



How to Create a Solution that uses XML-to-XML Mapping in DBXL v2.6

XML-to-XML Mapping is a new DBXL v2.6 feature which allows you to map an XML fragment of a form to a document type. This makes it possible to submit data to multiple document types in just one click. One occasion where this can be helpful is when your form has several XTPs and you want to submit the XML fragment of those XTPs to another document type. There is a more advanced tutorial for XTPs, but for now this document will guide you on how to create a basic XML-to-XML mapping.

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PRE-REQUISITES

- This document assumes that you have already installed DBXL v2.6 (Server or Client).
- Save the *TargetDocumentType.xsn* and *HostDocumentType.xsn* provided in the zipped file along with this document. You will need this later as we set up the XML-to-XML mapping.



CREATE THE HOST DOCUMENT TYPE

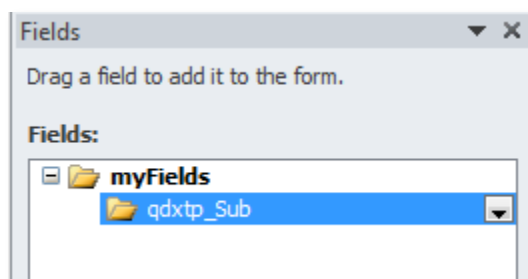
While you can use a standard XTP which is designed for XML-to-XML mapping, this document will teach you how to design your XML-XML form from scratch without using XTPs. Follow the steps below to create the schema required for XML-to-XML.

1. To start, open a blank InfoPath form template. Throughout this document, we will call this form template our “Host Document Type”. When XML-to-XML is set up, the Host Document Type submits a document to itself and creates a sub document to a Target Document Type.

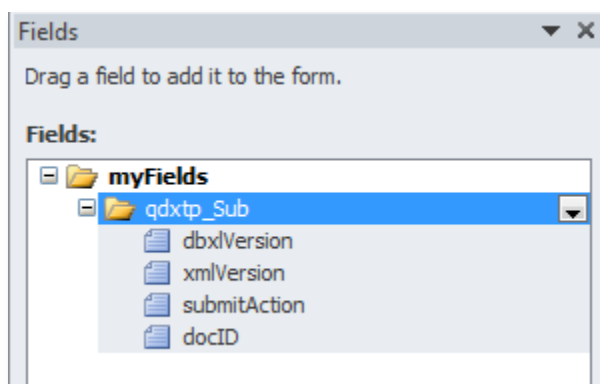
NOTE: To give you a preview, open *HostDocumentType.xsn* in design mode to see how this form will look like when we finish.

ADD THE XML-TO-XML SCHEMA

1. Create a group node underneath the root, prefixed with **qdxtp_** followed by a mapping name. In this example, we’re using *qdxtp_Sub*.



2. Add the following field attributes to **your qdxtp_<Mapping>** group node. These can be string data types.



3. Don't forget that you're adding those fields as **Field (attribute)**:



Add Field or Group

Name:

Type:

Data type:

Data namespace:

Default value:

Example: Sample Text

☐ Repeating

☒ Cannot be blank (*)

☐ Non-empty occurrence required

OK Cancel

4. Add a group node called **Content** under **qdxtp_<Mapping>**.

Fields

Drag a field to add it to the form.

Fields:

- myFields
 - qdxtp_Sub
 - dbxlVersion
 - xmlVersion
 - submitAction
 - docID

Add Field or Group

Name:

Type:

Data type:

Data namespace:

Default value:

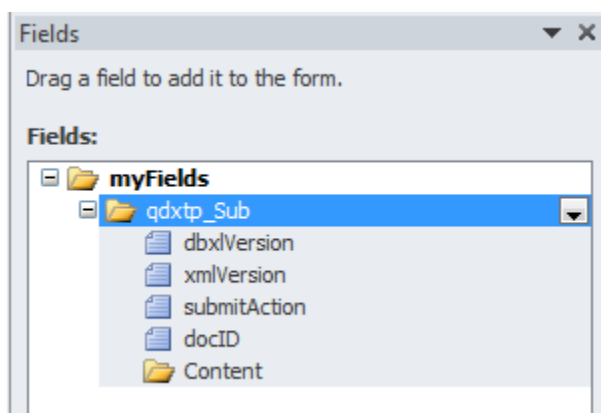
☒ Repeating

☐ Cannot be blank (*)

