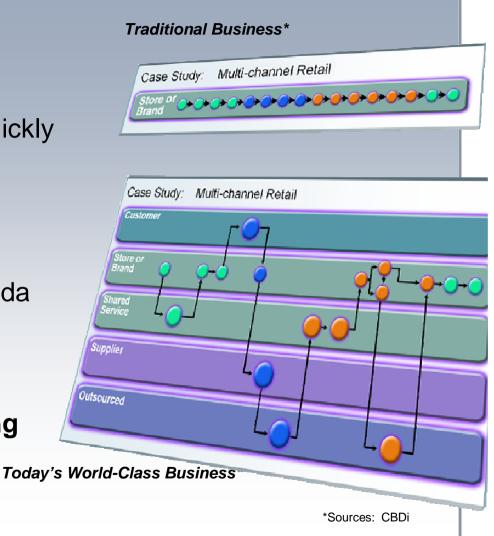


Consultants estimate it costs 5 times more to rewrite a business function than to reuse existing code



Application Transformation enables SOA flexibility and reuse

- Economics: globalization demands flexibility
- Business processes: changing quickly and sometimes outsourced
- Reusable assets: can cut costs
- Growth: at the top of the CEO agenda
- Information: greater availability
- Crucial for flexibility and becoming an On Demand Business





The Key Issue to Focus On is **Responsiveness** and the ability of IT infrastructure to respond quickly

75% of CEOs place a high or very high priority on the **ability** to respond rapidly

Only one in ten CEOs believe that their organisation has the ability to be very responsive to react to changing market conditions

CEOs recognise the need to establish effective, real-time response capabilities

The rationalisation and alignment of disparate applications and infrastructure are the key issues

Responsiveness: the new key competence

So growth is back on the agenda – but it won't just happen by inself. CEOs all over the world have identified appointational responsiveness, agility and Brail-fifty as measurery competencies. Developing the ability of the organization to not just seems, but to satisfying and respond to the changing marketylases and subsequent surfaces properties and endoughness content requirements is one of the great challenges for

CEOs are now forming on how their organizations read, form and react to dynamically changing external and internal conditions. As on CEO put it, we have to implement a competitive

Source: IBM Global CEO Survey, Feb 2004

"...implementing an efficient, flexible, secure infrastructure remains high on the priority list for the CIOs surveyed."

"Some Integration Vendors Outperform the Slow Software Market"
J. Thompson, J Correia, M. Pezzini, Gartner, Sept. 16, 2004





What is Enterprise Transformation?

Enterprise COBOL

Enterprise PL/1

Assembler

RPG

CICS

IMS

15/OS

Traditional Tools ...

Enterprise Transformation

Facilitates "mixed workload" by providing...

A common development and runtime framework, and best practices, enabling integration between disparate processes, technologies, and developers Java

Web services

XML

Business Integration Servers

Portal Servers

Web Application Servers

Web Tools ...



Three styles of transformation



Transform Application Architecture for greater flexibility.

Update and extend mission-critical applications as services, leveraging their core value in new ways.

Extending Core Applications into Web Application Infrastructure.

Develop new connectivity to improve customer, partner and supplier relationships

Modernise the user interface. Quick ROI.

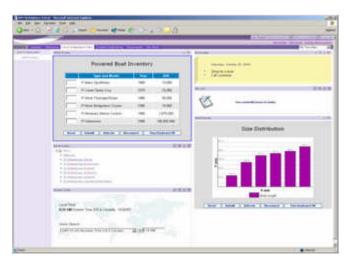
Modernise the user interface

- •Increase productivity and reduce training costs by improving the user experience
- Extend existing applications to new users, such as business partners, suppliers and customers
- •Integrate traditional applications into enterprise portals to provide users with a single, personalised point of access
- Reduce development costs by avoiding rewrite of core applications



Improved user interface and workflow





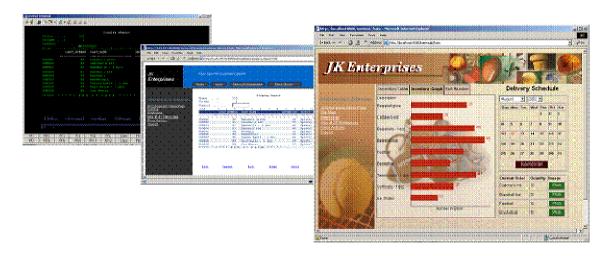
Integration with WebSphere Portal



WebSphere Host Access Transformation Services (HATS)

Easily extend existing applications to the widest possible audience

- A Web-to-host HTML emulator...
- with a rules-based transformation engine, that...
- converts green screens to graphical user interfaces, Web services, and portals and...
- improves the navigation and ease-of-use of host applications.



