

Betting Big on JavaServer Faces: Components, Tools, and Tricks

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Oracle's Betting Big on JSF...

- ▶ Standards
- ▶ Tools
- ▶ Components
- ▶ Frameworks
- ▶ Community
- ▶ Enterprise Applications

Oracle's Betting Big on JSF...

▼ Standards

- Key Member of JSF Expert Group
- Previous Experience in AJAX-Enabled Components

▶ Tools

▶ Components

▶ Frameworks

▶ Community

▶ Enterprise Applications

"Prior Art" for J2EE Standards for UI Components



Standard Component Model for *Desktop* Development

- J2SE Provides the Swing JComponent
- Swing Components:
 - Have Properties and Events
 - Can Contain Other Components
 - Predictable Rendering & Event-Handling Lifecycle
- Rich Library of UI Components
- Numerous Java IDE's Offer Tool Support
- Third Party Component Libraries



Start here: Developing Java Applications Panel1.java

My Swing Panel

- UI
 - this (GridBagLayout)
 - gridBagLayout1
 - jButton1
 - jLabel1
 - jTextField1
 - Menu
 - Other

```

    ):
    this.add(jButton1, new GridBagConstraints(2, 1, 1,
    this.add(jLabel1, new GridBagConstraints(0, 0, 1, 2
    this.add(jTextField1, new GridBagConstraints(1, 1,
  )

  private void jButton1_actionPerformed(ActionEvent e)
  {
    jLabel1.setText(jTextField1.getText());
  }
}

```

Swing

- Pointer
- Custom...
- JButton
- JCheckBox
- JComboBox
- JEditorPane
- JFormattedTextField
- JLabel

selected	False
selectedIcon	
size	90, 28
text	Click Me
toolTipText	null
verifyInputWhenFocus...	True

Determines if this component automatically scrolls its

Grid Position	External Insets	Size Padding
X: <input type="text" value="2"/>	Top: <input type="text" value="0"/>	Width: <input type="text" value="0"/>
Y: <input type="text" value="1"/>	Left: <input type="text" value="5"/>	Height: <input type="text" value="0"/>
Width: <input type="text" value="1"/>	Bottom: <input type="text" value="0"/>	
Height: <input type="text" value="1"/>	Right: <input type="text" value="5"/>	
Weight: <input type="text" value="0"/>	Anchor: <input type="radio"/> NW <input type="radio"/> N <input type="radio"/> NE	

What About Web Development?

Before JSF (Circa 2004)

Java (J2EE)

Scripting

L.A.M.P

.NET

.NET

ADF

WebWork

Spring +

Tapestry

Struts

UIX



How the "Other Half" Lives in ASP.Net



Toolbox

- CheckBox
- CheckBoxList
- RadioButton
- RadioButtonList
- Image
- DynamicImage
- ImageMap
- Table
- BulletedList
- HiddenField
- Literal
- TreeView
- Calendar
- AdRotator
- FileUpload
- PhoneLink
- ContentPager
- Wizard
- Xml
- MultiView
- Panel
- Placeholder
- View
- Substitution
- Data
- Validation
- Navigation
- Login
- WebParts
- HTML
- General

Pointer

```

Default.aspx.cs
Default_aspx Button1_Click(object sender, EventArgs e)
3 using System.Configuration;
4 using System.Web;
5 using System.Web.Security;
6 using System.Web.UI;
7 using System.Web.UI.WebControls;
8 using System.Web.UI.WebControls.WebParts;
9 using System.Web.UI.HtmlControls;
10
11 public partial class Default_aspx
12 {
13     void Button1_Click(object sender, EventArgs e)
14     {
15         Label1.Text = TextBox1.Text;
16     }
17 }

```

Default.aspx

Design Source <html> <body> <form#form1> <div> <asp:button#button1>

Solution Explorer

- C:\WebSites\WebSite1\
 - Data
 - Default.aspx
 - Default.aspx.cs
 - Web.Config

Solution Expl... Database Ex...

Properties

Button1 System.Web.UI.WebControls.Button

Appearance

- BackColor
- BorderColor
- BorderStyle NotSet
- BorderWidth
- CssClass

Font

- ForeColor
- SoftkeyLabel
- Text **Button**

Behavior

Text

The text to be shown on the button.



- Toolbox
- [-] DropDownList
 - [-] ListBox
 - [x] CheckBox
 - [-] CheckBoxList
 - [-] RadioButton
 - [-] RadioButtonList
 - [-] Image
 - [-] DynamicImage
 - [-] ImageMap
 - [-] Table
 - [-] BulletedList
 - [-] HiddenField
 - [-] Literal
 - [-] TreeView
 - [-] Calendar
 - [-] AdRotator
 - [-] FileUpload
 - [-] PhoneLink
 - [-] ContentPager
 - [-] Wizard
 - [-] Xml
 - [-] MultiView
 - [-] Panel
 - [-] Placeholder
 - [-] View
 - [-] Substitution
 - [+] **Data**
 - [+] **Validation**
 - [+] **Navigation**
 - [+] **Login**
 - [+] **WebParts**
 - [+] **HTML**
 - [+] **General**

Default.aspx* Default.aspx.cs

Client Objects & Events (No Events)

```

1 <%@ Page Language="C#" CompileWith="Default.aspx.cs" ClassName="Default_aspx" %>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xht
3 <html xmlns="http://www.w3.org/1999/xhtml">
4 <head runat="server">
5   <title>Untitled Page</title>
6 </head>
7 <body>
8   <form id="form1" runat="server">
9     <div>
10      <asp:Label ID="Label1" Runat="server" Text="Label"></asp:Label>
11      <asp:TextBox ID="TextBox1" Runat="server"></asp:TextBox>
12      <asp:Button ID="Button1" Runat="server" Text="Button" OnClick="Button1_Click" />
13    </div>
14  </form>
15 </body>
16 </html>
17

```

Design Source <html> <body> <form#form1>



```

Default.aspx.cs
Default_aspx Button1_Click(object sender, EventArgs e)
11 public partial class Default_aspx
12 {
13     void Button1_Click(object sender, EventArgs e)
14     {
15         Label1.Text = TextBox1.Text;
16     }
17
18 }
    
```

Solution Explorer

- C:\WebSites\WebSite1\
 - Data
 - Default.aspx
 - Default.aspx.cs
 - Web.Config

Default.aspx

Design (locked) | Source | <html> <body> <form#form1> <div>

Label Button

Untitled Page - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://localhost:8196/WebSite1/Default.aspx

Firefox Help Firefox Support Plug-in FAQ

Steve Button

Locals

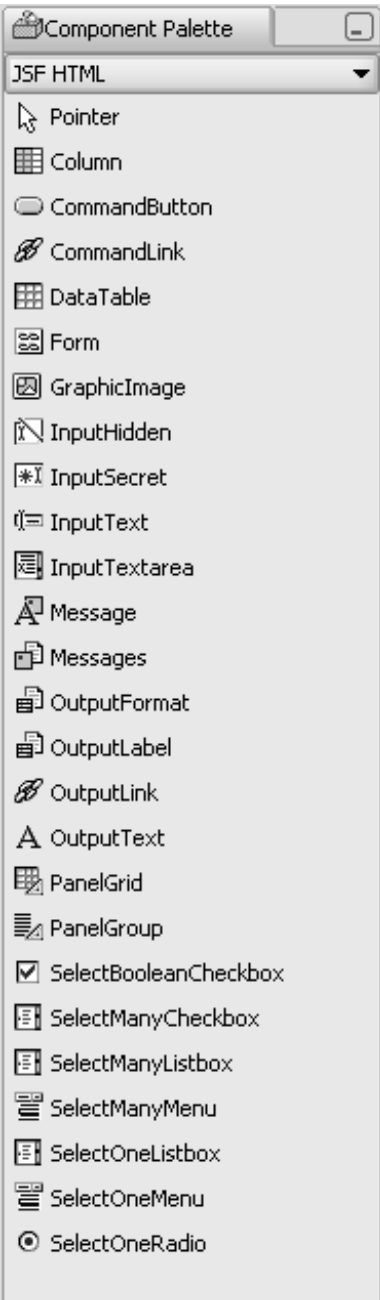
Name	Value	Type
this	{Default_aspx}	Default_e
base	{Default_aspx}	System.W
_control2	{System.Web.UI.HtmlControls.HtmlHead}	System.W
_control3	{System.Web.UI.HtmlControls.HtmlTitle}	System.W
ApplicationInstance	{System.Web.HttpApplication}	System.W
AppRelativeTemplateSourceDirectory	"~"	string
Button1	Text = "Button"	System.W
form1	{System.Web.UI.HtmlControls.HtmlForm}	System.W
Label1	Text = "Steve"	System.W
Profile	{System.Web.Profile.DefaultHttpProfile}	System.W

Call Stack

Name	Lang
0m4a3w7k.dll!Default_aspx.Bu	C#
[External Code]	

JavaServer Faces: Net .Net

- Allows J2EE to Beat ASP.Net in Productivity
- With Many Choices for:
 - Hardware Platform
 - Operating System
 - Tools
 - Components
 - Application Server



JSF HTML JSP Tag Library

- Simple Components
 - Link, Button, Input Fields, Output Text, Select Lists, Radio Groups, Error Messages, etc.
- Composite Components
 - DataTable
- Layout Panels
 - Group & Arrange Contained Components



D E M O N S T R A T I O N

Simple Example of Using JSF UI Components

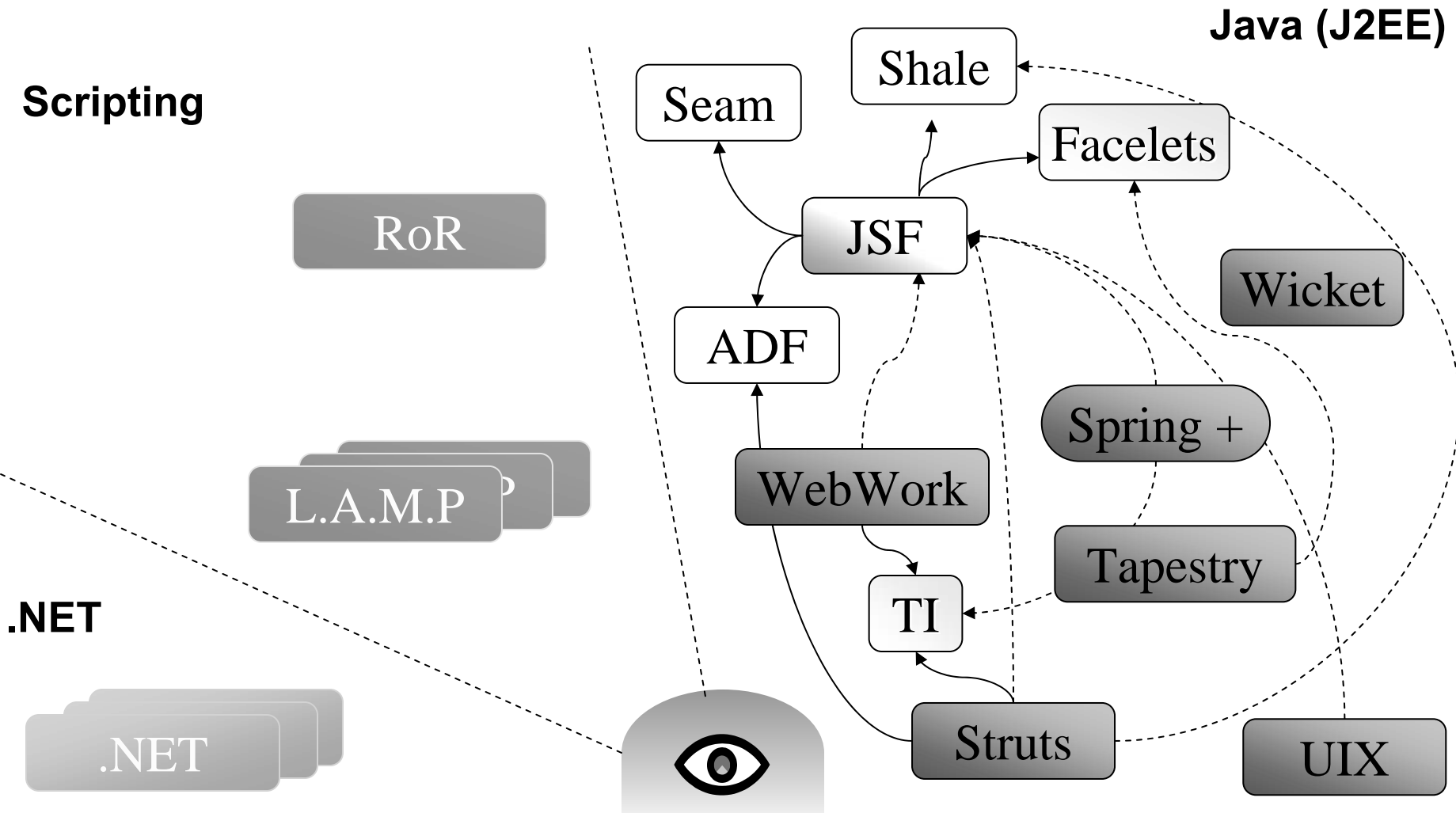
JavaServer Faces (JSF) JSR-127

- Standard Thin Client Development Framework
 - Components with Properties and Events
 - Validators
 - Model-Layer Integration
 - Page Navigation
- Designed To Be Leveraged By Tools
- Many Component Libraries Already Available

JSF vs. Traditional JSP

	JSP	JSF
Developer	Lower Level	Ease of Development
Events	Http Requests	Java
UI	Markup	UI Components
Product	Pages	Applications

The Playing Field Post-JSF



Oracle's Betting Big on JSF...

▶ Standards

▼ Tools

- Comprehensive IDE Support for JSF
- Visual Studio 2005 Enterprise Features, J2EE-Based

▶ Components

▶ Frameworks

▶ Community

▶ Enterprise Applications

JSF EL & Managed Beans

- Expression Language Connects UI Components
 - To Model Properties for Data...

```
<h:inputText id="lastName"  
             required="true"  
             value="#{customer.lastName}"/>
```

- To Web-Tier Application Object Methods for Handling Events...

```
<h:commandButton id="save"  
                 value="Save Changes"  
                 action="#{customerHandler.saveAll}"/>
```

- Declaratively Configure Beans to Use
 - Managed Beans and Properties

EL Expression Language

- `#{somevar}`
 - Value of variable named *somevar*
 - Checks at different scopes until it finds a match
 - If None Found, tries Managed Bean named *somevar*
- `#{param.somevar}`
 - Value of request parameter named *somevar*
- `#{requestScope.somevar}`
 - Value of request attribute named *somevar*
- `#{sessionScope.somevar}`
 - Value of session attribute named *somevar*
- `#{cookie.somevar}`
 - Value of cookie named *somevar*

EL Expression Language

- `#{user.name}`
 - The *name* property of the scoped variable *user*
 - Checks at different scopes until it finds a match
- `#{user["name"]}`
 - Same as above
- `#{resources.rowLockedError}`
 - Entry with key *rowLockedError* in Map *resources*
- `#{resources["row.LockedError"]}`
 - Entry with key *row.LockedError* in Map *resources*

JSF Components Can...

