



IBM Software Group

Rational Application Developer 6.0

La evolución de Websphere Studio sobre Eclipse 3.0

Rational software



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ON DEMAND BUSINESS™

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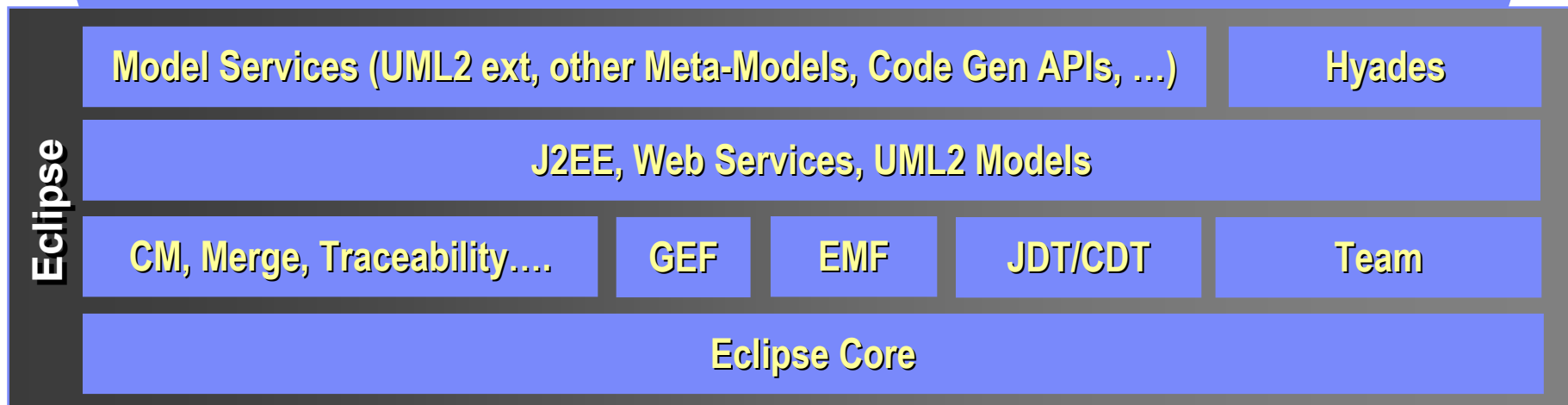
Desarrollo con RWD y RAD

- Automatización de desarrollo en el ciclo de vida
- Rational Web Developer 6 (ex WSSD)
 - ▶ Demo: Integración de web services en aplicaciones web
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 - ▶ Pruebas de rendimiento: Rational Performance Tester



IBM Software Development Platform and Eclipse

Raising the level of abstraction, transforming development



Herramientas de Diseño y Construcción

Añade

- Modelado UML 2.0
- Reutilización de patrones
- Reutilización de Assets

Rational Software Architect

Rational Software Modeler

Añade

Model driven:

- Transformaciones de código basadas en UML.
- Control y revisión de arquitecturas.

Rational Application Developer

Añade

Desarrollo Visual:

- Desarrollo rápido WEB. JSFs
- Desarrollo de servicios WEB
- Desarrollo de Clientes ricos.
- Conectividad con Bases de datos. SDO.
- Generador de java.

Rational Web Developer

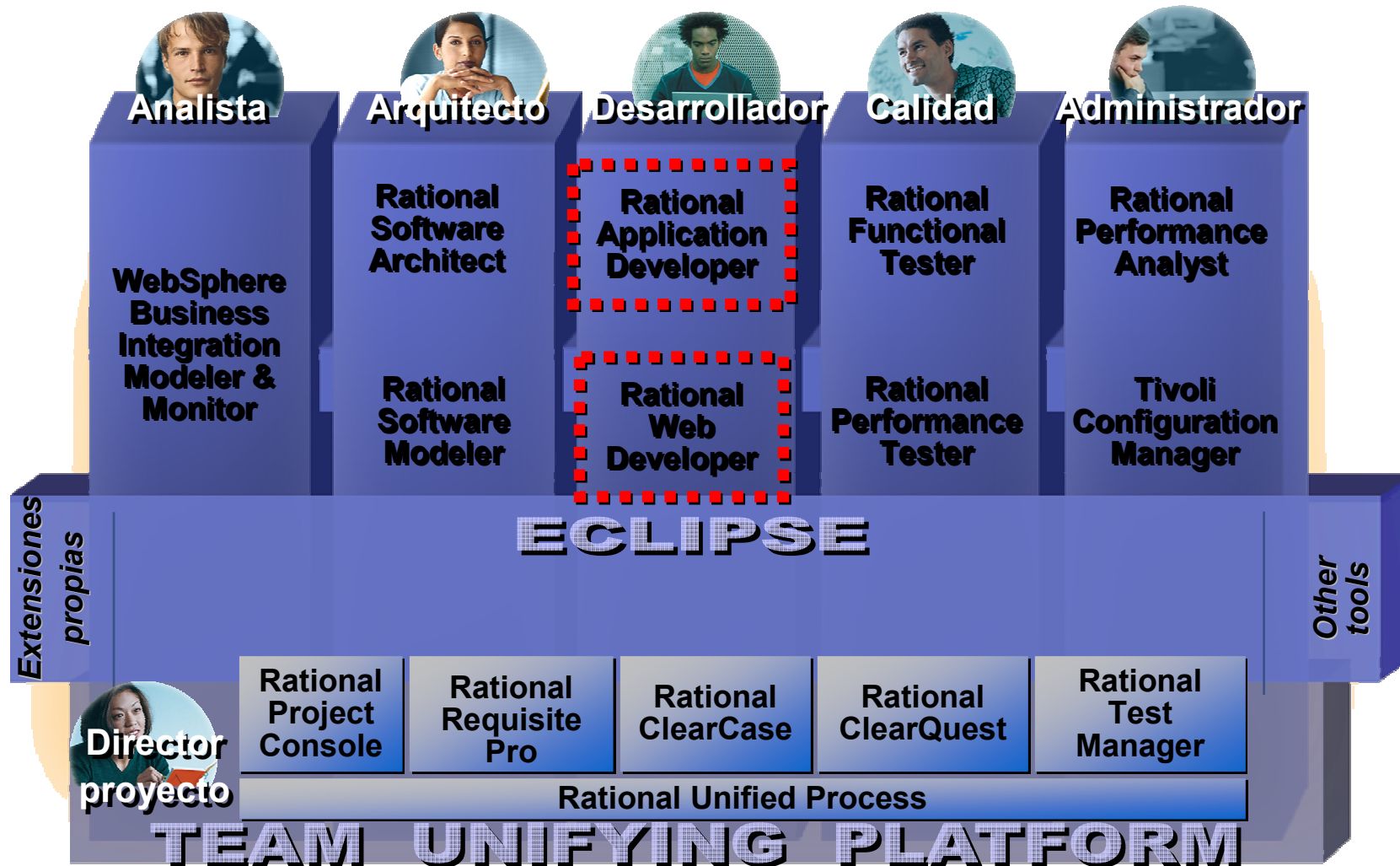
Eclipse

Desarrollo basado en código:

- Desarrollo J2EE/EJB & desarrollo de portales.
- Pruebas unitarias.
- Validación de código y análisis en tiempo de ejecución.
- Gestión de Configuración



Ciclo de vida: herramientas para la construcción



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IBM Rational Web Developer for WebSphere Software:

- Web UI construction**
- Visual site layout tools
 - Drag-and-drop web client construction supporting range of web client technologies:
 - HTML, JSP, Servlet
 - Struts, JSF and SDO
- EGL**
- Simplified 4GL for Web Application Development
 - Text User Interface Programs Support (3270, Curses)
 - VisualAge Generator - > EGL Migration Tool
 - Java Runtime Targets



- Rich Client UI construction**
- Visual Editor for Java for rich client composition
 - Supports Swing, AWT, SWT widgets

- Web Services Tools**
- WSDL visual editor
 - UDDI Registry browser

- XML Tools**
- XML and XSD tooling support

- Eclipse Java Development Tools**
- J2SE development tools
 - Code completion, search, refactoring
 - Extensible Team APIs to support CM integration (CVS, ClearCase, and many others)
 - Plug-in Development Environment for extensibility



Web Services (2/4) : Development Tools in RAD/RSA

■ Discover

- UDDI Business Registries or WSIL documents



■ Develop

- Top Down – Generate skeletal Java classes from WSDL
- Bottom Up – Expose Web Services from existing JavaBeans, EJBs, DB2
- Generate Java client artifacts for accessing a Web Service hosted locally or elsewhere

■ Test

- Test Web services running locally or remotely using WSDL Explorer

■ Deploy

- Deploy Web services into the WebSphere® Application Server or Tomcat test environments

■ Publish

- Publish Web services to a UDDI v2 or v3 Business Registry



Web Services (4/4): New Features in RAD/RSA



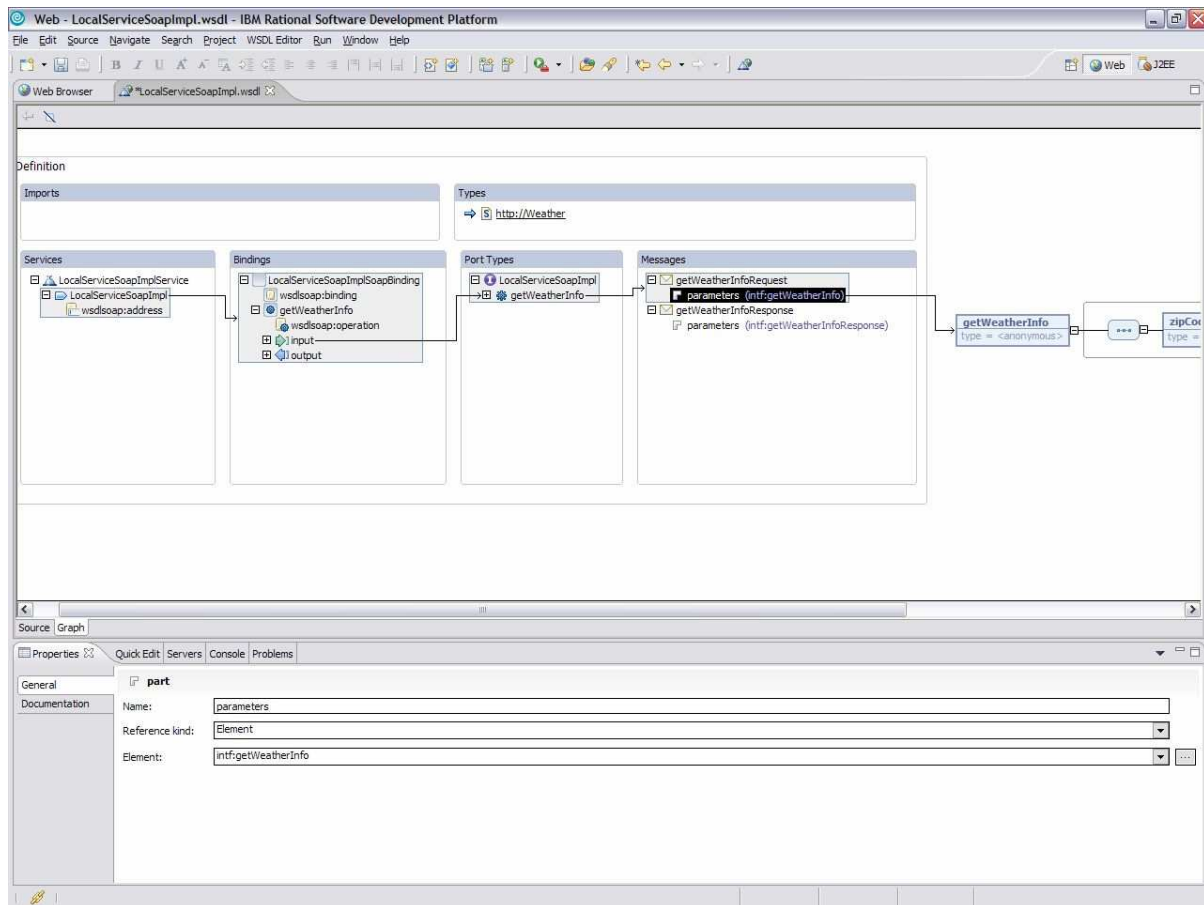
▶ Redesigned Web Services wizard framework

▶ New WSDL wizard

- Simplified user interface
- Creates a complete WS-I compliant WSDL.

▶ Code snippets for Web Services

▶ J2EE 1.3 to J2EE 1.4 migration



Nuevo editor de WSDL

EGL (1/2): RAD con EGL - ¿qué es? ¿Para quien?



■ Description

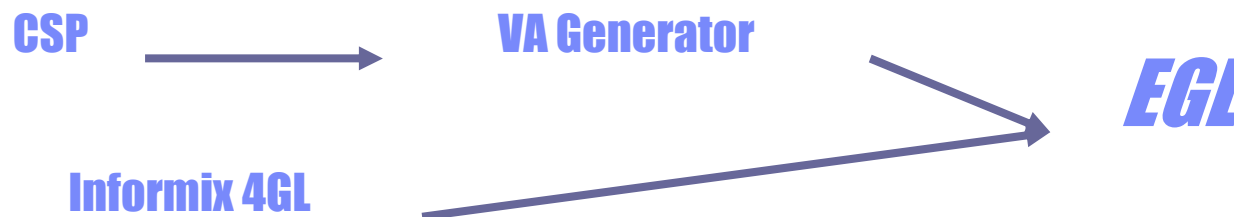
- ▶ Enterprise Generation Language (EGL) is a 4GL language. It allows developers to write complex business logic using a simple and intuitive procedural syntax rather than requiring them to be experts in Java

