



IBM Software Group

IBM® Rational® Web Developer V6.0 and IBM® Rational® Application Developer V6.0

Web Development New Features



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This presentation will focus on new features in Web development tools.

Goals

- Discuss the new web development features offered by IBM Rational Web and Application Developer
- What is covered in other presentations
 - ▶ JavaServer Faces (JSF) Development
 - ▶ Service Data Objects (SDO)
 - ▶ Portal Development

Agenda

- Page Designer
- Web Site Designer
- Page Templates
- Struts Support

Section

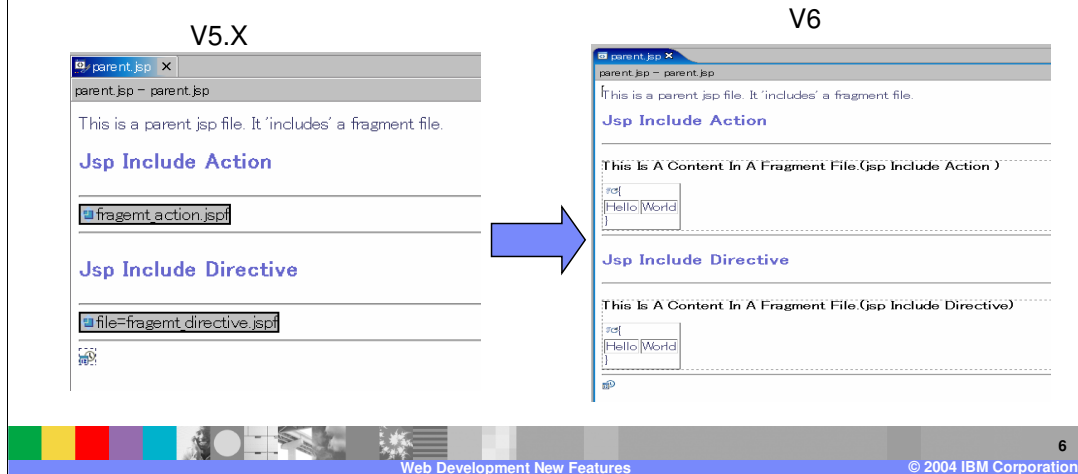
Page Designer

Page Designer: New Features

- Bidirectional language support
 - ▶ Full support on Windows, Limited support on Linux
- Usability Enhancements
 - ▶ Embedded document (JSP Include) support
 - ▶ New Properties view
 - ▶ Changed visual cue for read only content areas
 - ▶ Improved “drag and drop” functionality in free layout mode
 - ▶ Improved cell editing functionality
 - ▶ Free layout mode improved

Page Designer: Embedded Doc Support

- In V5.x, jsp-includes were displayed as icons
- In V6.0, jsp-includes are visualized and can be edited/saved on the fly.

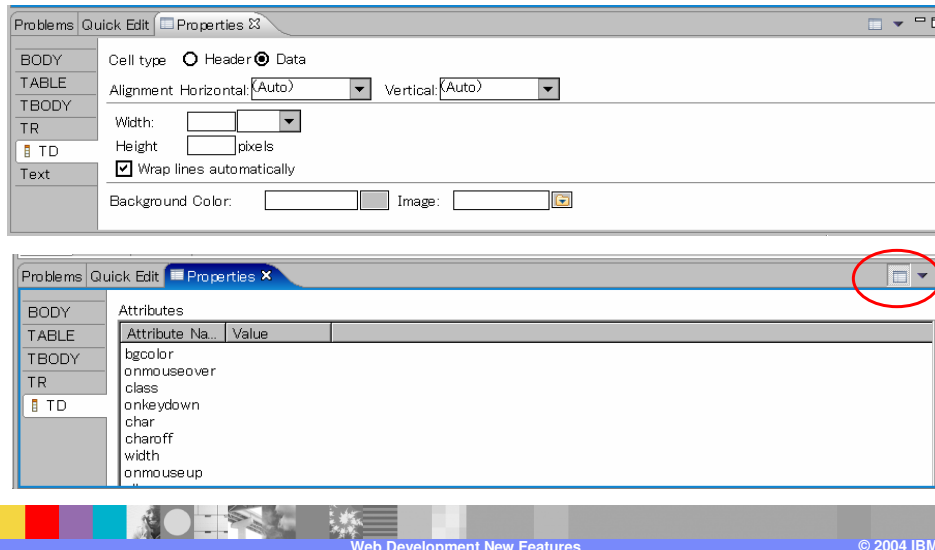


• IBM Rational Application Developer V6.0 now has embedded document or JSP include support

