

## BI Nugget O'Knowledge

<b>BI Component</b>	BI70 Web Application Designer
<b>Description</b>	Use of Path Replacement for Dynamic Chart Text
<b>Date</b>	February, 2008

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### 1. Overview

With SAP NetWeaver BI 2004s (BI 7.0) there are significant improvements to the Business Explorer Web Application Designer (BEx WAD). The BEx WAD offers the ability to create robust dynamic web applications. For an enhanced user experience, there is the need for dynamic content within a web application. A perfect example is dynamically updating the chart title with the selected value from a dropdown list. A new approach for supporting this requirement is the use of Path Replacement. Path Replacement allows for the dynamic parameterization of commands and web items.

### 2. Prerequisites

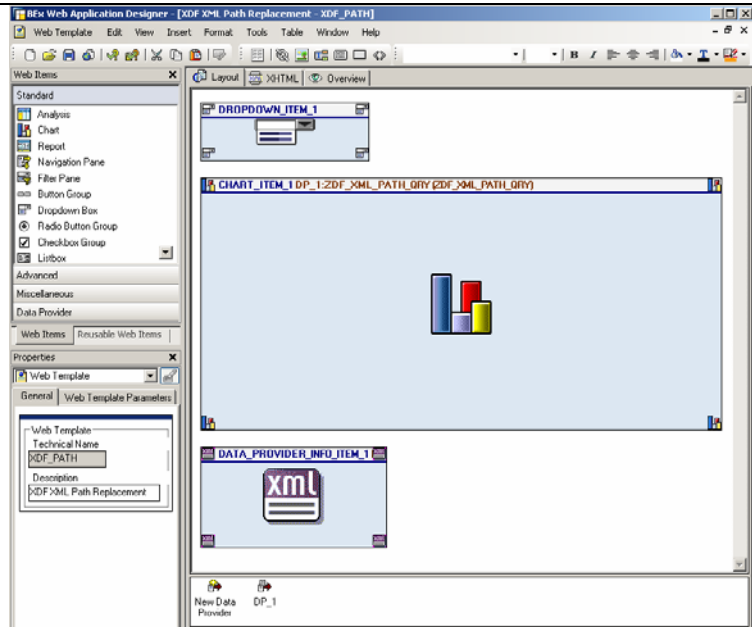
This example requires a Web Template with:

- Web Item - Drop Down List
- Web Item - Chart
- Web Item - DataProvider Information
- DataProvider - Query

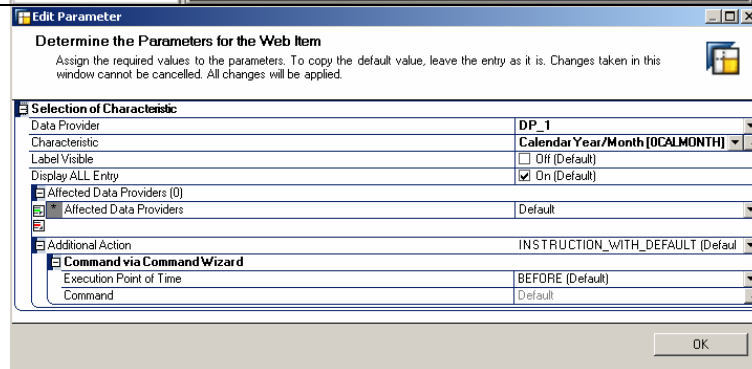
### 3. Implementation

1. Create a web template with the following web items:

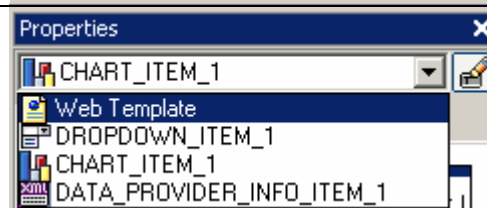
- Drop Down List
- Chart
- DataProvider Information



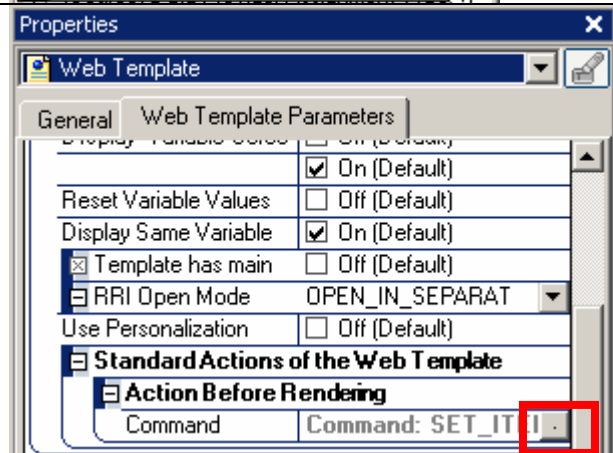
2. Create a data provider and bind all of the web items to the DataProvider. In this example the Dropdown Item is bound to Characteristic 0CALMONTH of DataProvider DP\_1

