

FILTER A SHAREPOINT LIST ON THE SERVER

PRODUCT: qRules v2.3
LAST UPDATED: September 13, 2010

SCENARIO

You have data stored in a SharePoint list and wish to filter and load it into your InfoPath (client or browser) form.

VALUE PROPOSITION

A DLL file (owssvr) that comes with SharePoint can be used to create filtered SharePoint data queries. The qRules command **FilterOwssvr** makes it easier to filter data from a SharePoint list and use it in your InfoPath form. Populate cascading dropdowns in your browser-enabled forms.

REQUIREMENTS

- MOSS 2007 or 2010
- qRules v2.2 or newer
- A browser-compatible InfoPath 2007 or 2010 form that has already been injected with qRules.



PREPARATION

Before we start we need to locate a few values that we'll need during this tutorial:

A. List ID

- Open the SharePoint list you wish to filter in Internet Explorer.
- Select **Settings** and then **List Settings**.
- You'll see a URL that looks like this: http://server/_layouts/listedit.aspx?List=%7B1CC3F2DD%2D4251%2D4A98%2D9BC9%2DE584496C0727%7D. The List ID is in red, but we need to decode it to obtain the Guid.

B. Guid

- Using Internet Explorer, navigate to <http://meyerweb.com/eric/tools/dencoder/>.
- Enter the List ID, and click **Decode**.
- You'll obtain the Guid, which in this case is `{1CC3F2DD-4251-4A98-9BC9-E584496C0727}`.

C. Owssvr.dll

- On MOSS 2007, this file is located at the following URL: http://server/_vti_bin/owssvr.dll
- Confirm your values visually in Internet Explorer by navigating to http://server/_vti_bin/owssvr.dll?Cmd=Display&List={1CC3F2DD-4251-4A98-9BC9-E584496C0727}&XMLDATA=TRUE. You'll see something like this:

```
- <xml xmlns:s="uuid:BDC6E3F0-6DA3-11d1-A2A3-00AA00C14882" xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882" xmlns:rs="urn:schemas-microsoft-com:rowset" xmlns:z="#RowsetSchema">
- <s:Schema id="RowsetSchema">
- <s:ElementType name="row" content="eltOnly" rs:CommandTimeout="30">
- <s:AttributeType name="ows_ProductID" rs:name="ProductID" rs:number="1">
  <s:datatype dt:type="string" dt:maxLength="512" />
</s:AttributeType>
- <s:AttributeType name="ows_ProductCode" rs:name="ProductCode" rs:number="2">
  <s:datatype dt:type="string" dt:maxLength="512" />
</s:AttributeType>
- <s:AttributeType name="ows_ProductName" rs:name="ProductName" rs:number="3">
  <s:datatype dt:type="string" dt:maxLength="512" />
</s:AttributeType>
- <s:AttributeType name="ows_Category" rs:name="Category" rs:number="4">
  <s:datatype dt:type="string" dt:maxLength="512" />
</s:AttributeType>
- <s:AttributeType name="ows_Price" rs:name="Price" rs:number="5">
  <s:datatype dt:type="string" dt:maxLength="512" />
</s:AttributeType>
- <s:AttributeType name="ows_Unit_x0020_of_x0020_Measure" rs:name="Unit of Measure"
  rs:number="6">
```

