



IBM Software Group

Introduction to Rational Application Developer v6.0 and Portal Tools

WebSphere Portal Server v5.1

Lotus software



ON DEMAND BUSINESS™

IBM Proof of Technology

IBM Product Introduction + Exploration

© 2005 IBM Corporation

IBM Software Group | Lotus software

© 2005 IBM Corporation



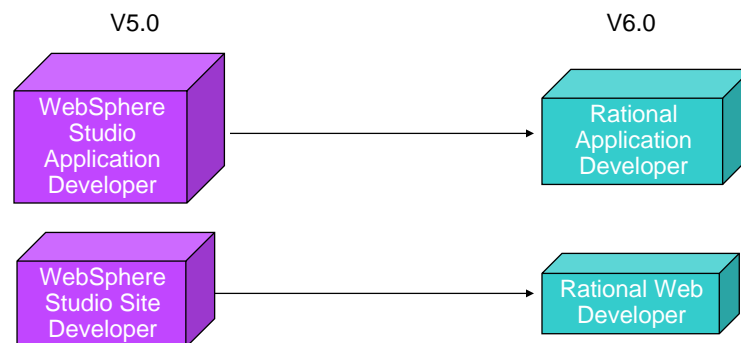
Session Objectives

- After completing this session, you should be able to:
 - ▶ Know base features of Rational Application Developer v6.0
 - ▶ Know base tooling changes for Portlet development with the IBM Rational Application Developer v6.0
 - ▶ Know all capabilities of Portlet Development in IBM Rational Application Developer v6.0

IBM Rational Application Developer and Eclipse 3.0

IBM Rational Application Developer

- Rational Application Developer is the new development tool for applications destined for WebSphere Application Server
 - Supports applications developed for WebSphere Application Server v4.0, v5.0, and 6.0



IBM Software Group | Lotus software © 2005 IBM Corporation IBM

Rational Application Developer v6 Tools and Features

IBM Rational Application Developer – Full J2EE Development Tools

IBM Rational Web Developer – Web Development Tools

- Full development environment
- Support for J2EE 1.2, 1.3, 1.4 Web based application - Support for JSF, Struts frameworks, SDO tools
- No EJB, J2C development

Application Server Toolkit (AST)

- Tool for assembly, deployment (EJB, Web Services) and debug J2EE applications
- No development support
- Java Development tool
- WebSphere Rapid Deployment
- Support for Enhanced EAR
- Server Tools – support for remote server

- Server support (WebSphere Application Servers v5.0, v5.1, v6.0, Tomcat 5.0, WebLogic Server 6.1, 7.1, 8.1 via WebLogic Toolkit – available separately)
- Visual Java GUI builder
- Web Diagram Editor
- Site designer
- Page templates
- XML tools
- Web services tools
- Database tools
- Portal and portlet development
- Enterprise Generation Language (EGL) tools
- Debugger

- Full J2EE 1.4 support
- Additional server: WebSphere Portal 5.0.2.2
- UML visual editors
- Static and runtime analysis
- Extended debugging and profiling
- Component test automation
- Clearcase LT for team integration
- Rational Unified Processing (RUP) integration
- EIS integration tools (JCA tools for CICS,IMS,SAP, etc.) – Post v6 delivery

Eclipse 3.0

- Universal Tooling Platform - provides frameworks, services, tools for tool builders to focus on tool building
- Java Development Tools
- Core Workbench technology basis for all IBM Tooling

