

Javeline Platform

Introduction

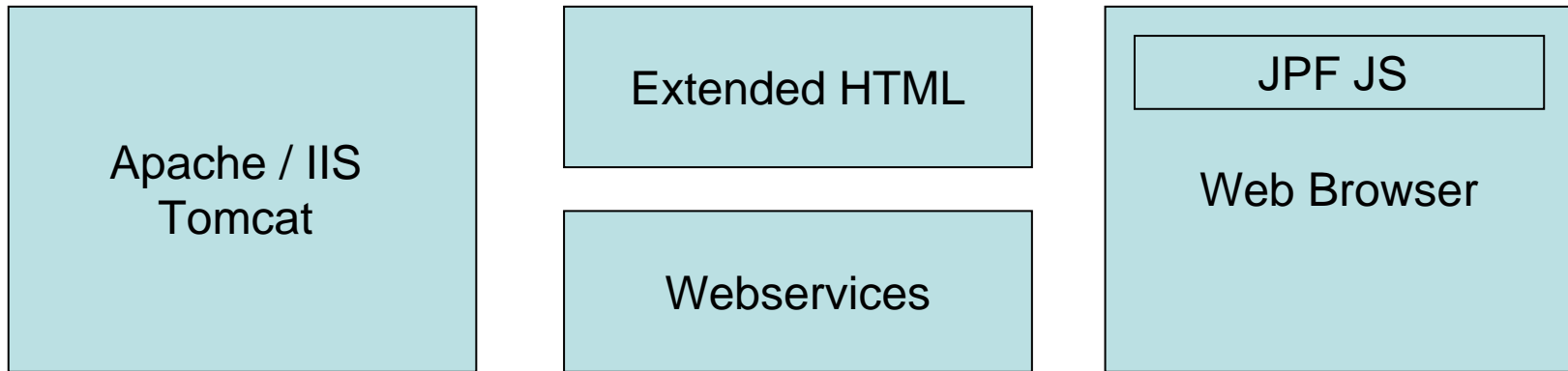
Javeline PlatForm

- *Javascript AJAX framework*
- *LGPL Licensed*
- *Backend agnostic*

Introduction

- *Ruben Daniels Javeline Platform
Ajax / Javascript / CSS*
- *Rik Arends, Javeline Components
C++ / Human languages*
- *Mike de Boer
Community Lead*

Javeline Platform



- Normal Backend
- Markup driven, Javascript UI

Environment

- JPF has no server-side
- JPF Markup Relatives:
 - XForms, Xaml, XUL, MXML/Flex
- JPF Complements
 - JQuery, Scriptaculous animation

Reasons to stay awake

- The architecture can save a lot of work and time
- Can integrate cleanly with java backend
- Models align with industry direction
- Feedback
- Will selectively quiz audience members

Key Values

- Optimization, speed and optimization
- Markup driven
- Use code for custom behavior
- Clear domain separation

Real world

- JPF used and refined in all projects
 - eBuddy client, Vonage, SDU NBD
- Optimizations are paramount
 - Tools do not remove need for being a good software developer or architect.
 - Ajax Fast, optimized data access
 - Compress on server, minimize http roundtrips

User experience

- **Minimum server processing**
 - Fast Ajax calls, Fast static files
- **Minimum communication**
 - Packed, gzipped, Ajax data insertion
- **Minimum browser processing**
 - Optimized JS, minimum DOM operations, clean HTML / CSS

Developer experience

- **Rapid Development**
 - Sane Markup, Custom behavior script
 - Browser hassle free
 - Simple backend integration
- **Rapid Adaptation**
 - Skinning, separation of concerns
 - Localization
- **Solid maintainability**
 - Long term updates /changes maintain structure

JPF Workshop

- File layout / Markup
- Skinning
- Bindings
- Client-server communication
- State management
- Templating
- Case study: NBD

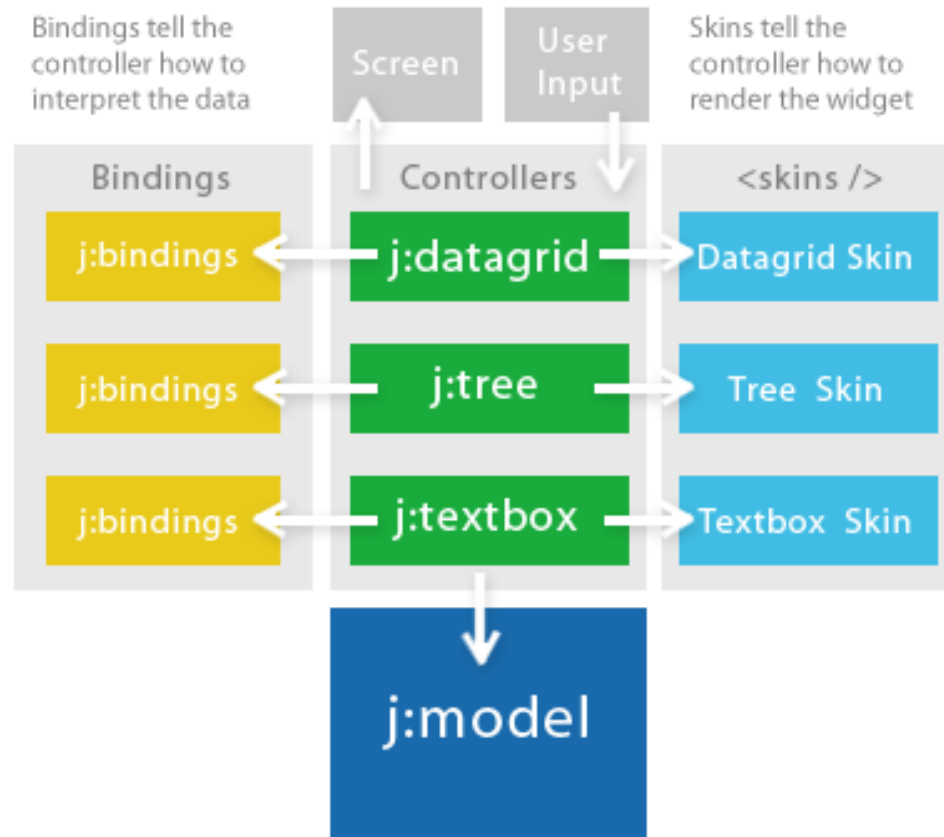
File layout / Markup

```
1 <!DOCTYPE html PUBLIC
2   "-//W3C//DTD XHTML 1.0 Transitional//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
4 <html
5   xmlns:j="http://www.javeline.com/2005/Platform"
6   xmlns="http://www.w3.org/1999/xhtml">
7   <head>
8     <title>My First Javeline App</title>
9
10    <script src="jpf_debug.js"></script>
11  </head>
12  <body>
13    <j:settings debug="true" debug-teleport="false" />
14
15    <j:loader>
16      <div>Loading...</div>
17    </j:loader>
18
19    <j:button onclick="alert('World')">Hello</j:button>
20  </body>
21 </html>
```

