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THE INFORMATION COMPANY
Bring the Java World and Web Services into Your Portal

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Oracle Corporation

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Senior Product Manager
Oracle Corporation

“This presentation is for informational purposes only and may not be incorporated into a contract or agreement.”
Many Portlets Make a Portal

- Built-In Portlets
- Declarative Data Driven Portlets
- Partner Portlets
- Programmatic Portlets
The Portlet Development Spectrum

Out-of-the-box Portlets (Search, Favorites...)

Web Clipping

OmniPortlet

Oracle Business Intelligence Tools

JSR-168/WSRP, PDK-Java, PDK-PLSQL

Oracle eBusiness Suite/Integration Solutions/3rd Party Partner Portlets

PortletBuilder

Oracle JDeveloper wizard

Page Designer

Declarative Development

IT Developer

Coded Development
The Portlet Development Spectrum

- Out-of-the-box Portlets (Search, Favorites...)
- OmniPortlet
- Web Clipping
- Oracle Business Intelligence Tools
- JSR-168/WSRP, PDK-Java, PDK-PLSQL
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- PortletBuilder
- Oracle JDeveloper wizard

Page Designer
*Declarative Development*

IT Developer
*Coded Development*
Programmatic Portlets

When to use programmatic approach:
- Very specialized business rules or logic
- Custom-designed authentication requirements
- Very granular processing of dynamic results
- Flexibility and user interface control
What are the PDK APIs?

Set of services that:

- Simplify the development of Java portlets
- Enable Java programmers to quickly expose Java-based applications as portlets
- Abstract underlying communications mechanisms
- Provide mechanisms for displaying multiple content types, end user customization, security, and session storage
Oracle Provider Components

Portal

SOAP

Provider Adapter

web.xml  *.properties  provider.xml

Provider  Portlets
Oracle JDeveloper Integration

1. Create Portlet & Provider
2. Add Portlet Logic
3. Test Portlet & Provider from within Oracle JDeveloper
4. Deploy to Application Server
Stand-Alone Application

Welcome to ORACLE JDEVELOPER Samples

Browse All Departments

<table>
<thead>
<tr>
<th>DepartmentId</th>
<th>DepartmentName</th>
<th>ManagerId</th>
<th>LocationId</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Administration</td>
<td>200</td>
<td>9000</td>
</tr>
<tr>
<td>20</td>
<td>Marketing</td>
<td>201</td>
<td>9000</td>
</tr>
<tr>
<td>30</td>
<td>Purchasing</td>
<td>114</td>
<td>9000</td>
</tr>
<tr>
<td>40</td>
<td>Human Resources</td>
<td>203</td>
<td>9001</td>
</tr>
<tr>
<td>50</td>
<td>Shipping</td>
<td>121</td>
<td>9001</td>
</tr>
<tr>
<td>60</td>
<td>IT</td>
<td>103</td>
<td>9002</td>
</tr>
<tr>
<td>70</td>
<td>Public Relations</td>
<td>204</td>
<td>9003</td>
</tr>
<tr>
<td>80</td>
<td>Sales</td>
<td>145</td>
<td>9004</td>
</tr>
<tr>
<td>90</td>
<td>Executive</td>
<td>100</td>
<td>9004</td>
</tr>
<tr>
<td>100</td>
<td>Finance</td>
<td>108</td>
<td>9005</td>
</tr>
<tr>
<td>110</td>
<td>Accounting</td>
<td>205</td>
<td>9006</td>
</tr>
<tr>
<td>120</td>
<td>Treasury</td>
<td></td>
<td>2200</td>
</tr>
</tbody>
</table>

How was this sample created?
Key points in this sample
## Stand-Alone Application

