



QDABRA QRULES v2.1

Dynamically Set Submission for a Form Library and a List

INTRODUCTION

qRules can be leveraged to allow us to submit data to different (multiple) libraries and lists, depending upon where the form template is opened from.

This tutorial uses two qRules commands, **ChangeSubmitURL** and **SubmitToSharePointList**. Please refer these links to learn more about [ChangeSubmitURL](#) and [SubmitToSharePointList](#) commands.

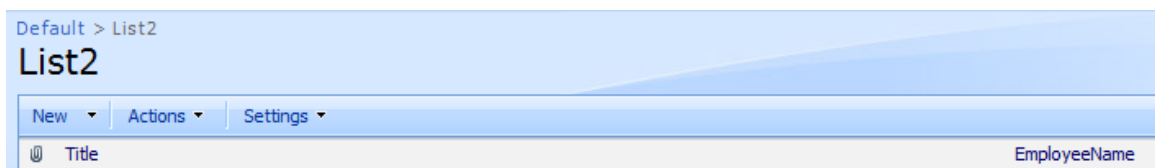
PRE-REQUISITES

For this tutorial you will need to have **qRules v2.1** installed on your machine. You also need to install the **InfoPath to SharePoint Tool** that ships with qRules v2.1.

- 1) Create a new InfoPath form: In InfoPath, design a new, blank form. Select **File > Save As** and save the XSN to your local drive. Close the form.
- 2) Launch the qRules v2.1 Injector, browse to select the XSN you created and click Inject. Close the qRules Injector and open the form in Design mode.
- 3) Create two form libraries on your SharePoint site that you will publish your form to (this tutorial uses **TestLibrary1** and **TestLibrary2**).
- 4) Create two lists on your SharePoint site for your form list submissions. This tutorial uses **List1** and **List2** and each has two columns: **EmployeeName** and the **Title**.

Columns	
A column stores information about each item in the list. The following columns are currently av	
Column (click to edit)	Type
Title	Single line of text
EmployeeName	Single line of text
Created By	Person or Group
Modified By	Person or Group

Default > List1	
List1	
New ▾	Actions ▾ Settings ▾
🔍 Title	EmployeeName



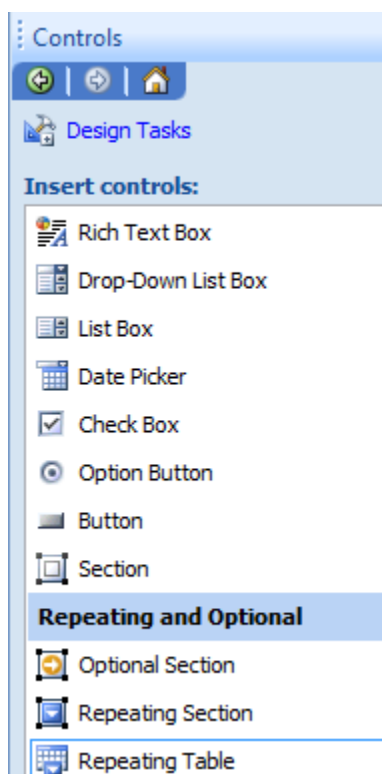
- 5) Create a master list on your SharePoint site. This tutorial uses **SharePointList** with columns for the **SubmitURLs** and the **SharePointListGUIDs**. (The data type for the **SharePointListGUIDs** is **HyperLink or Picture**). The **SubmitURLs** column contains submit URL location based on the form library it has opened from, and **SharePointListGUIDs** column contains the list ID of the list library. For example:
- In step3, we created two form libraries (<http://<SharePointSite>/TestLibrary1>, <http://<SharePointSite>/TestLibrary2>) – both library URLs should be added to the **SubmitURLs** column, and the corresponding list ID's are going to be the list ID's of the lists we created in step 4.
 - List ID** – Open one of the lists (created in step 4) in Internet Explorer, and select **Settings** and **List Settings**. You'll see a URL that looks like this: http://<SharePointSite>/_layouts/listedit.aspx?List=%7B48CCA5E6%2D905D%2D4CAD%2D8082%2D3A0C79CDB384%7D. The List ID is in red, but we need to decode it to obtain the GUID. You can use an online tool such as <http://meyerweb.com/eric/tools/dencoder/> to obtain the GUID, which in this case is **{48CCA5E6-905D-4CAD-8082-3A0C79CDB384}**.