Skinning

```
1 <!DOCTYPE html PUBLIC
2   "-//W3C//DTD XHTML 1.0 Transitional//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
4 <html
5   xmlns:j="http://www.javeline.com/2005/Platform"
6   xmlns="http://www.w3.org/1999/xhtml">
7   <head>
8     <title>Skinning</title>
9
10    <script src="jpf_debug.js"></script>
11  </head>
12  <body>
13    <j:include src="skins.xml" name="win" />
14
15    <j:button>Hello</j:button>
16    <j:button skin="win:other">Hello</j:button>
17  </body>
18 </html>
```

What are Bindings?



The data from the server

```
<contacts>
  <folder name="Friends">
    <person>Richard</person>
    <person>Dariusz</person>
    <person>Patrick</person>
  </folder>
  <folder name="Family">
    <person>Arnold</person>
    <person>Nancy</person>
    <person>Willy</person>
  </folder>
  <folder name="Business Contacts">
    <person>Rik</person>
    <person>Mike</person>
  </folder>
</contacts>
```

Setting up Bindings

```
1 <!DOCTYPE html PUBLIC
2   "-//W3C//DTD XHTML 1.0 Transitional//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
4 <html
5   xmlns:j="http://www.javeline.com/2005/Platform"
6   xmlns="http://www.w3.org/1999/xhtml">
7   <head>
8     <title>Skinning</title>
9
10    <script src="jpf_debug.js"></script>
11  </head>
12  <body>
13    <j:include src="skins.xml" />
14
15    <j:tree width="200" height="300" model="url:contacts.xml">
16      <j:bindings>
17        <j:icon select="self::folder" value="icoFolder.gif" />
18        <j:icon select="self::person" value="icoContact.gif" />
19        <j:caption select="@name" />
20        <j:caption select="text()" />
21        <j:traverse select="contacts|folder|person" />
22      </j:bindings>
23    </j:tree>
24  </body>
25 </html>
```

Client-server communication

```
1 <!DOCTYPE html PUBLIC
2   "-//W3C//DTD XHTML 1.0 Transitional//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
4 <html
5   xmlns:j="http://www.javeline.com/2005/Platform"
6   xmlns="http://www.w3.org/1999/xhtml">
7   <head>
8     <title>Skinning</title>
9
10    <script src="jpf_debug.js"></script>
11  </head>
12  <body>
13    <j:model load="url:getData.jsp" />
14
15    <j:teleport>
16      <j:rpc id="comm" protocol="XMLRPC">
17        <j:method name="setData" receive="processData">
18          <j:variable name="id" />
19          <j:variable name="data" />
20        </j:method>
21      </j:rpc>
22    </j:teleport>
23
24    <j:button onclick="comm.setData(1, 'test');">Test</j:button>
25  </body>
26 </html>
```

State management

```
1 <!DOCTYPE html PUBLIC
2   "-//W3C//DTD XHTML 1.0 Transitional//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
4 <html
5   xmlns:j="http://www.javeline.com/2005/Platform"
6   xmlns="http://www.w3.org/1999/xhtml">
7   <head>
8     <title>Skinning</title>
9
10    <script src="jpf_debug.js"></script>
11  </head>
12  <body>
13    <j:include src="skins.xml" />
14
15    <j:label value="{ 'De waarde is ' + slTest.value}" />
16    <j:slider id="slTest" width="300"/>
17  </body>
18 </html>
```

Templating

- Ajax and HTML templating:
 - Markup should not be a Turing machine, it's a static projection.
 - In JPF we have JSLT, XSLT with JS code flow

JSLT Fragment:

```
<div>Items: [%count('item')]</div>
[foreach('item') {
  <span>{text()}</span>
}]
```

XSLT Fragment:

```
<div>Items: <xsl:value-of select='count(item)'/></div>
<xsl:for-each select='item'>
  <span><xsl:value-of select='text()'/></span>
</xsl:for-each>
```

Case: NBD Online 2.0

- **Optimized**
 - Server side compression, file packing
 - 100kb JavaScript / 25kb xml
 - Ajax in lining on load
 - Fast query times
 - 30ms, 200ms roundtrip with search data
- **Ajax Site model**
 - Back button / state management
 - No full page refreshes

Open Source strategy

- All code licensed under LGPL
- Connect with various backend frameworks
- Third party developed components
- Community supported

Questions

- Methodology
- Boredom level
- Integration
- Tool vision
- Open source

www.ajax.org

developer.javeline.net

www.rubendaniels.com