



## BeanInfo Attributes of Web Content Publisher Resources

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### Abstract

Web Content Publisher (WCP) handles content as resources. These resources are specified as Java™ classes, which include a BeanInfo class to describe their properties. The BeanInfo information is used in displaying the native authoring forms, the table-list views, and search criteria. The WebSphere® Personalization Content Wizard will generate the resource classes with an appropriate BeanInfo class. This paper describes the BeanInfo attributes recognized and used by WCP.

### Primary-Key Property

Resources are required to have a single primary key property used to uniquely identify the resource in the project. The primary-key property is specified by the resource class's BeanDescriptor attribute value named "resourceIdPropertyName".

### Property Descriptor Attributes

Each property has additional attributes to help specify value limitations. These attributes are listed in the following table.

Attribute Name	Description
ibmwcp.columnOrder	java.lang.Integer If this attribute is present, this property will appear as a column in list views. The attribute value is used to order its position left to right relative to other properties with the attribute. Properties with this attribute also appear in relative order in the authoring forms. Properties without this attribute will appear in the authoring forms after those with the attribute in random order. Properties without this attribute are not shown in list views.
ibmwcp.length	java.lang.Integer This attribute specifies the maximum number of characters/digits for a property type. This value may be -1 for property types where the lengths are determined by their type. See the table below for these values.
ibmwcp.dbtype	java.lang.Integer This attribute specifies the SQL value type mapped for this property. See the table below for a list of these types.
ibmwcp.searchable	java.lang.Boolean This attribute specifies that this property is to appear in the search criteria form.
enumerationValues	java.lang.Object[]

	<p>These values are shown in the authoring forms in a combo-box. The array is made up of triples—each value is 3 sequential parts of the array:</p> <ol style="list-style-type: none"> <li>1. Display name</li> <li>2. Actual value</li> <li>3. Description</li> </ol>
<code>ibmwcp.type</code>	<p><code>java.lang.String</code>  This type value is for String values only and can be either “url” or “password”. The “url” is used in authoring forms to place an anchor link around the value. The “password” is used in authoring forms to allow the user to enter the data without revealing the contents to the screen.</p>
<code>ibmwcp.scale</code>	<p><code>java.lang.Integer</code>  This attribute specifies the number of decimal places used when the <code>ibmwcp.dbtype</code> indicates a decimal value.</p>
<code>ibm-ws-studio-primary-key</code>	<p><code>java.lang.Boolean</code>  This attribute identifies the specified property as the primary key. Only one property is recognized as the primary key and should match the property name identified in the <code>BeanDescriptor</code> “<code>resourceIdPropertyName</code>” attribute value.</p>

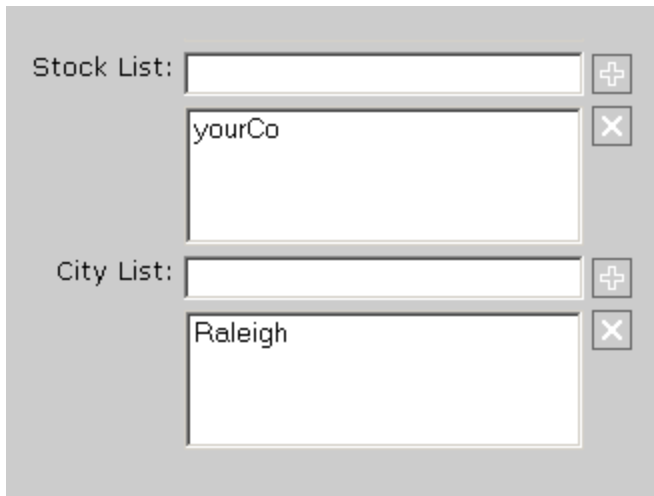
The attribute value for “`ibmwcp.length`” may be –1 in those cases where the “`ibmwcp.dbtype`” identifies a numeric type. The following table lists the types handled by the native authoring forms and the length limit enforced on their corresponding entry fields.

<b>java.sql.Types</b>	<b>Length of Entry Field (includes sign)</b>
SMALLINT	6
INTEGER	10
BIGINT	20
FLOAT	20
REAL	10
DOUBLE	20
NUMERIC	5
DECIMAL	7 (includes decimal point)
CHAR VARCHAR	Based on the <code>ibmwcp.length</code> value only.
LONGVARCHAR	Limited to 255 characters in the authoring forms.

Note that Date, Time, and Timestamp types are not handled by the native forms and require custom authoring-form templates. For additional information on these types, see *Managing Dates in Web Content Publisher Resources*.