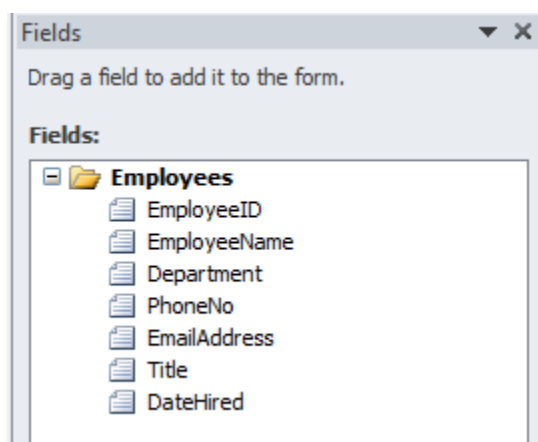
☐ Non-empty occurrence required

OK Cancel



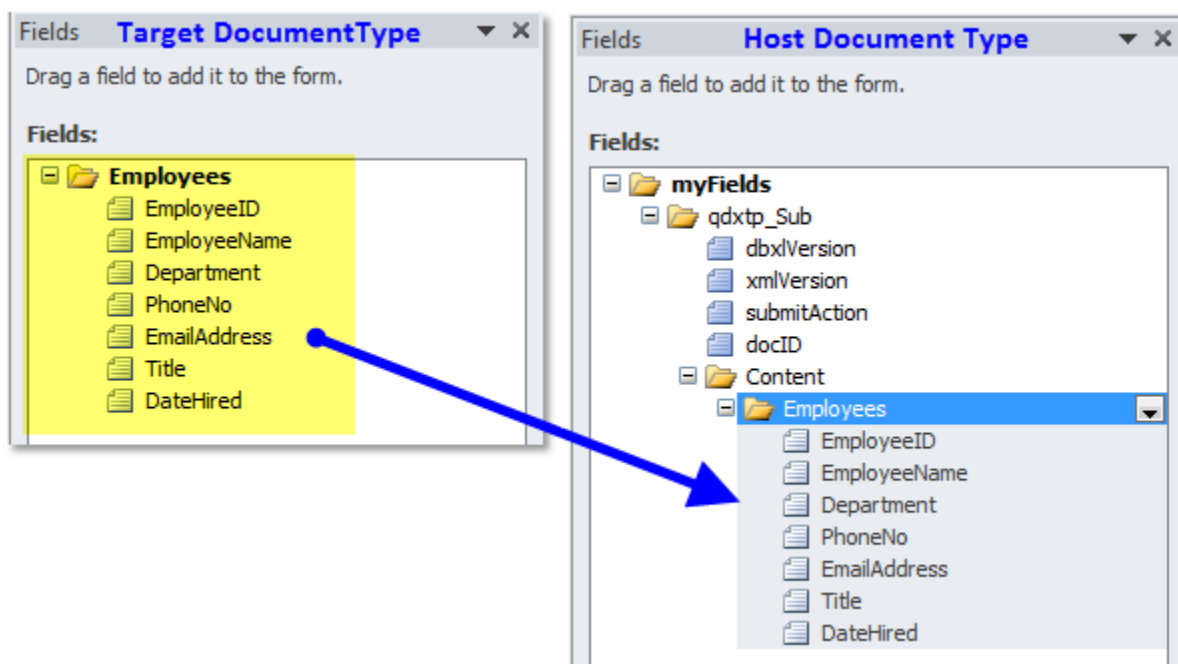


5. Under the **Content** group, you'll create another group which serves as the root of the XML to be submitted to the Target Document Type. In this tutorial, our Target Document Type will be *TargetDocumentType.xsn*.
6. Locate *TargetDocumentType.xsn* in the directory where you saved it. Right-click on the form template and select **Design**. Notice that the form template has the following schema:



7. Take note of the fields in the Target Document Type. Double-click the nodes to know the data types.
8. Now go back to the *HostDocumentType.xsn*. You're going to add the same fields (including the root node) under the **Content** folder of your Host Document Type. Make sure to use the exact field names and data types. In short, you're making a copy of your Target Document Type's schema.