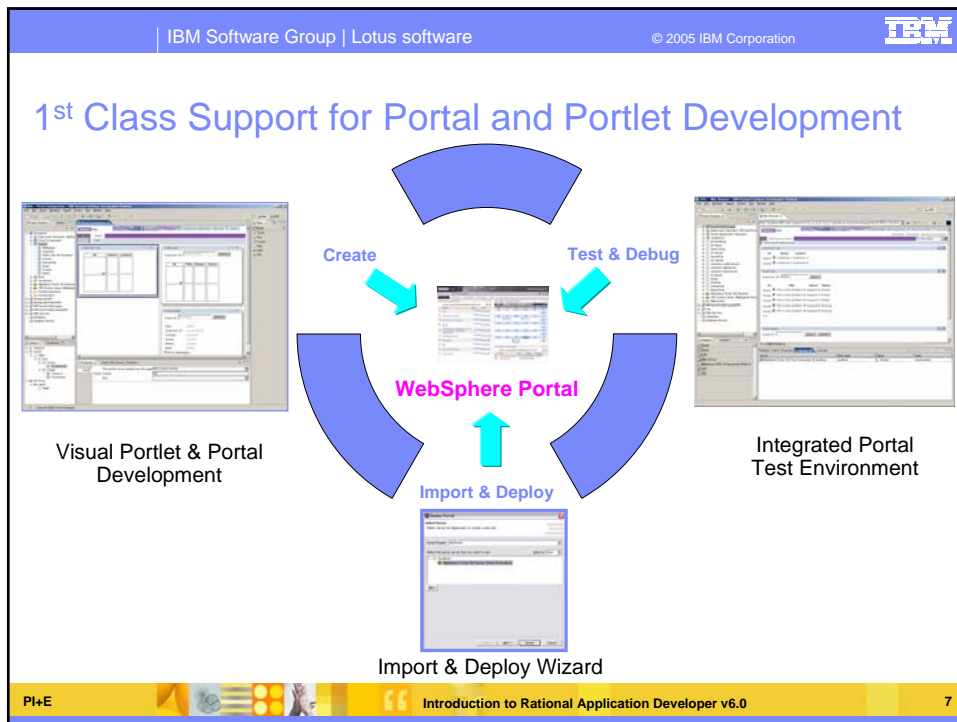
PI+E Introduction to Rational Application Developer v6.0 5

IBM Software Group | Lotus software © 2005 IBM Corporation IBM

Portlet and Portal Development in RAD 6.0

- Portal Tools are fully integrated to support portal and portlet development
 - ▶ No Portal Toolkit exists on RAD 6.0.
 - ▶ New tools for WP support called “Portal Tools” in RAD 6.0
- 1st Class Support for Portal Application Development
 - ▶ Enhances Portlet Development above v5.0.2
 - ▶ Provides Portal Test Environment for WP 5.0.2.2 and WP 5.1
- What's New
 - ▶ Portal Site Development (*1)
 - Portal Designer – New tool for customizing portal page (layout, navigation links)
 - Visual Themes and Skins development
 - Import / Deployment Wizards for Portal Page and Portlets
 - ▶ Create portlets accessing Enterprise Application – SAP and Seibel

PI+E Introduction to Rational Application Developer v6.0 6



IBM Software Group | Lotus software © 2005 IBM Corporation IBM

Key Features

- Visual Portlet Development
 - Basic, JSF, Struts portlet (*1)
 - JDBC SDO mediator (*2)
- Support Portlet Programming Support
 - Portlet API - IBM and JSR 168
 - Portlet API Objects
 - Cooperative Portlet (Click-to-Action, Enabling Wiring)
 - Collaborative Portlet (People Awareness)
- Portlet Deployment Descriptor editor
- Enterprise Application Integration (SAP, Siebel)
- Web Services Client Portlet
- Business Process Portlet Development (along with WSAD-IE 5.1.1)
- Personalized Portlet
- Visual Portal Development (*3)
 - Portal Designer – New tool for customizing portal page (layout, navigation link)
 - Page Designer enhancement for themes and skins editing
 - Import / Deployment Wizards for Portal Page and Portlets
- Test Environment
 - WP 5.0.2.2 and WP 5.1
 - Portal Test Environment (local)
 - Remote Server Attach for debugging remote WP (remote)
- Samples and Tutorials

NOTE:
 *1) Struts portlet only supports IBM API (no support for JSR 168)
 *2) JDBC SDO mediator is not supported by WP . Only for prototype use only. No service is provided by IBM.
 *3) Only available for WP 5.0.2.2. (WP 5.1 support is post 6.0)

PI+E Introduction to Rational Application Developer v6.0 8

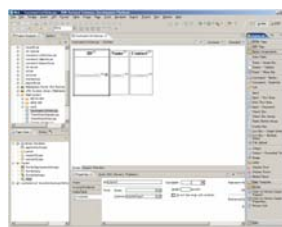
Portlet Development Tools

Making Portal Development Consistent and Easier

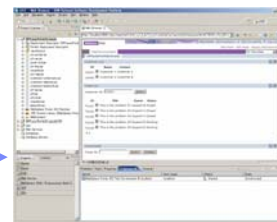
- Create a portlet by a wizard
- Web Diagram Editor for Struts portlet
- Visual portlet JSP editing
- Customize a portlet by Portlet Deployment Descriptor editor
- Test and debug a portlet in Portal Test Environment