Title	SubmitURLs	SharePointListGUIDs
TestLibrary1 NEW	<a href="http://<SharePointSite>/TestLibrary1/">http://<SharePointSite>/TestLibrary1/	{48CCA5E6-905D-4CAD-8082-3A0C79CDB384}
TestLibrary2	<a href="http://<SharePointSite>/TestLibrary2/">http://<SharePointSite>/TestLibrary2/	{4762AFB2-7222-426E-911C-164C85671996}

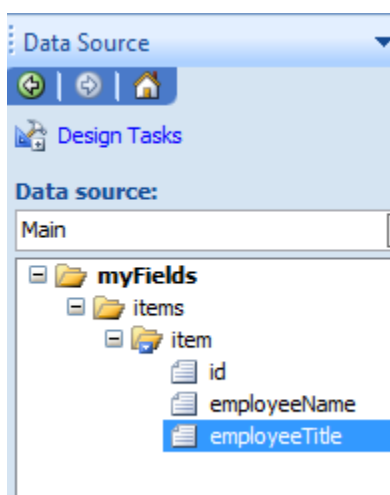
EXECUTION STEPS

A. First add the fields.

- Switch to the **Design Tasks** task pane, and drag and drop a **Repeating Table** on to the canvas. Enter an appropriate column header names - I named them **ID**, **Name**, **Title**.



2. Rename the groups and fields to have meaningful names.



ID	Name	Title

Repeating Table

- B. Create a mapping file that qRules will use to know what form field should be submitted to what list column.



1. Launch the **InfoPath To SharePoint List Tool** from the install location. For simple mapping, let's select the **Define Mapping** tab. Please refer this [blog post](#) for in-depth instructions on how to use this tool.

DATABASE ACCELERATOR

Qdabra InfoPath to SharePoint List Tool

This tool allows you to import any InfoPath form XML file (or folder of XML files) to a SharePoint list, creating list items with data from specified fields in the form.

Import Forms

Define Mapping

Source XSN

Click here to attach a file *

Target SharePoint Site URL

Enter the root SharePoint site, not the SharePoint list URL *

Get SharePoint Lists

SharePoint Lists

Extract Schemas

Mapping Definition

☐ Data is from repeating group

Form Field	SharePoint Column

Add mapping

Save As qRules Mapping

Powered by: Qdabra® Database Accelerator

Solution Version: 1.0.0.659

2. In the Source XSN, attach the template (XSN) that we just injected with qRules.
3. Enter the SharePoint Site URL in the **Target SharePoint Site URL**.
4. Click on the **Get SharePoint Lists** button.
5. In the **SharePoint Lists** dropdown, select the list you wish to submit items to: **List1**.
6. Click on the **Extract Schema** button.



Import Forms	Define Mapping
Source XSN	 ChangeSubmitUrl_SubmitToShP2.xsn Microsoft Office InfoPath Form Template 44.4 KB
Target SharePoint Site URL	http://SharePointSite
Get SharePoint Lists	
SharePoint Lists	List1
Extract Schemas	

7. Since data in our form is repeating, so select the **Data is from Repeating Group** check box in the **Mapping Definition** section.
8. Click on the  button to display the schema tree of our attached template and select the repeating group for your data, i.e., *my:myFields/my:items/my:item*
9. Click on the  button in each **Form Field** row to select the fields from the schema tree task pane, and also select the corresponding **SharePoint Column** to map the fields to.

Mapping Definition

☒ Data is from repeating group

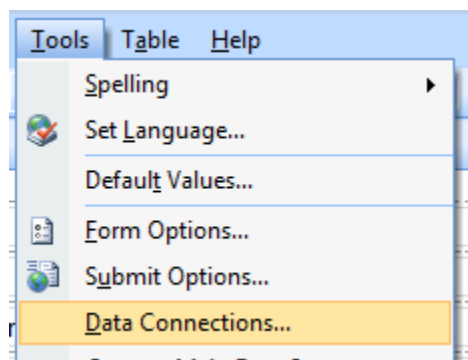
Repeating Group

my:myFields/my:items/my:item

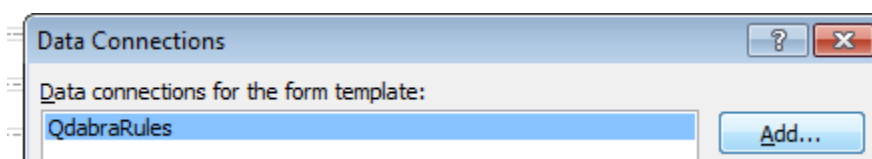
Form Field		SharePoint Column
my:employeeName		EmployeeName
my:employeeTitle		Title

☒ Add mapping

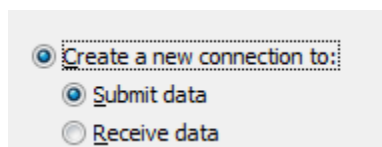
10. Finally click on the **Save As qRules Mapping** button and save the mapping.xml in your local drive.
- C. Open your template in design mode and add a data connection. We'll create a submit data connection that submits to a SharePoint library.
1. Go to **Tools > Data Connections...**



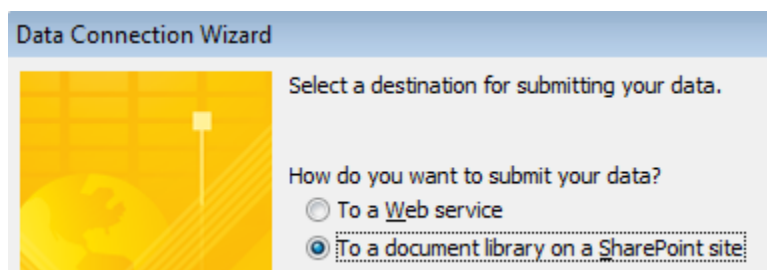
2. Click on the “Add” button.