- In WebSphere Studio Application Developer V5.1.x, you were able to include JSPs or JSP fragments (jspf's) and they were displayed only as icons. However, in V6.0, included JSPs are visualized and can be edited.
- Now you can view and inline edit support for jsp include (both `<jsp:include>` and `<%@include>`) tags. This is mainly for PortalDesigner support since Portals use includes more than normal J2EE application work.
- One great value-add this gives is the ability to open a JSP in Page Designer and when you edit the Included JSP, you are actually editing the included JSP code. Once you save, you save the JSP you are working on and the included JSP that you edited.

Page Designer: New Properties View

- Horizontal and flat look
- All Attribute view (the old Properties view)

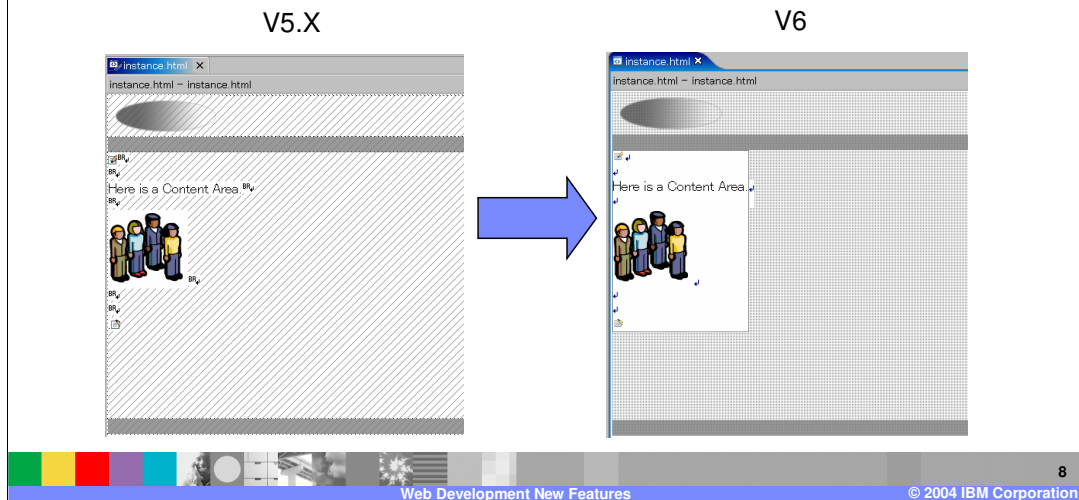


•New Properties View

- In IBM Rational Application Developer V6.0, the Properties View (usually found at bottom with Server and Problems views) will dynamically change to show properties of whatever you are focused on. For instance, if you are focused on text, the Text Attributes menu appears on top where you can quickly change font, text color, etc. Faster way to edit properties.
- It has a Horizontal and flat look
- ‘All’ Attribute view (same as what the old Properties in V5.x) is available by clicking All Attribute icon in top-right menu of the Properties view.
- Text Attribute view example

Page Designer: Read Only Visual Cues

- Visual cue for a read only area and a content area
 - In V5.X, diagonal lines were used, but in V6.0 it has changed to a halftone color.



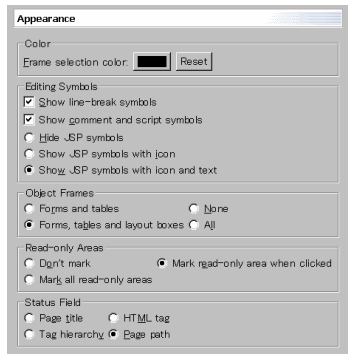
•Usability enhancements :

- For the visual cue of a read only area and a content area, IBM Rational Application Developer V6.0 will use a separate color instead of diagonal lines (used in 5.x).

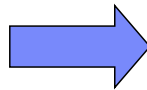
Page Designer: Preferences

- In V6.0, the Appearance Preference is split into two preferences, Appearance and View Option.