■ Benefit

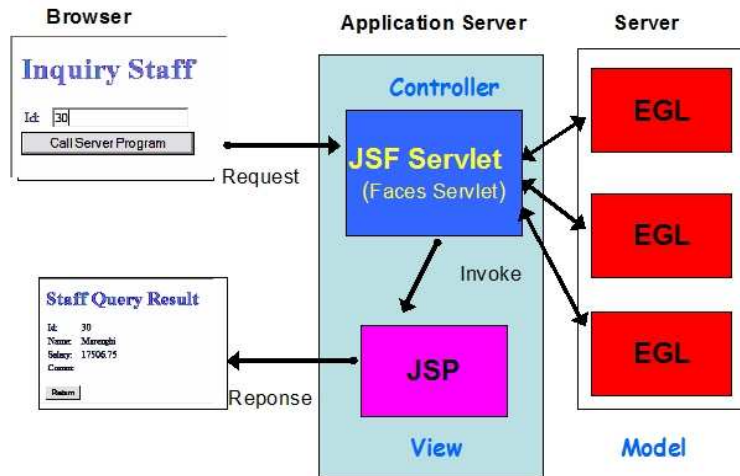
- ▶ Easy to learn language permits users to create complex applications without requiring traditional programming
- ▶ An organization can better deploy its traditional developers, such as COBOL developers, for the development of web applications
- ▶ Provides a migration path for Visual Age Generator, Informix 4GL, others

■ Business drivers

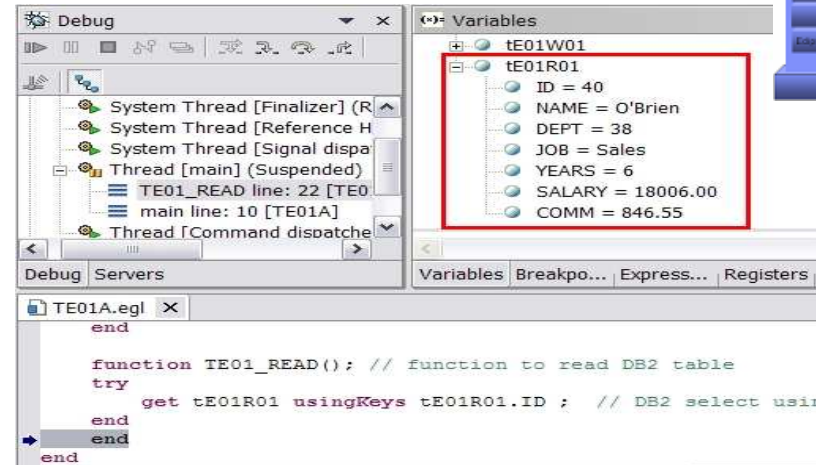
- ▶ Make tool easier to use and more accessible to non-Java programmers



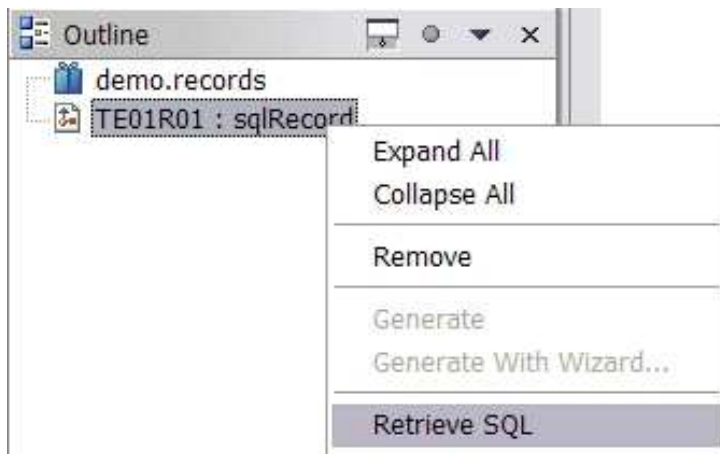
EGL (2/2): Desarrollo rápido J2EE sin conocimientos Java