Creating portlets



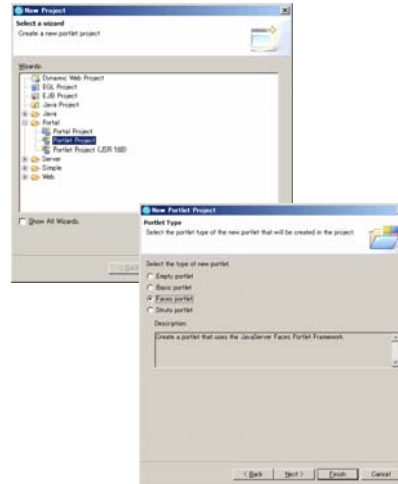
Editing portlet JSPs



Testing & Debugging portlets

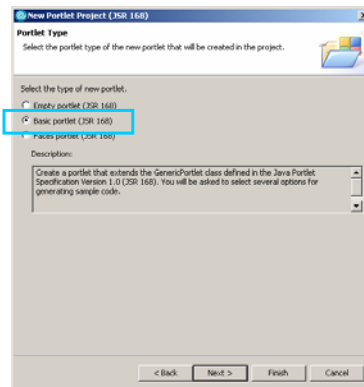
Choosing a Portlet API for Portlet Project

- IBM Portlet and JSR 168 portlet API support
- New > Project >
 - ▶ Portlet Project (IBM API)
 - ▶ Portlet Project (JSR 168)
- Then choose a type of portlets
 - ▶ Empty
 - ▶ Basic
 - ▶ Faces (JSF)
 - ▶ Struts



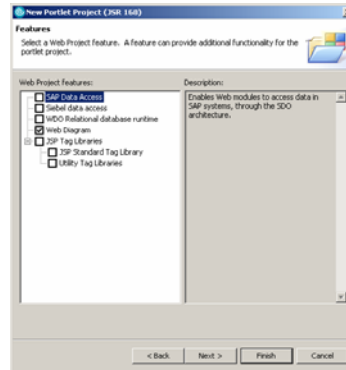
Creating a Basic Portlet – JSR 168 API

- Portlet Project Wizard – Basic Portlet



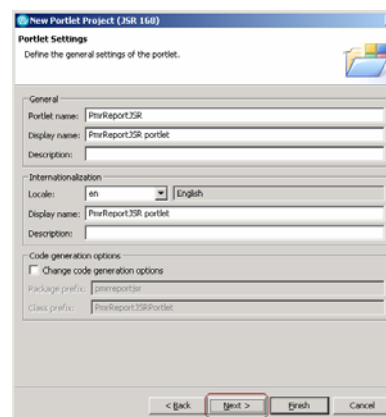
Creating a Basic Portlet – JSR 168 API

- Portlet Project Wizard – Basic Portlet
 1. Web Project Features



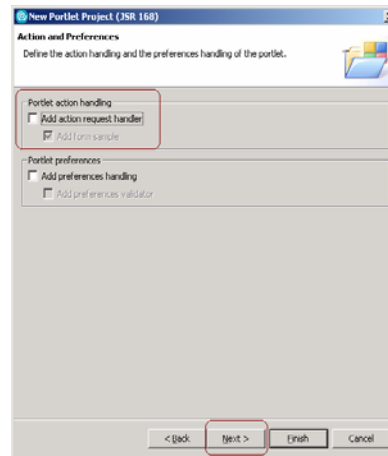
Creating a Basic Portlet – JSR 168 API

- Portlet Project Wizard – Basic Portlet
 2. Portlet Setting
 1. Portlet Name, Internationalization, Code Generation Options



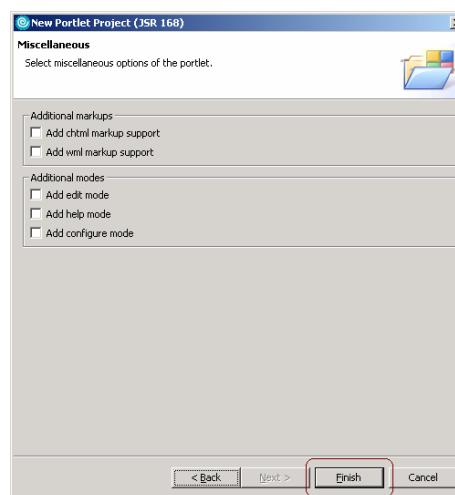
Creating a Basic Portlet – JSR 168 API

- Portlet Project Wizard – Basic Portlet
- 3. Event Handling with Sample Code
 - Action Event Handling
 - Preferences Handling