 Default rules and on-the-fly screen transformation allow 3270 and 5250 applications to be deployed to the Web within hours of loading the software





Enterprise

Applications



System z AD Transformation Tools

WebSphere Studio Asset Analyzer

- Enterprise-wide application discovery and insight through Web browser
- Finds depen-dencies in and across applications and lines of business

Host Access Transformation Services

- Speeds deployment of mainframe apps to the Web, Web services or Portal
- Rules-based transformation engine

Asset Transformation Workbench

- Deep application analysis
- Business rules discovery and componentization
- Project-level workbench

WebSphere Developer for System z

- Traditional and composite application development
- COBOL, PL/I, C, C++, J2EE, Web services
- Superset of Rational Application Developer





Rational Development Family (V7)

Integration Developers/ System z Developers J2EE Developers **Advanced J2EE Developers** Enterprise **iSeries** WebSphere Developer development WebSphere Integration Developers organizations for System z (WDz) Developer (WID) Leverage and extend existing application Rational Application Developer **WDS** Advanced Web service (RAD) J2EE iSeries • J2FF and connector developers Server and developers based Rational Application Developer **eBusiness** enterprise Flow Relational Community Edition (RAD CE developers transformation composition **DB** tools · Professional Web, Java, XML, and Web Enterprise web Leverage Support of services developers Embedded to host and extend **WebSphere WebSphere** SCM interface to connect to vendor of your **iSeries** Traditional **Process** choice **Application** Data, Code COBOL.PL/I. C Server • Embedded WebSphere Application Server Server and Skills development **Express** EE now Workbench IBM's commercially supported version of the Eclipse Workbench



eclipse



IBM WebSphere Developer for System z

XML Services for the Enterprise (XSE)

- SOA access to CICS V3.1 and IMS V9 COBOL applications
- Bottom-up/Top-down or meet-in-themiddle COBOL to XML mapping support
- Integrated COBOL XML converters, XML schemas, and WSDL generation

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

IBM WebSphere Developer for System z

z/OS Application Development

XML Services for the Enterprise

CICS BMS/ IMS MFS Map Support

DB2 Stored Proc - COBOL / PL/I

Rapid Application Development Tool

Service flow support

IBM Rational Application Developer

z/OS Application Development

- Connect to z/OS systems
- Work with z/OS resources like COBOL, PL/1, C, C++, JCL, etc.
- Interact with the Job Entry Subsystem (JES) to submit jobs, monitor jobs, and review job output
- Perform dataset management actions like allocating datasets and migrating datasets
- Perform typical edit, compile, and debug tasks on remote z/OS resources from the workstation

CICS BMS/ IMS MFS Map Support

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

Rapid Appl Development Tool

- Ability to generate WSDL and CICS Cobol program to access DB2
- CRUD operations
- Can be added to SF flow