## Multi-Value Properties

Multi-value properties are handled as String arrays and displayed in the add and edit native forms as an entry field and list box as shown in the following graphic:



The image shows a graphical user interface for multi-value properties. It features two sections: 'Stock List' and 'City List'. Each section consists of an input field at the top and a list box below it. To the right of the input field is an add (+) button, and to the right of the list box is a delete (X) button. In the 'Stock List' section, the input field is empty, and the list box contains the text 'yourCo'. In the 'City List' section, the input field is empty, and the list box contains the text 'Raleigh'.

The user enters the value into the entry field, and clicks the add (+) button to add it to the list. To remove an item from the list, the user can select the item and click the delete (X) button.

## Example

Example BeanInfo classes for Toys and News are included in the WCP sample package. Here is a partial listing of the CompanyNewsBeanInfo.java source:

```
package WCMSample;

import java.beans.*;
public class CompanyNewsBeanInfo extends SimpleBeanInfo
{
public BeanDescriptor getBeanDescriptor(){
    BeanDescriptor aDescriptor = new BeanDescriptor(CompanyNews.class,
null);
    aDescriptor.setDisplayName("News");
    aDescriptor.setName("CompanyNews");
    aDescriptor.setShortDescription("News");
    aDescriptor.setValue("resourceIdPropertyName", "TITLE");
    return aDescriptor;
}
public PropertyDescriptor[] getPropertyDescriptors(){
    PropertyDescriptor[] propertyDescriptors = {
        getTITLEPropertyDescriptor(),
        getFORLOCATIONPropertyDescriptor(),
        getFORSITEPropertyDescriptor(),
        getFORDEPTPropertyDescriptor(),
        getCONFIDENTIALPropertyDescriptor(),
        getCONTENTPropertyDescriptor(),
        getCategoryNamePropertyDescriptor()
    };
};
```

```

    return propertyDescriptors;
}
protected PropertyDescriptor getTITLEPropertyDescriptor(){
    PropertyDescriptor aPropertyDescriptor = null;
    try {
        aPropertyDescriptor = new PropertyDescriptor("TITLE",
CompanyNews.class, "getTitle", null);
        aPropertyDescriptor.setDisplayName("Title");
        aPropertyDescriptor.setName("TITLE");
        aPropertyDescriptor.setShortDescription("Title");
        aPropertyDescriptor.setValue("ibm-ws-studio-primary-key",
Boolean.TRUE);
        aPropertyDescriptor.setValue("ibmwcp.length", new Integer(80));
        aPropertyDescriptor.setValue("ibmwcp.searchable", Boolean.TRUE);
        aPropertyDescriptor.setValue("ibmwcp.dbtype", new Integer(12));
        aPropertyDescriptor.setValue("ibmwcp.columnOrder", new Integer(1));
    } catch (IntrospectionException exc) {
        exc.printStackTrace();
    }
    return aPropertyDescriptor;
}
.
.
.
protected PropertyDescriptor getCategoryNamePropertyDescriptor(){
    PropertyDescriptor aPropertyDescriptor = null;
    try {
        aPropertyDescriptor = new PropertyDescriptor("CATEGORYNAME",
CompanyNews.class, "getCATEGORYNAME", "setCATEGORYNAME");
        aPropertyDescriptor.setDisplayName("Category name");
        aPropertyDescriptor.setName("CATEGORYNAME");
        aPropertyDescriptor.setShortDescription("Category name");
        aPropertyDescriptor.setValue("ibmwcp.length", new Integer(50));
        aPropertyDescriptor.setValue("ibmwcp.dbtype", new Integer(12));
        aPropertyDescriptor.setValue("enumerationValues", new Object[] {
"Cary", "Cary", "Cary", "RTP", "RTP", "RTP", "Durham", "Durham",
"Durham", "Raleigh", "Raleigh", "Raleigh" });
    } catch (IntrospectionException exc) {
        exc.printStackTrace();
    }
    return aPropertyDescriptor;
}
}
}

```

From this, the following News add form is displayed:

**Add News**

Path:

Title:  \*

Confidential:

Site:

Location:

Dept:

Category name: Cary

Content:

The red circle indicates the properties with the “ibmwcp.columnOrder” specified. Note that the Category Name is a combination of a multi-value (as String array) and an “enumerationValues” type. The list view is displayed as follows:

Tasks | Content | Administration

Job: base | Project: WCMSample | Edition: base

<input type="checkbox"/>	Title	Confidential	Site	Location	Dept
<input type="checkbox"/>	test1	n	s	l	d
<input type="checkbox"/>	test2	n	s	l	d
<input type="checkbox"/>	title3	Y	Raleigh	Raleigh	Dept

Results: 3 Items

Properties | Links | Settings

About | Help | User: dave | Logout

Here only the "ibmwcp.columnOrder" properties are shown.

And the Search Criteria shows the "ibmwcp.searchable" properties:

Search in News - Microsoft Internet Explorer

Search Criteria   Search Results   Content Type: News

Path:

Title:

Confidential:

Site:

Location:

Dept:

Search   Cancel

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