

QRULES QUICK START

PRODUCT: qRules
LAST UPDATED: November 15, 2016

VALUE PROPOSITION

InfoPath is the best forms editor on the market today because it lets you create rich forms with structured data without having to rely on a developer to code features. Business process owners can quickly prototype and publish forms with no dependency on developers or IT staff to deploy the forms. Less code means less cost to you both in up front development work and long-term maintenance work. You quickly create a form and when changes are needed, you can do them yourself.

However, many simple actions in InfoPath require code, like sorting tables or checking to see if the form was new. The result is that today most forms need a small amount of code to do a few simple things. That's really too bad because it creates a barrier for most people using InfoPath.

Qdabra has created a common library of code snippets to cover these "codeless" gaps. We call this library qRules. qRules has been around since 2009 and contains commonly requested functions accessible via rules instead of code. We've even extended qRules to do things that aren't available in InfoPath today – like encrypting fields.

ADDING QRULES TO FORM TEMPLATES

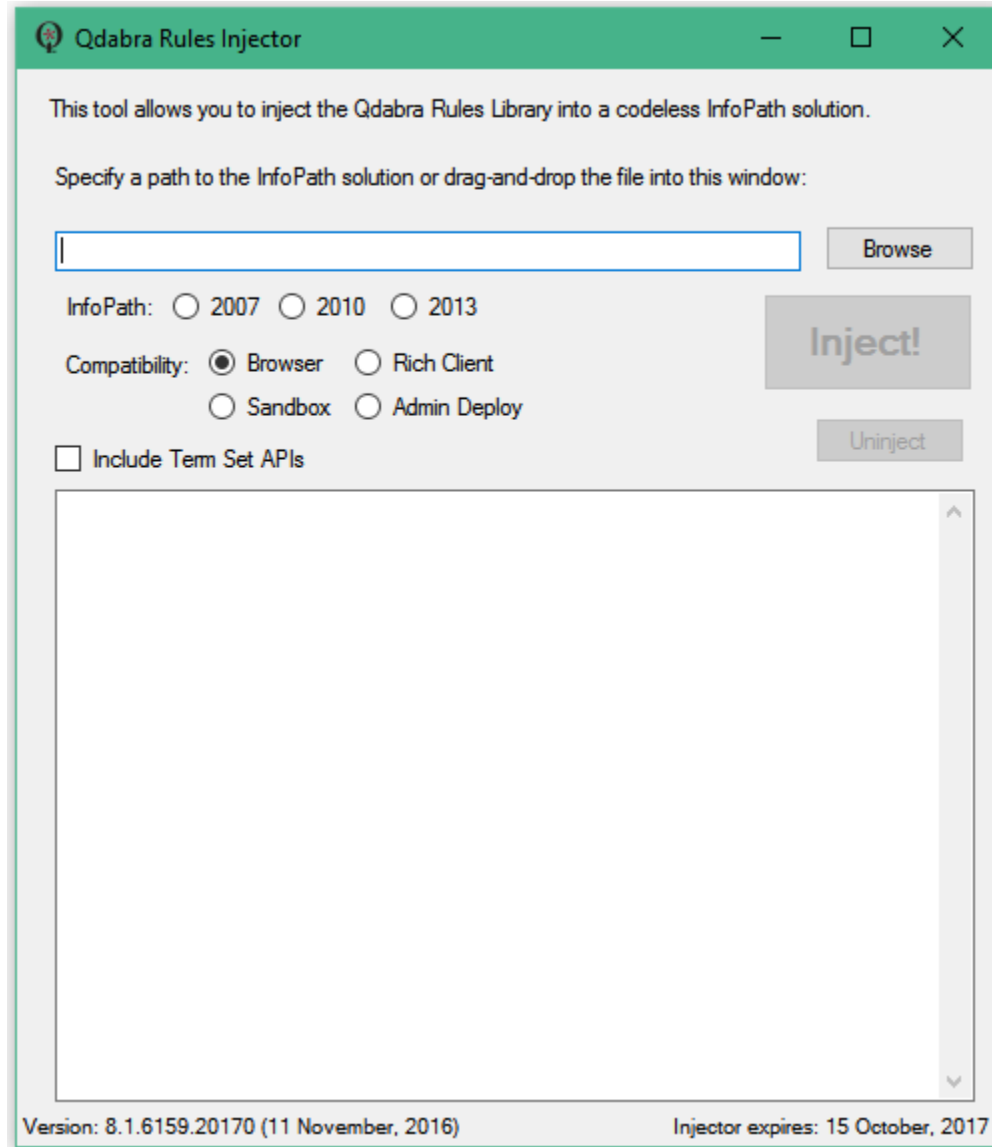
Adding qRules to forms is a simple process:

1. Create a backup of your XSN, if desired. This is necessary because injection overwrites your XSN.
2. Close the form you wish to inject. This is necessary because injection will fail on an open form.