- Write values back to the model
- Deliver strongly-typed events to Event Handlers
- Automatically maintain UI state
- Validate user input
- Provide outcomes that drive page-flow



D E M O N S T R A T I O N

Backing Bean for a Page:

- 1. Defining Typed Properties**
- 2. Handling an Action**
- 3. “Wiring” Components to Properties**



D E M O N S T R A T I O N

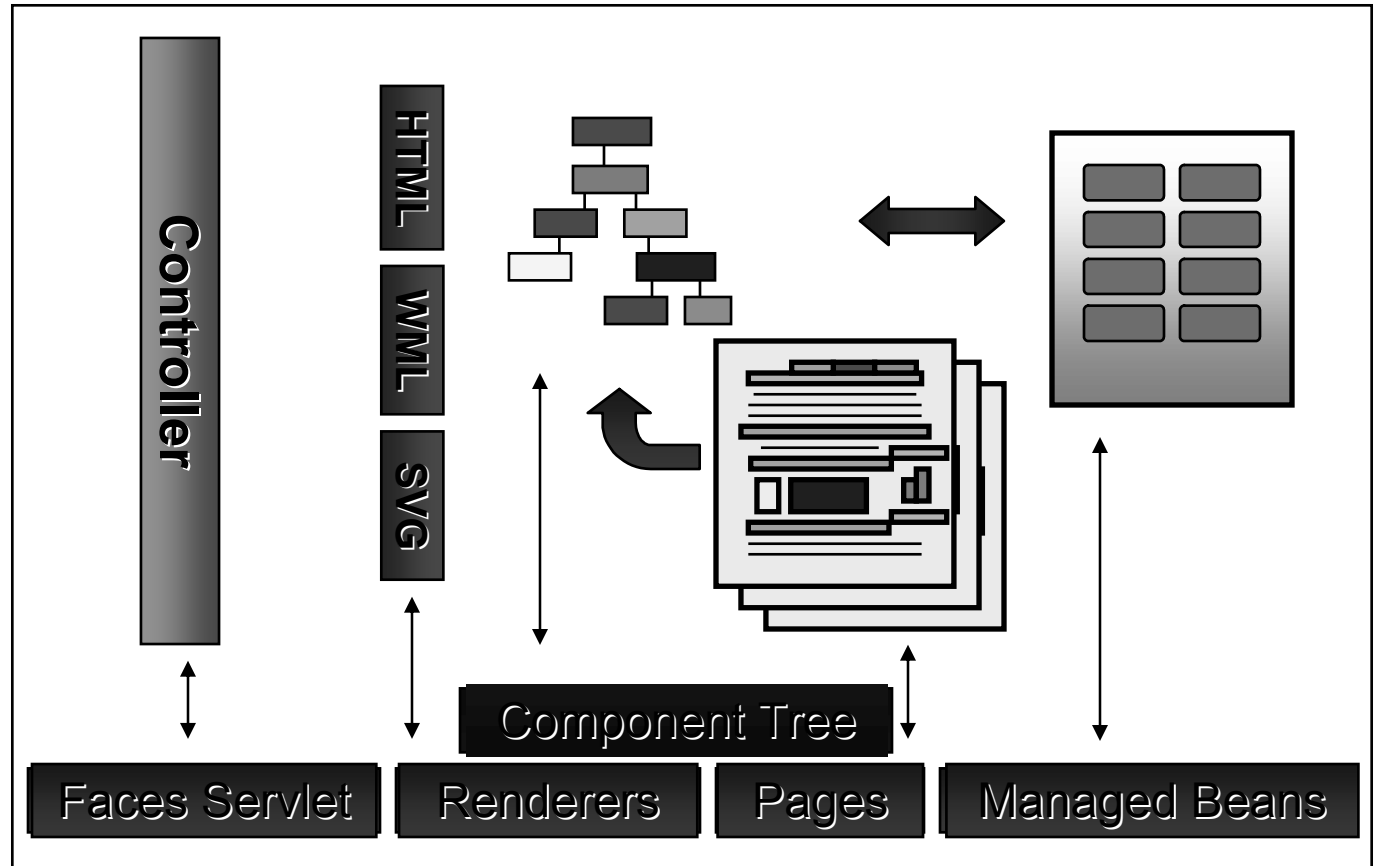
JSF Overview Panel



D E M O N S T R A T I O N

Simple Validator Example

JSF Architecture



Page Flow / Navigation Rules

- Component Events Can Trigger Action Methods

```
<h:commandButton  
    value="Press Me"  
    action="#{handler.handlePress}"/>
```

- Action Methods Return a String Result
- faces-config.xml Can Contain Navigation Rules

```
<navigation-rule>  
    <from-view-id>page1.jsp</from-view-id>  
    <navigation-case>  
        <from-action>#{handler.handlePress}</from-action>  
        <from-outcome>case1</from-outcome>  
        <to-view-id>page2.jsp</to-view-id>  
    </navigation-case>  
    :  
</navigation-rule>
```

- String Outcome of Action Method Causes Navigation
 - Default is to Stay on the Same Page



D E M O N S T R A T I O N

Simple Page Navigation Example

Oracle's Betting Big on JSF...

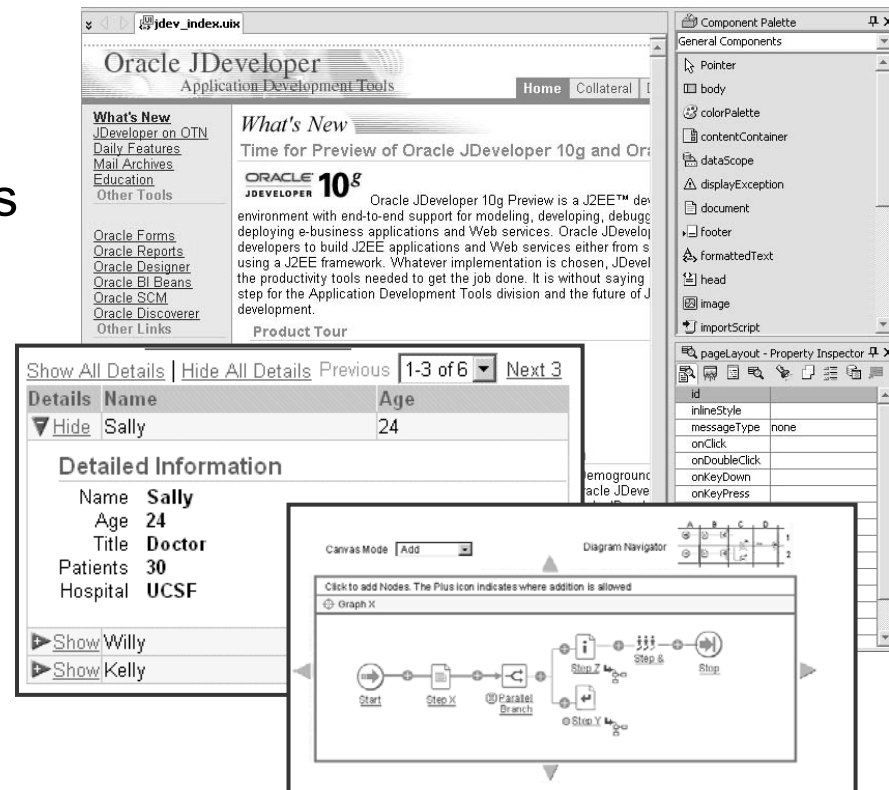
- ▶ Standards
- ▶ Tools
- ▼ Components
 - Enterprise-Ready Library of Nearly 100 Controls
 - Sophisticated Skins and Multi-Device Support
- ▶ Frameworks
- ▶ Community
- ▶ Enterprise Applications

Spec Allows Freedom to Innovate

- JSF Provides the Basic Extensibility Points
- And Supplies an Implementation of the Basics
- Vendors are Already Doing Extremely Interesting Things with Their JSF Component Libraries
- Look for Third-Party Libraries of:
 - UI Components
 - Render Kits
 - Validators

ADF Faces for JSF

- JavaServer Faces (JSR-127) Components
- Support Variety of Clients
 - Web Browsers, Mobile Devices
- Rich Components, Layouts, and Render Kits
 - Over 100 Component Types
- Powerful Runtime Features
 - Partial Page Rendering
 - Automatic Sorting
 - Look and Feel "Skinning"



ADF Faces Components Examples

Show All Details | Hide All Details Previous 1-3 of 6 Next 3

Details	Name	Age
▼ Hide	Sally	24
Detailed Information		
Name	Sally	
Age	24	
Title	Doctor	
Patients	30	
Hospital	UCSF	
▶ Show	Willy	25
▶ Show	Kelly	28



[Root](#) > [Computer](#) > [Hardware](#) > CDROM



QuickTime™



- ▶ [UIX Components](#)
- ▼ **UIX Controller**
 - ◊ [Architecture](#)
 - ◊ [Release](#)
- ▶ [Architecture](#)
- ▶ [Release](#)

? ? Finance Go

Home Help Switch Applications

136-255-136

⊛ Processing: Baking the cake

Using processingLayout element. Cancel

In this demo we use the processingLayout element. It is intended to make it easier to create the BLAF Processing Template.

- ✓ All the ingredients have been mixed.
- ✓ The oven has been preheated to 400 degrees.
- ✓ The pan has been greased and has the batter in it.
- ✓ The pan is in the oven.

The cake is almost done.

Cancel



D E M O N S T R A T I O N

Some Interesting ADF Faces Components for JSF

- **Partial Page Rendering (AJAX)**
- **Train**
- **Progress**
- **Shuttle**



D E M O N S T R A T I O N

ADF Faces Dialog Framework

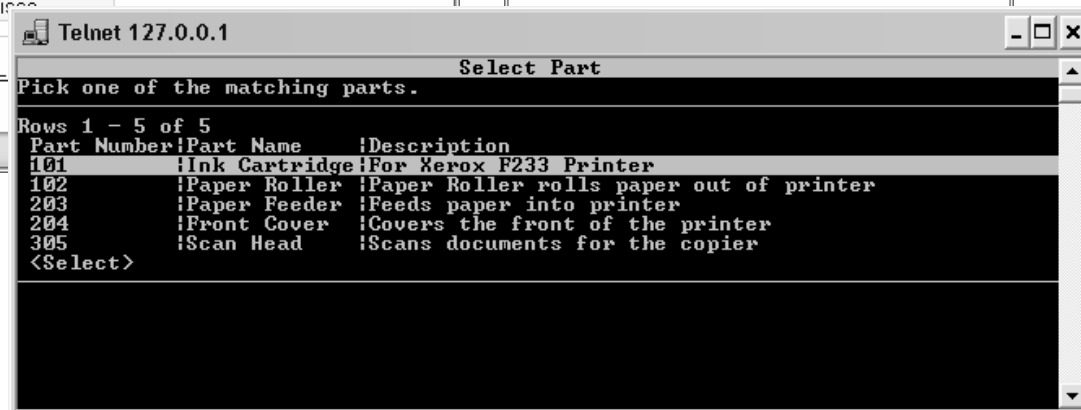
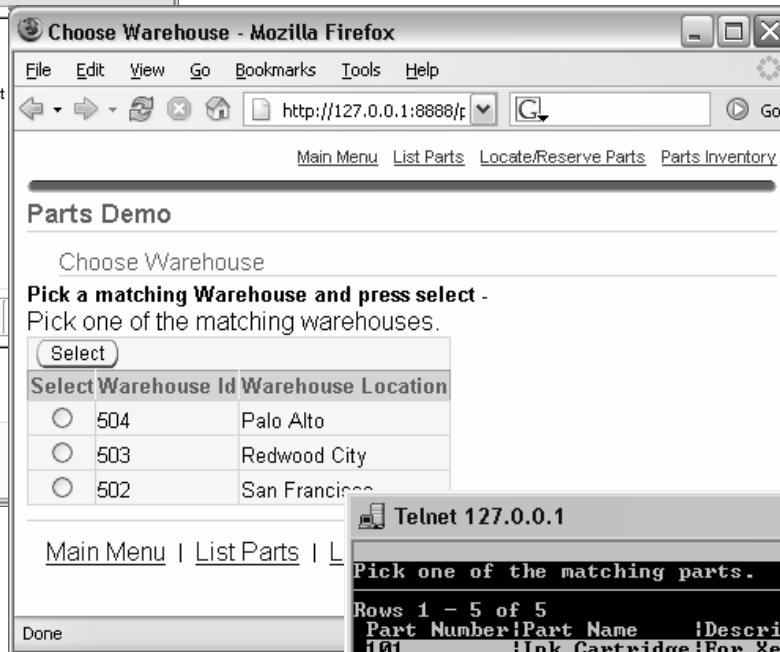
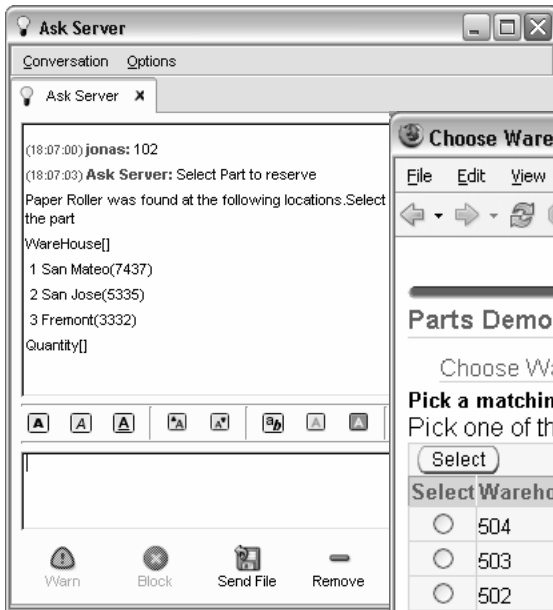
- **Diaglogs**
- **List of Values**