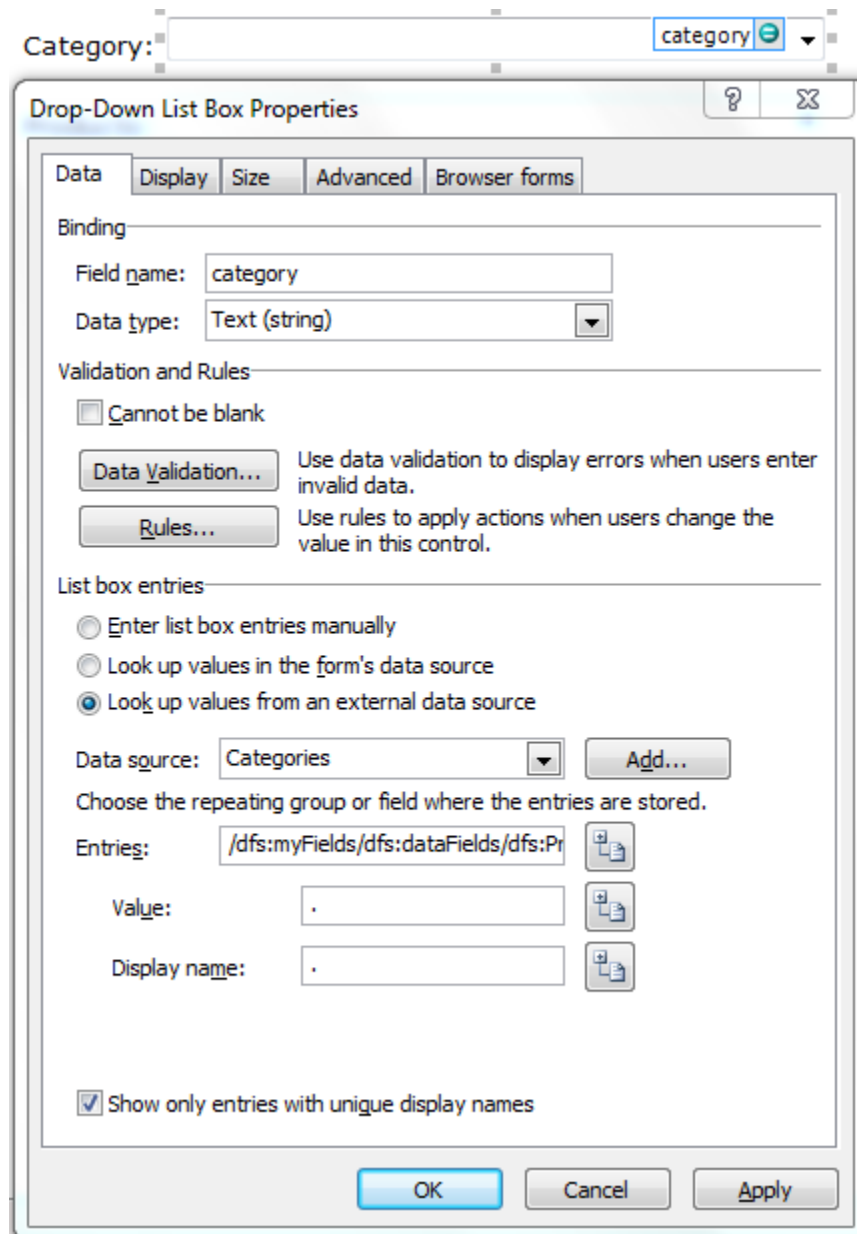
Finally, our example will be browser-compatible, so we will go to **Tools > Form Options > Compatibility** and check the checkbox to **Design a form template that can be opened in a browser or InfoPath**.



TUTORIAL

Let's set up our form to receive data on load from the SharePoint list.

1. In your InfoPath form, go to **Tools > Data Connections**.
2. Click **Add** and follow the wizard to create a data connection that receives data from the SharePoint list, retrieving only the **Category** column. We will name this connection **Categories** and it will **Automatically retrieve data when form is opened**.
3. Add a dropdown control named **category**. Set it to **Look up values from an external data source**.



Category:

Drop-Down List Box Properties

Data | Display | Size | Advanced | Browser forms

Binding

Field name:

Data type:

Validation and Rules

Cannot be blank

Use data validation to display errors when users enter invalid data.

Use rules to apply actions when users change the value in this control.

List box entries

Enter list box entries manually

Look up values in the form's data source

Look up values from an external data source

Data source:

Choose the repeating group or field where the entries are stored.

Entries:

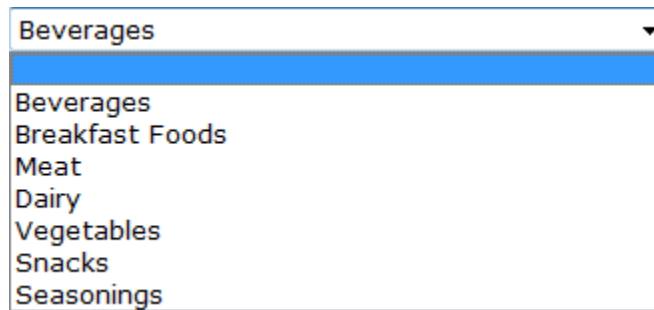
Value:

Display name:

Show only entries with unique display names



- Preview the form to verify that it correctly loads the categories.