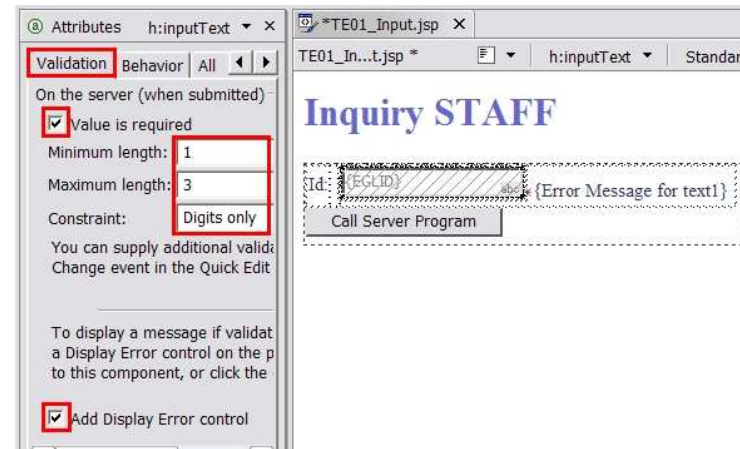
Integración en J2EE sin programar Java



Programación y depurado visual



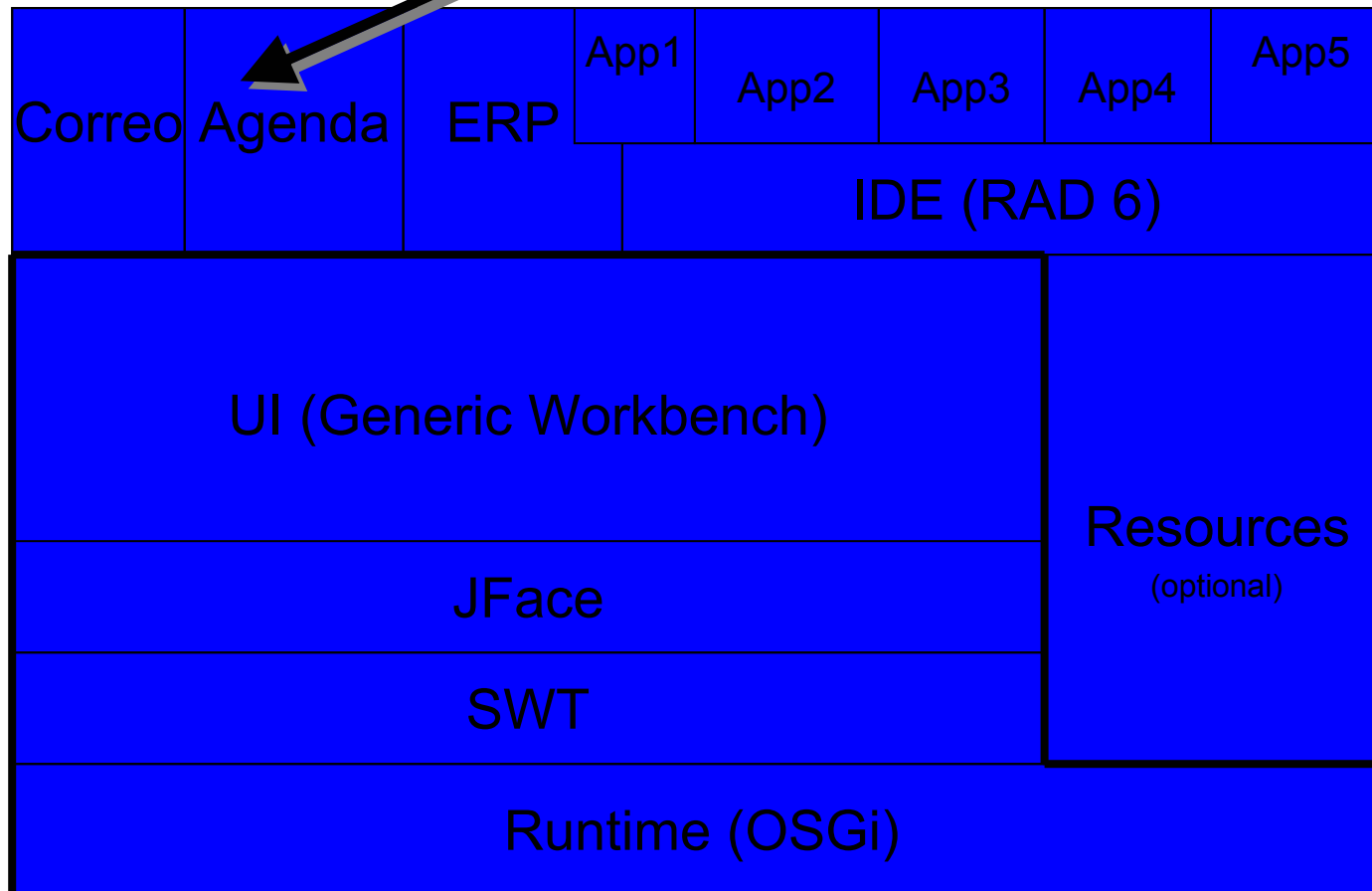
Ingeniería inversa: SQL → EGL



Diseño visual de páginas con JSF

Desarrollo Rich Client Platform (1/2): Arquit. eclipse 3

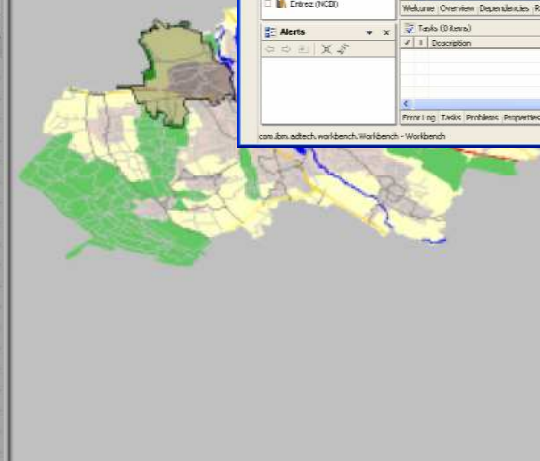
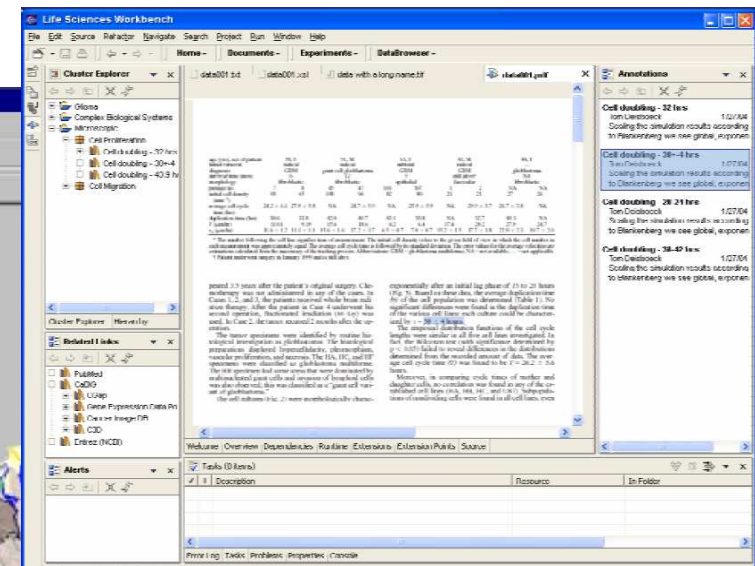
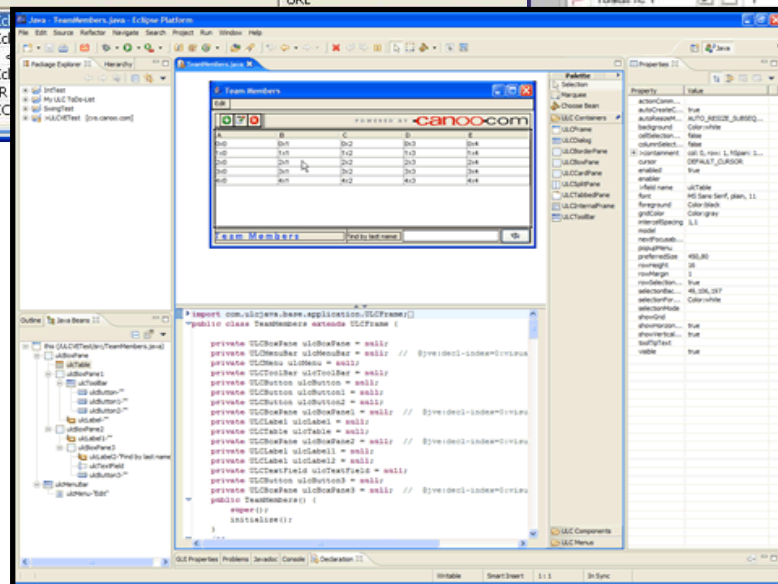
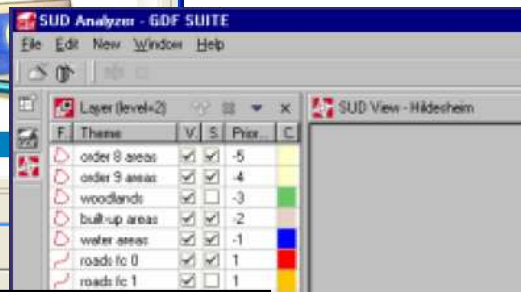
Aplicaciones cliente rico