D E M O N S T R A T I O N

ADF Faces Skinning

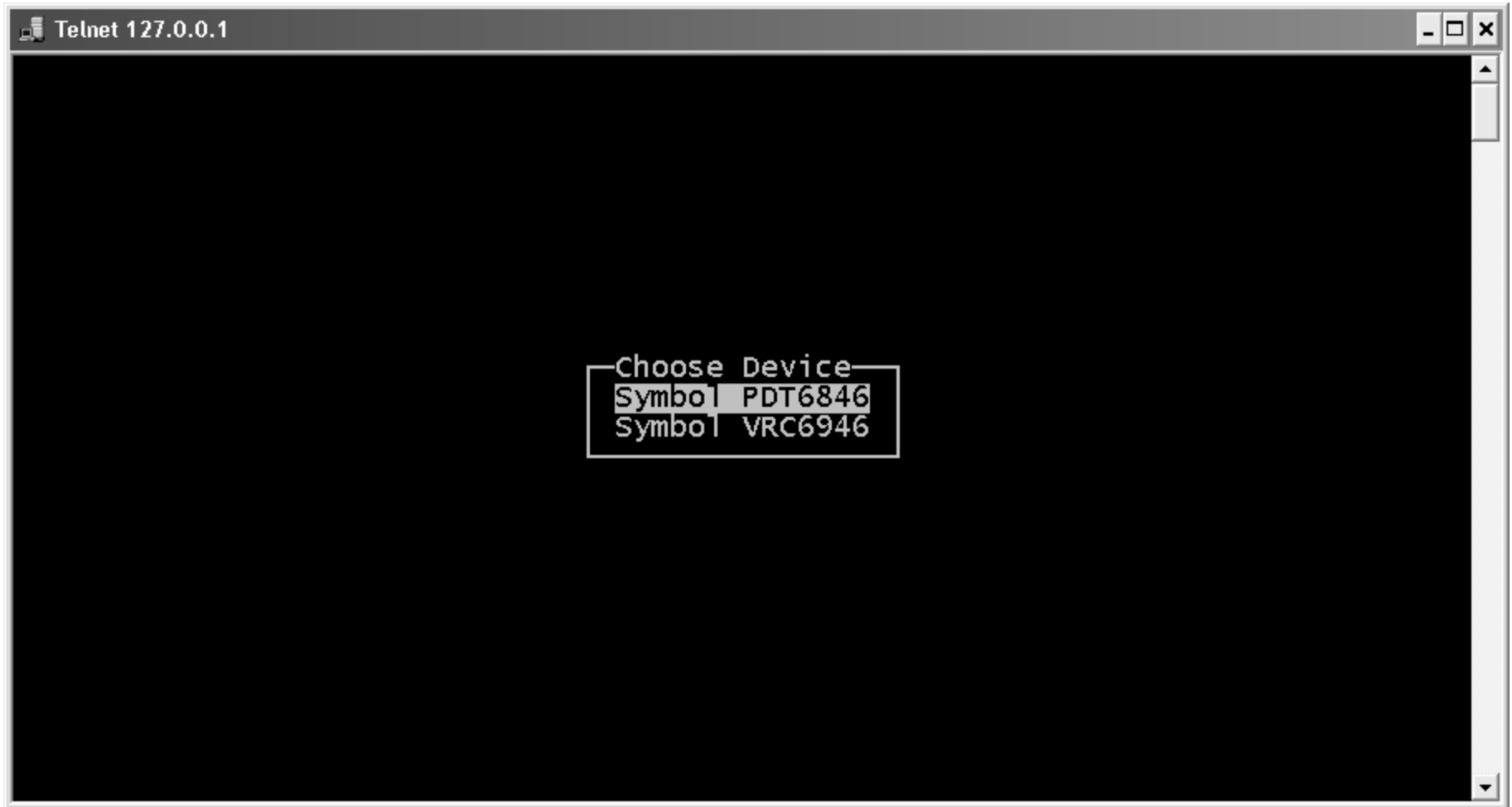
Multi-client development



D E M O N S T R A T I O N

ADF Faces for Telnet Devices

ADF Faces on Telnet Device

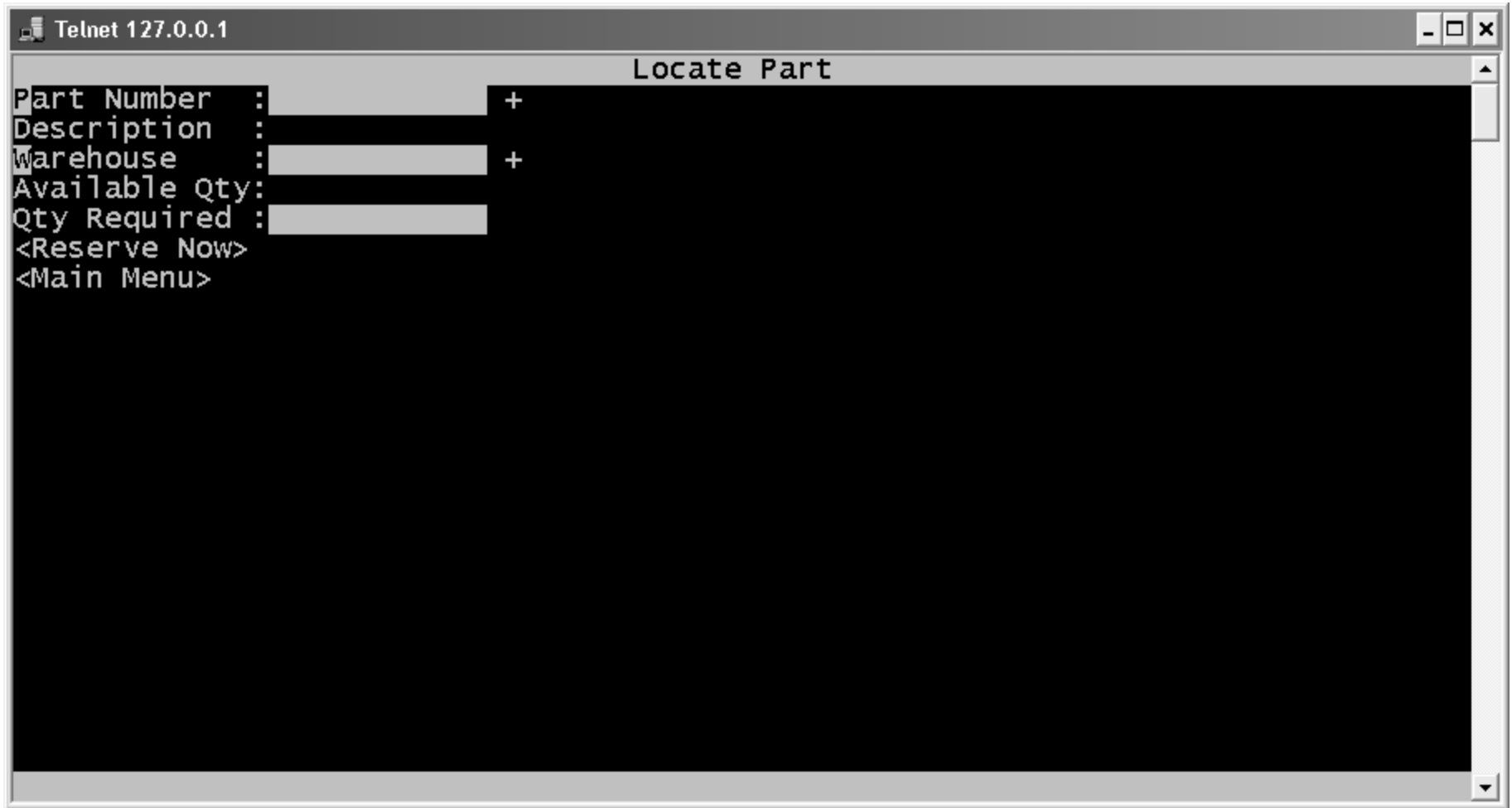


ADF Faces on Telnet Device

A screenshot of a Telnet session window. The title bar reads "Telnet 127.0.0.1". Below the title bar, the text "Parts Demo- Main Menu" is displayed. The main content area shows three menu options: "<List Parts>", "<ReserveParts>", and "<Parts Inventory>". The window has standard OS controls (minimize, maximize, close) in the top right corner and a scrollbar on the right side.

```
Telnet 127.0.0.1
Parts Demo- Main Menu
<List Parts>
<ReserveParts>
<Parts Inventory>
```

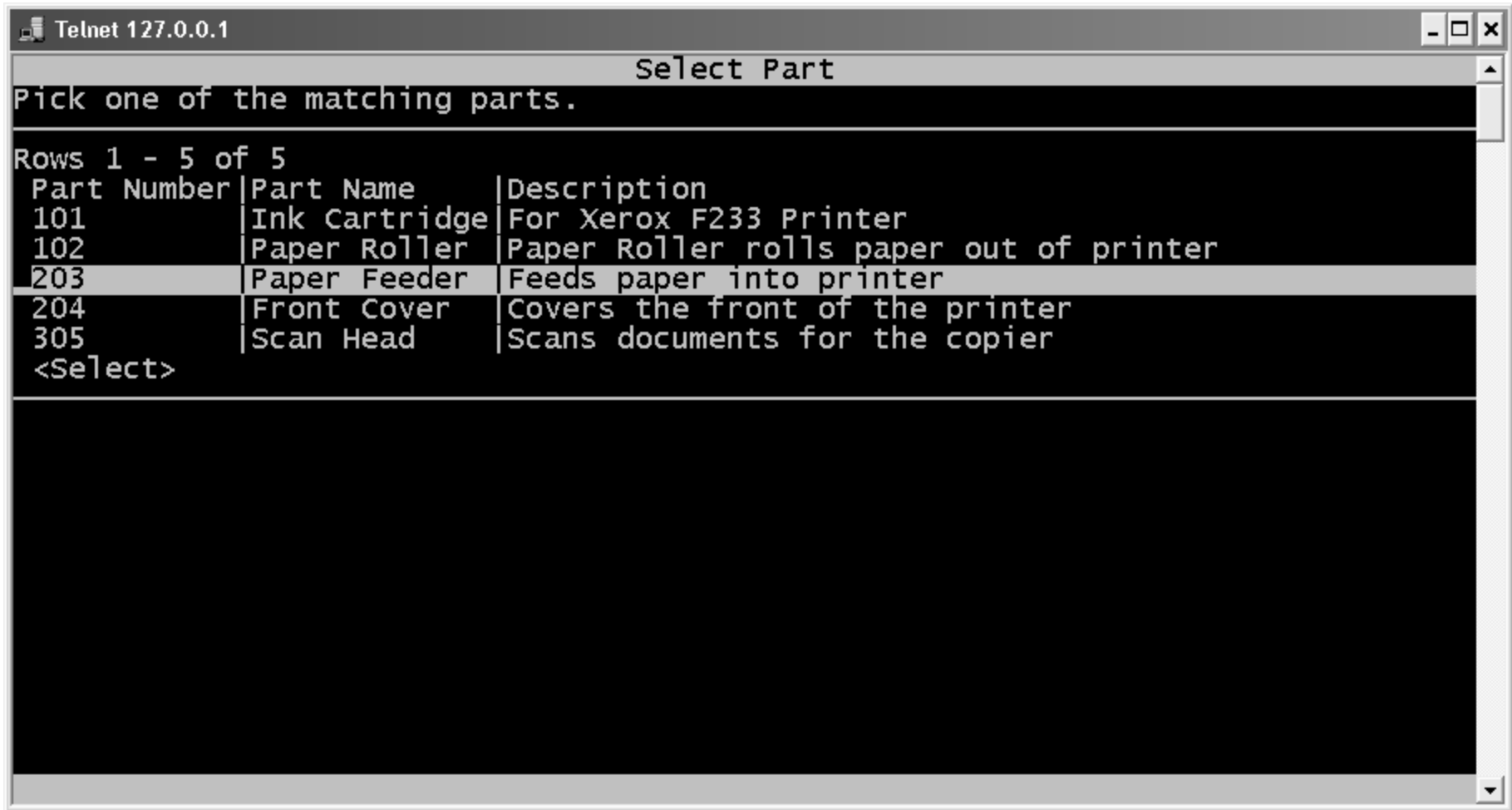
ADF Faces on Telnet Device



The screenshot shows a Telnet window titled "Telnet 127.0.0.1" with a standard window control bar. The application displayed is titled "Locate Part" and features a form with the following fields and options:

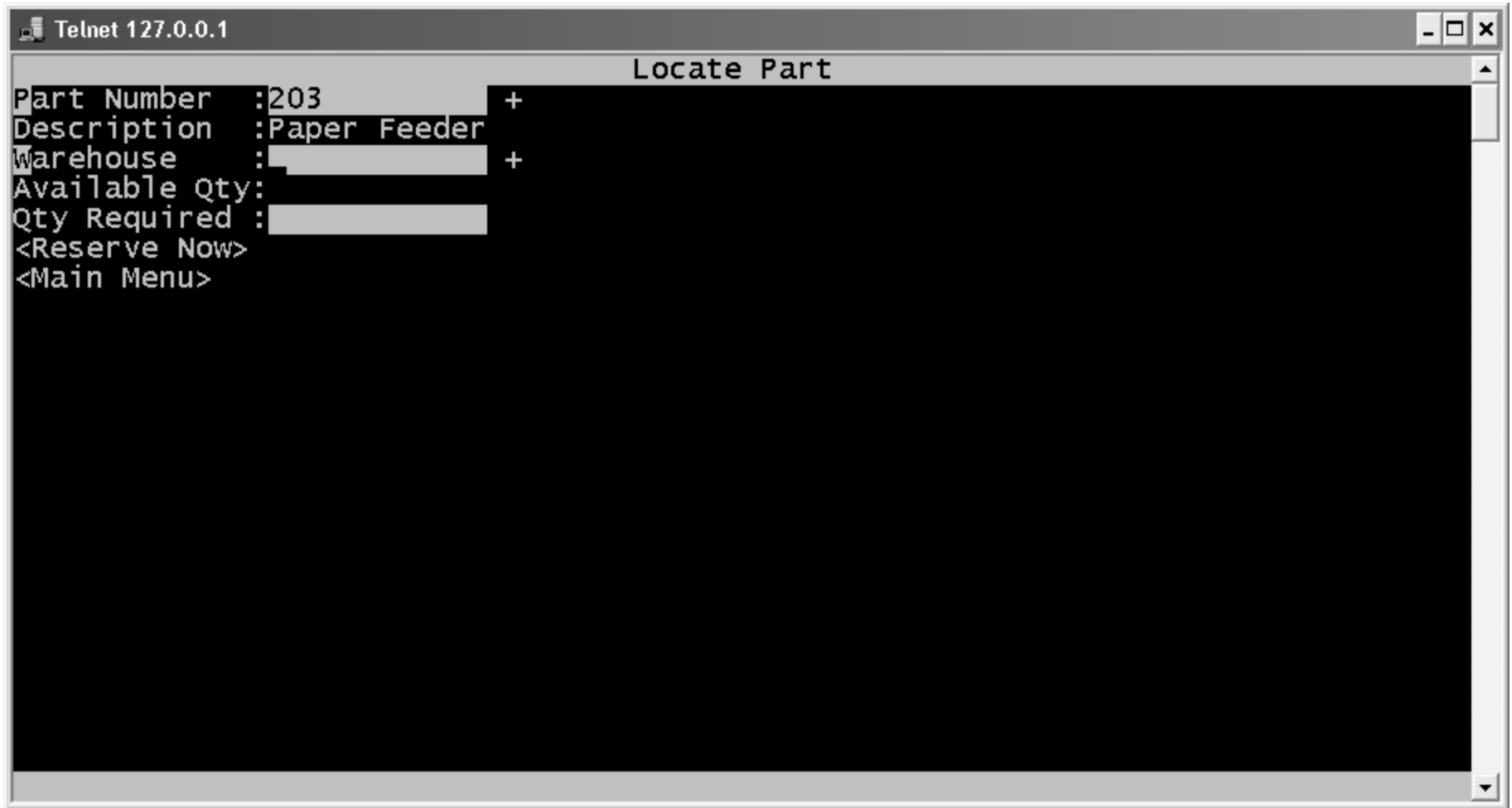
- Part Number : +
- Description :
- Warehouse : +
- Available Qty:
- Qty Required :
- <Reserve Now>
- <Main Menu>