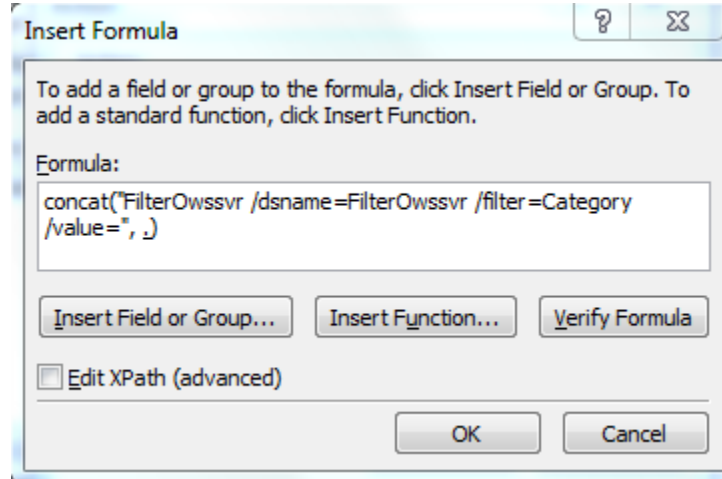
To create the command dynamically, you'll need to use the function **concat**.

- Click **Add**, and follow the wizard to create a data connection that receives data from an XML document, and enter the URL accessed in the **Preparation** section:
http://server/_vti_bin/owssvr.dll?Cmd=Display&List={1CC3F2DD-4251-4A98-9BC9-E584496C0727}&XMLDATA=TRUE.
- Continue the wizard, and make sure to select **Access the data from the specified location** and uncheck **Automatically retrieve data when form is opened**.
- When prompted for a name for the data connection, use **FilterOwssvr** (or any other descriptive name of your choosing), uncheck "Automatically retrieve data when form is opened" and finish the wizard.

The qRules command uses the following syntax: **FilterOwssvr /dsname=<data connection> /filter=<column> /value=<value>**. We will add a rule to call this command.

- Right click on the Category dropdown and select **Rules**. Then click **Add** and click **Add Action**. Select **Set a field's value** from the **Action** dropdown.
- For the **Field**, select the **command** node in the secondary data connection called **QdabraRules**.
- For the **Value**, click on the **fx** button to enter the command. In the case of our sample form and library, it will be the following:

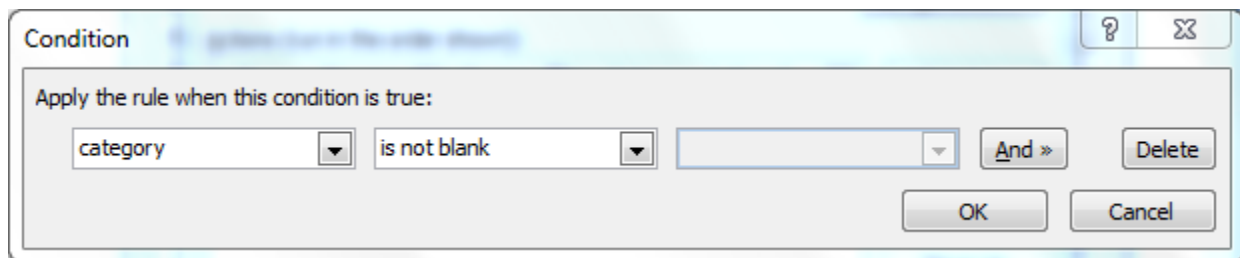




Note that the values in this parameter are case-sensitive. If you accidentally give this command an invalid value for the **/filter** parameter, no error is returned. It is up to the form developer to ensure that the **/filter** parameter is correct.

The **/value** parameter cannot be blank. Due to this, we recommend setting a condition on the rule, so that it only executes when the field is not blank.

11. Set a condition on this rule such that it only executes when **Category** is not blank.



12. Display the returned data in your form. In our case, we add a dropdown which will be populated with the Product name from the SharePoint list.



Products:

Drop-Down List Box Properties

Data | Display | Size | Advanced | Browser forms

Binding

Field name:

Data type:

Validation and Rules

Cannot be blank

Use data validation to display errors when users enter invalid data.

Use rules to apply actions when users change the value in this control.

List box entries

Enter list box entries manually

Look up values in the form's data source

Look up values from an external data source

Data source:

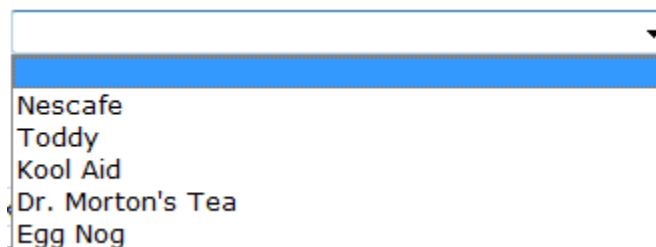
Choose the repeating group or field where the entries are stored.