EJECUTÁNDOSE SOBRE **WINDOWS / LINUX / MAC OS**



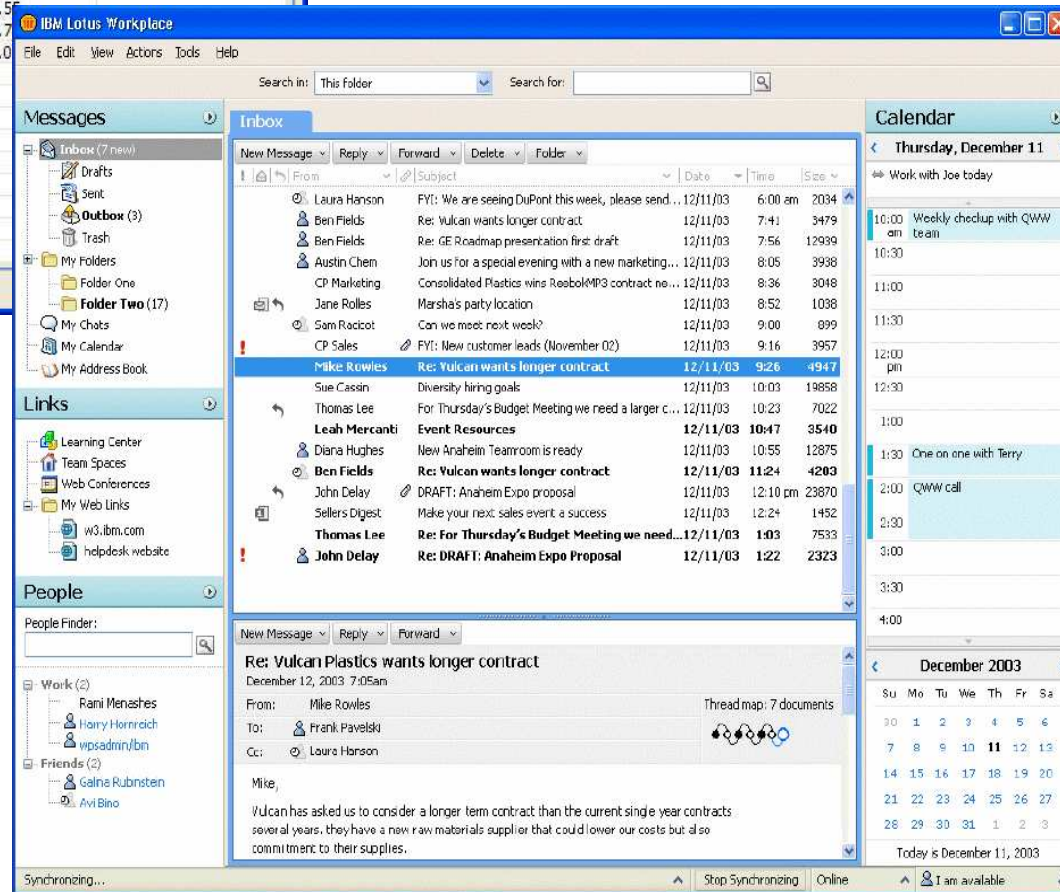
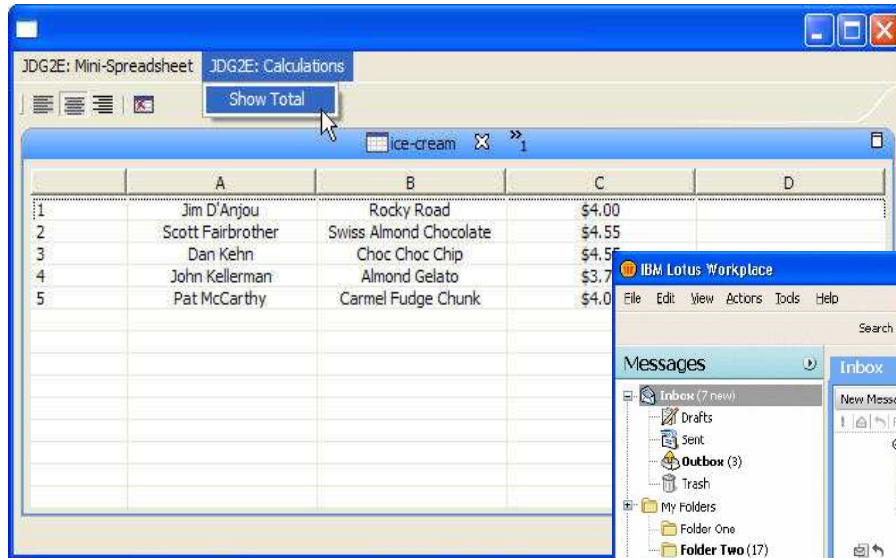
Desarrollo Rich Client Platform (2/2): Ejemplos



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1120 Order 9 Areas (276, 66000511, 49015793)
1120 Order 9 Areas (276, 66000511, 49015794)
1120 Order 9 Areas (276, 66000511, 49015795)
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1120 Order 9 Areas (276, 66000511, 49015797)
1120 Order 9 Areas (276, 66000511, 49015798)
1120 Order 9 Areas (276, 66000511, 49015799)
Relationships
Complex parents
Conversion Records
Conversion Records

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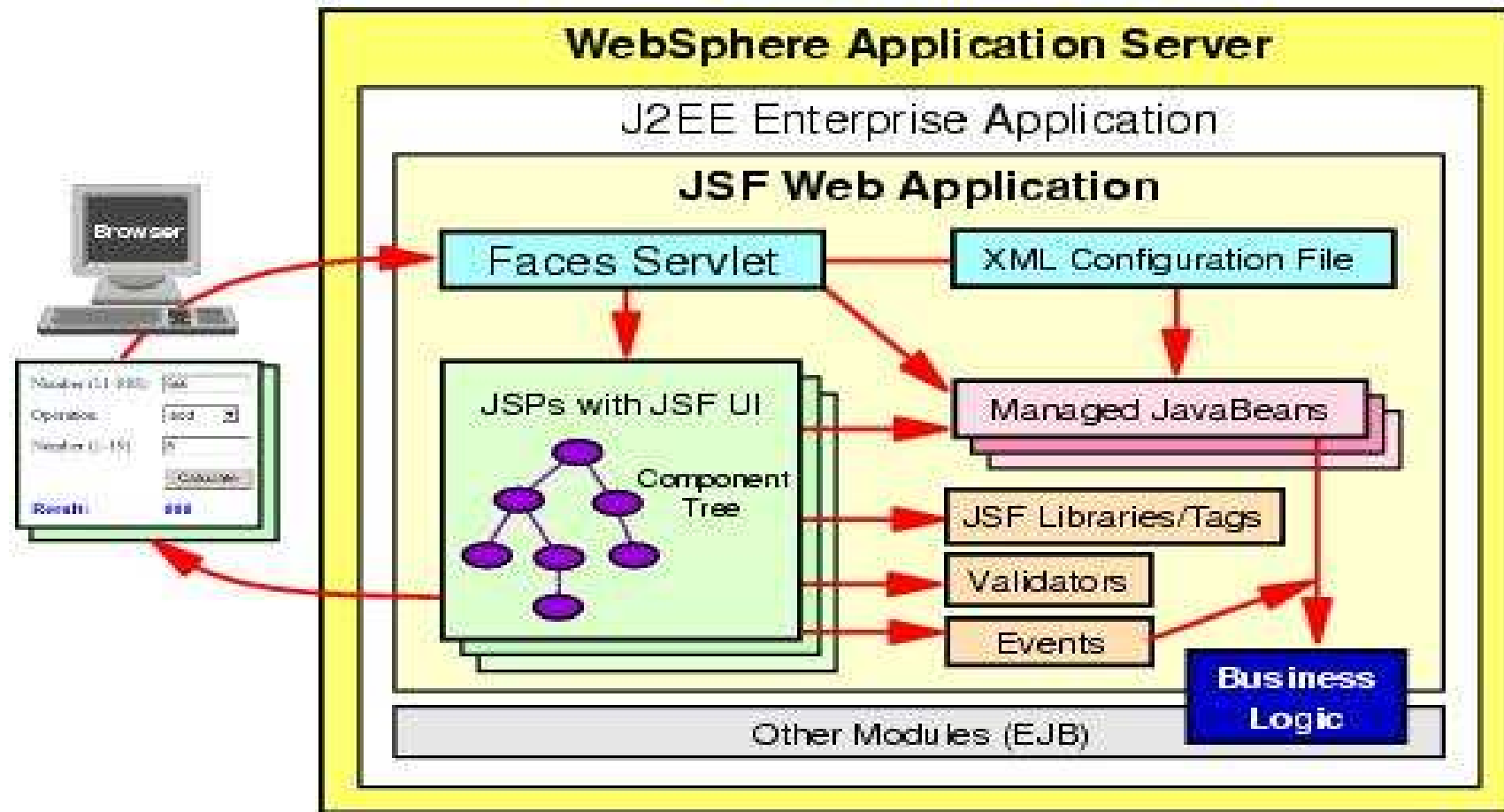
Eclipse 3.0 (3/4): Rich Client - Finally, Java Desktop Applications