ADF Faces on Telnet Device



```
Telnet 127.0.0.1
Select Part
Pick one of the matching parts.
Rows 1 - 5 of 5
Part Number | Part Name | Description
101 | Ink Cartridge | For Xerox F233 Printer
102 | Paper Roller | Paper Roller rolls paper out of printer
203 | Paper Feeder | Feeds paper into printer
204 | Front Cover | Covers the front of the printer
305 | Scan Head | Scans documents for the copier
<Select>
```

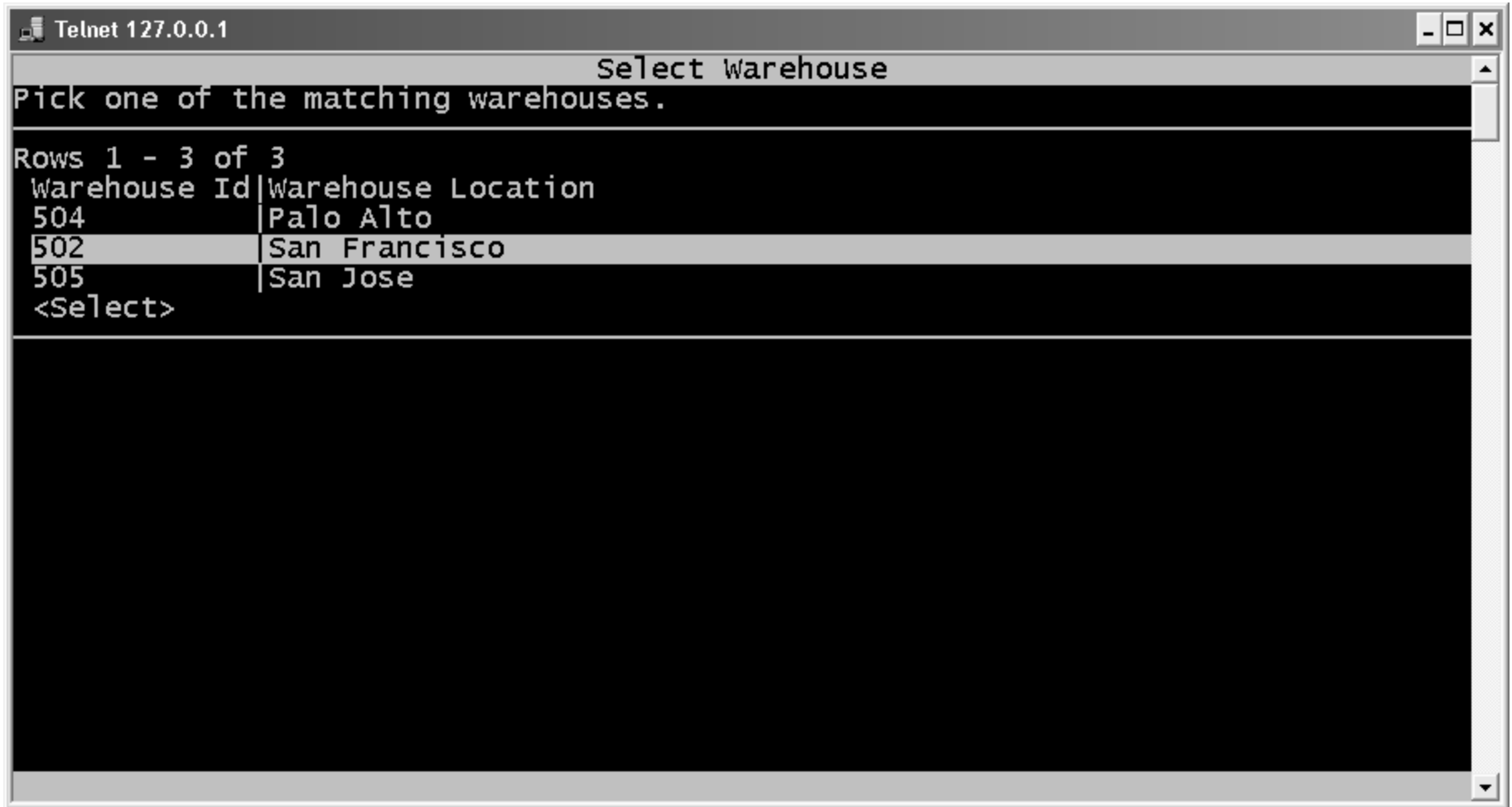
ADF Faces on Telnet Device



The screenshot shows a Telnet window titled "Telnet 127.0.0.1" with a sub-window titled "Locate Part". The application displays a form with the following fields and options:

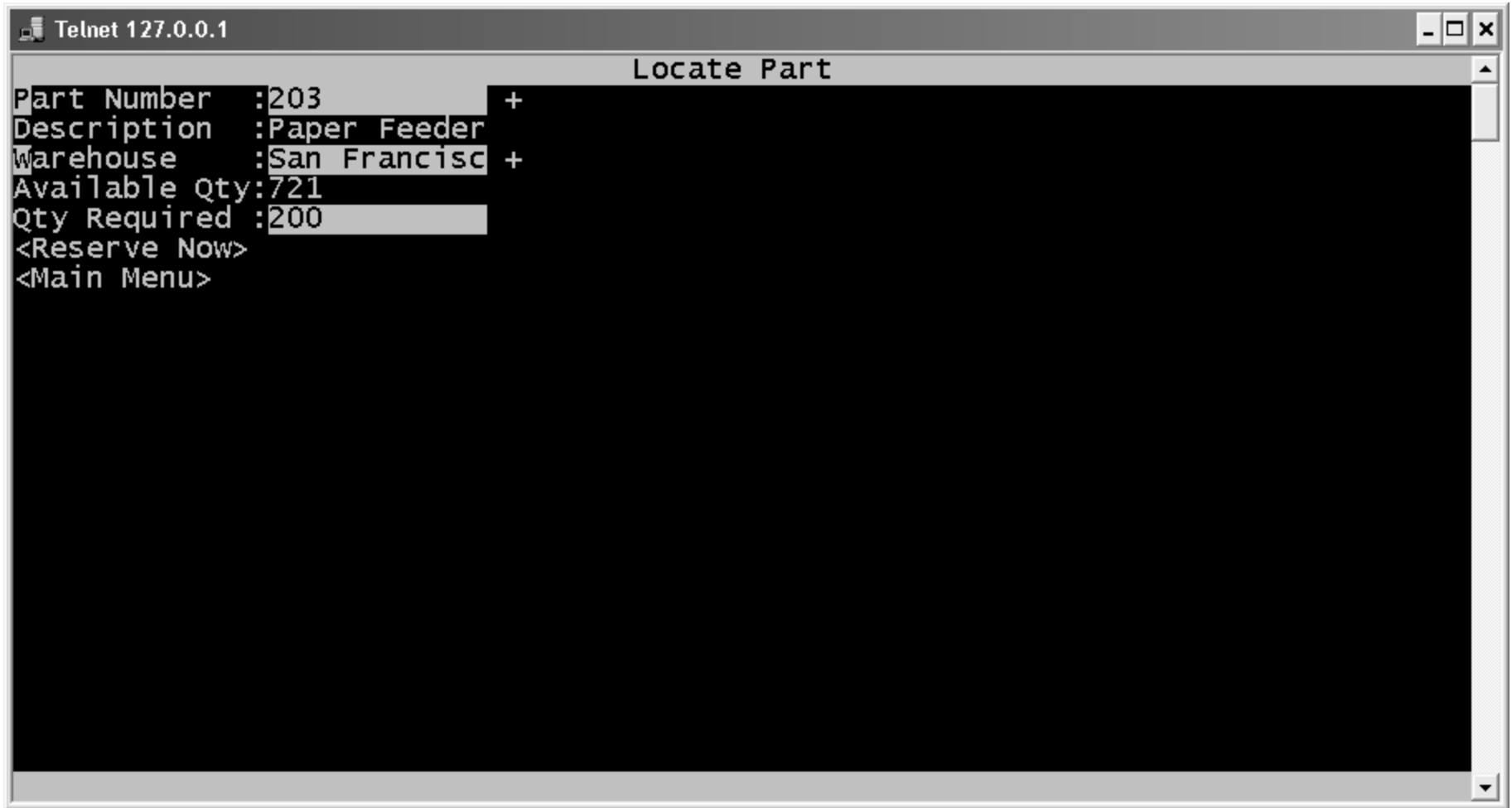
```
Part Number :203 +
Description :Paper Feeder
Warehouse : [redacted] +
Available Qty:
Qty Required : [redacted]
<Reserve Now>
<Main Menu>
```

ADF Faces on Telnet Device



```
Telnet 127.0.0.1
Select Warehouse
Pick one of the matching warehouses.
Rows 1 - 3 of 3
Warehouse Id|Warehouse Location
504          |Palo Alto
502          |San Francisco
505          |San Jose
<Select>
```

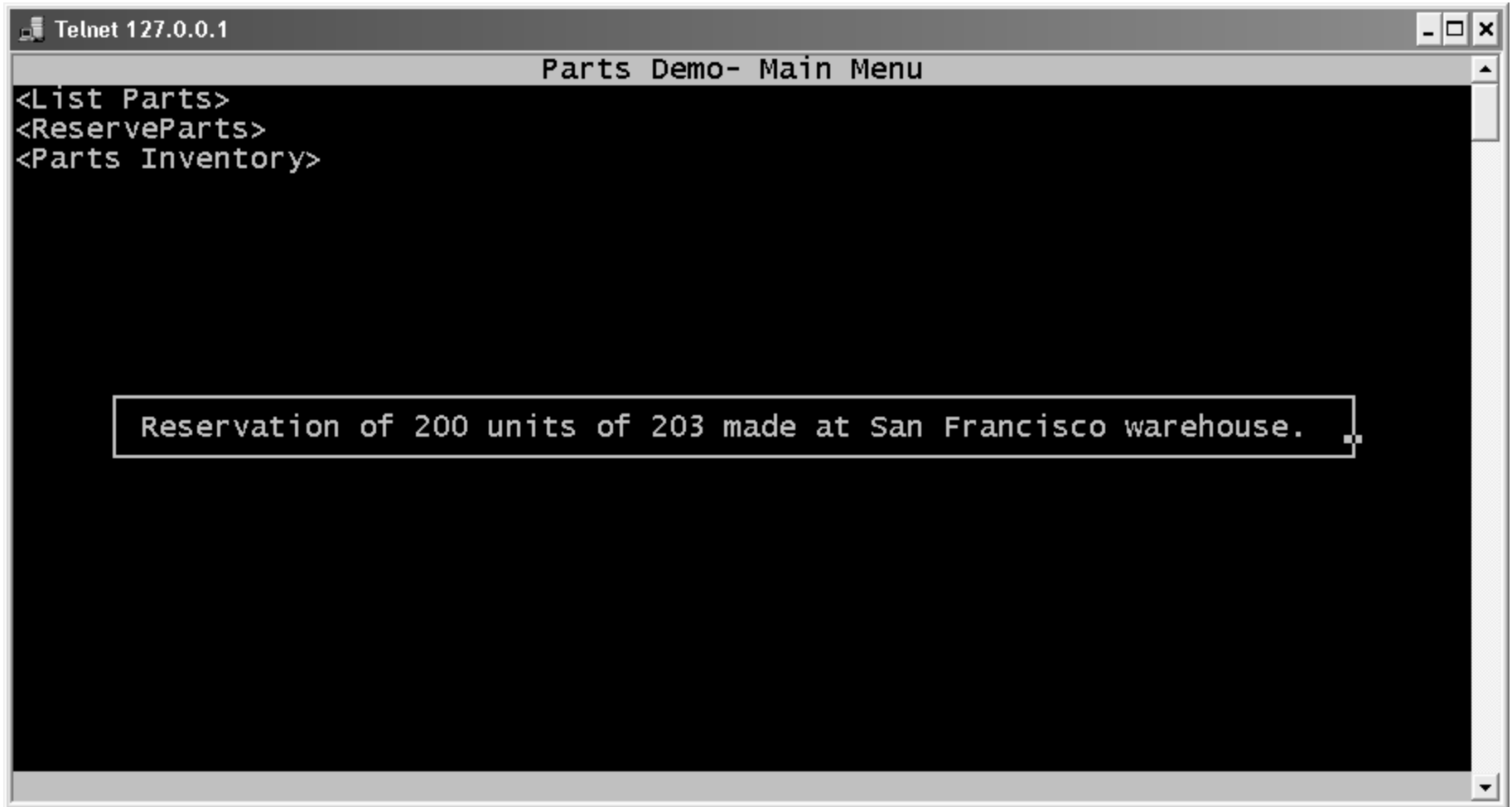
ADF Faces on Telnet Device



The screenshot shows a Telnet window titled "Telnet 127.0.0.1" with a standard window control bar. The application displayed is titled "Locate Part". The interface is a text-based menu with the following content:

```
Part Number :203 +
Description :Paper Feeder
Warehouse :San Francisc +
Available Qty:721
Qty Required :200
<Reserve Now>
<Main Menu>
```

ADF Faces on Telnet Device



The image shows a terminal window titled "Telnet 127.0.0.1" with a sub-header "Parts Demo- Main Menu". The terminal displays a menu with three options: "<List Parts>", "<ReserveParts>", and "<Parts Inventory>". Below the menu, a text box contains the message "Reservation of 200 units of 203 made at San Francisco warehouse." The terminal window has standard window controls (minimize, maximize, close) in the top right corner.