Injection will also fail for a form that already contains custom code. If you would like to use qRules with your own code in an InfoPath form, please refer to [this PDF document](#) for details.

3. Launch the Qdabra Rules Injector tool by clicking on **Start > Programs > Qdabra > Tools > qRules > qRules Injector**.





4. Specify the XSN file you wish to inject with qRules. There are four ways to do this:
- Browse to select the file.
 - Drag and drop the file.
 - Hand-type the path to the file.
 - Leave the default value from the previous use of the injector.

There are different file types you could specify:

- An XSN form template, of course.
 - You can select the manifest.xsf file from an extracted file folder.
 - You can also inject InfoPath template parts (XTPs).
5. The injector will try to automatically detect the InfoPath version. However, you can change this in the injector if necessary.



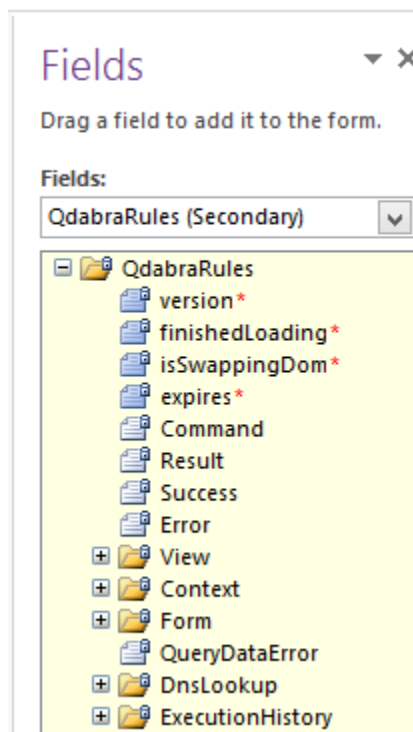
6. Choose the type of form you are injecting qRules into:
 - Browser Form (InfoPath Form Services, IPFS):
 - Not all commands are available in browser forms. Please refer to the Command overview to learn which commands are browser compatible.
 - If you select “Rich Client”, all commands will be available (except **SubmitAsUser**).
7. Click the **Inject** button.
8. Close the injector.

TUTORIAL: USE QRULES IN YOUR FORM TEMPLATE

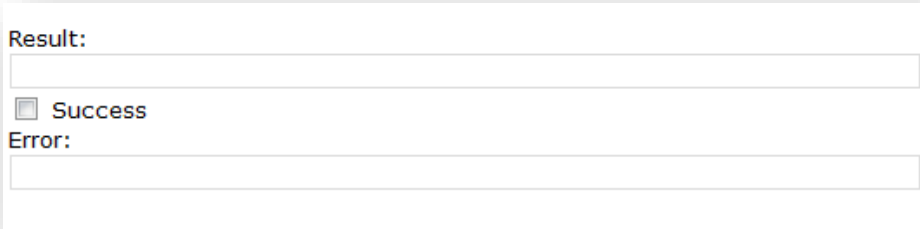
Using the qRules commands is easy. Follow the short tutorial below to quickly familiarize yourself with the steps necessary to use qRules in your form. We will create a new, blank form and inject it with qRules. Then we'll set up the command DateDiff to calculate the number of days elapsed between two date pickers. This will allow us to demonstrate how easy it is to access these operations.

Though the screenshots below use InfoPath 2010, the steps should be similar for InfoPath 2007 or InfoPath 2013.

1. Create a new, blank InfoPath form and save it. Close InfoPath.
2. Inject qRules into the XSN template by following the steps in the previous section.
3. Open the form in design mode.
4. In the Data Source taskpane, switch to the **QdabraRules** data connection.



5. Drag the **Result**, **Success** and **Error** nodes into the canvas.

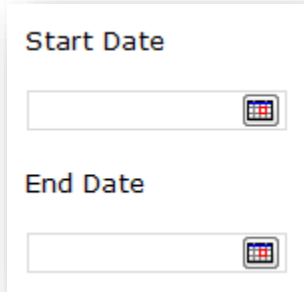




Result:

 Success
Error:

Success displays true if the command runs successfully (no errors), and false otherwise. If an error occurs, such as non-existent command name or incorrect parameters, the **Error** node will contain the error details. As you are designing the command, you should verify the values in these fields. Once the command is working and the form is getting published, you can remove these controls from the canvas.