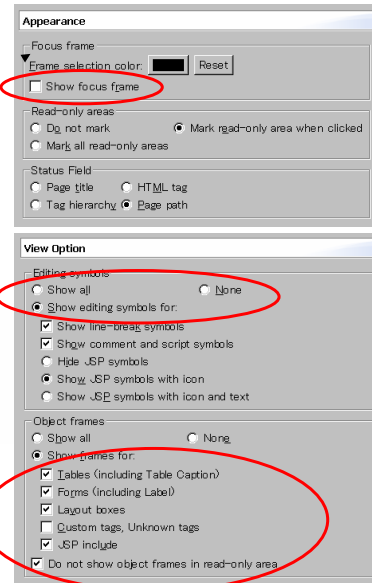
V5.X



Page Design
 Appearance
 External Web Browsers
 Fonts
 Layout
 Target Devices
 View Option



V6.0



•New preferences : “View Option”

- In V5.X, the Appearance preference covered all PageDesigner appearance preferences.
- In V6.0, it is split into two preferences... Appearance and View Option. The view option preference handles editing symbols (JSP code symbols) and object frames (borders around objects like tables in HTML file)

Page Designer: Show Me

- Open IBM Rational Application Developer V6.0 and create a JSP to show Page Designer features
- Use the Palette view and the new Properties view on the JSP
- Show free layout mode
- Include a JSP to see new embedded document functions

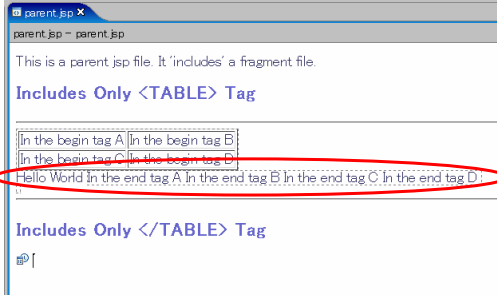


Click on Show-Me (viewlet) icon, it steps through the new Page Designer functions. It first opens IBM Rational Application Developer V6.0 and creates a JSP to show Page Designer features. It will then use the Palette view and the new Properties view on the JSP, show the free layout mode, and include a JSP to see new embedded document functions.

Page Designer: Known Limitations for GA

- Embedded document (jsp include) support for ill-formed documents
 - ▶ PageDesigner will not visualize pages correctly without a complete set of tags

In Page Designer



When Run on Server

This is a parent jsp file. It 'includes' a fragment file.

Includes Only <TABLE> Tag

| | |
|--------------------|--------------------|
| In the begin tag A | In the begin tag B |
| In the begin tag C | In the begin tag D |
| Hello | World |
| In the end tag A | In the end tag B |
| In the end tag C | In the end tag D |

Includes Only </TABLE> Tag

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- Embedded document (jsp include) support
 - Ill-formed document
 - If the included documents are an 'ill-formed' documents, which doesn't have a complete set of tags, (For example, it has the only begin tag or the end tag.), PageDesigner can't visualize them correctly.
 - Example : If the jsp which has <TABLE>, <TR> and <TD> tags and the jsp which has <TR>, <TD> and </TABLE> are included, PageDesigner design view and the output of the runtime (Application Server) are : (see pictures, Page Designer cannot display table correctly, though when same code is run on server, the page displays correctly)
 - Internet Explorer can fix the tags, Mozilla does not.

Page Designer: Known Limitations for GA

- Embedded document (jsp include) support for unknown custom tags in the embedded document.
 - ▶ If an included jsp file has a custom tag, PageDesigner's source page recognizes that tag as an unknown tag.
- Preview/Thumbnail view does not support the embedded document (jsp include), Design View only



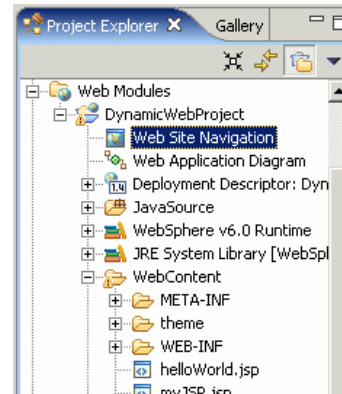
- Embedded document (jsp include) support (cont.)
 - Unknown custom tags in the embedded document
 - If the jsp file is included by a jsp include directive, and that jsp file has a custom tag, taglib directive doesn't have to be in this document if the parent document has that taglib directive. In this case, PageDesigner's source page recognizes that tag as an unknown tag.
 - Preview/Thumbnail view does not support the embedded document (jsp include)

Section

Web Site Designer

Web Site Designer

- Web Site Designer can be used to manage the overall appearance and configuration of a web site
 - ▶ Examine links
 - ▶ Inspect File Details
 - ▶ Apply style sheets
 - ▶ Apply templates
 - ▶ Delete, move, or rename files
- To open Web Site Designer, open the Web Site Navigation file in Project Explorer view
- Web Site Navigation files can be created



To create a web site configuration for a web project that does not currently have one, there is an option present on the context menu of the web project, Convert to Web Site (in the Web Perspective).