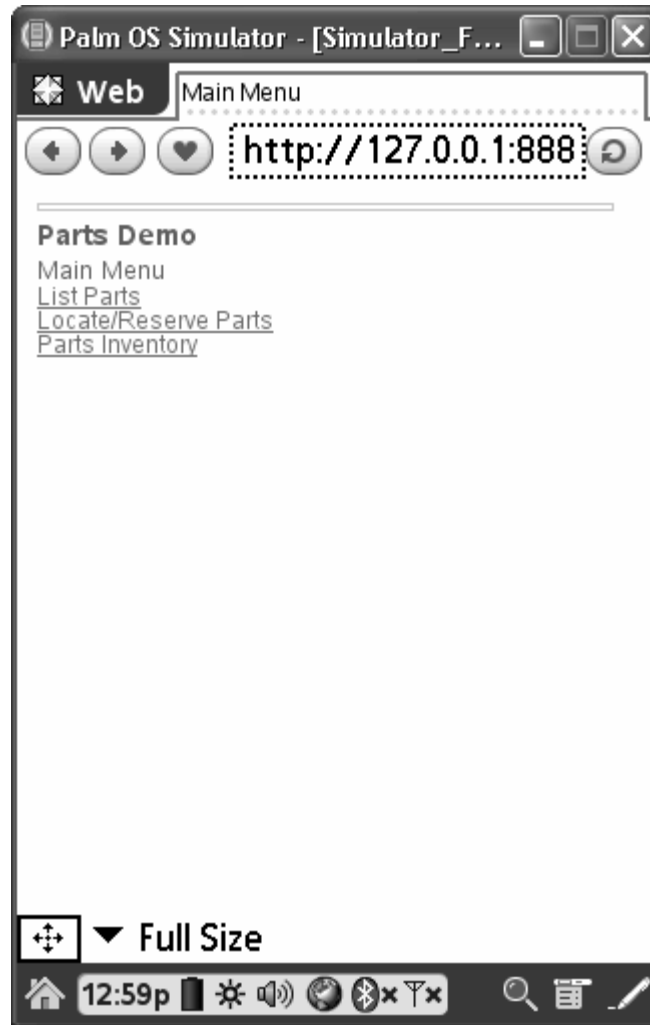
```
Telnet 127.0.0.1
Parts Demo- Main Menu
<List Parts>
<ReserveParts>
<Parts Inventory>

Reservation of 200 units of 203 made at San Francisco warehouse.
```

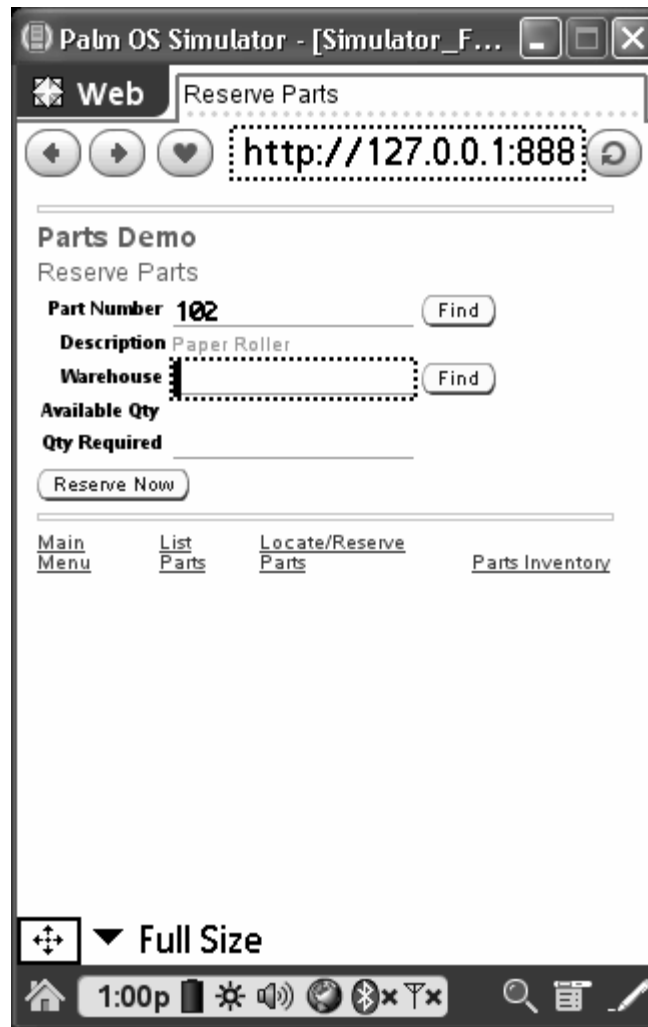
D E M O N S T R A T I O N

ADF Faces On a Palm Pilot

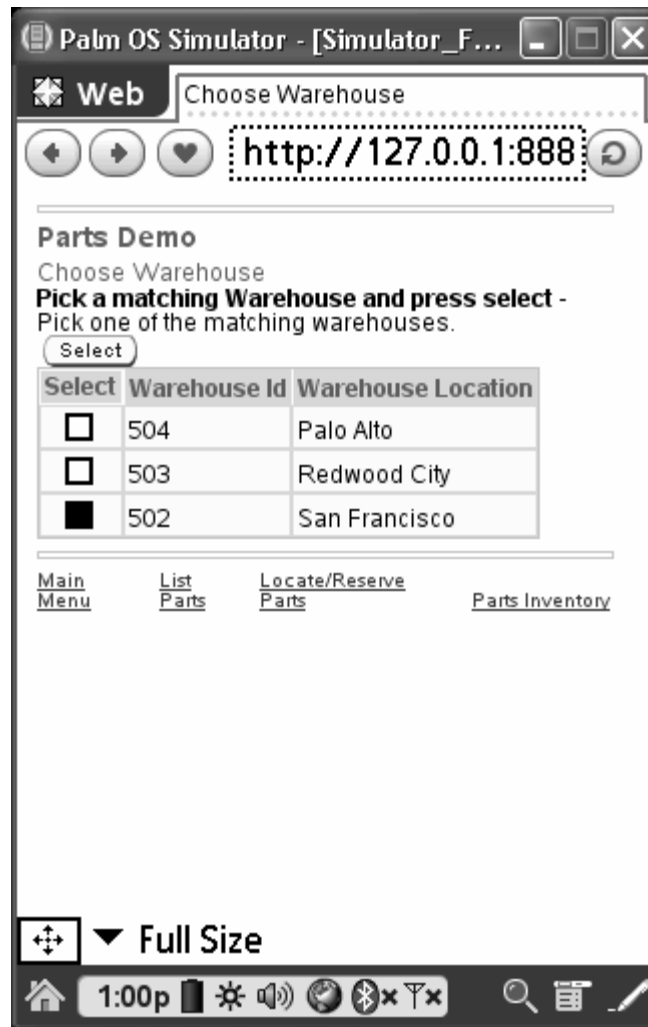
ADF Faces on Palm Pilot



ADF Faces on Palm Pilot



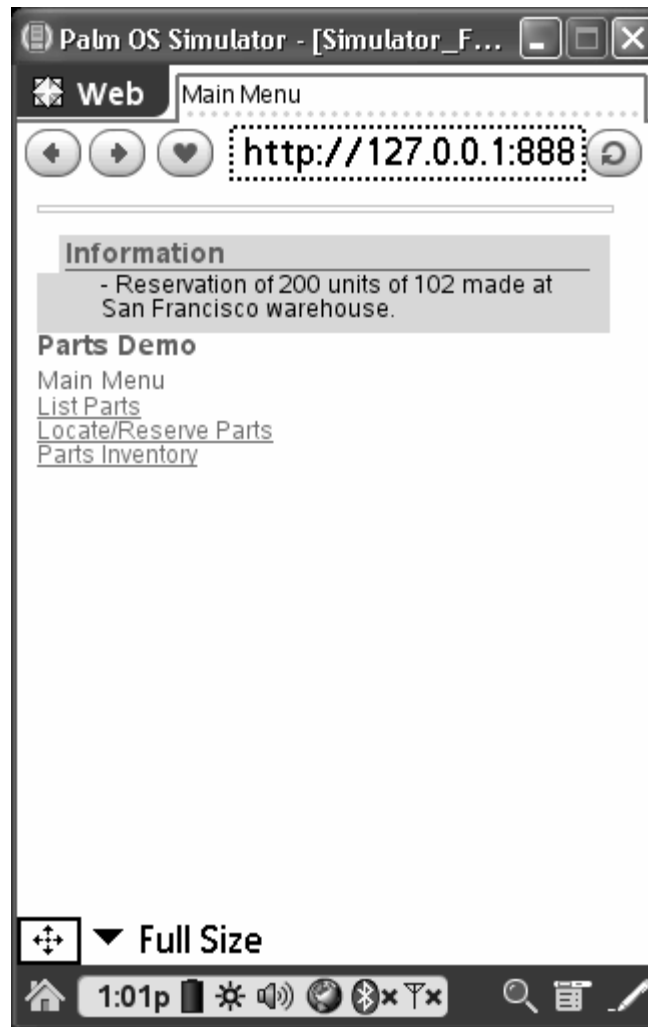
ADF Faces on Palm Pilot



ADF Faces on Palm Pilot



ADF Faces on Palm Pilot

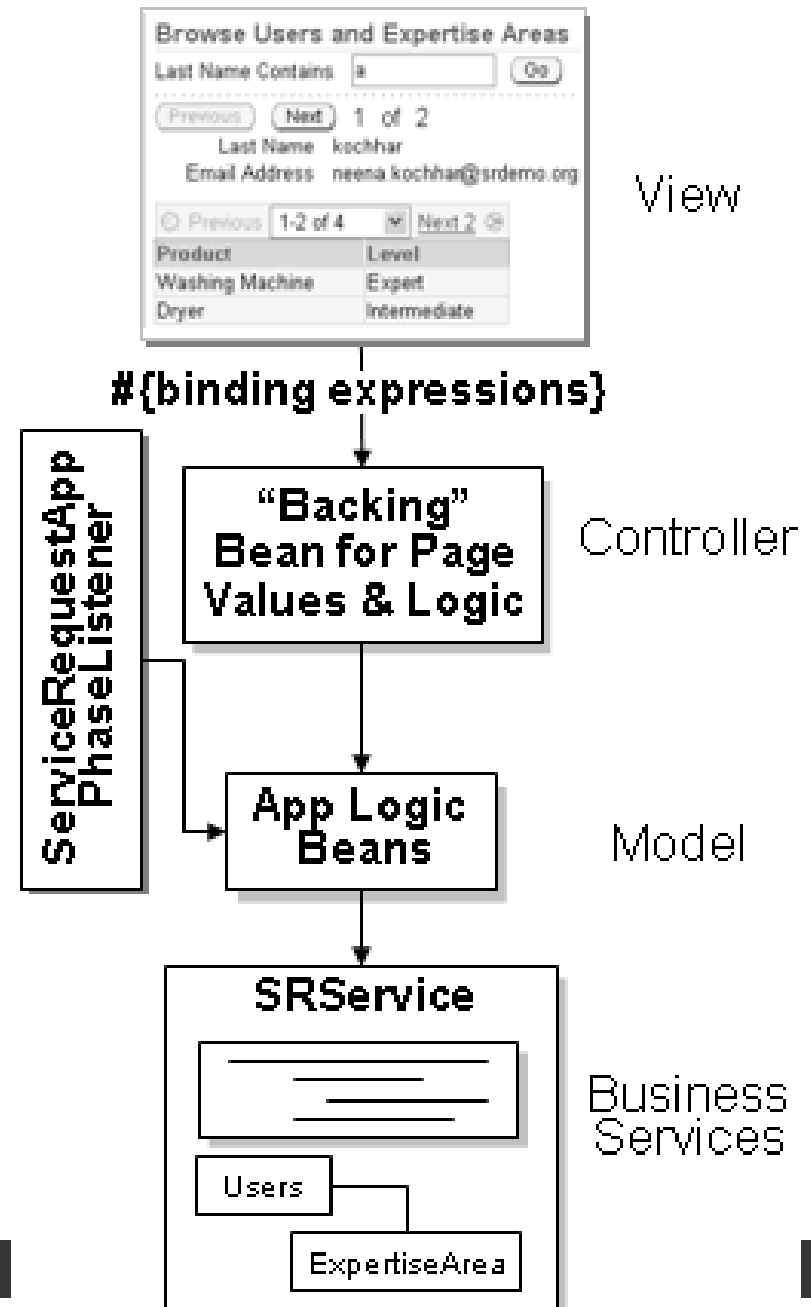


Oracle's Betting Big on JSF...

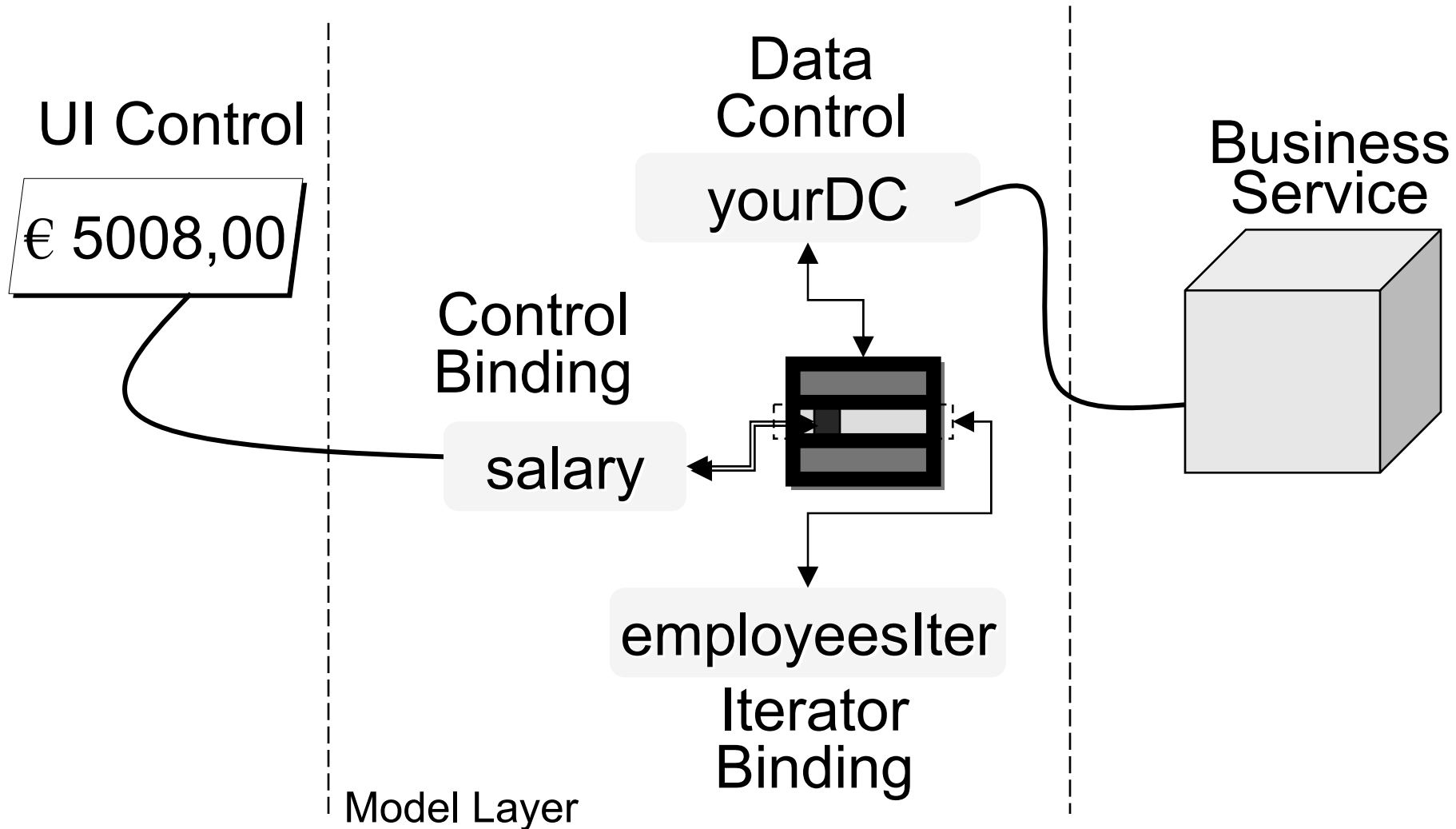
- ▶ Standards
- ▶ Tools
- ▶ Components
- ▼ Frameworks
 - Make Common Coding Tasks Declarative
 - Productivity for J2EE Gurus & Enterprise 4GL Dev's
- ▶ Community
- ▶ Enterprise Applications

Typical JSF Application

- Backing Bean
 - Page-Specific Logic
- App Logic Beans
 - App-Wide Logic
 - Service Delegates
- Phase Listener
 - Prepare Data for Presentation
- EL Expressions
 - The "Glue"



JSR 227: Bindings & Data Controls



Simple Service Example



Describe Service Interface with Standard Metadata Interfaces



Declarative, Visual Development of Data-Bound Pages

The image shows a screenshot of a web development IDE. The main window displays a page titled "Browse Users and Expertise Areas". The page contains a search form with a label `#{bindings.name.label}` and an input field `#{bindings.name.inputValue}`. Below the form are "Previous" and "Next" buttons, and a table with columns for product and expertise level. The table has a header row and three data rows, all using EL expressions for their content.

