

SHAREPOINT LISTS AND ATTACHMENTS

PRODUCT: qRules v2.3
LAST UPDATED: September 22, 2010

SCENARIO

SharePoint Lists and Attachments – you wish to add attachments to your SharePoint list items.

VALUE PROPOSITION

qRules provides a handy command called **AttachToSharePointList** that allows you to add attachments to your SharePoint to list items. You can replace the attachment in your form with a link and a filename attribute instead. This reduces the size of your XML forms.

REQUIREMENTS

- SharePoint 2007 or 2010
- InfoPath 2007 SP2 or 2010 SP2
- qRules v2.3



PRE-REQUISITES

Refer to the qRules v2.3 Quick Start guide (located in **Start > All Programs > Qdabra > Tools > qRules**) for steps on how to:

1. Download and install qRules.
2. Add qRules to your InfoPath form template.

HOW TO USE THE ATTACHTOSHAREPOINTLIST COMMAND

The command **AttachToSharePointList** saves attachments to list items so you can replace with a link and a filename attribute instead. The command includes logic to create a unique filename for each attachment in the list; alternatively, it allows you to provide your own name for the attachment. The command also works for repeating attachments. If you have the qRulesLink and qRulesFilename attributes, this command will also remove the attachment from your form and populate with link and filename.

- **Arguments:**
 - **dsname:** Data Source for the AddAttachment method (SharePoint Lists Web Service)
 - **url** (optional): SharePoint Lists Web Service URL
 - **guid** (optional): GUID for the SharePoint list
 - **id:** ID of the list item to attach file/s to
 - **xpath:** XPath to attachment field
 - **name** (optional): Name of the file (extension will be added by qRules)
 - **uniqueName** (optional): Prepend date and time information to the file name to provide a unique name; must be set to 'yes' or 'no', default is no
- **Examples:**
 - `AttachToSharePointList /dsname=AddAttachment /id=1 /xpath=/my:myFields/my:ListItem/my:Attachment/my:File`
 - `AttachToSharePointList /dsname=AddAttachment /url= http://server/_vti_bin/lists.asmx?WSDL /guid= {CDAA93D1-C8D5-433F-A9EE6FE7456CD76C} /id=1 /xpath=/my:myFields/my:ListItem/my:Attachment/my:File /name=NewAttachment /uniqueName=yes`
 - `concat("AttachToSharePointList /dsname=AddAttachment /id=", ListID, " /xpath=/my:myFields/my:ListItem/my:Attachment/my:File")`

PREPARE YOUR SHAREPOINT LIST

For the purposes of this tutorial, we will use a simple SharePoint list, such as one where we store our manuals or documentation, like this:

Manuals				
New ▾ Actions ▾ Settings ▾			View: All Items ▾	
ID	Title	Author	Description	
1	qRules v2.3 User Guide ^{NEW}	Ernesto Machado	Covers general topics and provides a quick introduction to qRules and usage of commands.	
2	Save Images or Attachments to SharePoint and Replace with Links ^{NEW}	Mel Balsamo	Tutorial on how to save attachments to SharePoint using the SaveToSharePoint command	
3	How to use the SubmitToSharePointList Command ^{NEW}	Hilary Stoupa	Guide on how to submit items to a SharePoint List with qRules	



ADDING ATTACHMENTS TO EXISTING SHAREPOINT LIST ITEMS

In the screenshot above, notice that the list items don't have any attachments. We will use the **AttachToSharePointList** command to add attachments to these items, represented by their respective IDs.

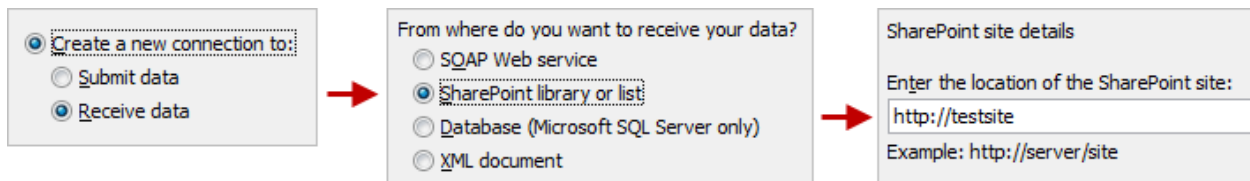
Open your form template in InfoPath Design mode and follow the steps below to start designing your template.