Web Site Designer is more than a configuration file.

It allows the use of web site parts, elements that will dynamically configure themselves for site navigation. The Site Parts can be found in the Palette and on the Insert Menu. These site parts represent parts for navigation bars, navigation menus, page trails (history), even a site map. Each site part will derive its layout from information present in the web site configuration file.

Click the Show-Me icon to see the new features of Web Site Designer.

Web Site Designer: New Features

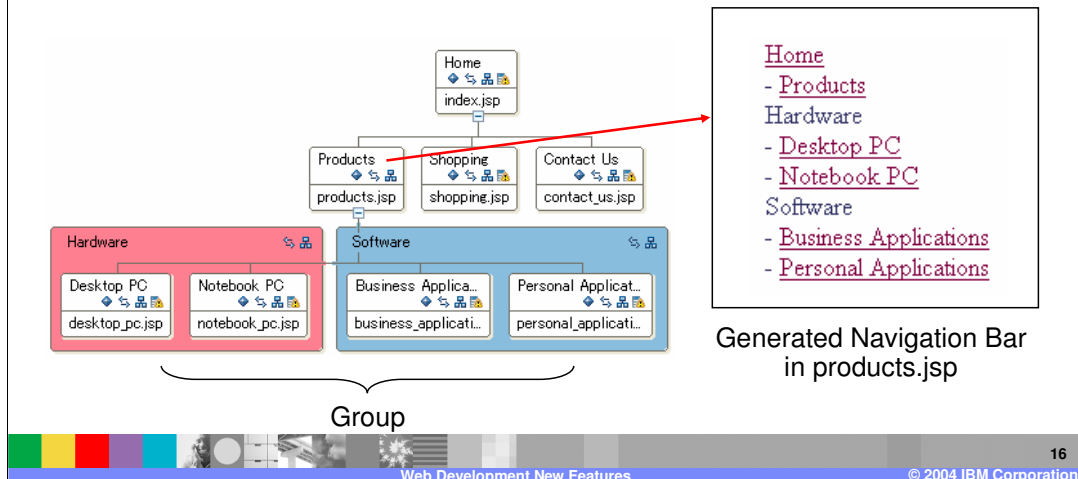
- Attribute view
 - ▶ Quickly edit page properties
- JSP custom tag
 - ▶ Navigation bar may contain JSP custom tags as well as comment tags
- Groups
 - ▶ Categorize pages and build navigation
- Pages to add tray
 - ▶ One place to find newly developed pages to add to site



- Attribute view support
 - Quickly edit page properties
- JSP custom tag support
 - Navigation bar may contain JSP custom tags as well as comment tags
- Group support
 - Categorize pages and build navigation
- Pages to add tray
 - One place to find newly developed pages to add to site

Web Site Designer: Groups

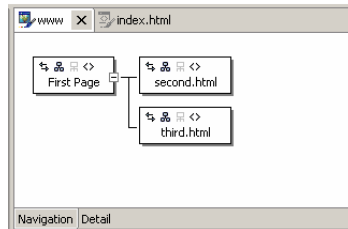
- Groups
 - ▶ Can categorize pages
 - ▶ Can create Navigation Bar to the pages in a group



•Group Support

- Can categorize pages into groups. Doing this makes it easier to move pages in a group around.
- Can create Navigation Bar to the pages in a group

Web Site Designer: Two Views



- The Navigation View
 - ▶ used to represent the Site Layout,
 - ▶ allows modification of style sheet, templates, and file location
- You can also open the page for editing in Page Designer

- The Details View
 - ▶ best used to inspect or modify common file attributes.
 - ▶ Example: File Name, Page Title, and Modification Date

| ID | Navigation... | File Path | File Name | Page Title | Pa... | Last Modified | Sta... | Au... | P./C./N... | S... | Ke... |
|----|---------------|-----------|------------|--------------|-------|---------------|--------|-------|------------|------|-------|
| 1 | First P... | WebCo... | index... | Mike and ... | 1.0KB | 7/18/03 7:... | N/A | | t... | Yes | Yes |
| 3 | third.... | WebCo... | third.html | third.html | 0.4KB | 7/18/03 7:... | N/A | | t... | Yes | Yes |
| 2 | secon... | WebCo... | seco... | second.html | 0.4KB | 7/18/03 7:... | N/A | | t... | Yes | Yes |