Overlaid on the right is the "Data Control Palette" window. It shows a tree structure for a service named "SRService". The tree includes methods like `findAllUsers()` and `findUsersByName(String)`, a "Parameters" folder with a `name` parameter, and a "User" object with properties `email`, `lastName`, `expertiseAreas`, `expertiseLevel`, and `product`. There are also "Operations" folders with methods like `addExpertiseArea(ExpertiseArea)`. A mouse cursor is pointing at the `expertiseAreas` property in the "User" object.

A black arrow points from the `expertiseAreas` property in the Data Control Palette to the `#{bindings.UserexpertiseAreas.labels.product}` expression in the table header of the main page.

At the bottom of the IDE, the breadcrumb path is visible: `<f:view> <afh.html> <afh:body> <h:form> <af:panelhorizontal> <af:commandbutton>`. The "Design" tab is selected.

D E M O N S T R A T I O N

Declarative Master / Detail Search Page

Master / Detail Search Form

The screenshot shows a Mozilla Firefox browser window titled "Browse Users - Mozilla Firefox". The address bar contains the URL "http://localhost:8989/MiniSRDemo/faces/browseusers.jsp". The main content area displays a search form titled "Browse Users and Expertise Areas". The form has a label "Last Name Contains" followed by a text input field containing the letter "a" and a "Go" button. Below the search form, there are navigation buttons for "Previous" and "Next", and a page indicator "1 of 2". The search results are displayed as a list of user details: "Last Name kochhar" and "Email Address neena.kochhar@srdemo.org". Below the list, there is a table with two columns: "Product" and "Level". The table contains two rows of data: "Washing Machine" with "Expert" level, and "Dryer" with "Intermediate" level. The browser's status bar at the bottom shows "Done".

File Edit View Go Bookmarks Tools Help

http://localhost:8989/MiniSRDemo/faces/browseusers.jsp

Browse Users and Expertise Areas

Last Name Contains

1 of 2

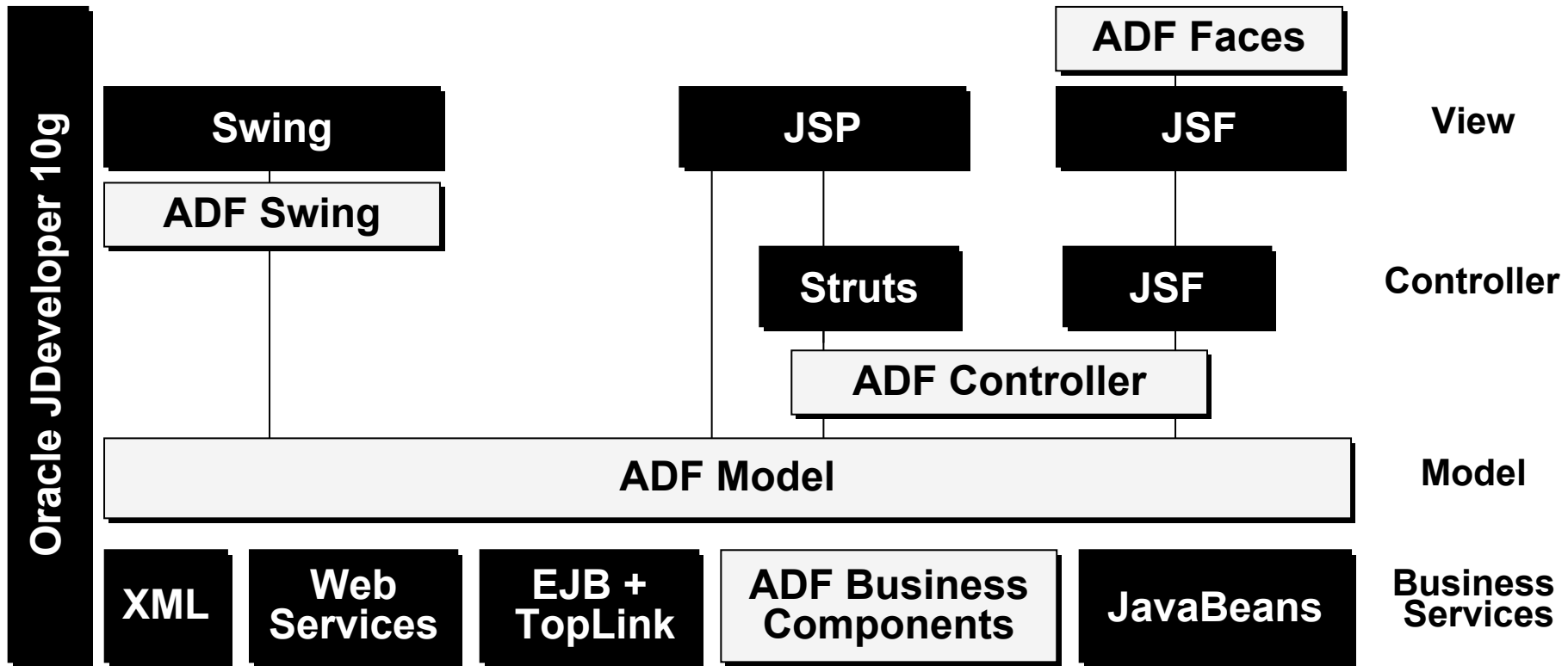
Last Name kochhar
Email Address neena.kochhar@srdemo.org

1-2 of 4

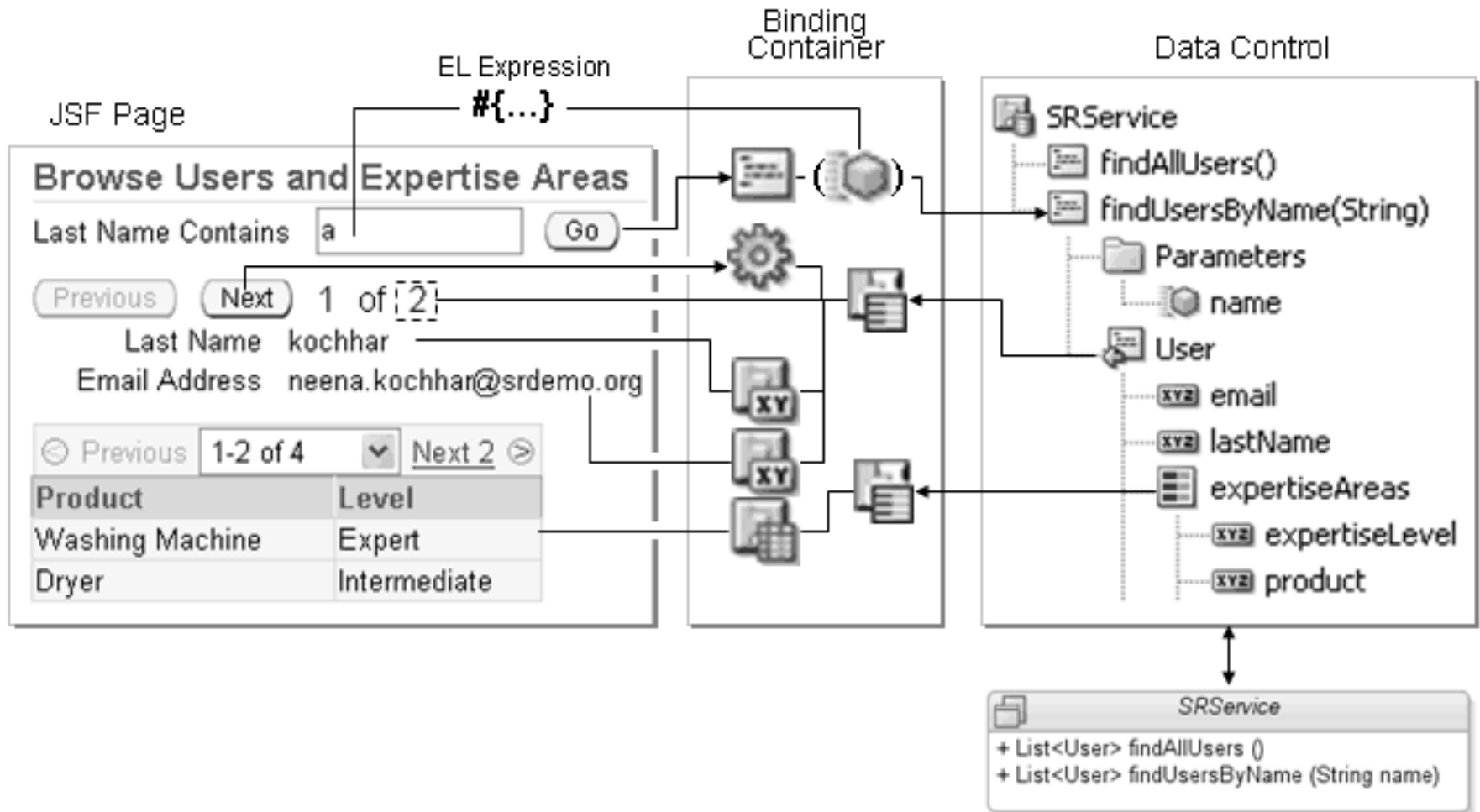
Product	Level
Washing Machine	Expert
Dryer	Intermediate

Done

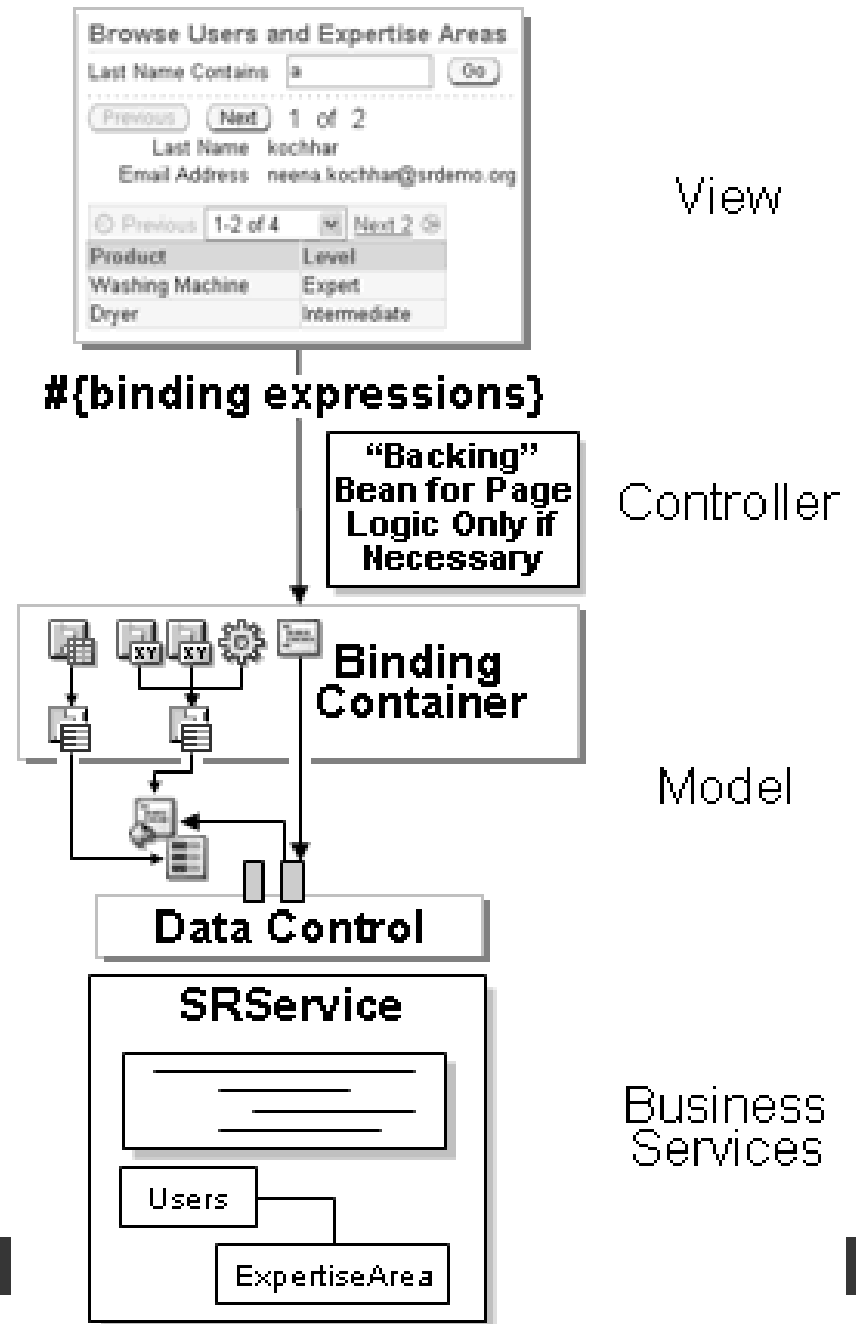
Overview of Oracle ADF



How Does it Work?