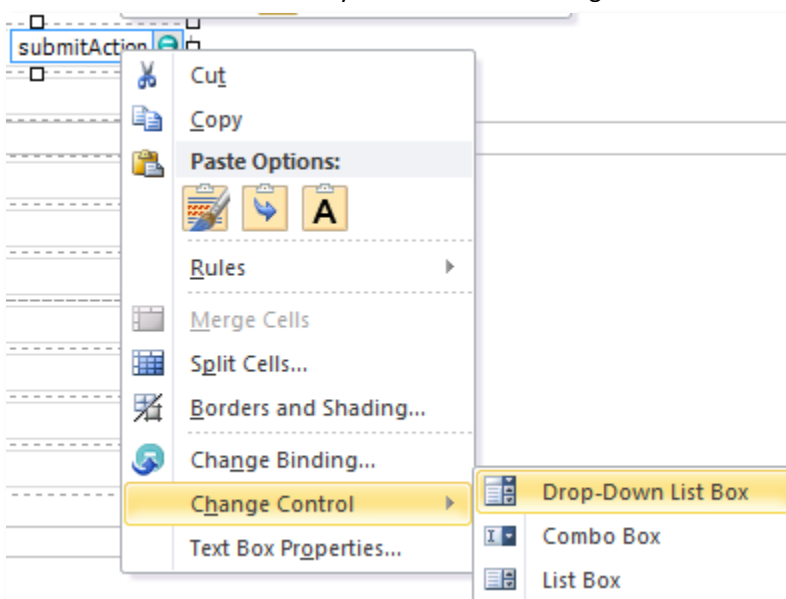




DESIGN THE FORM'S VIEW

Now that you're finish designing the schema, let's proceed on adding the controls in the form's view.

1. Drag the **submitAction** field attribute into your form's view. Change the control to a dropdown list box.



2. Your **submitAction** field will specify the action to perform: **create** or **update**. Add these values to the control's properties:

Drop-Down List Box Properties

Data | Size | Advanced

Binding

Field name:

Data type:

Validation

☒ Cannot be blank

List box choices

☒ Enter choices manually

☐ Get choices from fields in this form

☐ Get choices from an external data source

Value	Display Name	Default
	None	Yes
create	Create	
update	Update	

Add... Modify... Remove

NOTE: In a more advanced tutorial, the action value can be specified via rules.

3. Add the **DocID** field attribute in the form's view. The **DocID** field displays the document ID of the newly created sub document. In some cases, this may not be necessary. But for the purpose of this tutorial, we are adding it in the view to verify if the mapping is successful. At this point, you will now have something like this:

Submit Action:

Doc ID:

4. Drag all the fields under `/my:myFields/my:qdxtp_Sub/my:Content/my:Employees` in the form's view. You may organize the controls such as shown below:

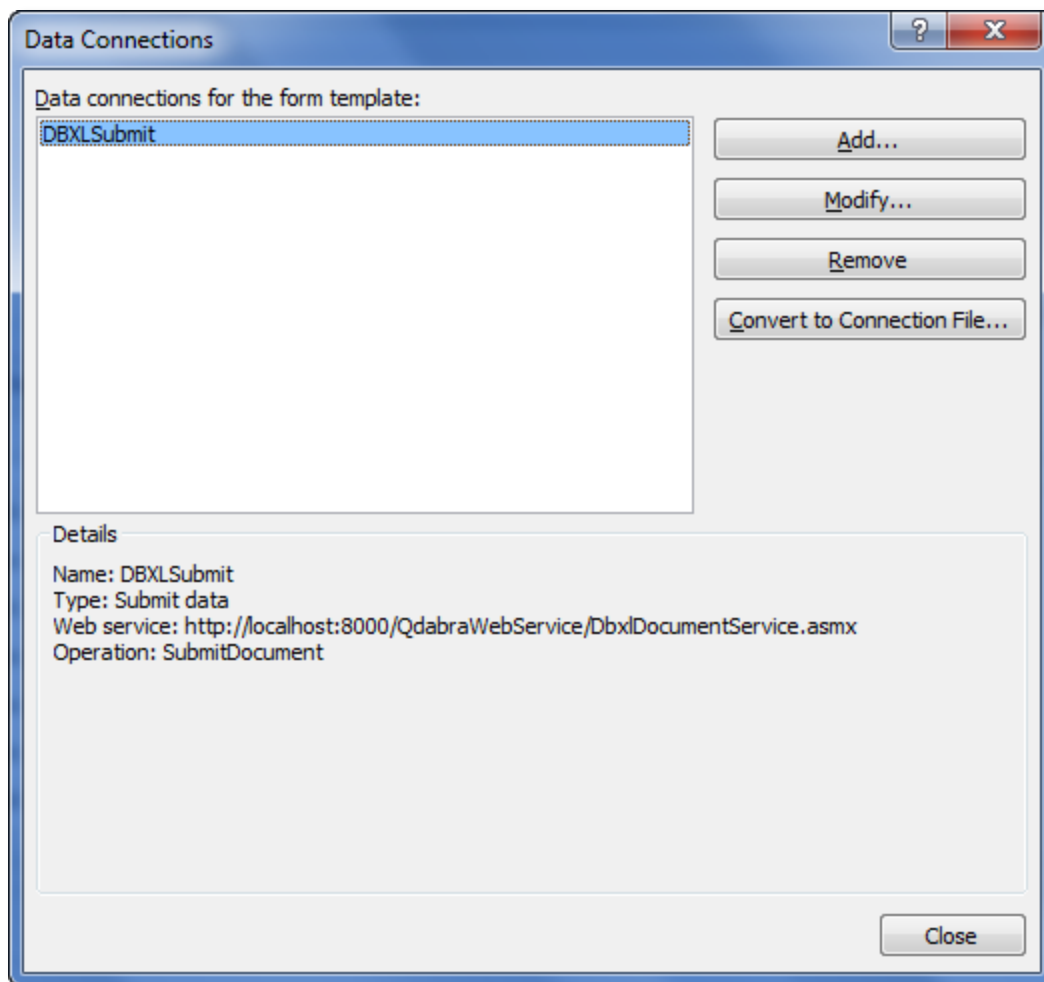


Submit Action:	Select...
Doc ID:	
Employee ID:	
Employee Name:	
Department:	
Phone No:	
Email Address:	
Title:	
Date Hired:	
Section	
Section	
Section	

CONFIGURE A SUBMIT CONNECTION TO DBXL

1. Configure a submit connection to DBXL. You can find the instructions on how to configure this from our [website](http://www.qdabra.com). Download the DBXL's Getting Started Guide and look for the section "Submit to DBXL".





2. Save the form template as *HostDocumentType.xsn*.
3. Now that you're done creating the Host Document Type, compare your work with the final sample provided (*HostDocumentType.xsn*).