Create the data connections

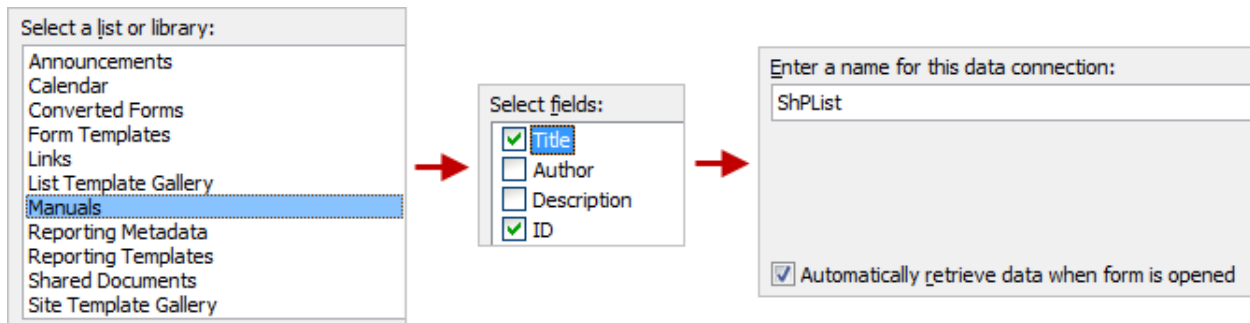
The form will have two data connections:

- one that connects to your SharePoint list to retrieve the items so you can select which one to add your attachment to;
- the second data connection will actually add your attachment.

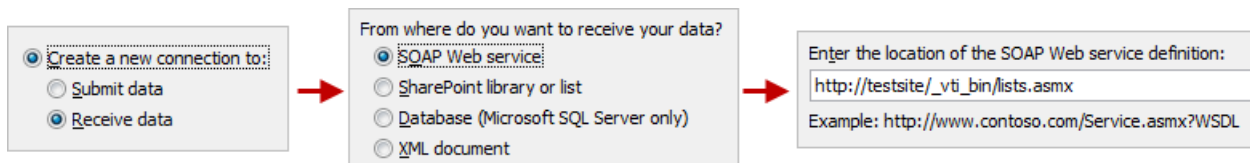
1. In InfoPath 2010, click **Data Connections** found in the *Data* tab.
2. Add a data connection that receives data from your SharePoint list, entering your SharePoint site.



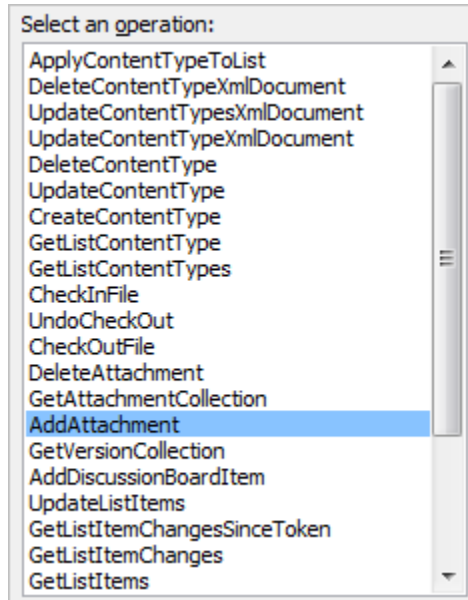
3. Select your SharePoint list, check the **Title** and the **ID** fields and give your data connection a name.



4. Add another data connection that receives data from a web service, entering your SharePoint list web service URL, e.g. http://testsite/_vti_bin/lists.asmx.



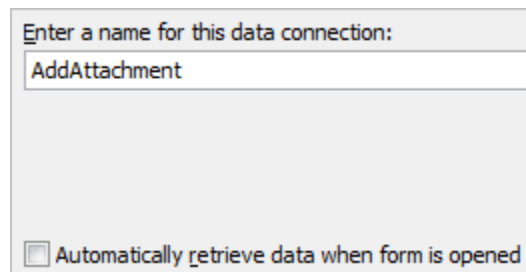
5. Select **AddAttachment** from the list of operations.