Using ADF Model Declarative Binding



Oracle ADF Benefits for JSF

- Additional Design Time Productivity
 - Drag and Drop Data Binding
- Support Multiple Data Sources
 - JavaBean, EJB+TopLink, Web Services, XML/CSV from URL, Business Components
- Current Selection Handling
 - Simplifies master-detail & “drill-down” scenarios
- Declarative Method Invocation
 - Call Any Service Methods, EL-valued Arguments

Oracle ADF Benefits for JSF

- Sorting
 - Makes it Declarative
- Centralized, Reusable UI Hints
 - Prompts, Tooltips, Format Masks
- Declarative Security
 - JAAS-Based Authorization Can Drive the UI
- Declarative Control Over Lifecycle
 - Refresh & RefreshCondition on Iterator, Action
- Centralized, Reusable Validation
 - Error messages in translatable resource bundles

Oracle ADF Benefits for JSF

- Hierarchical Binding
 - JSF is missing a tree model
- Row Keys
 - The JSF table model uses indices. So weird things could happen if your table has mutated (rows added/deleted) since you last accessed it.

D E M O N S T R A T I O N

Adding Centralized Prompts & Sorting

Oracle's Betting Big on JSF...

- ▶ Standards
- ▶ Tools
- ▶ Components
- ▶ Frameworks
- ▼ Community
 - Free Enterprise IDE, Open Source Components
 - Source Available for Productivity Frameworks
- ▶ Enterprise Applications

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Oracle JDeveloper is a free integrated development environment with end-to-end support for modeling, developing, debugging, optimizing, and deploying Java applications and Web services.

[Demos](#)[Download](#)[Tutorials](#)[Discussion](#)**Getting Started**

- [Oracle JDeveloper 10g Overview \(pdf\)](#)
- [Visual and Declarative \(demo\)](#)
- [Complete Life Cycle \(demo\)](#)
- [Tutorial - Building a Sample Application](#)

Downloads

- [Oracle JDeveloper 10g \(10.1.3\)](#)
- [Oracle ADF Faces](#)
- [Oracle JDeveloper Archive](#)

JDeveloper News XML

[PHP Extension for JDeveloper](#)
 Create, Edit and Run PHP in JDeveloper **13-Apr-2006**

[Service Update 2 for JDeveloper Available](#)
 Bug fixes available through Check-For-Updates
13-Apr-2006

[Quick Outline Navigator Extension for JDeveloper](#)
 Easily navigate your class structure **13-Apr-2006**

[Extended Colorizer for JDeveloper](#)
 Specific highlighting for methods, invocations, and variables **12-Apr-2006**

[New Visual Source Safe Extension for JDeveloper](#)
 Open source extension for MS VSS **11-Apr-2006**

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Oracle JDeveloper 10g

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Oracle ADF

The Oracle Application Development Framework takes your J2EE productivity to the next level
[Learn More Here](#)

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Oracle JDeveloper 10g Release 3 (10.1.3): Feature Matrix by Download

This document is intended as a tool to help you determine which JDeveloper download is right for you. Different developers have different needs, so we've created separate downloads of JDeveloper to allow you to get just the features you want. This is by no means an exhaustive feature list, instead it provides an overview of the types of features you can expect to find in each download.

Furthermore, each download edition is available with or without a J2SE 5.0 JDK for Windows platforms. If you already have a J2SE 5.0 JDK installed on your machine (or if you are using an operating system other than Windows) you can download one of the smaller, "base" versions from the download page.

	Java Download	J2EE Download	Studio Download
Extensible core IDE components (windowing environment, menu system, navigators, etc.)	⊗	⊗	⊗
Extension SDK (sample extensions, javadoc, documentation for extending JDeveloper)	☐	☐	☐
Java coding tools (refactoring, code navigation, editor features, class editor, etc.)	⊗	⊗	⊗
Java compiler/runner/debugger with J2SE 5.0 support	⊗	⊗	⊗
Source control (CVS)	⊗	⊗	⊗
Other Source Control Systems (ClearCase, Perforce, Dimensions)	☐	☐	☐

- PHP
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	Java Download	J2EE Download	Studio Download
Extensible core IDE components (windowing environment, menu system, navigators, etc.)	⊗	⊗	⊗
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Java compiler/runner/debugger with J2SE 5.0 support	⊗	⊗	⊗
Source control (CVS)	⊗	⊗	⊗
Other Source Control Systems (ClearCase, Perforce, Dimensions)	☐	☐	☐
Ant support	⊗	⊗	⊗
JUnit support	☐	☐	☐
Java tuning tools (profilers, audit/metrics, CodeCoach)	⊗	⊗	⊗
Java visual editor (for AWT and JFC/Swing UIs and menus)	⊗	⊗	⊗
XML development tools (visual schema editor, Oracle XDK, XML editor, etc.)	⊗	⊗	⊗
Embedded application server -- OC4J 10g Release 3 (10.1.3)		⊗	⊗
WYSIWYG editors for HTML, JSP, JSF, CSS		⊗	⊗
JSF and Struts development tools (visual page flow designers, Expression Language editor, etc.)		⊗	⊗
Struts source and javadoc documentation		☐	☐
J2EE 1.3/1.4 development and deployment tools		⊗	⊗

- PHP
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JSF and Struts development tools (visual page flow designers, Expression Language editor, etc.)		☒	☒
Struts source and javadoc documentation		☒	☒
J2EE 1.3/1.4 development and deployment tools		☒	☒
EJB 3.0 support		☒	☒
TopLink visual mapping tool		☒	☒
Web services development tools (creation and deployment wizards, TCP Packet Monitor, WS-I BP tester, etc.)		☒	☒
Database development (online/offline schema editing and design, SQL and PL/SQL support)		☒	☒
Visual modelers (Java Class, EJB, Database, Web services)		☒	☒
UML modelers (Class, Activity, Use Case, Sequence)		☒	☒
ADF Faces components			☒
ADF Swing			☒
ADF Business Components (ADF BC)			☒
ADF Model (drag and drop data binding, data controls)			☒
Visual Modeler for ADF BC			☒
Wireless development tools			☒
ADF Sample Application			☒

Application Sources
Web Content
WEB-INF
WEB-INF\lib
WEB-INF\temp\...
employeeSearch...

mjugadf
RichClient

faces-config.xml - Structure

Faces Config

Overview Source

Thumbnail

Diagram Overview Source History

Running: Embedded OC4J Server - Log

Messages Running: Embedded OC4J Server

Navigation Diagram

Check for Updates - Step 2 of 3: Updates

The following updates are available. Check the updates you want to install.

Available Updates: Show Upgrades Only

- Struts Documentation 10.1.3**
JavaDoc for Struts
From center: Official Oracle Extensions and Updates [Details](#)
- Subversion VCS Extension (EA1) 10.1.3.37.35**
Adds Subversion Version Configuration System integration to JDev... [Details](#)
From center: Official Oracle Extensions and Updates
- VCS Framework Extension 10.1.3.37.35**
Provides Versioning Framework Support [Details](#)
From center: Official Oracle Extensions and Updates

Select All Deselect All

Help < Back Next > Finish Cancel

Embedded OC4J Server started.

2006-04-24 07:03:47.789 WARNING The AdfFacesFilter has not been installed. ADF Fa

2006-04-24 07:03:47.799 WARNING The AdfFacesFilter has not been installed. ADF Fa

Navigation Diagram



The Apache MyFaces Project

http://myfaces.apache.org



Apache MyFaces
 News archive
 Download

MyFaces Projects
Overview
 API
 Impl
 Tomahawk
 Sandbox
 Tobago

Documentation
 Getting Started
 MyFaces and RI
 FAQ
 Javadoc
 Wiki
 Compatibility
 Tomcat Configuration

Project Documentation
About MyFaces Site
 Project Info

built by:

Welcome to the Apache MyFaces Project

This is the official homepage of the first free open source Java Server Faces implementation called "Apache MyFaces".

What is Java Server Faces (JSF)?

Java Server Faces is a new and upcoming web application framework that accomplishes the MVC paradigm. It is comparable to the well-known Struts Framework but has features and concepts that are beyond those of Struts - especially the component orientation.

Look at Sun's JSF Page to learn more about the Java Specification Request 127 and to download the specification. You can also find a useful Tutorial there!

Quickstart

- Make sure to have a look at our examples - you can find a working distribution here.
- Find instructions on installing them yourselves in our 'Getting Started' section. If you can't find information you need on these pages, make sure you also go to our WIKI

ADF Faces

ADF Faces refers to an open source code donation contributed by Oracle. The actual components are now licensed under the ASF license and can be used by the public. You can download the source for the components here. Please be aware that these components are subject to change (especially package and tag name changes) as the donation works its way through the incubation process and eventually merges with MyFaces.

ADF Faces comes with very high quality components, a dialog framework, as well as personalization and skinning capabilities. ADF Faces features include: file upload support, client-side validation, partial rendering of a page (AJAX-style), data tables, hierarchical tables, color/date pickers, progress indicators, menu tabs/buttons, wizards, internationalization and accessibility. A complete list of the ADF Faces components is available (here.) This project starts with more than 100 components which have already been documented and thoroughly tested.

ADF Faces is a temporary name for this project - what it will be called in the future is yet to be determined by the Apache

D E M O N S T R A T I O N

**Using ADF with
Off the Shelf
JSF AJAX
Components**

Oracle's Betting Big on JSF...

- ▶ Standards
- ▶ Components
- ▶ Tools
- ▶ Frameworks
- ▶ Community
- ▼ Enterprise Applications
 - 4000+ Internal Developers Building EBusiness Suite
 - Next-Generation Oracle Fusion Apps are JSF-Based

ADF Faces Rich Internet Apps

ORACLE BANK

Configure Home Sign In

Home > Buying > Loan Application

Search: Go

Home Loan Application

+ Search For Loans

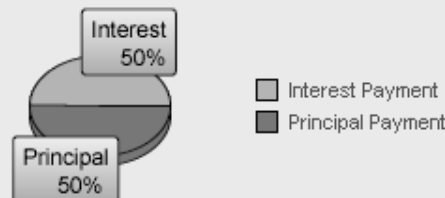
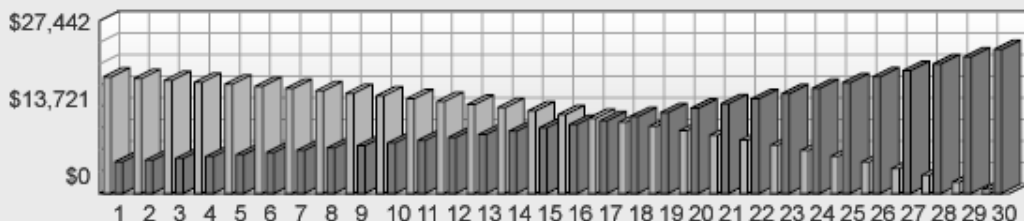
Purchase Price:

Down Payment:

- Select a Loan

Loan Selected: 30 year Fixed at 5.25%

Filter by Term	Term	Type	Interest Rate	One Fee	APR	Points	Best Monthly Payment	Worst Monthly Payment
Any term	30	Fixed	5.375	850	5.477		1,987.90	1,987.90
Filter by Type	30	Fixed	5.25	1,245	5.419	0.75	1,960.32	1,960.32
Any type	20	Fixed	5.25	745	5.386		2,392.15	2,392.15
Filter by Interest Rate	30	Fixed	5.125	1,445	5.362	1.5	1,932.93	1,932.93
Less than 5.4%	20	Fixed	5.125	1,145	5.353	0.75	2,367.43	2,367.43
Filter by Monthly Payment	20	Fixed	5	1,335	5.319	1.5	2,342.84	2,342.84
Between \$591 and \$2,405	30	Fixed	5	1,850	5.281	2	1,905.72	1,905.72
	20	Fixed	4.875	1,648	5.255	2	2,318.40	2,318.40



Monthly Payment: **\$1,960.32** Total Payment: **\$705,716.33** Interest: **\$350,716.33 (50%)** Principal: **\$355,000.00 (50%)**

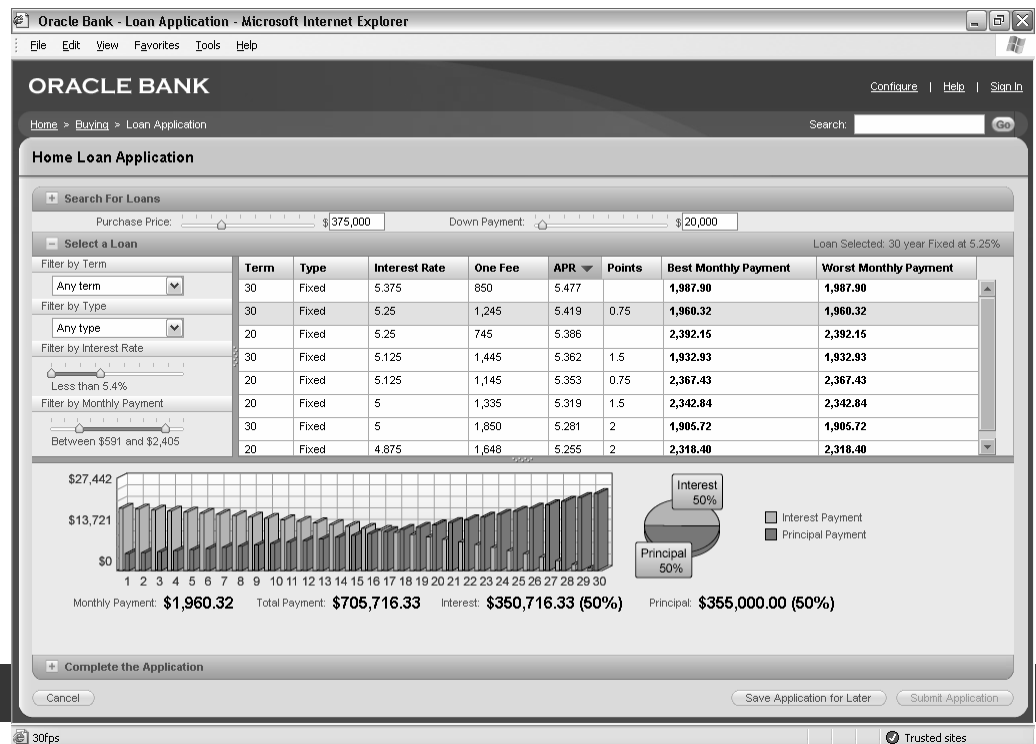
+ Complete the Application

ADF Faces – and RIA Architecture

- Client side
 - DHTML rendering
 - XMLHttpRequest communication channel
 - Abstract component model
 - Data cache
- Server side
 - JSP syntax
 - JavaServer Faces lifecycle integration

ADF Faces RIA

- Rich Internet JSF components
- Leveraging Additional “Ajax” technologies
- JSF components with live updates in the Browser
- Popup menus, Trees, Splitters etc...