3. In the “Data Connection Wizard”, click “Create a new connection to:” and “Submit data”.



4. Click **Next**.
5. Select “To a document library on a SharePoint site” to submit your data and click “Next”.



6. Enter the “Document library” location on a Share Point site (ex: **http://<SharePointSite>/TestLibrary1**) and enter a “File name” and click “Next”.



This wizard helps you specify a data connection for submitting the form to a document library on a SharePoint site. The form will be submitted with the file name specified below.

Document library:

File name:

Example: Status report or concat("Status Report - ", field1)

☐ Allow overwrite if file exists

7. Enter a name for this data connection. For this tutorial we named it “ShPSubmit”. Click “Finish”.

Data Connection Wizard

Enter a name for this data connection:

8. Let's add a receive data connection.

Create a new connection to:

☐ Submit data

☒ Receive data

9. Select **XML document** as the source of your data and browse to the mapping.xml file that's been saved earlier.

From where do you want to receive your data?

☒ XML document

Enter the location of the XML data file that you want to use as your data connection:

10. Leave the default to **Include the data as a resource file in the form template or template part**. For the sake of this tutorial we'll name this data connection “mapping”.



☒ Include the data as a resource file in the form template or template part

☐ Access the data from the specified location

☐ Store a copy of the data for offline use

Enter a name for this data connection:

mapping

☒ Automatically retrieve data when form is opened

Note: You can also add a Refresh button to your form template or template the data.

11. Let's add another data connection that submits data to a Web Service.

☒ Create a new connection to:

☒ Submit data

☐ Receive data

12. Select **To a Web service** to submit data to.

Select a destination for submitting your data.

How do you want to submit your data?

☒ To a Web service

☐ To a document library on a SharePoint site

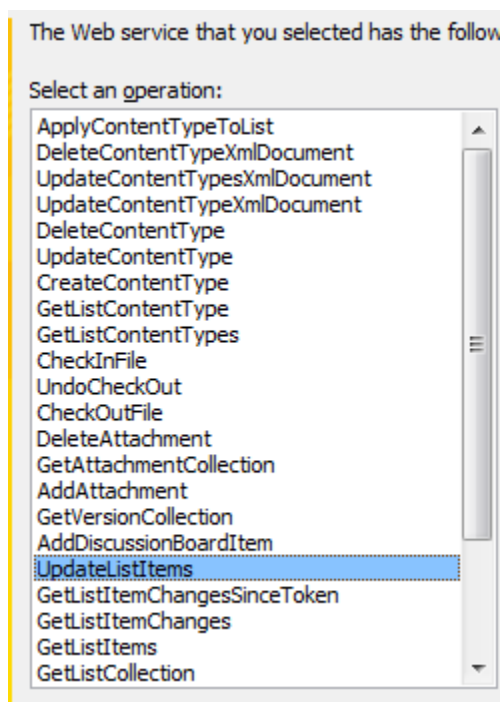
13. Enter this URL: http://SharePointSite/_vti_bin/lists.aspx where <SharePointSite> is the root site where the SharePoint list is

Enter the location of the Web service you want users to submit their forms to:

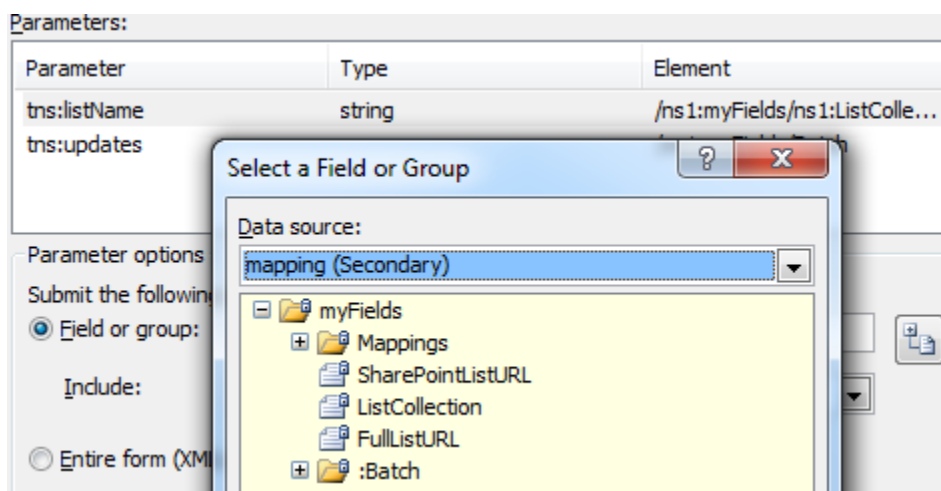
Search UDDI...