From simple spreadsheet (instructional example)

To Enterprise Desktop Application (Lotus Workplace)

Web UI construction (1/5): Arquitectura JSF



Web UI construction (2/5): Construcción rápida web



Site Designer

Page Designer

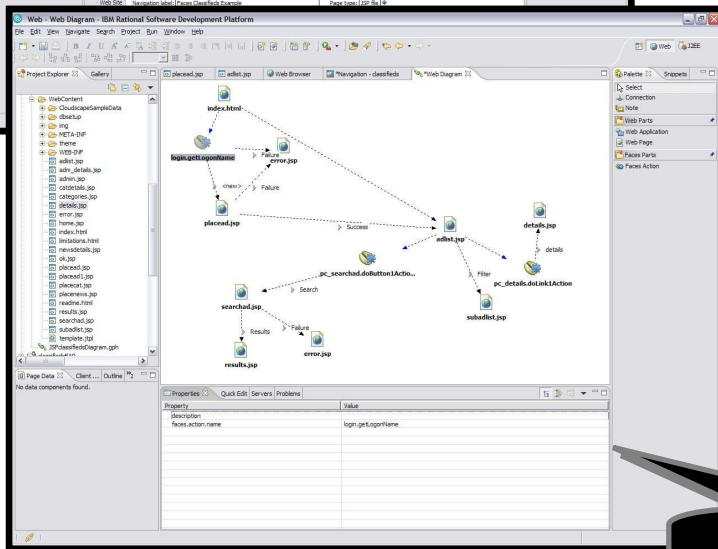
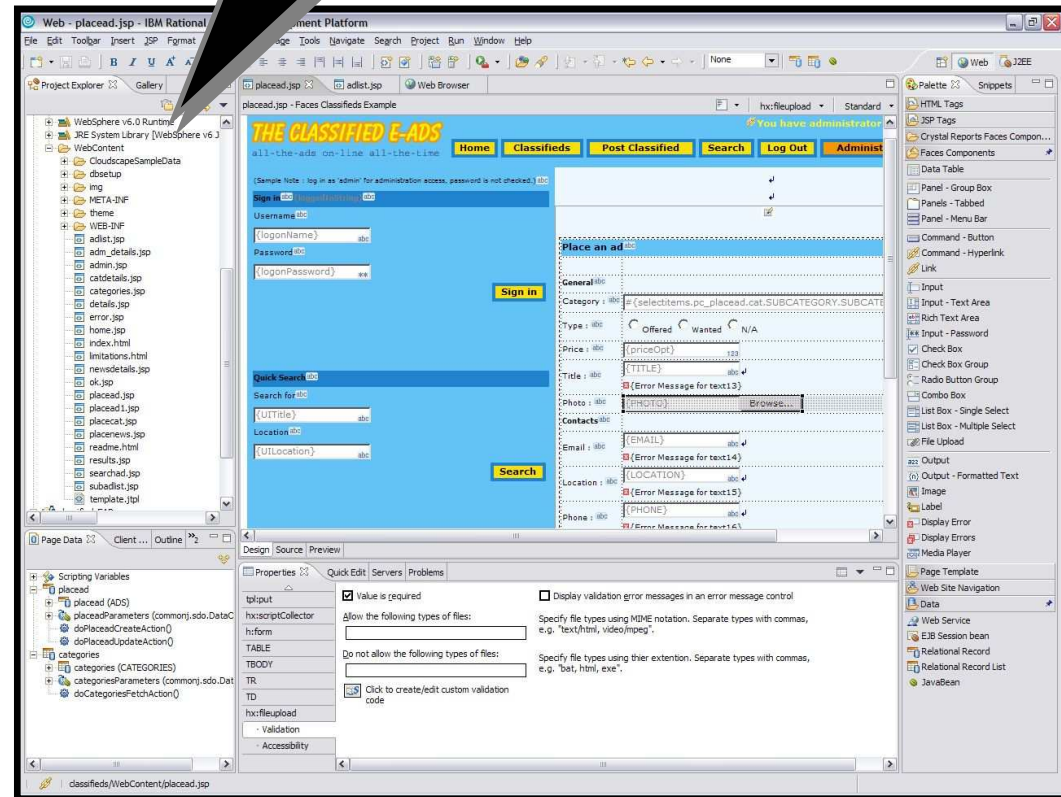
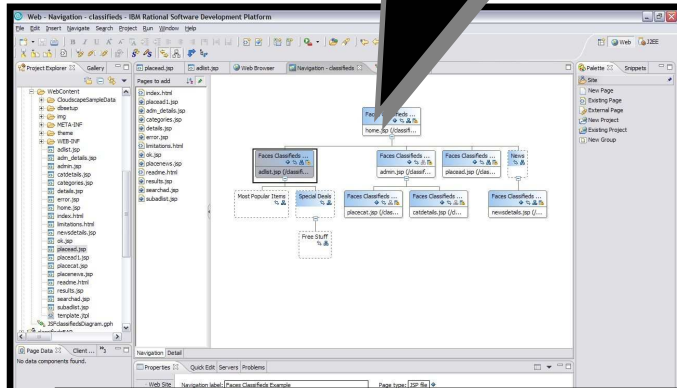


Diagram Editor

Web UI construction (3/5): Web Site Designer



- Web Site Development Tool for importing, creating, managing, Web site structures
- Key Benefits:
 - ▶ Provides visual 'macro view/management' of the structure of a web site
 - ▶ Maintain a consistent look and feel of a website with Page Templates
 - ▶ Automatic navbar and site map creation and maintenance saves time

The image displays three screenshots of the IBM Web Site Designer interface, illustrating key features:

- Site Structure:** A hierarchical tree view showing the website's layout, including Home, Company, News, and various product and news categories. A callout bubble points to this view with the text "Site Structure".
- Generated Navigation Bar:** A screenshot of a generated website header with a navigation bar containing links for Home, Company, News, and Products. A callout bubble points to this bar with the text "Generated Navigation Bar".
- Detail Page Information:** A screenshot of a detail page for "Investor Relations" with content placeholders and a footer with links for Copyright, Privacy, Contact, and SiteMap. A callout bubble points to this page with the text "Detail Page Information".
- D&D to Apply Page Template:** A screenshot of the "Page Template Files" gallery showing various templates like A.blue.html, A.gray.html, etc. A callout bubble points to this gallery with the text "D&D to Apply Page Template".