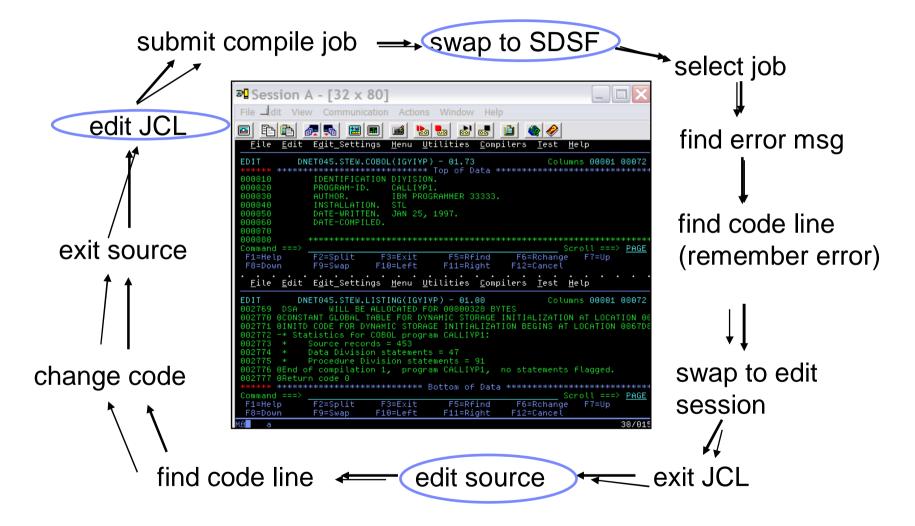
CICS Service Flow Feature

- Implements SOA and Web Services
- Service Flow is a tool to build service flows out of your existing Commarea and Terminal based CICS applications.



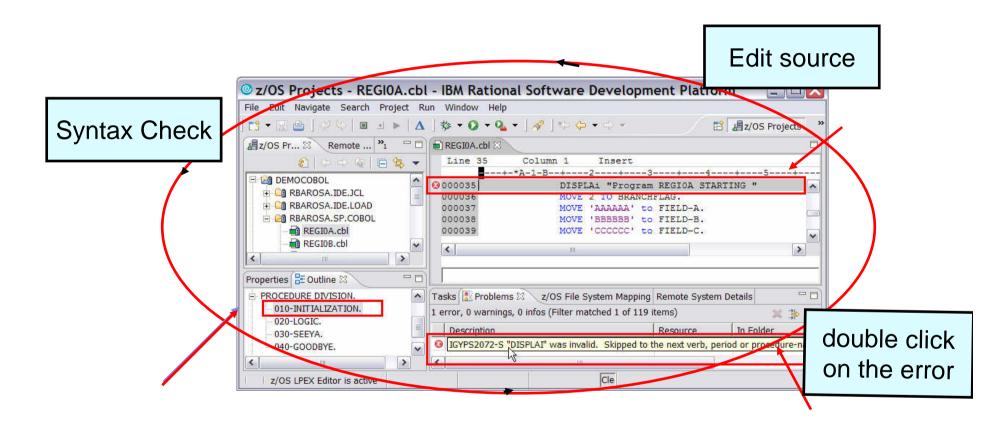


ISPF based Development





Eclipse, WebSphere based Development



Benefit: Simplified development for COBOL, PL/I, C and C++ on a common development environment



IBM WebSphere Developer for System z

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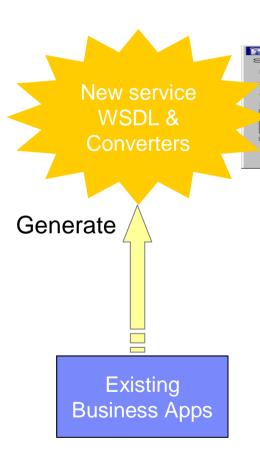
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Bottom-up



🏶 New Project

Select a wizard

Wizards:

Compiled XML

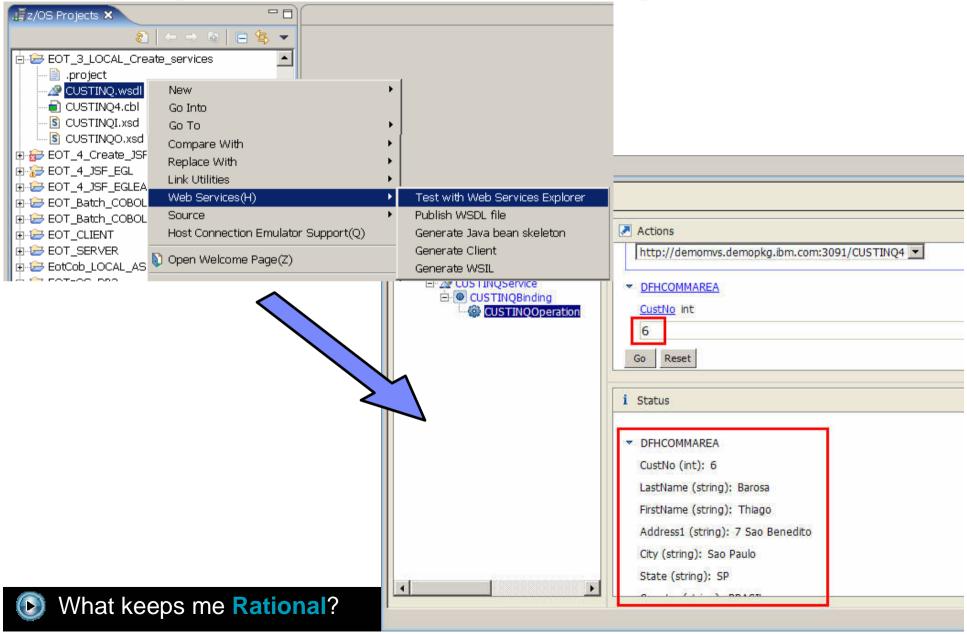
Generate a Web service description message processing from a high leveran use this option when you expose