Example: <http://www.contoso.com/Service.aspx?WSDL>

14. Select **UpdateListItems** from the list of operations.



15. For the **tns:listName** parameter, select the **ListCollection** node from the **mapping (Secondary)** data source.



16. For the **tns:updates** parameter, select the **Batch** group node. Select to include the **tns:updates** parameter as an **XML subtree, including selected element**.



The submit operation for the Web service requires the following parameters. Specify which fields or groups in your form provide the data for these parameters. If the Web service parameter requires an entire XML document, you can specify that as well.

Parameters:

Parameter	Type	Element
tns:listName	string	/ns1:myFields/ns1:ListColle...
tns:updates		/ns1:myFields/Batch

Parameter options

Submit the following data for the selected parameter:

☒ Field or group: /ns1:myFields/Batch

Include: XML subtree, including selected element

☐ Entire form (XML document, including processing instructions)

☐ Submit data as a string

Note: Digitally signed data must be submitted as a string to preserve white spaces.

17. Name this data connection, **SharePointSubmit**.

Enter a name for this data connection:

SharePointSubmit

18. Add the last data connection that receives data from a Web Service.

☒ Create a new connection to:

☐ Submit data

☒ Receive data

19. Select the **SharePoint library or list**.

From where do you want to receive your data?

☐ XML document

☐ Database (Microsoft SQL Server only)

☐ Web service

☒ SharePoint library or list

20. Enter a valid SharePoint site (ex: http://<SharePointSite>/)



SharePoint site details

Use these options to specify the SharePoint site from which you receive data.

Enter the location of the SharePoint site you want to use as your data connection or the complete URL to your SharePoint list.

Examples: http://yourserver/yoursite/ or http://yourserver/yoursite/yourlist/Forms/AllItems.aspx

21. Select the master library list that was created in the beginning of the tutorial, and select the SharePoint list fields.

Select a list or library:

- PTO Requests
- qRules_v1.8_IPFS
- qRules17Test
- qRulesForms
- qRulesIsReadOnly
- Query Test Library
- Reporting Metadata
- Reporting Templates
- SaveToSharePointBrowserSample
- Shared Documents
- SharePoint List Submit
- SharePointList**
- Signature Pics
- Signatures
- Site Template Gallery
- SubmitToShPList

Description of list or library:

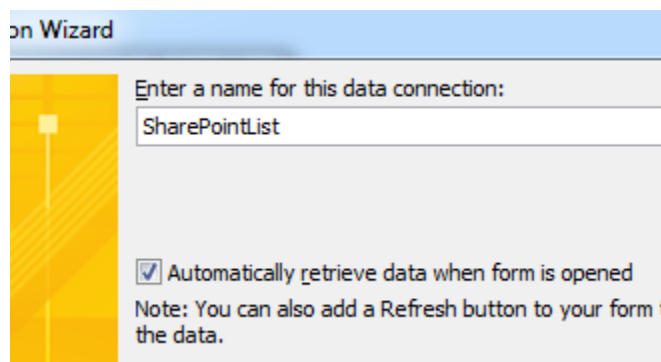
Custom List

The SharePoint list has the following fields that you can select from.

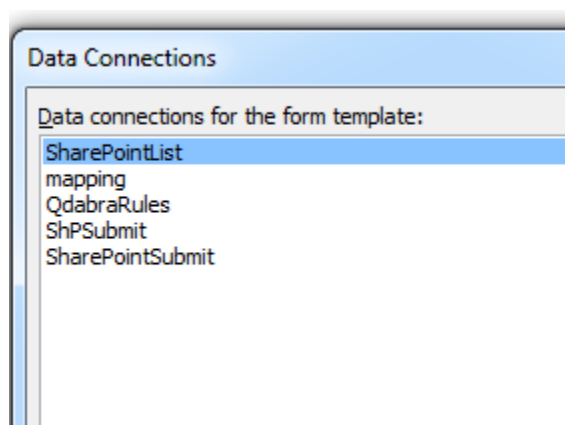
Select fields:

- ☒ **SharePointListGUIDs**
- ☒ SubmitURLs
- ☐ Title
- ☐ ID
- ☐ Content_Type (Content Type)
- ☐ Modified
- ☐ Created
- ☐ Created_By (Created By)
- ☐ Modified_By (Modified By)
- ☐ Version

22. Name the data connection, **SharePointList**.



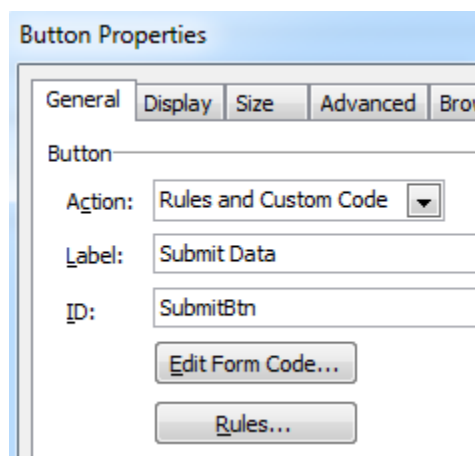
23. Finally we should see these data connections.