6. In the next screen, set the value of the `tns:listName` parameter to the name of your SharePoint list, which in our example is called "Manuals". Leave the rest of the parameters blank.

Parameters:		
Parameter	Type	Value
<code>tns:listName</code>	string	Manuals
<code>tns:listItemID</code>	string	
<code>tns:fileName</code>	string	
<code>tns:attachment</code>	base64Binary	

7. Give your data connection a name (take note of this name, since you will need it later) and uncheck 'Automatically retrieve data when form is opened'.



Enter a name for this data connection:

AddAttachment

Automatically retrieve data when form is opened

8. Close the *Data Connections* window.

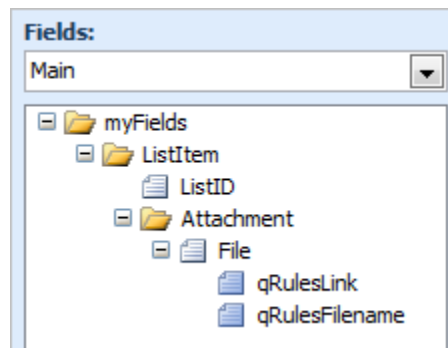


Create your schema and add controls on your canvas

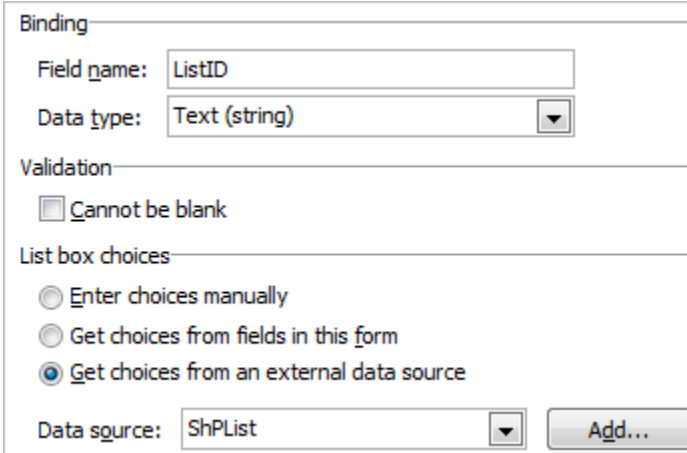
9. Add the following fields to your main data source:

Name	Type	Data Type
ListItem	Group	
ListID	Field (element)	Text (string)
Attachment	Group	
File	Field (element)	Picture or File Attachment (base64)
qRulesLink	Field (attribute)	Text (string)
qRuleFilename	Field (attribute)	Text (string)

Your main data source should look similar to this:



10. Right-click on the **ListID** and select *Drop-Down List Box* from the list of controls. This will add the field on your canvas.
11. Right-click on the control and select **Drop-Down List Box Properties...**
12. In the *Data* tab, *List box choices* section, select Get choices from an external data source and select your SharePoint list data connection.



Binding

Field name: ListID

Data type: Text (string)

Validation

Cannot be blank

List box choices

Enter choices manually

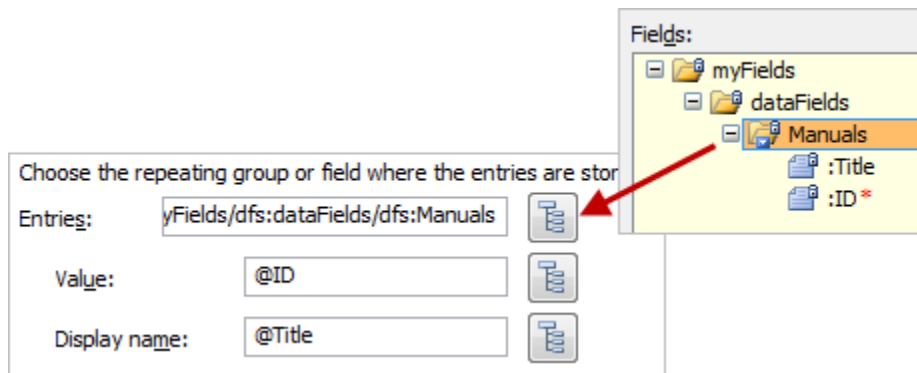
Get choices from fields in this form

Get choices from an external data source

Data source: ShPList Add...