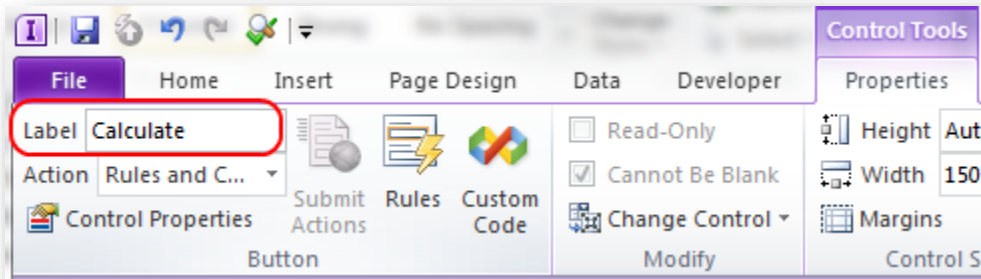
6. Add two Date Pickers to your canvas. Label them **Start Date** and **End Date** and name the fields **StartDate** and **EndDate**.



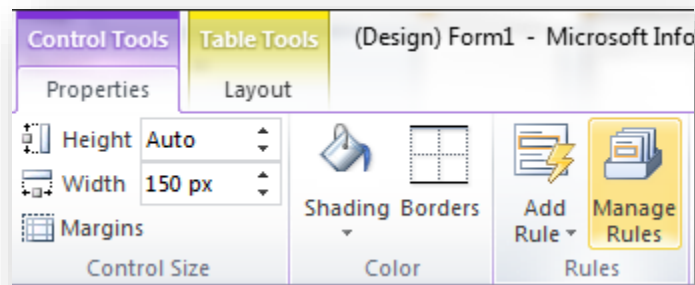
Start Date
 
End Date
 

7. Insert a button into the canvas.
8. Double click on the button to open the Control Tools > Properties tab on the ribbon for the button.
9. Change the label from “Button” to “Calculate”:





10. Click **Manage Rules** from the Control Tools > Properties tab on the ribbon:



11. From the **Rules** task pane, select **New > Action > Add > Set a field's value**.
12. For **Field**, select the **Command** node from the **QdabraRules** secondary data connection.
13. For **Value**, type in **DateDiff**.
14. Click **OK** to close all dialog boxes.
15. Select **Preview** and click the button in the form.


We have deliberately generated an error. When there are errors, the **Error** field will show additional information. You'll see that the **Success** checkbox is **not** checked, and the **Error** field contains the following information: *"Usage is: DateDiff /date1=The start date /date2=The date to subtract from date1 /component=Desired portion of the date difference (days | weekdays | hours | minutes | seconds | milliseconds | totaldays | totalhours | totalminutes | totalseconds | totalmilliseconds) [/dsnamehol]=If using /weekdays for component, can include a secondary data source for holidays to exclude. If provided, /component not required. [/xpathhol]=If using /weekdays for component, can include an xpath with holidays to exclude. If provided /component not required."*

Now that we know the proper usage, let's fix the command.

16. Click **Close Preview**.



17. Double click the “Calculate” button, and click **Rules**. Modify the existing rule, and then click **Modify** for the action.

18. Edit the **Value** field. Previously we typed in **DateDiff**. Now, click on the  button.

19. Enter the following command: ***concat("DateDiff /date1=",my:EndDate," /date2=",my:StartDate," /component=days")***

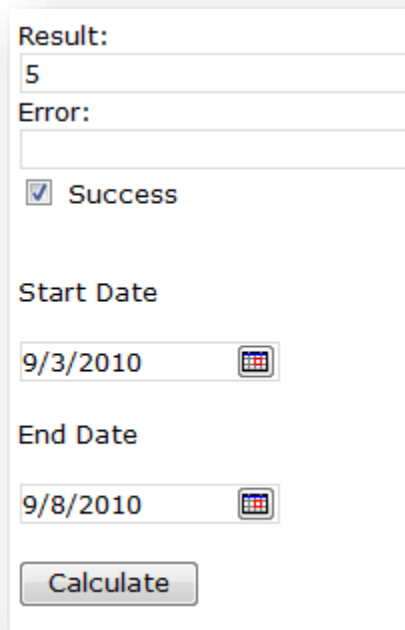
We need to use **concat** in order to use the values contained in the start and end date fields – if your field names are different, you’ll want to use the field picker to select them while creating your formula.