Create a new CICS Web Services Project

⊨ Enterprise Service Tools



Testing CICS Web Services using WDz









Scenario: Support for Mixed Workload

WDz:

Brings the power of J2EE, rapid Application Development, and robust team support to diverse enterprise IT organizations

Consists of:

An intuitive, visual construction based on open standards (Java Server Faces) Broad SOA support through Web Services and JCA with specialized zSeries capabilities

An easy to learn, language neutral environment for rapid application development Comprehensive state-of-the-art facilities for developing, debugging and deploying Java, COBOL, PL/I and C/C++ applications and services

Benefits:

Increase developer productivity
Leverage existing processing
Integrate with lifecycle
Extend skill sets across the organization





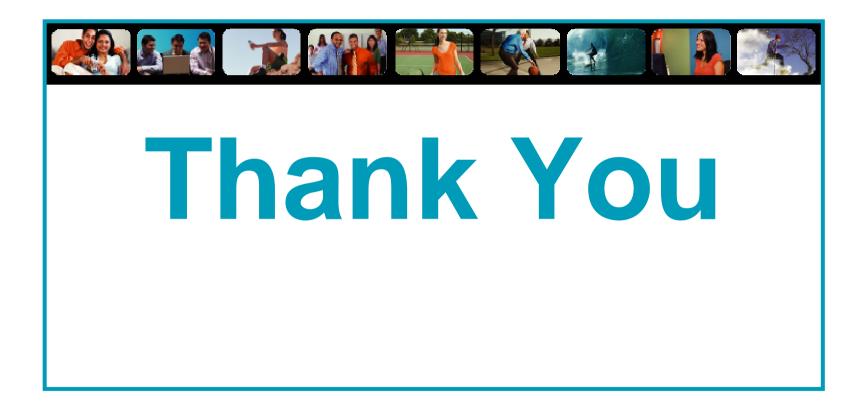
For additional information

- WebSphere Host Access Transformation Services
 ibm.com/software/webservers/hats
- Live Host Integration Demos websphere.dfw.ibm.com/whidemo
- •WebSphere Developer for zSeries ibm.com/software/awdtools/devzseries/
- •WebSphere Asset Transformation Workbench ibm.com/software/awdtools/atw/
- WebSphere Studio Asset Analyzer
 - ibm.com/software/awdtools/wsaa/







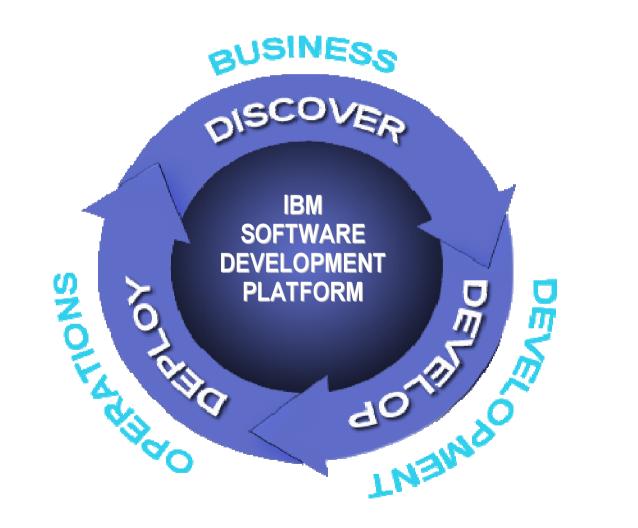




Backup



Business-driven development





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