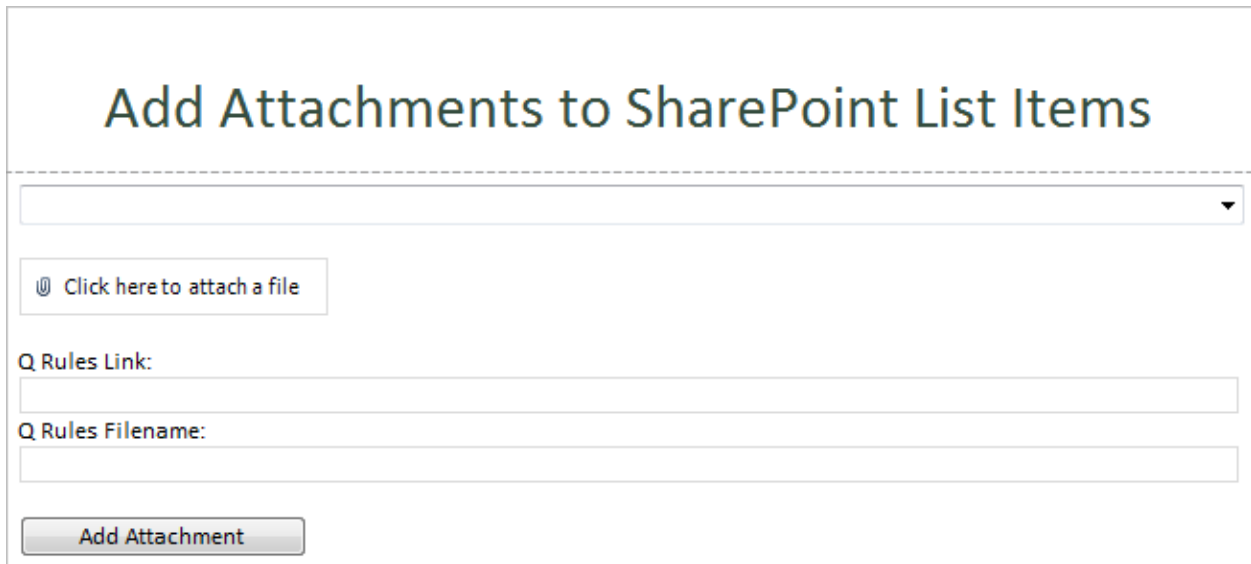


Entries should point to your SharePoint list repeating group, Value would be the **ID**, and Display name would be the **Title**.



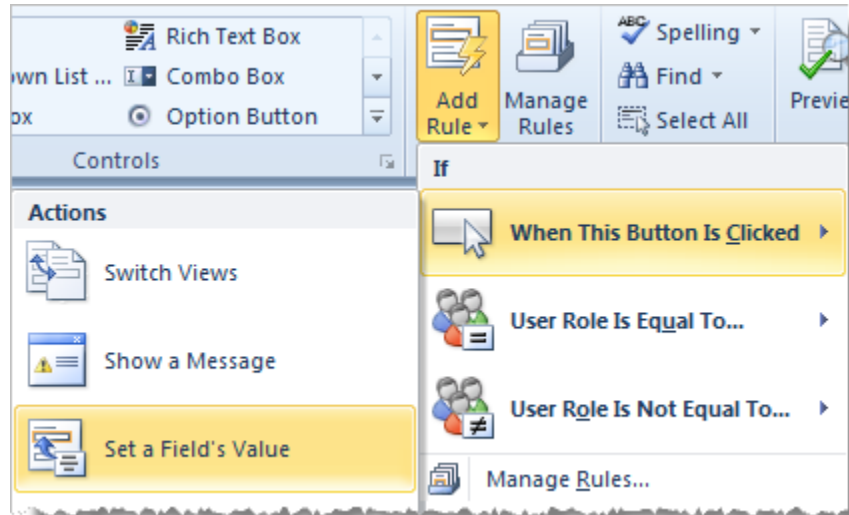
13. Drag the **File** field as a file attachment on your canvas.
14. Drag the **qRulesLink** and the **qRulesFilename** attributes as text boxes on your canvas.
15. Add a button labeled **Add Attachment**.