Web UI construction (4/5): Web Diagram Editor



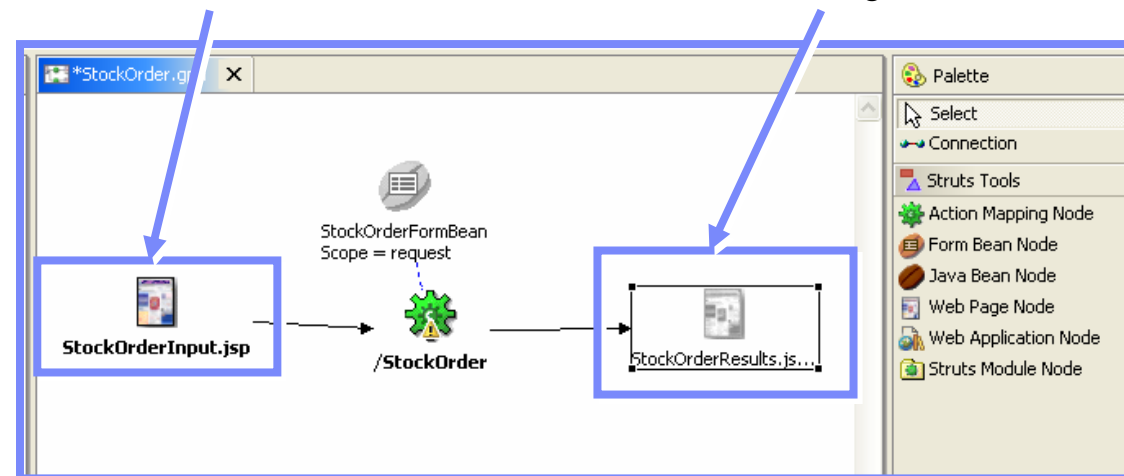
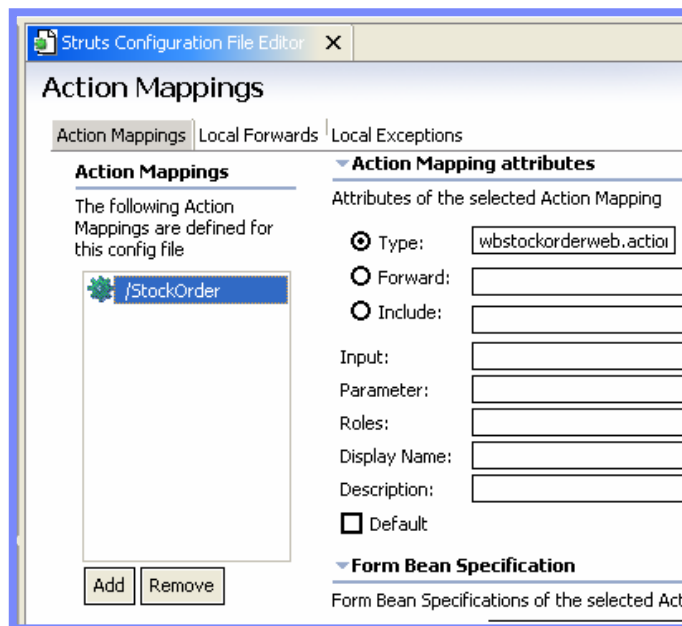
- A Web Diagramming tool to visually layout the logic-driven flow of a **Struts or JavaServer Faces** based Web application
- Wizards to generate Struts components (Actions, FormBeans, etc.)
- Automatic creation and configuration of Struts-config.xml or Faces-config.xml

Realized (color)

- Does exist (has been generated)
- Double-clicking launches Editor to customize

Unrealized (grey)

- Doesn't exist (hasn't been generated)
- Double-clicking launches Wizard to generate



Web UI construction (5/5): Page designer

- Componentes UI JavaServer Faces (JSF)
- Arrastrar y soltar lógica de negocio y orígenes de datos

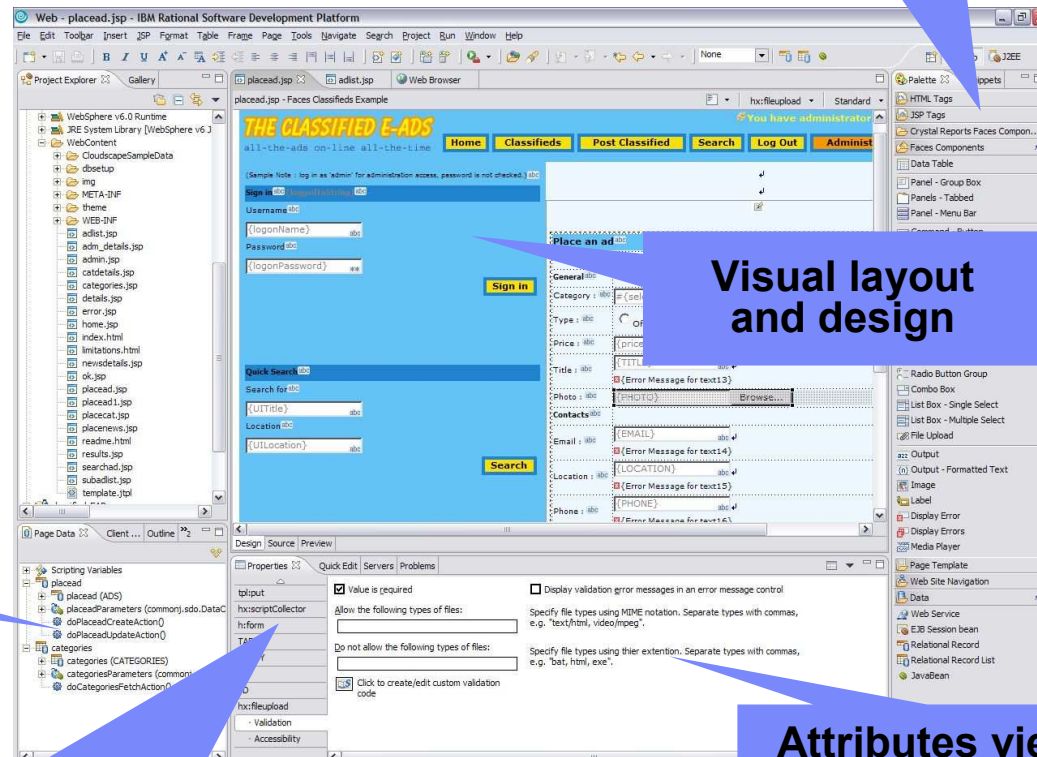
Drag and drop JSF components



Service Data Objects (SDO)

- Tablas relacionales
- Javabeans
- Web services
- Más backends: Domino, JCA, MQ...