PUBLISH THE FORMS TO DBXL

In this section, we will use the DBXL Administration Tool (DAT). Access it through Internet Explorer by entering the URL <http://<<yourservername>>/QdabraWebService/default.htm>. Once the page opens, click the **DBXL Administration Tool** hyperlink. InfoPath should open a form similar to the one below:



<http://www.qdabra.com>

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DATABASE ACCELERATOR

Administration Tool

QDABRA

SOFTWARE

Configure Licenses

New Configuration

Refresh List

Document Type Configuration

Name	Descriptions	Form Version	Docs	Edit	Del	Open
QdExpenseReport- Sample		1.0.0.4	4			
SampleFormQueryDB		1.0.0.8	1			

1. Add *TargetDocumentType.xsn* as a new configuration in DAT.
 - a. In DAT, click on **New Configuration**.
 - b. Type **TargetDocumentType** into the **Name** field.
 - c. Under **InfoPath Form Template**, click on **Click here to attach a file**.
 - d. Locate the directory where you saved the *TargetDocumentType.xsn*, select it and then click **Insert**.
 - e. Click **Save**. DBXL will confirm the operation through a dialog box. Click **OK** to close it.
 - f. Click **Catalog**.

DATABASE ACCELERATOR Administration Tool QDABRA SOFTWARE

Document Type: Save Catalog

General Database Permissions SharePoint Documents Taxonomy Tree

Document Type Details

Name 1b Solution Group

Description

InfoPath Form Template 1c

XSN File Click here to attach a file

Form Template Properties

Form Version:

Last Modified:

☐ Form template is signed

☐ URN-based solution

URL to Form Template



2. Add *HostDocumentType.xsn* as a new configuration in DAT by following steps 1-a to 1-f.
 - a. In step 1-b, name the document type **HostDocumentType**. Then in step 1-d, select the *HostDocumentType.xsn* and attach.
3. Now you should have both document types in the catalog view:

Document Type Configuration						
Name	Descriptions	Form Version	Docs	Edit	Del	Open
HostDocumentType		1.0.0.7	0			
QdExpenseReport-Sample		1.0.0.4	4			
TargetDocumentType		1.0.0.24	0			

CREATE THE XML-TO-XML MAPPING

1. In DAT, open a new **QdSubDocumentMapping** form. You can find the **QdSubDocumentMapping** under System Document Types in the Catalog view.

System Document Types			
Name	Descriptions	Docs	Edit
DAT		0	
QdAttachment		0	
QdCategory		0	
QdDocumentIndexFields		26	
QdDocumentType		26	
QdDocumentTypePermissions		26	
QdExpenseReport		32	
QdSharePointListMaps		26	
QdStandaloneDashboard		0	
QdStandaloneLog		0	
QdSubDocumentMapping		1	
QdTags		0	
QdUser		0	

2. Click on the **Edit Configuration** icon next to the **QdSubDocumentMapping** doctype.

QdSharePointListMaps	26	
QdStandaloneDashboard	0	
QdStandaloneLog	0	
QdSubDocumentMapping	1	
QdTags	0	
QdUser	0	



- Click on **Open** link under the XSN file attachment.

General **Database** **Permissions** **SharePoint** **Documents** **Taxonomy Tree**

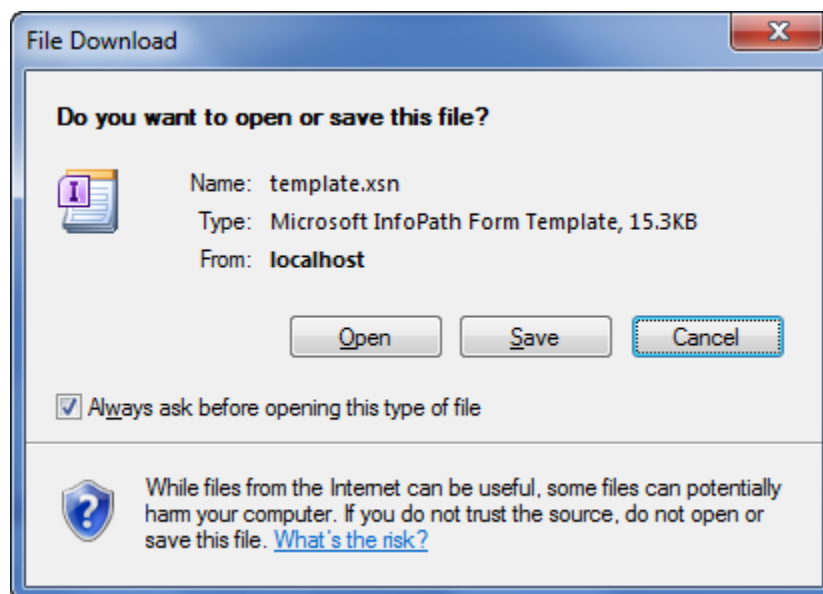
Document Type Details

Name	Solution Group
QdSubDocumentMapping	
Description	
Last Modified By	
AUTONOMYSYSTEMS\jo-anne	