Your canvas may look similar to this:

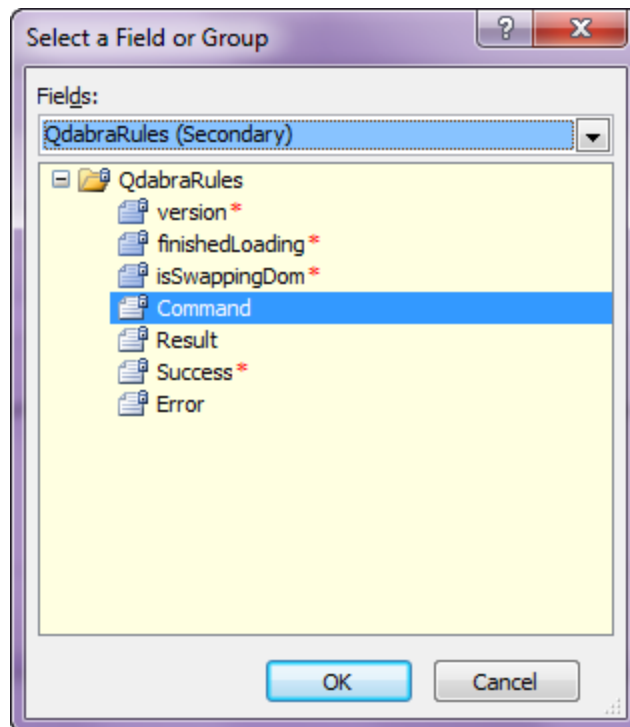


Add a rule to add the attachment to your SharePoint list item

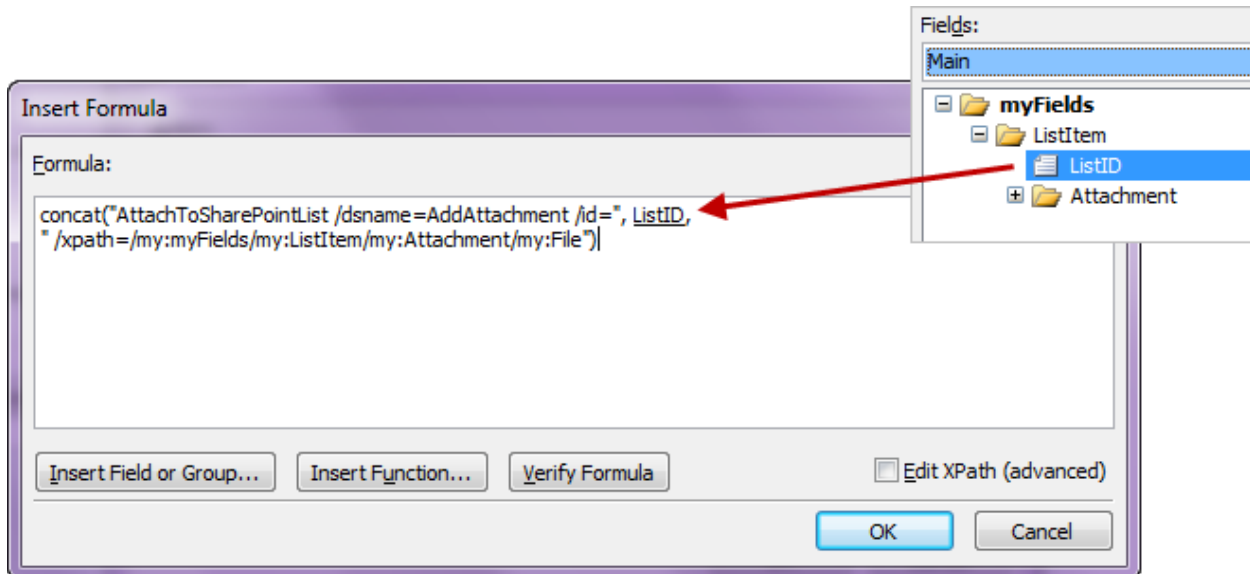
16. Click on the **Add Attachment** button and then add a rule that sets a field's value when the button is clicked:



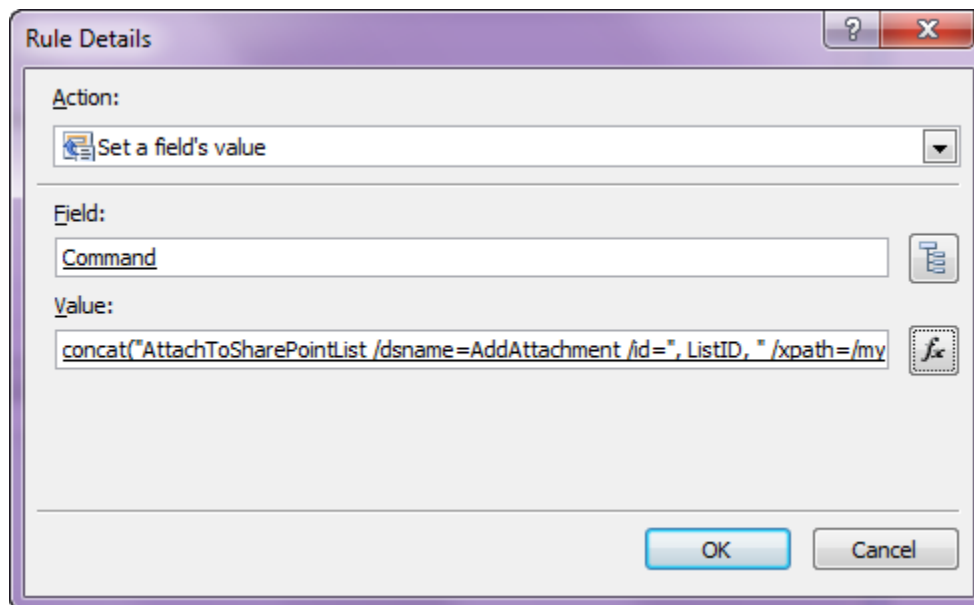
- a. The Field will be the **Command** node of the *QdabraRules (Secondary)* data source.



- b. For the Value, click on the **fx** button and enter the command syntax:
***concat("AttachToSharePointList /dsname=AddAttachment /id=", ListID, "
/xpath=/my:myFields/my:ListItem/my:Attachment/my:File")***

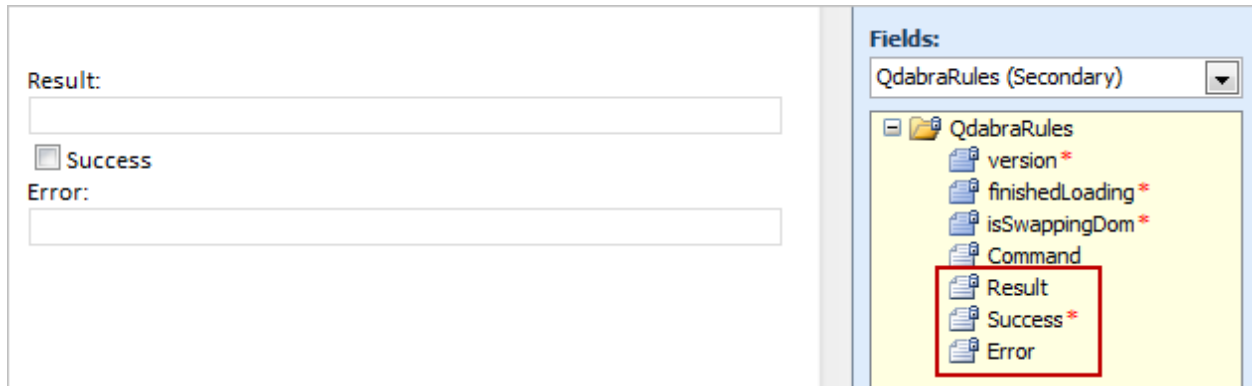


Your rule action should look similar to this:



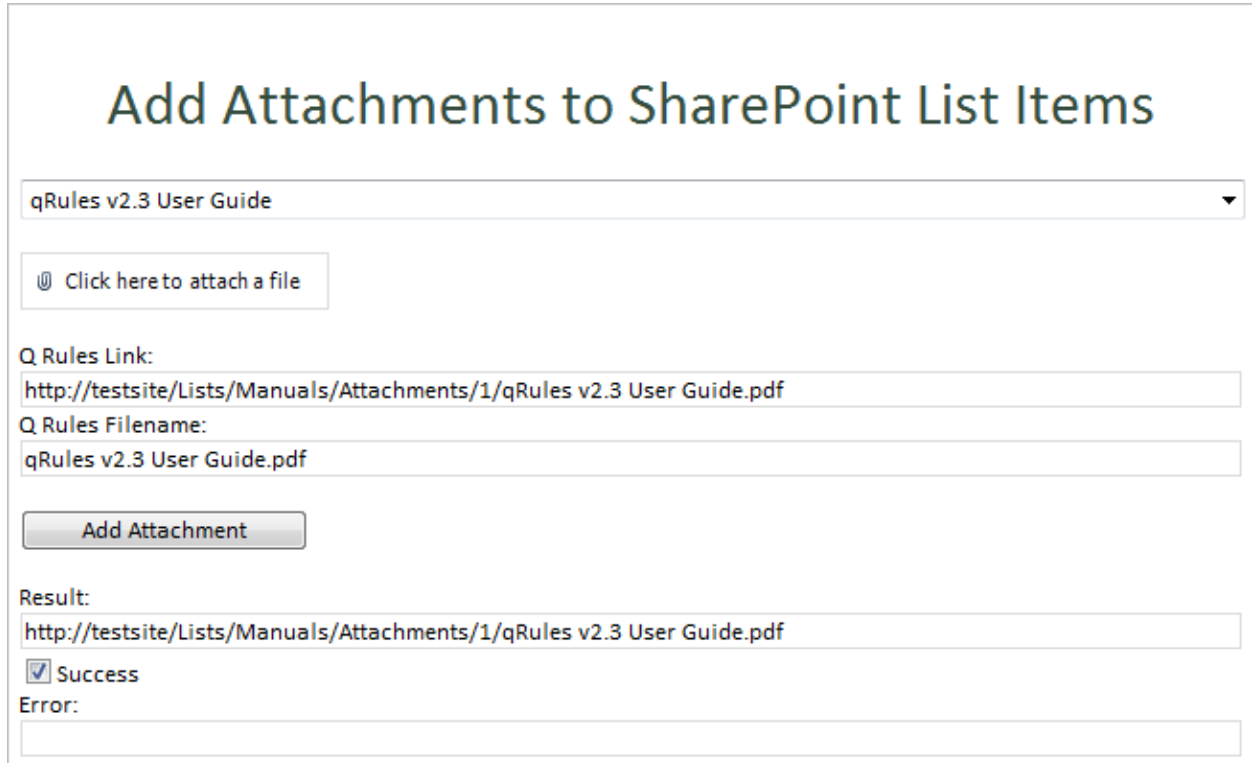
Test your form

Tip: For testing purposes, it would be helpful to see the qRules **Success**, **Result** and **Error** nodes, in case there are any issues after the command executes. Do this by dragging the fields from the **QdabraRules (Secondary)** data source on to the canvas.



17. Preview your form.
18. Your dropdown should populate with all your SharePoint list items, displaying the *Title*. Select an item to add attachment to.
19. Attach a file and click on the **Add Attachment** button.





Your result may look similar to this:



Notice the qRules **Result** field returning the URL to the attached file which also becomes the value of the *qRulesLink*. If desired, you may insert a hyperlink control on your form that links to *qRulesLink* and displays *qRulesFilename*.

If you view the item on your SharePoint list, you should see the attachment added to it.