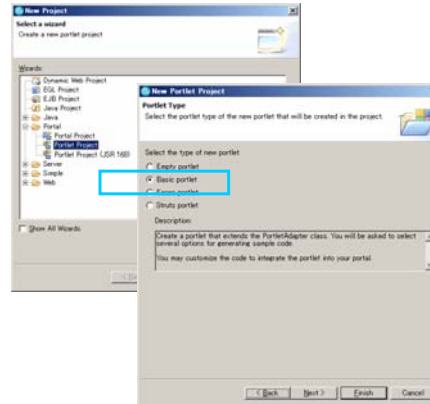
Creating a Basic Portlet – JSR 168 API

- Portlet Project Wizard – Basic Portlet
- 4. Additional Markups
- 5. Additional Modes



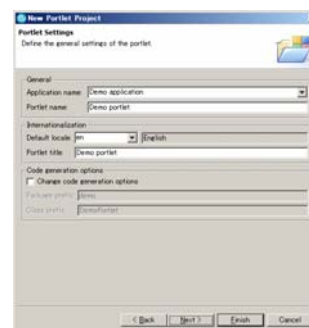
Creating a Basic Portlet – IBM Portlet API

- Portlet Project Wizard – Basic Portlet



Creating a Basic Portlet – IBM Portlet API

- Portlet Project Wizard – Basic Portlet
 - Portlet Setting
 - Portlet Application Name, Title Setting



Creating a Basic Portlet – IBM Portlet API

- Portlet Project Wizard – Basic Portlet
- 2. Event Handling with Sample Code
 - Action Event Handling
 - Cooperative portlet
 - Portlet Messaging



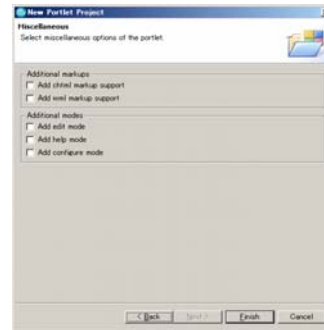
Creating a Basic Portlet – IBM Portlet API

- Portlet Project Wizard – Basic Portlet
- 3. Single Sign-on – Credential Vault Handling



Creating a Basic Portlet – IBM Portlet API

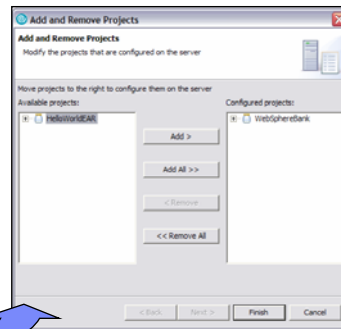
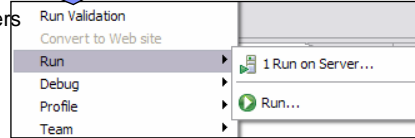
- Portlet Project Wizard – Basic Portlet
- 4. Additional Markups
- 5. Additional Modes



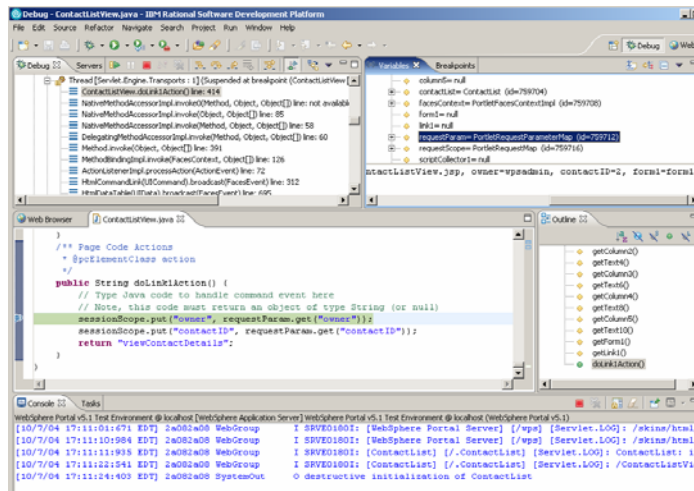
Portal Test Environment Runtimes

Running Applications on Server

- Run on Server
 - ▶ Project can be assigned to existing servers or a new server can be created.
 - ▶ Options Available for Projects
 - Debug
 - Debug on Server
 - Debug
 - Start
 - Run on Server
 - Run
 - Profiles
 - Profile on Server
 - Profile
- Add/Remove Project on the Server