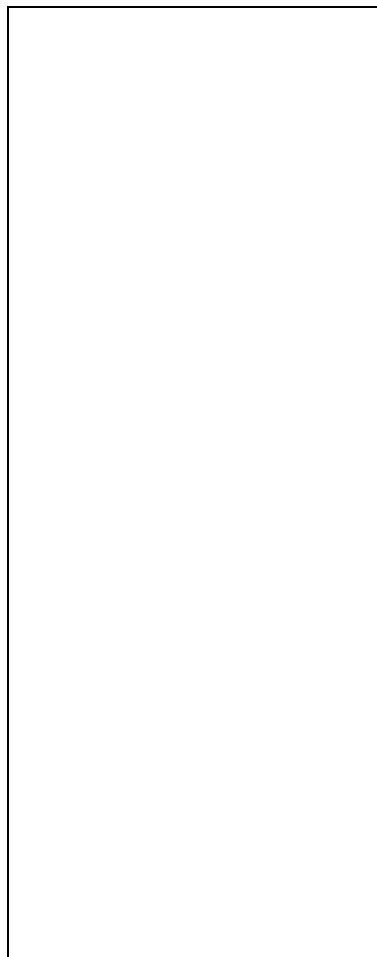


3. Switch to the Web Template Properties



4. Add the Instruction 'SET\_ITEM\_PARAMETERS' to the Action Before Rendering command targeting the CHART\_I item and set the Title parameter with a placeholder of 'MyTitle'.





**Edit Command**  
 Determine the Command Target (Data Provider or Web Item)  
 Determine the Data Provider or Web Item to Which the Command Refers.

**Set Web Item Parameters [SET\_ITEM\_PARAMETERS]**  
 Override Web Item Parameters via a Command

Web Item Type: Chart

Command Target: CHART\_ITEM\_1

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**Edit Command**  
 Determine the Parameters for the Command  
 Assign the required values to the parameters. To copy the default value, leave the entry as it is. To Create a Command Sequence, Choose 'Next Command'.

**Set Web Item Parameters [SET\_ITEM\_PARAMETERS]**  
 Override Web Item Parameters via a Command

Display

- Internal Display
- Behavior
- Data Binding
- Chart Texts

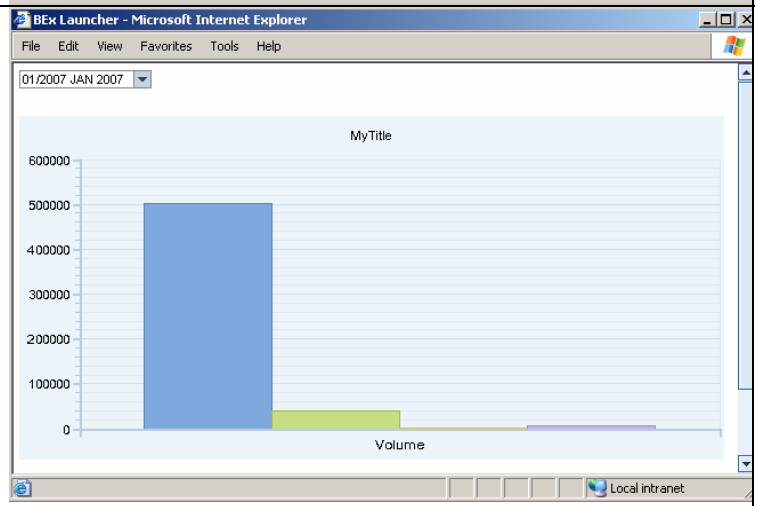
Parameter	Value
Diagram Subtitle (Language-Dependent)	MyTitle
Legend Title (Language-Dependent)	Default
Manual Axis Description	<input checked="" type="checkbox"/> On (Default)
Axis Description (Language Dependent)	
Category Axis (X)	Default
Value Axis (Y)	Default
Secondary Category Axis (X)	Default
Secondary Value Axis (Y)	Default
Manual Axis Label	<input checked="" type="checkbox"/> On (Default)
Axis Label (Language Dependent)	
Category Axis (X)	Default
Value Axis (Y)	Default
Secondary Category Axis (X)	Default
Secondary Value Axis (Y)	Default

Display: You Use these Parameters to Determine How the Web Item is Displayed

Buttons: Delete, Next Command, Back, OK, Cancel

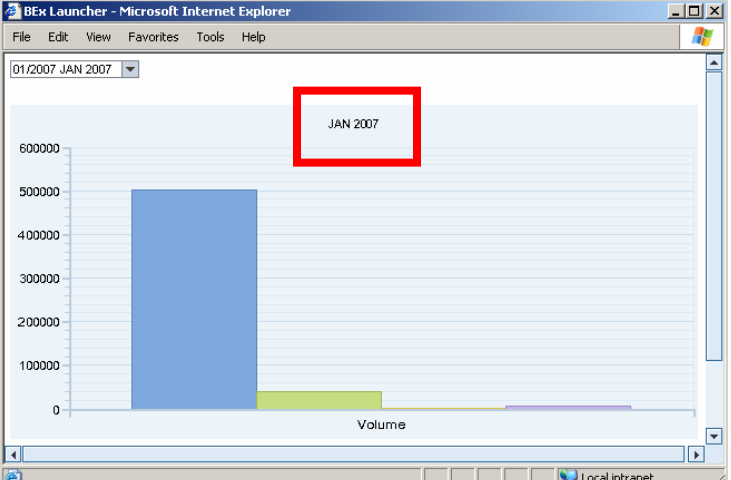
5. Now we need to execute the web application to find the XML path. Execute the web template and select a value in the DropDown list. Notice the placeholder "MyTitle" on the Chart.