20. Click **OK** to close all dialogs.

21. Click **Preview**.

22. Use the Start and End Date controls to select dates, then click the “Calculate” button.


You will see that the **Success** checkbox is checked, the **Error** field is blank, and the **Results** field contains the calculated result.




Result:
5

Error:

Success

Start Date
9/3/2010 

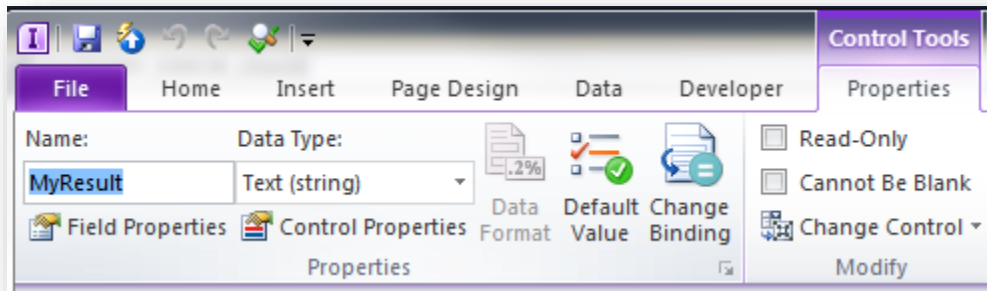
End Date
9/8/2010 

Calculate

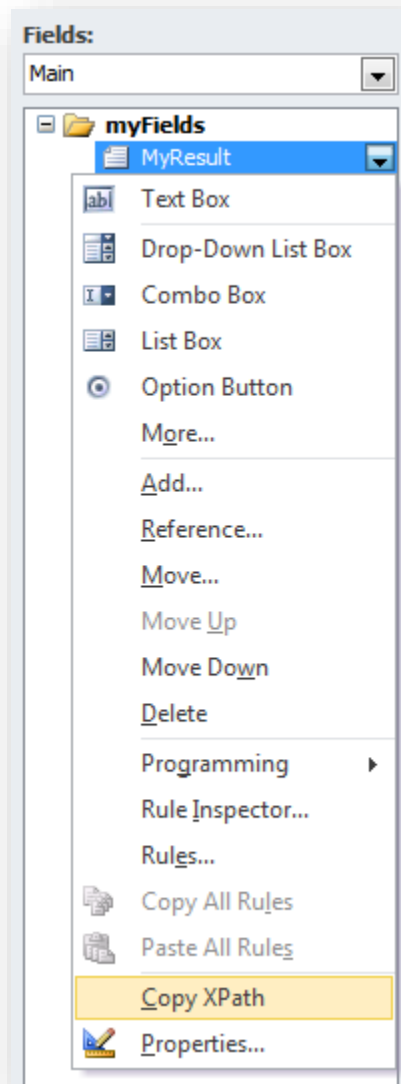
We can alter the command again, this time to return the result to a field in our main data source.

23. Add a text field to your form, and name the field **MyResult**:

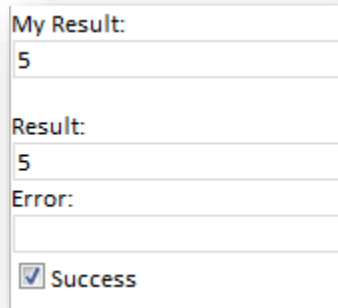




24. Right click the new field in the fields task pane and select **Copy XPath**:



25. Change the rule on your calculate button to include the `/resultxpath` parameter:
`concat("DateDiff /date1=",my:EndDate," /date2=",my:StartDate," /component=days
/resultxpath= /my:myFields/my:MyResult").` You can paste the XPath from your clipboard in for the XPath to your field – in this sample, the XPath is `/my:myFields/my:MyResult`.
26. Try your command again – this time, the result should be returned both to the **QdabraRules** *Result* field and your main data source field.



My Result:
5
Result:
5
Error:
<input checked="" type="checkbox"/> Success

For specific details on the syntax for each of the commands, refer to the Command Overview that installs with qRules.

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](http://www.infopathdev.com) [Qdabra Product support forums](http://www.infopathdev.com) to request help from the community.

Finally, the qRules product page on [Qdabra.com](http://www.qdabra.com) will contain an updated list of all available documentation.

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