- There are two views associated with the Web Site Designer
 - The Navigation View is used to represent the Site Layout, and to allow modification of style sheet, templates, and file location
 - You can also open the page for editing in Page Designer
 - The Details View is best used to inspect or modify common file attributes. Example: File Name, Page Title, and Modification Date

Web Site Designer: Show Me

- Open IBM Rational Application Developer V6.0 with an example web project from samples gallery.
- Show web site designer functions using example web project
 - ▶ Page manipulation
 - ▶ “Pages to add” tray
 - ▶ Grouping
 - ▶ Adding templates
 - ▶ Adding external links



Click on Show-Me (viewlet) icon, it steps through the new Page Designer functions. It will show you how to open IBM Rational Application Developer V6.0 with an example web project from samples gallery. With the example project, it will show you the web site designer functions like, page manipulation, “pages to add” tray, grouping, adding templates, and adding external links.

Known Limitations for GA

- JSP Custom Tag Support (Limitation)

- ▶ Faces link tag

JSTL tag library is used to iterate Navigation tags.

However, Faces does not work within JSTL. So, Faces link tags cannot be used with a JSP custom tag.



- Known limitations for GA

- JSP Custom Tag Support (Limitation)

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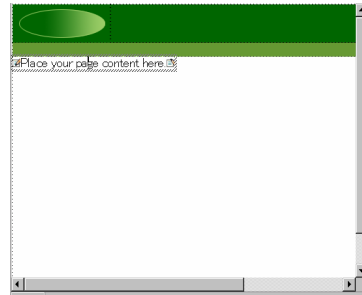
Section

Page Templates

Page Templates

- Similar to style sheets
 - ▶ Define attributes for HTML tags
 - ▶ Used to provide a common look for a web project

- Templates (html files) can be created from any HTML or JSP page
 - ▶ Changes to the template will be reflected in pages that use that template
 - ▶ Templates can be applied to individual pages, or can be applied to an entire Web Project
 - ▶ Areas can be marked as read-only, Page Designer will not allow the user to modify those areas



- Templates are another web site feature. Templates can define a common look for a web site (or groups of pages in a site).

- Templates are created in Page Designer. With an html page open for editing (and laid out as needed), select File > Save As Page Template.

- Before templates can be used, they must have designated content areas. These areas can be added from the palette, in the page template section. These content areas define the insertion points for pages that use the template. Template content will be treated as read-only; only the material found in the content area is editable. To edit anything in the template, one must change the template by editing it directly.

Page Template Operations

- Changes to templates are not automatically applied to pages that use that template
 - ▶ Must rebuild project or open page for edit for changes to be applied
 - ▶ If auto-rebuild is being used, change is transparent

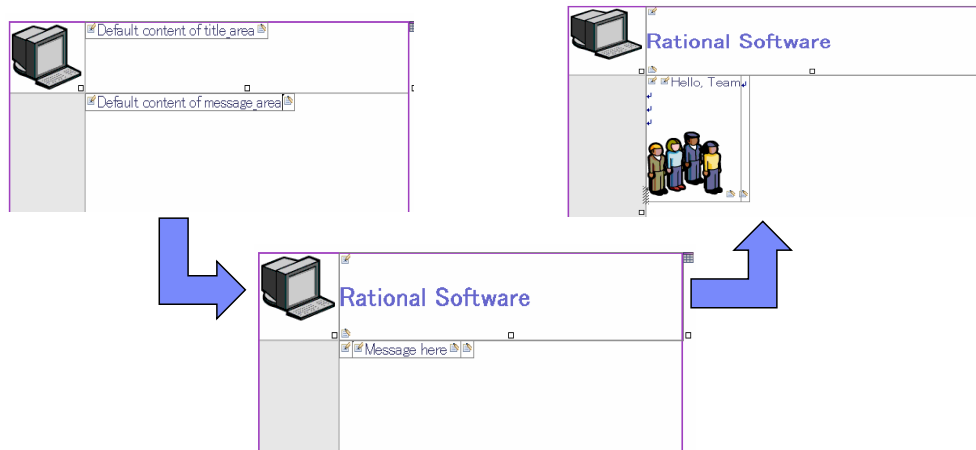
- A Page can be detached from its template, using the Page menu with a page open in Page Designer



Because templates are not based on any sort of tag support, the tool will build the pages derived from templates. Therefore, if changes are made to a template, any pages that are derived from that template must be opened for edit (allowing the tool to modify them) or the project must be rebuilt. If a template is modified while a page that uses that template is open in page designer, the change will be reflected immediately. This is possible because it is not possible to edit template content in the derived page.

