

Lotus



con 2001

# HC114: Tools and Tips for Working with JSPs in Rnext

Bruce Roberts  
Iris Associates



# Goals

- Why JSPs are important in Rnext
- Show Dev tools for JSP creation in Rnext
  - Increase your productivity
  - Gain greater control over web page layout of Domino Data.
- Under the hood:
  - Use of DXL and XSLT to generate web pages.



# Agenda

- Garnet - Rnext web application programming model
  - Focus on Rnext custom tag library
- JSP overview
- Demos
  - JSP creation tools for Rnext:
    - Rnext Designer
    - MacroMedia UltraDev
- Use of DXL, XSLT to create JSPs
- Q&A



# "Garnet"

- Code name for the new web programming model in the next release of Domino (Rnext)
- Garnet consists of:
  - A Standard Servlet/JSP container
  - **A Custom tag library** and Java classes over Domino Data
  - "Template" applications
  - **Third Party Tool integration**



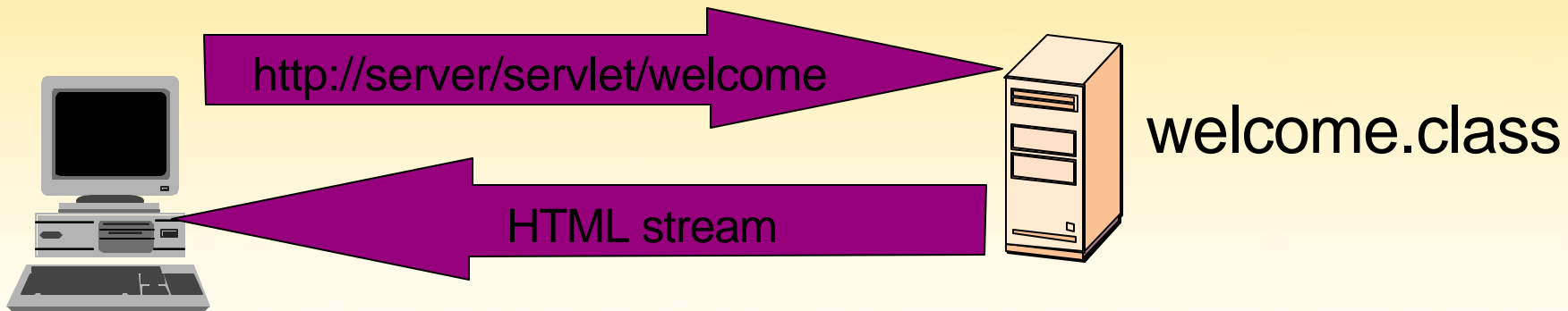
# JSP Overview

- Built on Java Servlet technology
  - Java Servlet is Java Code that runs on server
  - Produces stream (usually HTML) for http client (usually browser)
- Advantages to servlets
  - More efficient than CGI
  - More secure
  - Portable and Standard



# JSP Overview (2)

## Servlet High Level Diagram



# JSP Overview (3)

- Java Server Page is HTML mixed with Java code
- Page is compiled into servlet on first access
  - Often more convenient to write than servlet.
  - Static HTML separated from dynamic code.



# JSP Example

```
<html>
<head>
</head>
<body>
The current time is:
<%= new java.util.Date() %>
</body>
</html>
```

# JSP Overview (4)

- Custom tags introduced in JSP v1.1
- Simple XML tag syntax can encapsulate rich functionality
- Example



# Rnext Custom Tag Example

```
:%@ taglib uri="domutil.tld" prefix="util" %>
<html><head>
  You're using

  <util:if browser="explorer">
    the Internet Explorer
  </util:if>

  <util:else>
    non-IE
  </util:else>

  browser!
</body></html>
```



# Rnext Tags

## Data access tags

<dom:view>	<dom:ftsearch>	<dom:viewloop>	<dom:docloop>
<dom:page>	<dom:viewitem>	<dom:item>	<dom:setitem>
<dom:formula>	<dom:unid>	<dom:db>	more...

## Data input tags

<dom:form>	<dom:input>	<dom:select>
<dom:option>	<dom:dbselect>	<dom:dbfill>
<dom:validateRequired>	<dom:validateRange>	<dom:validateWith>
<dom:validateLength>	<dom:validatePattern>	more...

# Rnext Tags

## Utility tags

<code>&lt;util:if&gt;</code>	<code>&lt;util:else&gt;</code>	<code>&lt;util:elseif&gt;</code>
<code>&lt;util:condition&gt;</code>	<code>&lt;util:switch&gt;</code>	<code>&lt;util:case&gt;</code>
<code>&lt;util:switchValue&gt;</code>	<code>&lt;util:browserTag&gt;</code>	<code>&lt;util:nocache&gt;</code>

# Rnext Custom Tag Library

- Keep in Mind!
  - Rnext tags provide access to **Data only**
  - Use HTML, CSS, etc. for formatting
  - More complete control over layout and presentation.
- But:
  - R5 web model will be supported.
    - R5 web apps will continue to work in Rnext.
    - May be sufficient for your needs.

# Comparing DDC with JSP Tags

	DDC/DIS R2.x	JSP Tag Integration R1.0
Access to Domino	Generates db's and design elements	Direct Access to data
Web Page Access Data	Domino Web Server	Rnext JSP/Servlet Engine
Lotus Software Required	Designer (optional) Domino R5	JSP/Servlet Engine, Designer, Domino Rnext
Knowledge Needed	Minimal Domino App Dev	Domino Object Model
Supported Tools	Dreamweaver, FrontPage Fusion	Ultradev (initially) Designer

# JSPs in Rnext Domino Designer

## Demo



# Team Development in Rnext

- Rnext supports WebDav
- Use to share development between Designer and WebDav enabled tools
- UD 4 can use WebDav for deployment to Domino DB



# MacroMedia UltraDev Extension

## Demo



# Use of DXML and XSLT

- Let's look at some code



# Wrap-up

- New Web Application Programming model available in Rnext:
- JSP and custom tag library
- Give you greater control over web page layouts.
- Let's you use 3rd party tools that support these industry standards.
  - Lotus to produce MacroMedia UltraDev extension initially.
  - Watch <http://www.lotus.com/webauthor> for availability of Beta (Q3).

# Other Resources

- **TS102:** Building and Deploying Java Web Applications on a Domino Server
- **TS113:** The Architecture of the New Web Programming Model in Rnext
- **HC103:** Building R5 Web Applications using JavaServer Pages and WebSphere
- **HC109:** Implementing the Domino Rnext JSP Tag Library
- **AS115:** Applications that Sizzle with Domino Rnext and Custom JSP Tags

# Q&A