### Departments and Employees Master Detail View

<table>
<thead>
<tr>
<th>DepartmentId</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>DepartmentName</td>
<td>Marketing</td>
</tr>
<tr>
<td>ManagerId</td>
<td>201</td>
</tr>
<tr>
<td>LocationId</td>
<td>9000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EmployeeId</th>
<th>FirstName</th>
<th>LastName</th>
<th>Email</th>
<th>PhoneNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Michael</td>
<td>Hartman</td>
<td>MHARTSTE</td>
<td>515.123.5555</td>
</tr>
<tr>
<td>202</td>
<td>Pat</td>
<td>Fay</td>
<td>FFAY</td>
<td>603.123.6666</td>
</tr>
</tbody>
</table>

[How was this sample created?](#)

[Key points in this sample](#)
Portletizing MVC-based Applications

Business Logic

Controller

Model

View

Create a portal view

[Diagram showing the MVC architecture with arrows indicating the flow of data between controller, model, and view.]
Portletizing Struts Applications

Application is visible as a portlet

User actions are ‘captured’ by the portal
Portletizing Struts Applications

Application is visible as a portlet

User actions are ‘captured’ by the portal

The logic is the same

The view is different

Application is visible as a portlet

User actions are ‘captured’ by the portal

The logic is the same

The view is different
Portletizing MVC-based Applications

Controller
ActionServlet
(Apache Struts Controller)
User inputs + Page Flow + Handling Logic

Model
Persistence Layer
EJB, TopLink, BC4J, JDO, Java
Value Object
Value Object
(Java Bean)

View
JSP

Create a portal view

Business Logic
Application Development Framework (ADF)

- A productivity layer for J2EE developers
- Ready-to-use J2EE design patterns
- Meta-data driven components
- Based on industry standards
- Tight integration with Oracle JDeveloper: drag and drop
Oracle ADF: End-to-end J2EE Framework

- Implements standard J2EE best practices
- Model-View-Controller (MVC) design pattern

- Focus on the application, not the “plumbing”
- Consolidation and evolution of previous frameworks
Portletizing ADF Applications

Rich Clients

Web and Wireless Clients

Portlets

Controller

Model

Business Services
Using Vendors’ APIs vs. Standards

Using Vendors APIs

OracleAS Portal
- YellowBrix (Oracle)
  - News
  - Weather

IBM WebSphere Portal
- YellowBrix (IBM)
  - News
  - Weather

BEA WebLogic Portal
- YellowBrix (BEA)
  - News
  - Weather

Using Standards

OracleAS Portal
- YellowBrix
  - News
  - Weather

IBM WebSphere Portal
- YellowBrix
  - News
  - Weather

BEA WebLogic Portal
- YellowBrix
  - News
  - Weather
Remote Portlet Architecture: JPDK
What is the Relationship Between WSRP and JSR 168?

• WSRP is a communication protocol between portal servers and portlet containers
• JSR 168 is a Java API for portlets to work with Portals (javax.portlet package)
Supporting the Standards & Backward Compatibility
Standard Portlets Components

- Portal
- WSRP Adapter
- Portlets

Files:
- web.xml
- portlet.xml
### What is Currently Available?

<table>
<thead>
<tr>
<th>Function</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer’s Preview Portal</td>
<td>Yes</td>
</tr>
<tr>
<td>Hosted WSRP Portal</td>
<td>Yes</td>
</tr>
<tr>
<td>Java Portlet Wizard</td>
<td>Yes</td>
</tr>
<tr>
<td>Java Portlet Container (JSR 168)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Next major Portal release:**
Production support for WSRP
What is Currently Available?

<table>
<thead>
<tr>
<th>Function</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WSRP Compliant Oracle Portal</td>
<td>Yes</td>
</tr>
<tr>
<td>Hosted WSRP Portal</td>
<td>Yes</td>
</tr>
<tr>
<td>Java Portlet Wizard</td>
<td>Yes</td>
</tr>
<tr>
<td>Java Portlet Container (JSR 168)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
JavaServer Faces (JSF)

- A component-based application framework for creating Web-based MVC user interfaces (JSR 127)
- Specifies how components can be built
- Lets tool vendors create IDEs supporting Faces components
JSF AND Portlets

- Build portlets with Faces components
- Build JSF pages with portlets
Building Portlets Using JSF Components
Building JSF Pages with Portlets

OmniPortlet
ADF Faces
Portlet Design Time

1. Register Provider with Application
2. Portlets on the Component Palette
3. Drop Portlet Onto Page
Demonstration

Building JSF Pages with Portlets
QUESTIONS & ANSWERS
Next Steps....