D. The next step is to add the rules.

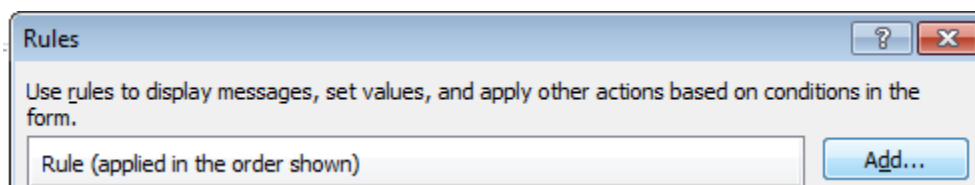
1. Add a button.

- i. Double click (or right click on the **Button properties...** to select context menu) on the button to open the properties. Set the label to **Submit Data**. In the **General** tab, click on the **Rules...** button

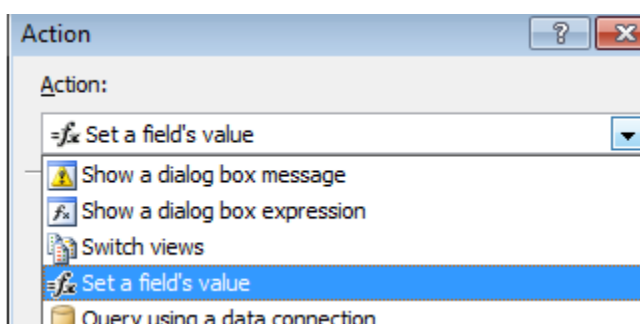




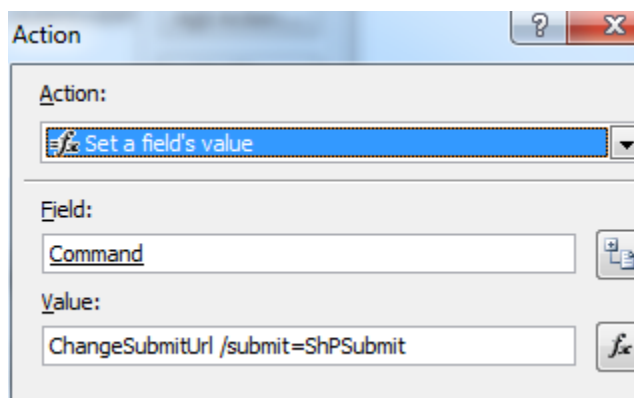
- ii. Click on the **Add...** button to add a new rule. Give this rule a meaningful name.



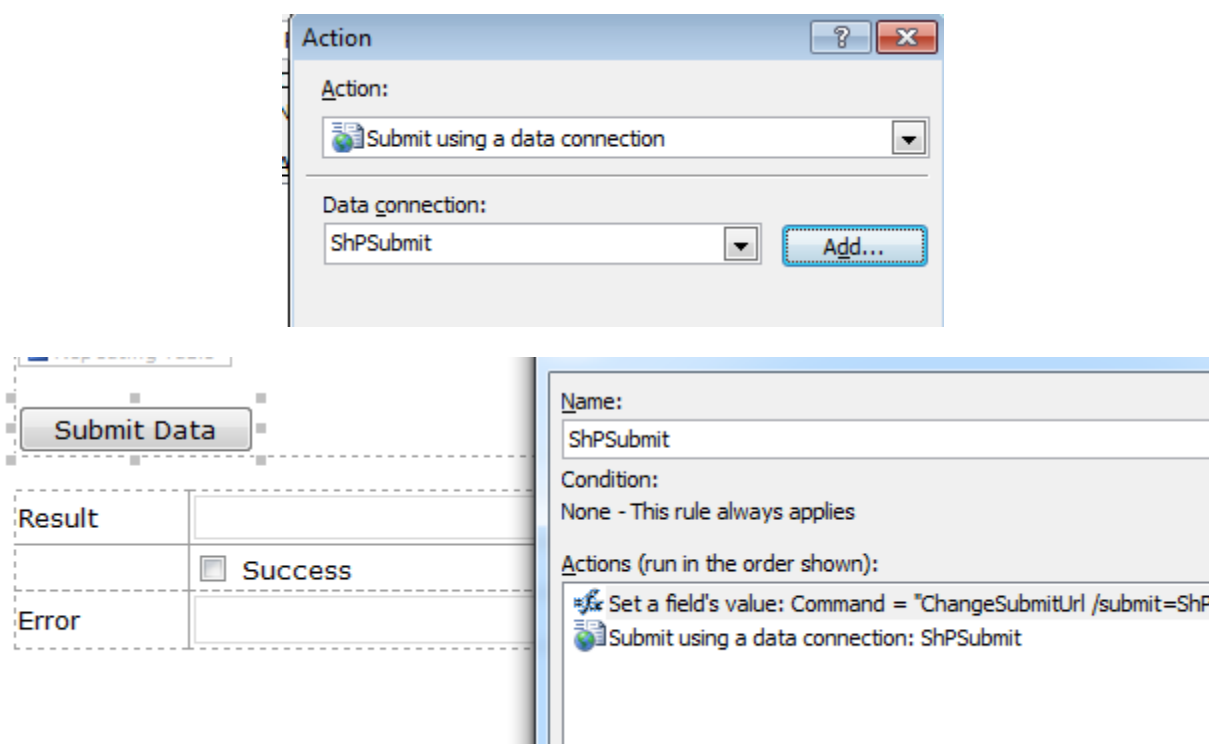
- iii. Click on the **Add Action...** button and select **Set a field's value** action from the list.



