



Developing Rich Internet Applications with JBoss RichFaces

Max Katz

Exadel, Inc

Senior System Engineer

February 15th, 2008

What's the Plan

1) JSF

2) JBoss RichFaces

3) JBoss Seam, JBoss Developer Studio

4) Example

5) Exadel Flamingo

What Is JSF?

Open source, server-side **user interface component** framework for Java-based web applications

User interface is created out of **UI components**

The **standard** technology for building Web applications in a Java EE 5 stack

1

Development

Facelets

Page

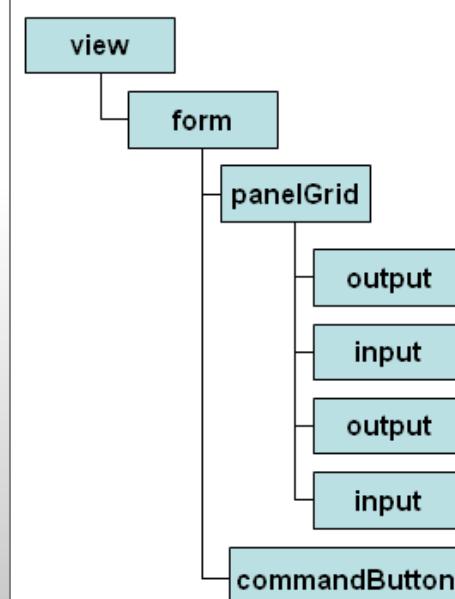
```

<h:panelGrid columns="2">
  <h:outputText value="#{msg.emailLabel}" />
  <h:inputText value="#{login.email}" />
  <h:outputText value="#{msg.passwordLabel}" />
  <h:inputText value="#{login.password}" />
</h:panelGrid>
<h:commandButton action="#{login.check}"
                  value="#{msg.btnLabel}" />
</h:form>

```

2

JSF Component Tree

**3**

Output

HTML

```

<table border="1">
<tr>
<td>Email:</td>
<td><input type="text" name="_id0:_id3" /></td>
</tr>
<tr>
<td>Password:</td>
<td><input type="password" name="_id0:_id5" value="" /></td>
</tr>
</tbody>
</table>

```

Browser

Email:	<input type="text"/>
Password:	<input type="password"/>
<input type="button" value="Sign In"/>	

Web Applications Today Are Not Interactive



Image source: FreeDigitalPhotos.net



Image source: FreeDigitalPhotos.net

Rich Internet Applications

Internet Applications

(low-cost delivery)

+

Rich User Experience

(desktop-like)

=

Rich Internet Applications

Rich Internet Applications with AJAX

AJAX — technique for building browser-based RIA applications

Richer, faster, and more
interactive

Basic Idea:

Update only part of a page



The Challenge

AJAX (JavaScript, DHTML, XML, XMLHttpRequest, DOM) development is
challenging

Up to 80% is spent on **battling** browser
incompatibilities

And, finally, manual AJAX development **doesn't fit** the JSF
component model

JBoss RichFaces

70+ out-of-the-box rich JSF components

Components with built-in AJAX support

Add AJAX support to any standard JSF components

Skinability (themes)



	California	Sacramento	GMT-8
	Colorado	Denver	GMT-7
	Connecticut	Hartford	GMT-5

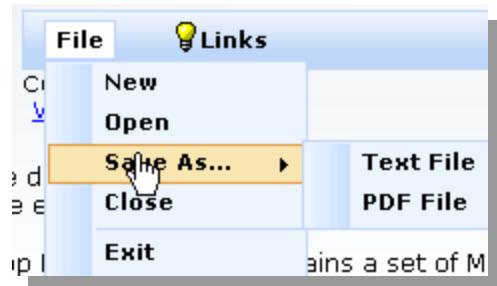
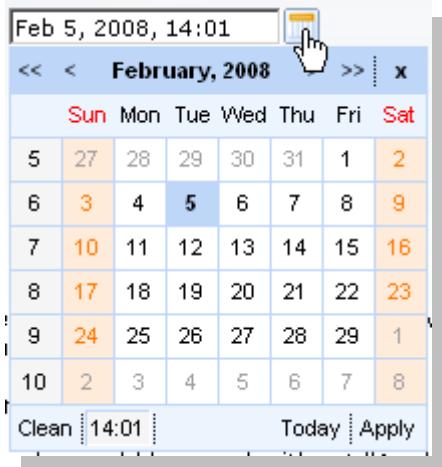