- Relevant web sites to visit for more information
  - http://portalcenter.oracle.com
  - http://portalstandards.oracle.com
  - http://www.oasis-open.org
  - http://www.jcp.org
Learn the Technology
Visit OTN Microsites: otn.oracle.com
http://portalcenter.oracle.com
http://portalstandards.oracle.com

Try the Software
Visit the Hands-On Labs in Moscone West 1004

Ask Our Experts
Fusion Middleware Demogrounds; Sessions
<table>
<thead>
<tr>
<th>Day</th>
<th>Title</th>
<th>Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>An Overview of Enterprise Portals: Today and Tomorrow</td>
<td>1:30 PM</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Unleash the Power of Portal Publishing</td>
<td>3:00 PM</td>
<td>306</td>
</tr>
<tr>
<td></td>
<td>Fuse Your Enterprise Business Applications with Your Portal</td>
<td>4:30 PM</td>
<td>306</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Cross-Selling Through Identity-Driven Portals</td>
<td>11:00AM</td>
<td>306</td>
</tr>
<tr>
<td></td>
<td>Bringing it all together: Building Interactive Analytic Dashboard</td>
<td>3:00 PM</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>with Oracle Discoverer and Oracle Portal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bring the Java World and Web Services into Your Portal</td>
<td>3:00 PM</td>
<td>306</td>
</tr>
<tr>
<td></td>
<td>Fuse Your Enterprise Content with Your Portal</td>
<td>4:30 PM</td>
<td>306</td>
</tr>
<tr>
<td>Day</td>
<td>Title</td>
<td>Time</td>
<td>Room</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>Thursday</td>
<td>S747 Get Connected, Get Online, Get Results</td>
<td>9:00 AM</td>
<td>3004</td>
</tr>
<tr>
<td></td>
<td>S634 PeopleSoft Enterprise Portal: Features in 8.9 and Planned for 9</td>
<td>10:30 AM</td>
<td>2022</td>
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<tr>
<td></td>
<td>S1007 Oracle’s Strategic Direction for Portal Technologies for PeopleSoft Applications</td>
<td>10:30 AM</td>
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<tr>
<td></td>
<td>S745 Expose Your Intranet Portal to the Outside World in a Secure Manner</td>
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<tr>
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<td>S852 Building Enterprise Portals in the Age of Compliance</td>
<td>4:00 PM</td>
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<td></td>
<td>S750 Fuse Your Business Processes with Your Portal</td>
<td>4:00 PM</td>
<td>306</td>
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### Hands On Labs

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>Monday</td>
<td>10:30 AM – 5:30 PM</td>
</tr>
<tr>
<td>Tuesday</td>
<td>10:30 AM – 5:30 PM</td>
</tr>
<tr>
<td>Wednesday</td>
<td>10:30 AM – 1:30 PM, 2:30 PM – 5:30 PM</td>
</tr>
<tr>
<td>Thursday</td>
<td>8:00 AM – 1:00 PM</td>
</tr>
</tbody>
</table>

Moscone West
Room 1004

### DEMOgrounds

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>10:30 AM – 5:30 PM</td>
</tr>
<tr>
<td>Tuesday</td>
<td>10:30 AM – 5:30 PM</td>
</tr>
<tr>
<td>Wednesday</td>
<td>10:30 AM – 1:30 PM, 2:30 PM – 5:30 PM</td>
</tr>
<tr>
<td>Thursday</td>
<td>10:00 AM – 1:00 PM</td>
</tr>
</tbody>
</table>

Moscone West
Exhibit Hall 1330