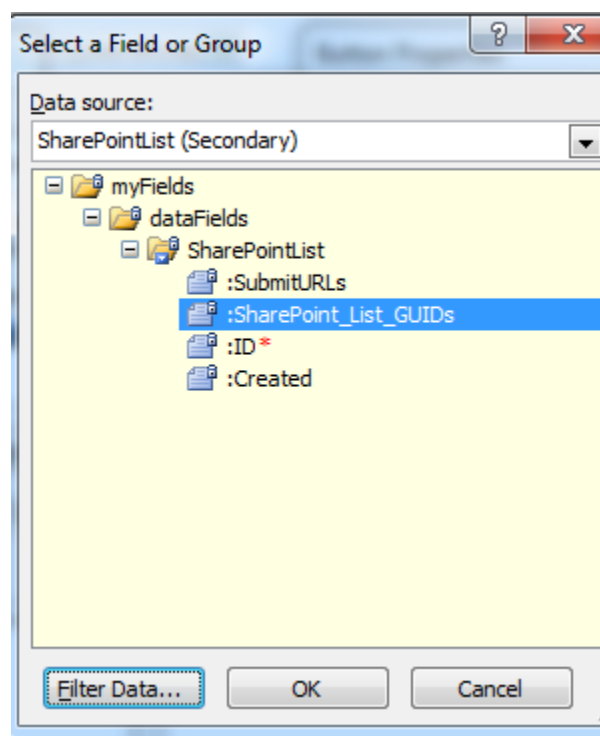
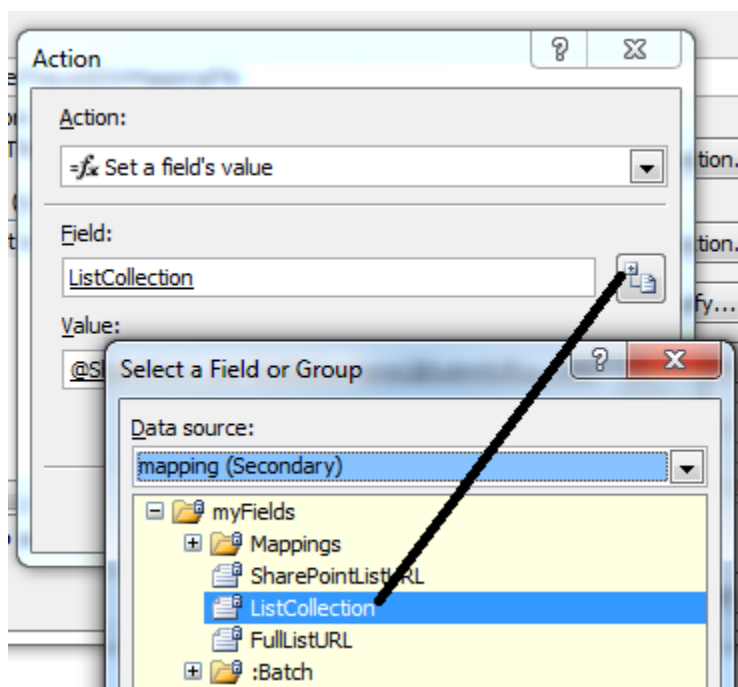
- iv. Set the **Field** value to point to the **QdabraRules(Secondary)** data source **Command** field and set the **Value** to **ChangeSubmitUrl /submit=ShPSubmit**. Click on the **OK** button.