Page Data view for point-and-click data connectivity



Visual layout and design

Quick Edit view for scripting page logic

Attributes view for setting parameters and properties

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IBM Rational Application Developer for WebSphere Software: Overview

Follow on to WebSphere Studio Application Developer

J2EE/EJB Tooling

- J2EE construction tools
- Supports WebSphere and WebLogic
- Supports J2EE 1.3 and 1.4
- Rapid Deployment for WAS v6
- Integrated WAS test environments

Code Analysis Tools

- Both static source code analysis and dynamic runtime analysis
- Source code analysis for rule violation detection: Java/EJB coding practices, internationalization, accessibility, architectural constraints, API deprecation
- Sequence diagram runtime trace with performance, thread and code coverage annotation
- Advanced memory leak detection
- Remote data collection across multiple servers
- User-defined run-time probes
- Interactive reports and metrics



Component/Unit Test

- JUnit-based testing of Java components, EJBs and Web Services
- Test prioritization recommendation based on code analysis
- Automated test case generation through usage of test patterns
- Datapool editor for data-driven testing
- Optimized unit testing through a set of metrics in the test creation wizard
- Test creation wizard offers a set of test patterns to automatically generate test

Portal/Portlet Design Tools

- Visual Portal site and page layout tools
- Visual Portlet layout and preview
- Integrated Portal test environment

UML Visual Editors

- Class diagrams for Java/EJB structure
- Sequence diagrams for method body visualization
- IDEF1X/IE diagrams for Database and XML schema
- Dynamic topic diagrams
- Javadoc integration
- Visual refactoring



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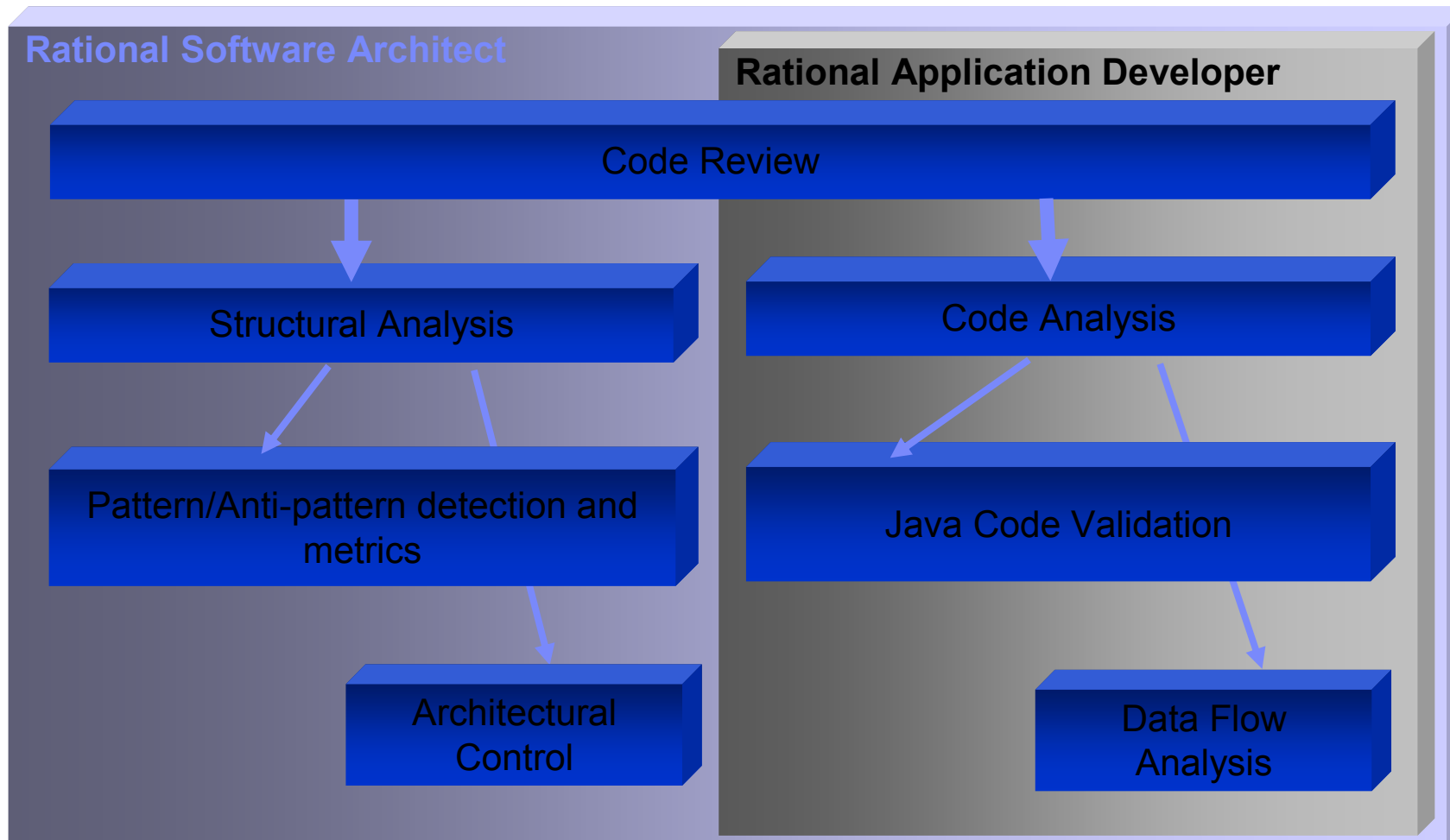


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Análisis estático de código y de arquitectura



Reglas de análisis completas y adaptables



- **Highlights:**
 - ▶ Rule based static analysis engine
- Rule categories:
 - ▶ Design Principles
 - ▶ Globalization
 - ▶ J2EE Best Practices
 - ▶ J2SE Best Practices
 - ▶ Private API Usage
 - ▶ Performance
 - ▶ Naming Conventions
- User defined rules:
 - ▶ Template based
- Integration with Eclipse Code Editor
- Deep J2EE Review – Data Flow Analysis
 - ▶ Based on the IBM research project
- Quick Fix
- Advanced filtering using regular expressions
 - ▶ Packages
 - ▶ Classes
 - ▶ Methods
 - ▶ Individual findings



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Automatización pruebas funcionales: Rational Functional Tester

■ Qué

- ▶ Automatización de Pruebas Funcionales y de Regresión
 - ¡Todo en una misma interfaz!

■ Para quién

- ▶ Equipos de QA
- ▶ Desarrolladores
 - Los desarrolladores pueden exportar fácilmente sus pruebas de interfaz en un plan de pruebas.

■ Por qué

- ▶ Al automatizar las pruebas se puede probar mucho más (versiones y funcionalidades) con mucho menos coste.

Tester

Eclipse or VS.NET-based editor and debugger

ScriptAssure™ for test script resiliency

Version control ready

Java, VS.NET, Web and terminal-based application support

Data-driven test assistance

Java in Eclipse or VB.NET in VS.NET

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	123412341234	Amex	0206	Brian Fred	1212 Foo Ln	NY, NY 12214



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