Debug



Session Summary

- In this session, you have been introduced to:
 - ▶ The base tooling changes for Portlet development with IBM Rational Developer v6.0
 - ▶ The features and capabilities of the IBM Rational Application Developer
 - ▶ The Portlet creation, development, test, and debug capabilities in IBM Rational Application Developer

Appendix and Support Slides

Summary of New Servers

Runtime Available Server	Integrated WebSphere Server	External WebSphere Server	Supported Projects
WebSphere Application Server v6.0	Yes	Yes	J2EE 1.2, 1.3, 1.4
WebSphere Application Server v5.1	Yes	Yes	J2EE 1.2, 1.3
WebSphere Application Server v5.0	Yes	Yes	J2EE 1.2, 1.3
Tomcat (3.2, 4.0, 4.1, 5.0)	Yes	No	Web Project
J2EE Publishing Server	N/A	Yes	Any Project
Static Web Publishing Server	N/A	Yes	Only Static Web Projects

RAD - Debug Enhancements

- Debug using current perspective
- Breakpoint enhancements
 - Breakpoints in external code
 - Skip All Breakpoints option
 - Class prepare breakpoints
- Refactoring updates breakpoints
- Pop-ups for Display and Inspect
- Restart dialog when hot code replace fails
- Default VM arguments
- Environment variables
- Additional filter options in Debug and Variables views

RAD - New Key Bindings: All Editors

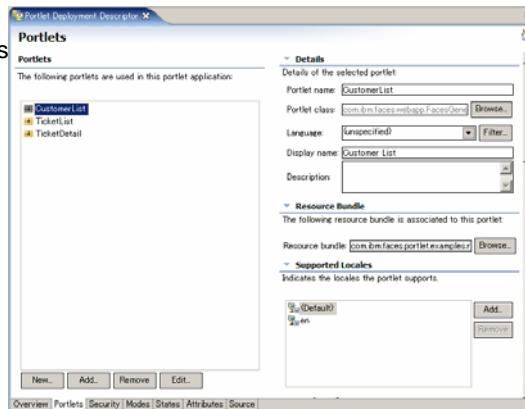
- **CTRL + E** - Displays drop down list of editors
- **CTRL + SHIFT + Q** - Enables/disables Quick Diff annotations in editors vertical ruler
- **ALT + Arrow Up** - Moves line up in the editor
- **ALT + Arrow Down** - Moves line down in the editor
- **CTRL + ALT + Arrow Up** - Copy line up in the editor
- **CTRL + ALT + Arrow Down** - Copy line down in the editor
- **CTRL + SHIFT + Enter** - Insert new line above current line
- **SHIFT + Enter** - Insert new line after current line
- **CTRL + SHIFT + Y** - Convert line to lowercase
- **CTRL + SHIFT + X** - Convert line to uppercase

RAD - New Key Bindings: Java Editor and Tooling

- **CTRL + T** - When a type, method, or package reference is selected this displays a quick type hierarchy tool tip
- **CTRL + SHIFT + Insert** - Toggles Smart Insert mode
- **CTRL + SHIFT + C** (Replaces CTRL + / & CTRL + \) - Comments/uncomments selected lines in the editor
- **ALT + SHIFT + O** - Adds Occurrence annotations to the editor
- **ALT + SHIFT + U** - Removes Occurrence annotations
- **ALT + SHIFT + S** - Displays quick source menu - displays Source menu options for selected element
- **ALT + SHIFT + T** - Displays quick refactor menu - displays Refactor menu options for selected element
- **SHIFT + Space** - Incremental completion - inserts common prefix of all possible completions at the caret location
- **CTRL + ALT + H** - Opens method call hierarchy view

Portlet Deployment Descriptor – JSR 168

- Portlets
 - Portlet class / Display name / Description / Title
 - Resource bundle / Locales
 - Markups / Portlet modes
 - Initialization parameters
 - Cache
 - Preferences
- Security constraints
- Custom portlet modes
- Custom portlet states
- User attributes



Portlet Deployment Descriptor – IBM API

- Portlet Application
 - Display name / UID / Version
- Portlet
 - Display name / ID / Servlet / Version
 - Cache
 - Portlet states
 - Markups / Portlet modes
 - Configuration parameters
- Concrete Portlet Application
 - Display name / UID
 - Context parameters
- Concrete Portlet
 - Display name / Portlet
 - Languages
 - Title / Description
 - Setting parameters