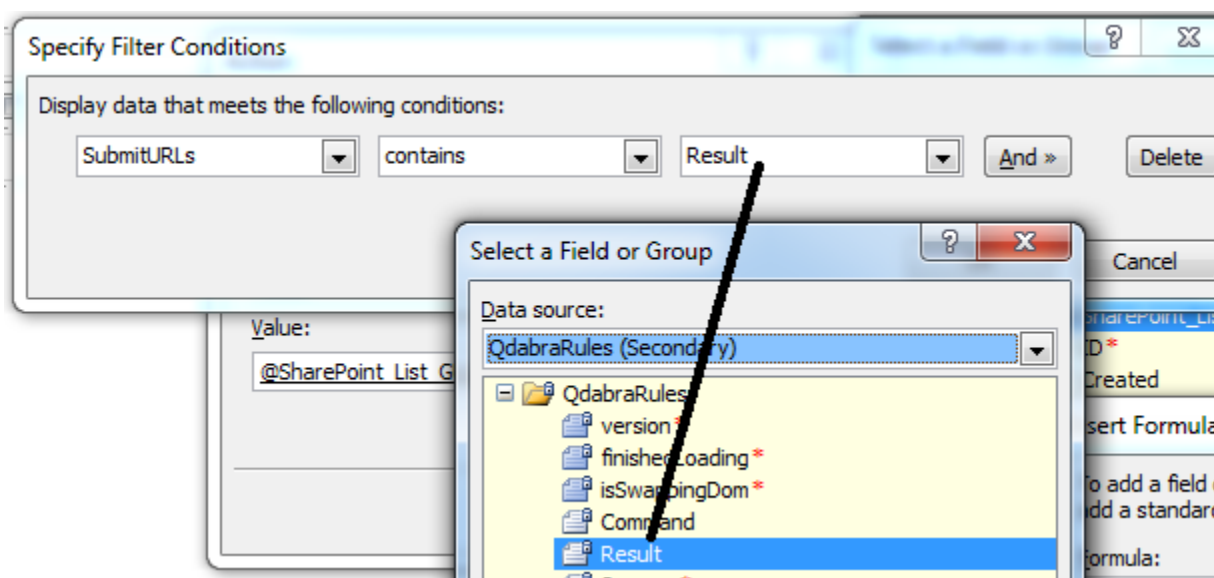
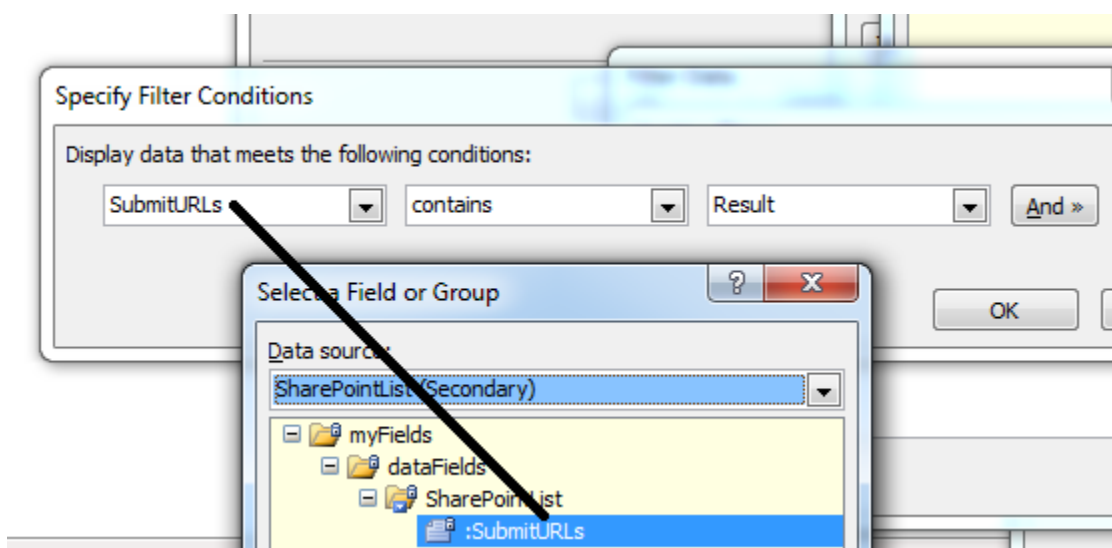


- v. Click again on the **Add Action...** button to add another rule.
- vi. Select **Submit using a data connection** action and select **ShPSubmit** data connection. Finally you should see two actions for **ShPSubmit** rule.

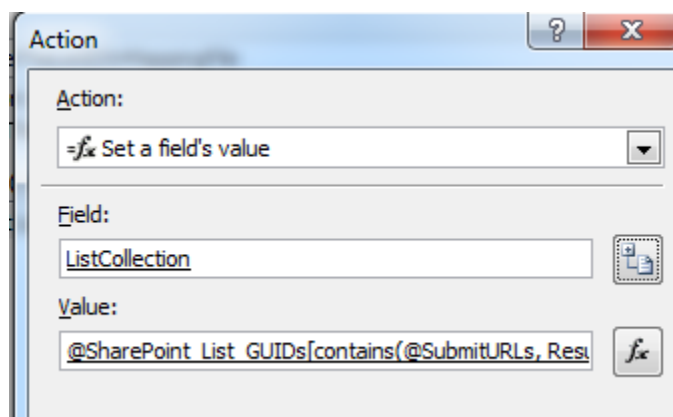


- vii. Add a second rule to change the **ListCollection** node in the mapping file. Click on the **Add...** button > **Add Action....** Select **Set a field's value** action from the action drop down, and set **Field** to point to the **ListCollection** field from the **mapping (Secondary)** data source, and for the **Value** select the **SharePoint_List_GUIDs** from the **SharePointList (Secondary)** data source. Click on the **Filter Data...** button to add a filter criteria. For left side of the condition, select **SubmitURLs** from the **SharePointList (Secondary)** data source and for right side of the condition select **Result** field from the **QdabraRules (Secondary)** data source.