Right-Mouse Click and select view source. Search the XML Tree source code for <BICS\_VIEW> and look for the XML Nodes and XML Elements that make up the selected value of the DropDown list and save the XML locally.



```

...
<BICS_VIEW>
...
<SELECTION_STATE>
  <SELECTION type="CARTESIAN_PRODUCT">
    <CHARACTERISTICS>
      <CHARACTERISTIC name="0CALMONTH">
        <SELECTIONS>
          <SELECTION type="SINGLE_MEMBER">
            <MEMBER name="200701" type="MEMBER"
text="JAN 2007"/>
          </SELECTION>
        </SELECTIONS>
      </CHARACTERISTIC>
    </CHARACTERISTICS>
  
```

<p>Go back to the Web Application Designer Web Template and view the XHTML source. Find the Template Parameters and the Title placeholder that was set for the SET_ITEM_PARAMETERS Instruction.</p>	<pre>&lt;bi:TEMPLATE_PARAMETERS name="TEMPLATE_PARAMETERS" &gt;   &lt;bi:WEB_TEMPLATE_ACTIONS type="COMPOSITE" &gt;     &lt;bi:ACTION_BEFORE_RENDERING type="COMPOSITE" &gt;       &lt;bi:INSTRUCTION &gt;         &lt;bi:SET_ITEM_PARAMETERS &gt;           &lt;bi:cmd_item_parameters type="CHART_ITEM" &gt;             &lt;bi:TITLE value="MyTitle" /&gt;           &lt;/bi:cmd_item_parameters&gt;           &lt;bi:TARGET_ITEM_REF value="CHART_ITEM_1" /&gt;         &lt;/bi:SET_ITEM_PARAMETERS&gt;       &lt;/bi:INSTRUCTION&gt;     &lt;/bi:ACTION_BEFORE_RENDERING&gt;   &lt;/bi:WEB_TEMPLATE_ACTIONS&gt; &lt;/bi:TEMPLATE_PARAMETERS&gt;</pre>
<p>Within the XHTML source of the Web Template, replace the statement <code>value="MyTitle"</code> with the proper XPATH notation for the selected value from the DropDown List:</p> <p><code>path="DATA_PROVIDER:DP_1?/BICS_VIEW/SELECTION_STATE/SELECTION/CHARACTERISTICS/CHARACTERISTIC[@name='0CALMONTH']/SELECTIONS/SELECTION[1]/MEMBER/@text"</code></p> <p>Save.</p>	<pre>&lt;bi:TEMPLATE_PARAMETERS name="TEMPLATE_PARAMETERS" &gt;   &lt;bi:WEB_TEMPLATE_ACTIONS type="COMPOSITE" &gt;     &lt;bi:ACTION_BEFORE_RENDERING type="COMPOSITE" &gt;       &lt;bi:INSTRUCTION &gt;         &lt;bi:SET_ITEM_PARAMETERS &gt;           &lt;bi:cmd_item_parameters type="CHART_ITEM" &gt;             &lt;bi:TITLE path="DATA_PROVIDER:DP_1?/BICS_VIEW/SELECTION_STAT E/SELECTION/CHARACTERISTICS/CHARACTERISTIC[@name=' 0CALMONTH' ]/SELECTIONS/SELECTION[1]/MEMBER/@text" /&gt;           &lt;/bi:cmd_item_parameters&gt;           &lt;bi:TARGET_ITEM_REF value="CHART_ITEM_1" /&gt;         &lt;/bi:SET_ITEM_PARAMETERS&gt;       &lt;/bi:INSTRUCTION&gt;     &lt;/bi:ACTION_BEFORE_RENDERING&gt;   &lt;/bi:WEB_TEMPLATE_ACTIONS&gt; &lt;/bi:TEMPLATE_PARAMETERS&gt;</pre>
<p>Execute the web application and select a value from the drop-down list.</p> <p>The Chart Title will dynamically display the text of the selected value.</p>	 <p>The screenshot shows a web browser window titled "BEx Launcher - Microsoft Internet Explorer". At the top, there is a dropdown menu with the selected value "01/2007 JAN 2007". Below the menu is a bar chart. The chart has a vertical axis labeled "Volume" ranging from 0 to 600,000. There are three bars: a large blue bar reaching approximately 500,000, a smaller green bar reaching approximately 50,000, and a very small purple bar. The chart title is "JAN 2007", which is enclosed in a red rectangular box. The browser's status bar at the bottom indicates "Local intranet".</p>