Group 1

- # Item 1.1
- # Item 1.2
- # Item 1.3

Group 2

Group 3



VIN	Stock
GFRTVGRHSEYUMO	UARNCC
IIZPSIAMQBKFUD	CJKHVM
MAODEUVBWMJKSAY	IHOWLJZ
SBXFTILLQDQPAM	QSWEDCR
VICUQRMRHPAJCI	OIYAUWZ
QMAIPRVPSPDOLYMQ	QAMM.IF

Available Items

- Open
- Save
- Save All
- Delete

Currently Active Items

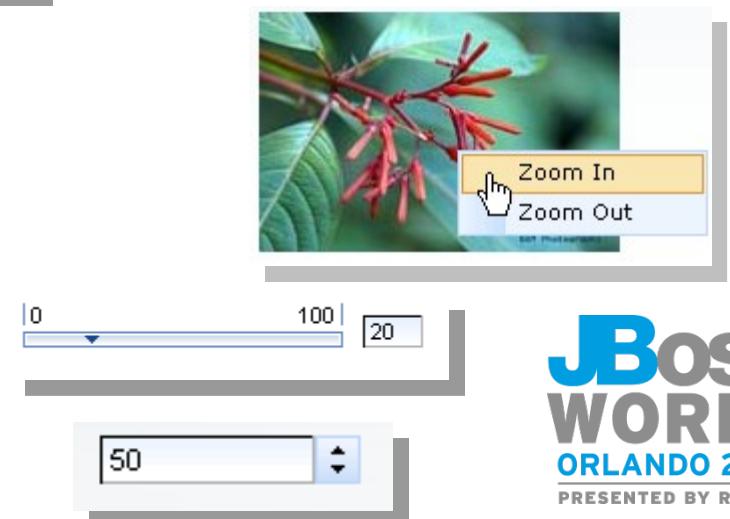
- Create Folder
- Create Doc**
- Find

Navigation

- First
- Up
- Down
- Last

File Actions

- Copy all
- Copy
- Remove
- Remove All



RichFaces and JBoss Seam

Greatly simplifies UI development with JSF

No more managed beans

Annotations – no more tedious XML configuration

Bijection

“Inject” a value from a context

“Outject” a value to its context variable

Conversation scope

Simplified RESTfull development

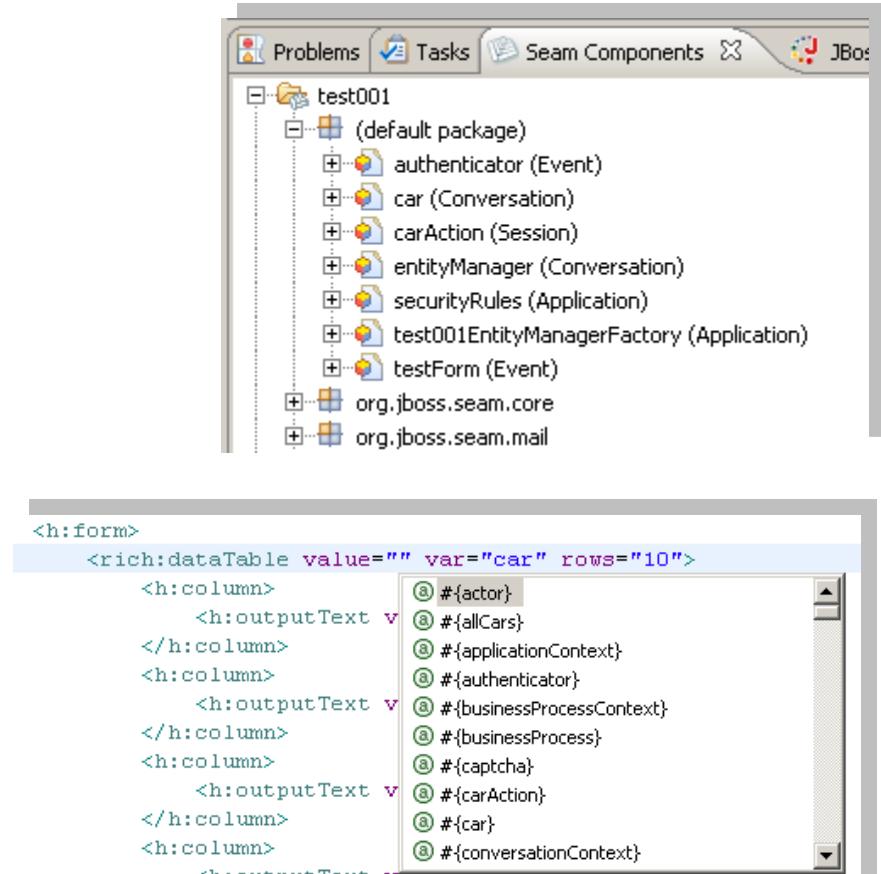
JBoss Developer Studio

Lots of visual and source tools for JSF, RichFaces, and Seam

Numerous wizards and drag-and-drop functionality

Code assist for Seam components

Seam Components view



Example

Let's now build an example.