Page Templates: Nested Template Support

- Page template can be created from another Page template.



Nested template support

Page template can be created from another Page template.

Page Templates: Show Me

- Open IBM Rational Application Developer V6.0 and create an HTML file.
- Drop a “free layout table” on the html file, then add a “content area”
- Create a user defined page template from the page template guide
- Embed a page template inside another page template



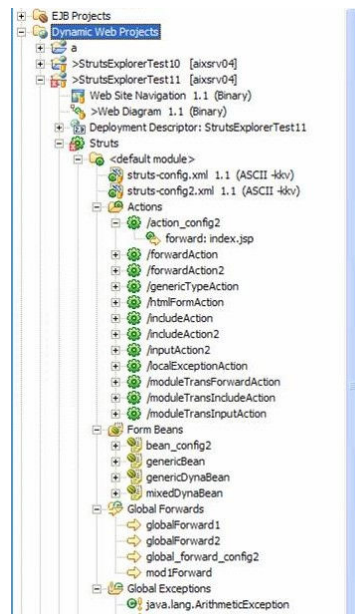
Click on Show-Me (viewlet) icon, it steps through the new Page Template functions. It will open IBM Rational Application Developer V6.0 and create an HTML file. Then you will see how to drop a “free layout table” on the html file, then add a “content area”. You will go on to see how to create a user defined page template from the page template guide, and embed a page template inside another page template.

Section

Struts

Struts: In Project Explorer

- Now you can view Struts information in the Project Explorer
- Struts Explorer still available since it has more functionality than what is exposed in the Project Navigator



Struts: Web Diagram Editor

- The Web Diagram Editor (WDE) has been made extendable for other plug-ins, therefore it is not a Struts specific tool
- The contributed palette entries have not changed
- The possible connection types have become fine grained...
 - ▶ Local Forward
 - ▶ Global Forward
 - ▶ Local Exception
 - ▶ Global Exception
 - ▶ Input Error
 - ▶ Forward Action Mapping
 - ▶ Include Action Mapping

The Web Diagram Editor (WDE) has been made extendable for other plug-ins, therefore it is no longer a Struts specific tool

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The possible connection types have become fine grained...

Local Forward

Global Forward

Local Exception

Global Exception

Input Error

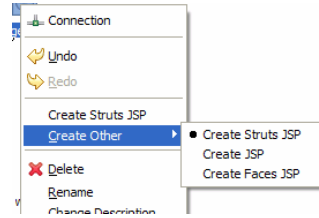
Forward Action Mapping

Include Action Mapping

Each of these connection types can be separately realized

Web Diagram Editor: Additional Enhancements

- New to V6 is the ability to create 3 different types of web pages from the Web Diagram Editor
 - ▶ Struts JSP
 - ▶ JSP
 - ▶ Faces JSP



- New icon set for the Web Diagram Editor
- New Properties View used for Struts applications

Struts: Struts Portlet version update

- Struts Portlets will now be created with an updated Struts Portlet Framework (SPF) version
 - ▶ Same version that is in WebSphere Portal 5.1.
 - ▶ Includes all .tld & .jar files associated with the framework
 - ▶ Portlets will not be configured with the FilterChain config-param, no longer necessary to do so.
- This SPF is backwards compatible with WPS4.x and WPS5.0.x.
- Additional to the runtime file updates, associated samples are included in the samples gallery.



- Struts portlets will now be created with the Struts Portlet Framework (SPF) version that is included with WebSphere Portal Server (WPS) 5.1.
- This includes an update to all the .tld & .jar files associated with the framework. Additionally, the portlet will not be configured with the FilterChain config-param – as it is no longer necessary to do so.
- This version of SPF is backwards compatible with WPS4.x and WPS5.0.x.
- Additional to the runtime file updates, the associated samples are included. You can find these in the samples gallery.

Section

Summary

Summary

- Covered many of the new Web tool features in IBM Rational Web and Application Developer V6.0
 - ▶ Page Designer
 - ▶ Web Site Designer
 - ▶ Page Templates
 - ▶ Struts Support

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