Entries:

Value:

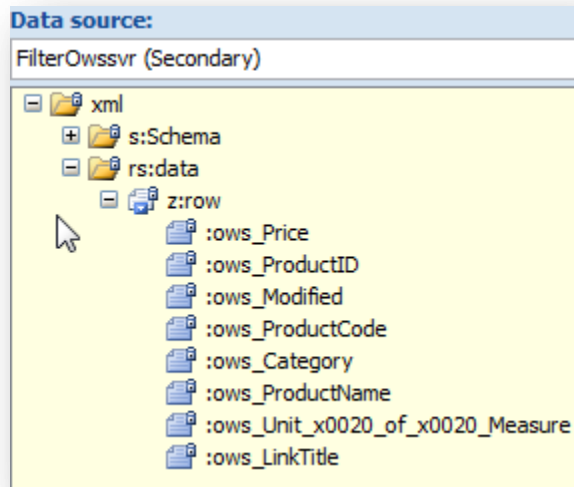
Display name:

13. Click **Preview**. You might get a warning about connecting to a data source; click **Yes**. Make a selection in the Category dropdown; the Product dropdown will then be populated.

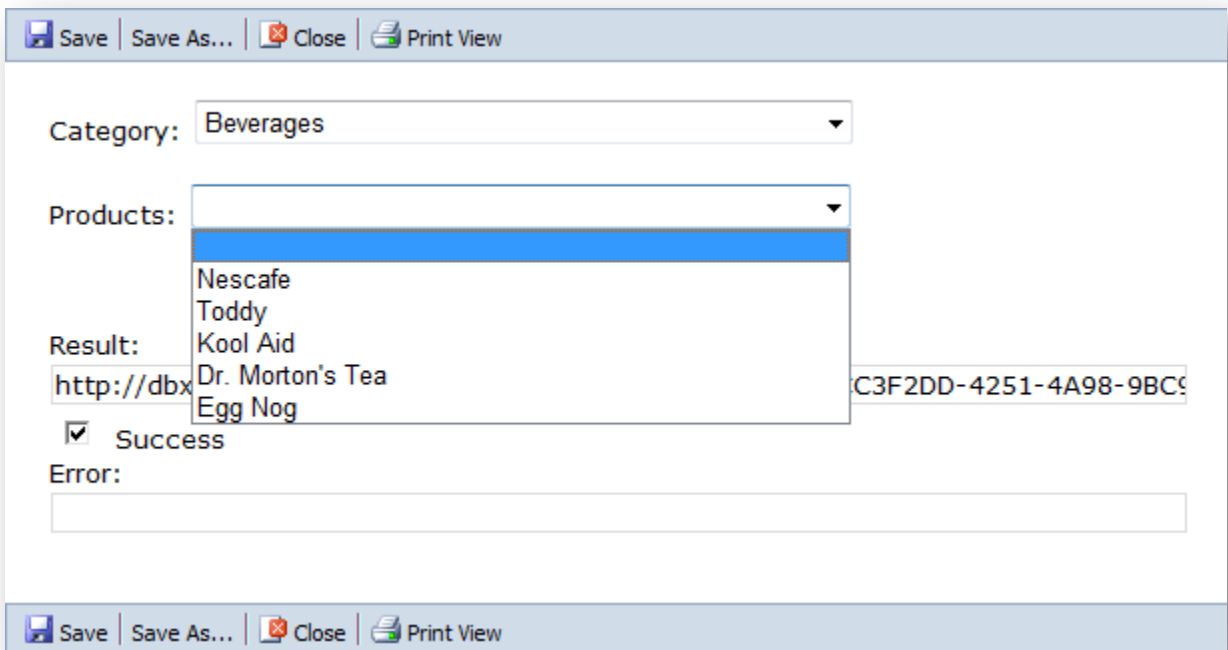


Though we have chosen to use the **Product Name** in the dropdown, notice that the other columns associated with this item are also available as a result of our query.





14. To view this in action in the browser, publish the form to SharePoint by following the steps described in the qRules User Guide.



FILTERING ON BLANK VALUES

What happens if we want to filter to look for blank values? For example, we want to locate records where one of the columns is blank.

qRules validates parameters when we pass them in, and in this case, since we don't have a value for */value*, it fails. However, we can trick the command by using *"*; for blank values, e.g. *FilterOwssvr /dsname=FilterOwssvr /filter=Deduction /value="*;

You can test this by pasting the URL from the qRules Result into a browser address bar, e.g. http://server/_vti_bin/owssvr.dll?Cmd=Display&List={0736ECB6-9AB0-4A95-98E7-9FC845CE2D58}&XMLDATA=TRUE&FilterField1=Deduction&FilterValue1=";



SUPPORT

If you have questions about the information in this document, please contact Qdabra Software for assistance.

Licensed customers can contact us via Support@Qdabra.com.

You can also use the InfoPathDev.com [Qdabra Product support forums](http://InfoPathDev.com) to request help from the community.

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