JBoss Seam and Adobe Flex

Today Seam is designed to work with JSF to deliver purely browser-based RIA applications

The browser alone has its limitations

Organizations today are increasingly using Adobe Flex to build RIA applications

Flex applications run inside the Flash virtual player (installed as a browser plug-in) and enable much richer applications

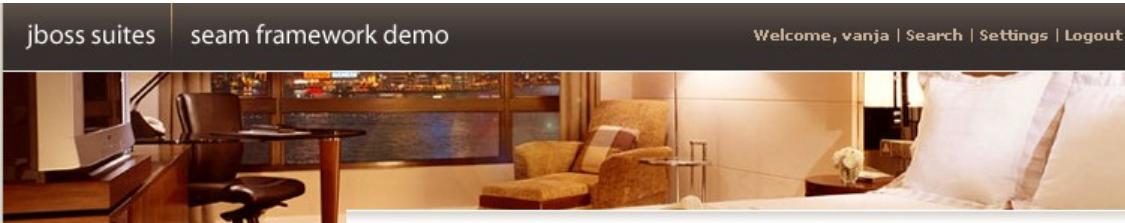
The problem: no simple way today to use Seam and Flex together

Exadel Flamingo

Flamingo makes building Flash/Flex RIA applications with Seam as easy as with JSF

Flamingo is the glue needed to get Flex and Seam working together seamlessly

→<http://flamingo.exadel.com>



The screenshot shows a web application interface. At the top, there is a navigation bar with links for 'jboss suites', 'seam framework demo', 'Welcome, vanja', 'Search', 'Settings', and 'Logout'. Below the navigation bar is a large image of a modern hotel room with a large window overlooking a city skyline at night. To the left of the image, there is a sidebar with the heading 'State management in Seam' and a detailed description of how Seam's contextual state management works. To the right of the image, there is a search form titled 'Search Hotels' with a text input containing 'marriot' and a 'Find Hotels' button. Below the search form is a dropdown menu for 'Maximum results' set to '10'. A table then displays search results for Marriott hotels, showing four entries: 'Marriott Courtyard' in Atlanta, GA, USA; 'Marriot Downtown' in San Francisco, CA, USA; and two other entries that are partially visible. Each hotel entry includes a 'View Hotel' link.

Name	Address	City, State	Zip	Action
Marriott Courtyard	Tower Place, Buckhead	Atlanta, GA, USA	30305	View Hotel
Marriot Downtown	55 Fourth Street	San Francisco, CA, USA	94103	View Hotel

What We Covered

→ JSF

→ JBoss RichFaces

→ JBoss Seam

→ JBoss Developer Studio

→ Exadel Flamingo

Exadel Services

**Professional Services
with an Offshore Option**

Eclipse Development

**Development Boost /
Architecture Review**

**JSF, RichFaces Training
& Mentoring**

**Custom Rich JSF
Component Development**

Presentation Tier
JSF/RichFaces, Seam, Flex,
JSP

Business-Service Tier
Spring, Seam, jBPM,
JBoss Rules (Drools)

Data Access Tier
Hibernate, JPA, EJB3, Seam,
Spring

Web Sites

RichFaces Components Demo

<http://livedemo.exadel.com/richfaces-demo>

RichFaces Project Page

<http://labs.jboss.com/jbosstrichfaces>

JBoss Seam Project Page

<http://labs.jboss.com/jbosssseam>

JBoss Developer Studio

<http://labs.jboss.com/rhdevstudio>

Exadel Flamingo

<http://flamingo.exadel.com>

Thank You!

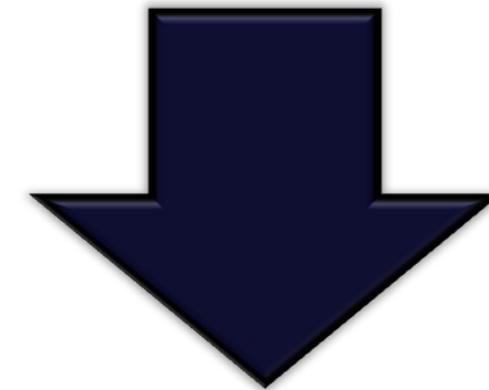
To learn more,
please contact me:

mkatz@exadel.com

925-602-5556

mkblog.exadel.com

www.exadel.com



Questions?