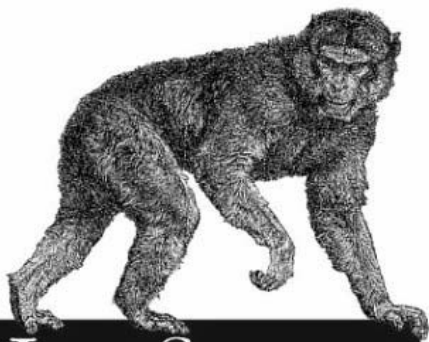
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ADF Faces Rich Client

JSF-Aware Tools

- Complete Tools Including Visual Editors
 - Oracle JDeveloper 10g 10.1.3
 - Sun Java Studio Creator
 - IBM WebSphere Application Developer 5.1.2
 - BEA Nitrox (Formerly from M7)
- Code-Focused Support
 - Borland JBuilder 2005
 - For Eclipse
 - MyEclipse
 - JSF Console by James Holmes
 - Exadel JSF Studio (Eclipse Addin)
 - Web Tools Project (Eventually...)

Building Web-based User Interfaces



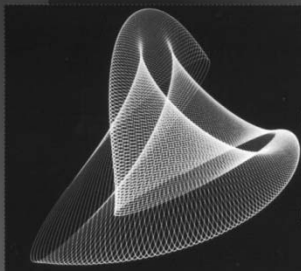
JavaServer Faces

O'REILLY*

Hans Bergsten

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JavaServer Faces Programming



- ▶ Use JavaServer Faces for the most rapid Java Web application development
- ▶ Understand event-driven programming and component trees
- ▶ Use standard GUI components and input validation controls

Budi Kurniawan

Author and Internet Programming Specialist

Code available from www.brainsoftware.com

McGraw-Hill Osborne



QUICK > CONCISE > PRACTICAL

JavaServer Faces

SAMS

KICK START

JavaServer Faces IN ACTION



Kito Mann

MANNING

core JAVA SERVER FACES



- Features the expertise of Expert Group Member David Geary and the unique insights of Cay Horstmann, the best-selling author of Core Java
- Explains exactly how to get things done with the JavaServer Faces 1.0 framework from the developer's point of view—practical workarounds, no punting
- Covers integration with Tiles, databases, wireless services, and more—with real working examples, no toy code



DAVID GEARY · CAY HORSTMANN

Java 2 Platform, Enterprise Edition Series

WILEY

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TIMELY. PRACTICAL. RELIABLE.

Mastering JavaServer Faces™

Bill Dudney
Jonathan Lehr
Bill Willis
LeRoy Mattingly
*Foreword by Ed Burns,
JSF Implementation Lead*



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Featured Listing

WebGalileo Faces

Updated: March 1, 2006

Free: no

Source available: yes

Version: 2.6

Open source: no

Publisher: JSCAPE

WebGalileo Faces is a set of highly customizable reusable user interface components that simplify the development of Java based web applications. With full support for the Sun JavaServer Faces specification and AJAX, WebGalileo Faces finally provides developers with the tools needed to easily capture and respond to UI events in the browser.

With the components in WebGalileo Faces, developers can concentrate their efforts on the business logic of an application instead of the details of managing client-side user interface elements. The components suite includes:

- ◆ Tabbed Panel
- ◆ Toolbar
- ◆ Menu
- ◆ Tree
- ◆ Table
- ◆ Pop up dialogs
- ◆ HTML Editor
- ◆ Calendar



Simplify
SOA

Click here
to download
Oracle ADF Faces
and Oracle
JDeveloper FREE

ORACLE FUSION
MIDDLEWARE

Summary:

Oracle's Betting Big on JSF...

▼ Standards

- Continued Strong Participation in JSF and Other J2EE Standards

▼ Tools

- Free JDeveloper 10.1.3 on OTN
- Java, J2EE, and Studio Editions

▼ Components

- ADF Faces ships with JDeveloper 10.1.3 on OTN
(or download separately from myfaces.apache.org)

▼ Frameworks

- ADF Available as Part of Oracle Application Server
- Source Code Available from Oracle Worldwide Support

▼ Community

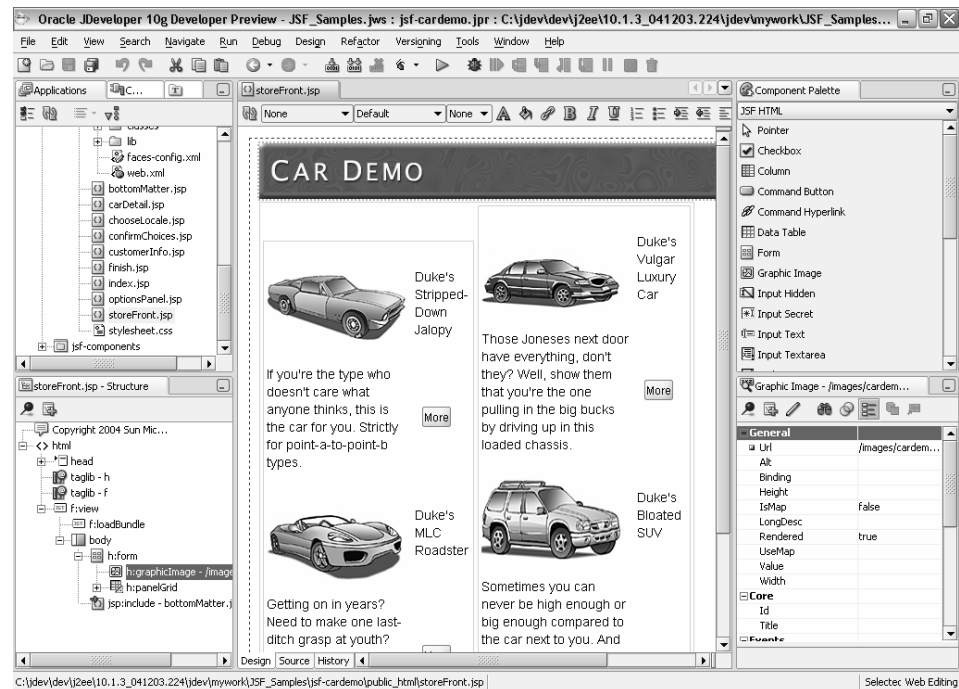
- <http://otn.oracle.com> (blogs, articles, software, discussion forum)

▶ Enterprise Applications

- Oracle Fusion Applications are Based on JSF + ADF

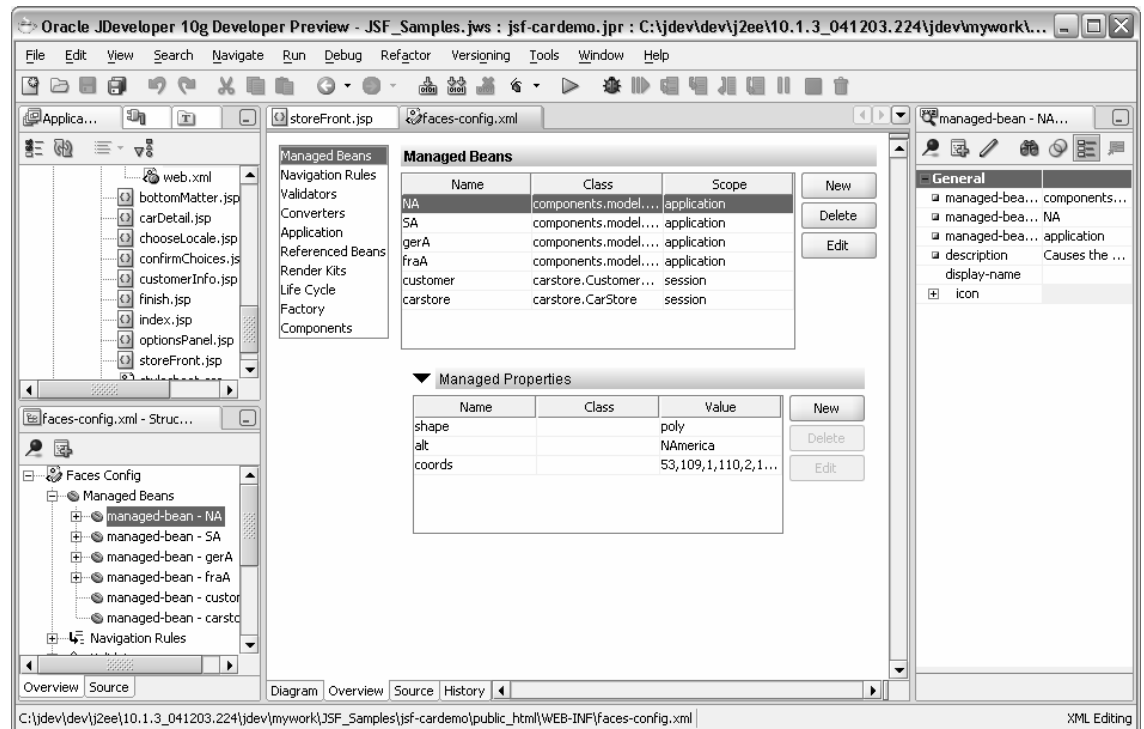
JSF and JDeveloper 10.1.3

- JSF Visual Editing
 - JSF UI Component visual editing
 - Provides backend code generation (double-click)
 - Mobile WYSIWYG



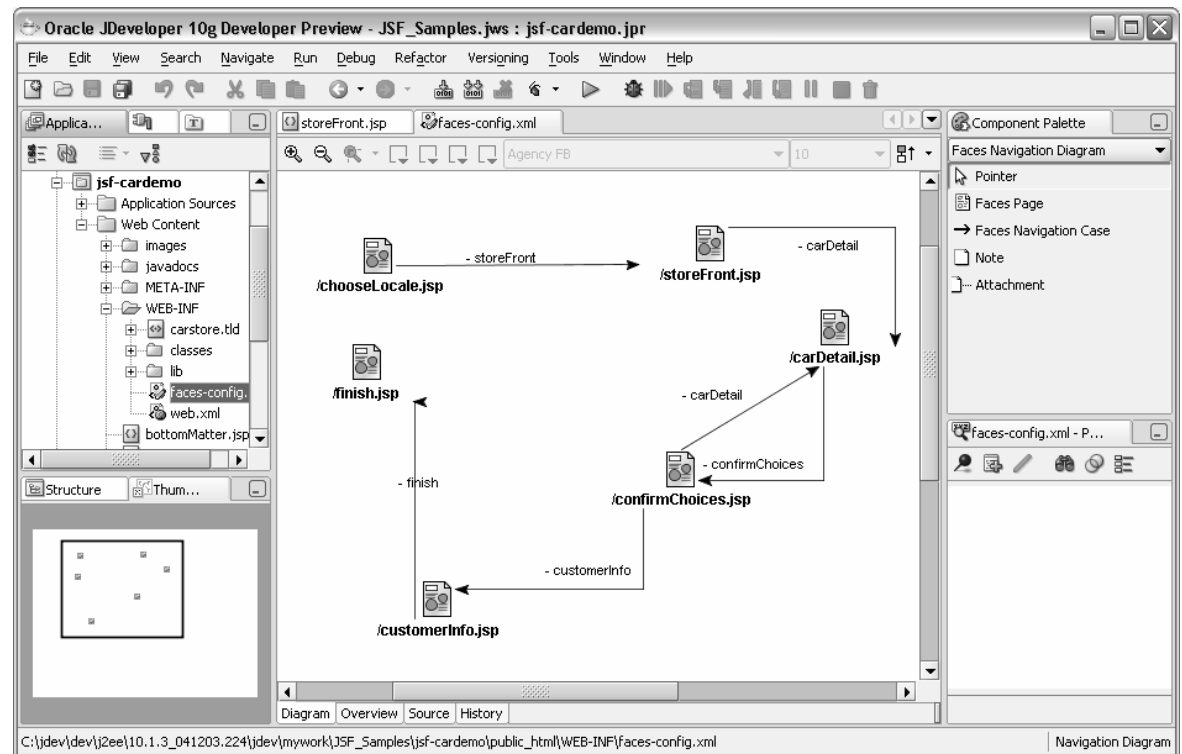
JSF and JDeveloper 10.1.3

- Faces Config Editing Console
 - Console for productive editing of faces-config.xml



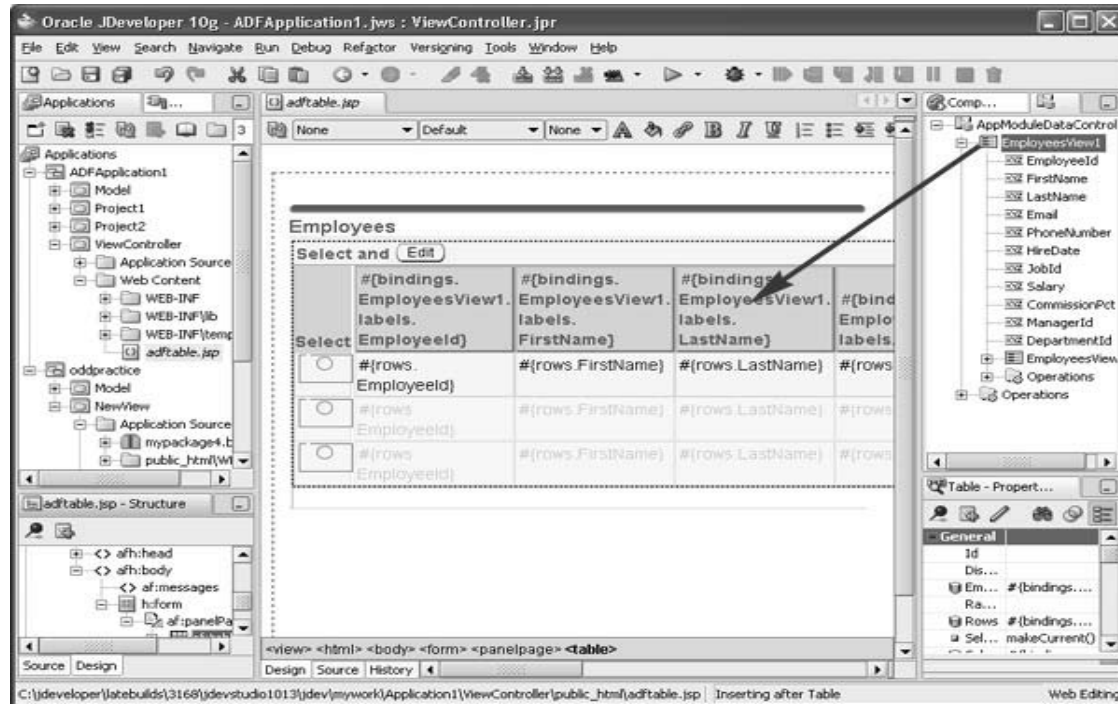
JSF and JDeveloper 10.1.3

- JSF Page Flow
 - Visually design Faces navigation model



JSF and JDeveloper 10.1.3

- Declarative Data Binding – JSR 227
 - Drag and drop data binding support



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Debugging with a Sequence Diagram

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Quick Example of JSF for Enterprise 4GL Developers

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SRDemo Sample Application

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