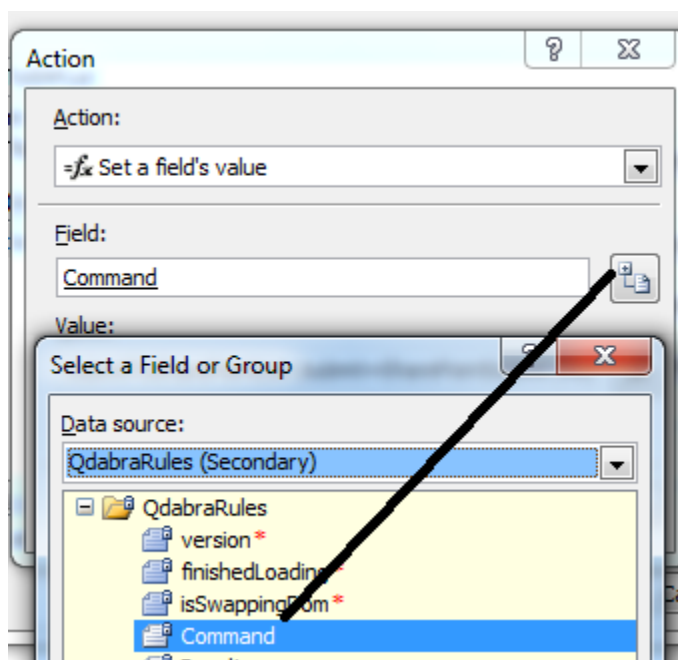




viii. Finally, this is how the rule looks:



- ix. Add the last and final rule: click on the **Add... > Add Action...** again, and select **Set a field's value** action from the drop down, and set the **Field:** to point to the **Command** field from the **QdabraRules (Secondary)** data source and enter **SubmitToSharePointList /submit=SharePointSubmit /mapping=mapping /id=my:id** in the **Value:** field (Note: When specifying the /id parameter and the data is from a repeating group, it should be the relative XPath to the ID field in the form).





Action: fx Set a field's value

Field: Command

Value: SubmitToSharePointList /submit=SharePointSubmit /ma fx

OK Cancel

- x. Finally we should see three rules as shown below:

Rules

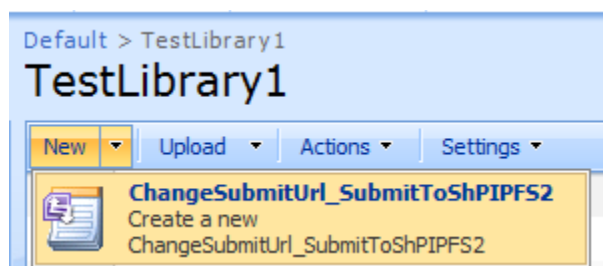
Use rules to display messages, set values, and apply other actions based on conditions in the form.

Rule (applied in the order shown)

- ☒ ShPSubmit
- ☒ ChangeTheListIDInMappingFile
- ☒ SubmitToShPList

Add... Modify... Remove Move Up Move Down OK Cancel

2. Now drag and drop the QdabraRules **Result**, **Success**, and **Error** fields into the view.
 3. Save the form.
- E. Next, publish the form to 2 different SharePoint libraries. In this tutorial let's assume we published the form to <http://<SharePoinSite>/TestLibrary1> and <http://<SharePoinSite>/TestLibrary2>. Please refer to the qRules User Guide (section: **Use qRules in InfoPath Forms Services**) on how to publish form to a SharePoint library.
- F. Now let's do the actual testing:
1. Click on the **New > ChangeSubmitUrl_SubmitToShPIPS2** to open a new form from <http://<SharePointSite>/TestLibrary1>



2. Fill out the form by entering data in the **Name** and **Title** field(s).

ID	Name	Title
	John Smith	Programmer

☒ Insert item

Result

☐ Success

Error

3. Click on the **SubmitData** button. The form is submitted to the same library that it is opened from. It also submits to the SharePoint list library (**List1**) and returns the **ID** field back in the form.

ID	Name	Title
9	John Smith	Programmer

☒ Insert item

Result

☒ Success

Error



Default > TestLibrary1

TestLibrary1

New Upload Actions Settings

Type	Name	Form Name	Sample Field	Modified↓	Modified By
	John Smith NEW			4/19/2010 6:38 PM	Aruna Akella

Default > List1

List1

New Actions Settings

@ Title	EmployeeName
Programmer NEW	John Smith

- Similarly, the form can be submitted from **TestLibrary2**, which also submits to the **List2** list library and returns the ID field back in the form.

Default > TestLibrary2

TestLibrary2

New Upload Actions Settings

Type	Name	Modified↓	Modified By
	Kevin Hord NEW	4/20/2010 9:44 AM	Aruna Akella

Default > List2

List2

New Actions Settings

@ Title↑	EmployeeName
Manager NEW	Kevin Hord