Manuals: qRules v2.3 User Guide

 New Item |  Edit Item |  Delete Item |  Manage Permissions | Alert Me

Title	qRules v2.3 User Guide
Author	Ernesto Machado
Description	Covers general topics and provides a quick introduction to qRules and usage of commands.
Attachments	qRules v2.3 User Guide.pdf



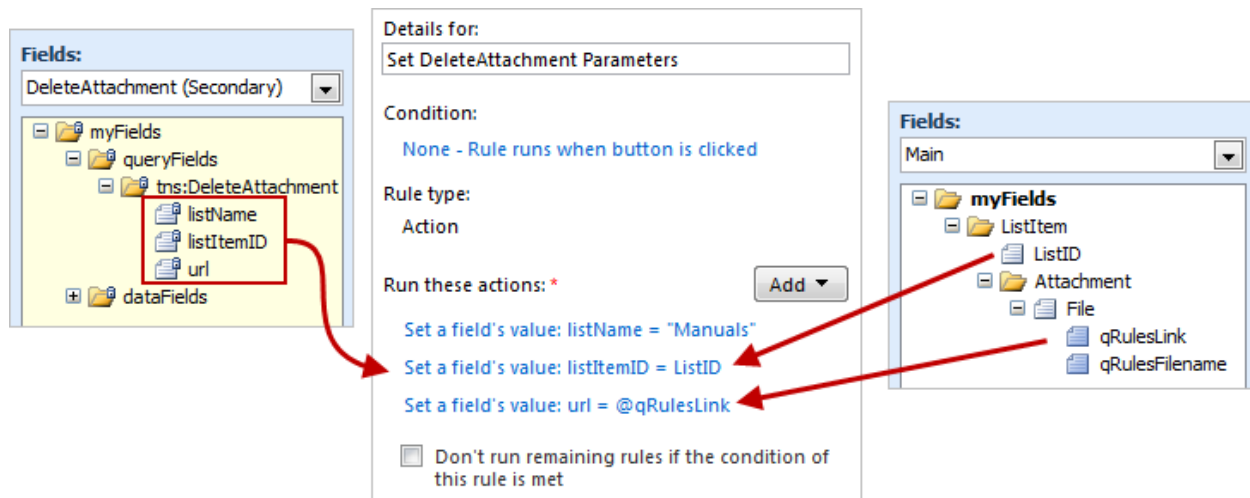
ADDITIONAL INFORMATION

Deleting Attachments

There is a useful method available in SharePoint's list web services called *DeleteAttachment*. This method removes the attachment from the specified list item. Below are steps on how to use it in the form you designed in this tutorial:

1. Add a data connection to your SharePoint list web service, (e.g. http://testsite/_vti_bin/lists.asmx), selecting the **DeleteAttachment** operation and leaving the parameters blank.
2. On your canvas, add a button with a first rule that sets this data source's parameters to the following:
 - **listName** – name your SharePoint list, e.g. *Manuals*
 - **listItemID** – */my:myFields/my:ListItem/my:ListID*
 - **url** – */my:myFields/my:ListItem/my:Attachment/my:File/@my:qRulesLink*

Like shown:



The screenshot displays the QDABRA rule configuration interface. On the left, a 'Fields' panel shows a tree structure under 'DeleteAttachment (Secondary)' with folders for 'myFields', 'queryFields', 'tns:DeleteAttachment', and 'dataFields'. The 'tns:DeleteAttachment' folder contains fields for 'listName', 'listItemID', and 'url'. A red box highlights these three fields, with red arrows pointing to the corresponding actions in the central 'Run these actions' section. On the right, another 'Fields' panel shows a tree structure under 'Main' with folders for 'myFields', 'ListItem', 'Attachment', and 'File'. The 'Attachment' folder contains fields for 'qRulesLink' and 'qRulesFilename'. Red arrows point from these fields to the 'url' action in the central section. The central configuration area includes:

- Details for:** Set DeleteAttachment Parameters
- Condition:** None - Rule runs when button is clicked
- Rule type:** Action
- Run these actions: ***
 - Set a field's value: listName = "Manuals"
 - Set a field's value: listItemID = ListID
 - Set a field's value: url = @qRulesLink
- Don't run remaining rules if the condition of this rule is met

3. Add another rule in the button to query the data connection created in Step 1.



Details for:
Delete Attachment

Condition:
None - Rule runs when button is clicked

Rule type:
Action

Run these actions: * Add ▼

[Query using a data connection: DeleteAttachment](#)

Don't run remaining rules if the condition of this rule is met

You may test your changes in Preview mode by first adding an attachment to an item, and then clicking on the button that you added to delete the attachment. Refresh your list item in SharePoint to verify that the attachment has been deleted.



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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