InfoPath Form Template

XSN File	Form Template Properties
QdSubDocumentMapping.xsn Microsoft InfoPath Form Template 15.3 KB Open	Form Version: 1.0.0.29 Last Modified: 12/21/2011 11:48:55 AM ☐ Form template is signed ☐ URN-based solution
URL to Form Template	
http://localhost:8000/QdabraWebService/Forms/ID/169/template.xsn	

- When prompted to download the template, click **Open**. In the meantime, just leave DAT open. We'll go back to it later.



- The form will open and you'll see something like this:



Sub Document Mapping

Mapping Name
Please specify a name for your mapping. This mapping will be applied any time a node with the name `qdxtp_mappingName` is located in a submitted document.

Target Document Type
Please select the document type to which the mapped documents should be submitted.

Namespace
Below are the namespace URI and prefix of the document type to which mapped documents will be submitted. These should be populated automatically when you select a Target Document Type

Target namespace URI Prefix

Host Field Mappings
Please enter the XML of any locations in the mapped documents to which you will map metadata values from the host document. For example, to have the host document's DocId injected into the `/my:myFields/my:HostDocId` field of the child documents, enter `/my:myFields/my:HostDocId` for the Field Path, and select DocId for the token. The Field Path is case sensitive.

Field Path	Token
☒ Insert item	

Form Version: 1.0.0.29

6. Fill out the **Sub Document Mapping**:

- a. **Mapping Name** – the name should be the entire string following `qdxtp_`, which is the schema of your Host Document Type. Remember that we used *Sub* as our mapping name, go ahead and enter *Sub* in the text box.

Mapping Name
Please specify a name for your mapping. This mapping will be applied any time a node with the name submitted document.

Sub

- b. **Target Document Type** – When you click on the dropdown, all existing document types in DBXL will be shown to you. Select your target document type from the dropdown.



Target Document Type

Please select the document type to which the mapped documents should be submitted.

TargetDocumentType

- c. **Namespace** – After selecting your Target Document Type, the form automatically detects the namespace and populates the namespace field. Skip that part, you don't need to change anything on it.

Namespace

Below are the namespace URI and prefix of the document type to which mapped documents will be submitted. These should be populated automatically when you select a Target Document Type

Target namespace URI

http://schemas.microsoft.com/office/infopath/2003/myXSD/2011-12-21T06:26:51

Prefix

my

- d. **Host Field Mappings** – You can leave the Host Field Mappings blank for now. This will be discussed in a more advanced tutorial.

Host Field Mappings

Please enter the XML of any locations in the mapped documents to which you will map meta

For example, to have the host document's DocId injected into the /my:myFields/my:HostDoc enter /my:myFields/my:HostDocId for the Field Path, and select DocId for the token. The Field

Field Path

☒ Insert item

- e. After completing steps a-d, click the **Save** button at the bottom of the form. The form will automatically close.

values from the host document.
d of the child documents,
h is case sensitive.

Token

Save

7. Back in DAT, click on the **Documents** tab of **QdSubDocumentMapping** document type.



8. You have now created the sub document mapping:

Doc. ID	Ref. ID	Version #	Name	Author	Description	New
227	2	1	Sub		TargetDocumentType	Open

TEST YOUR SOLUTION

Now you're ready to test XML-to-XML. Follow the steps below to verify your mapping.

1. Create a new form in the Host Document Type.
 - a. To create one, go to the catalog view of DAT and click the Open icon  of the Host Document Type.



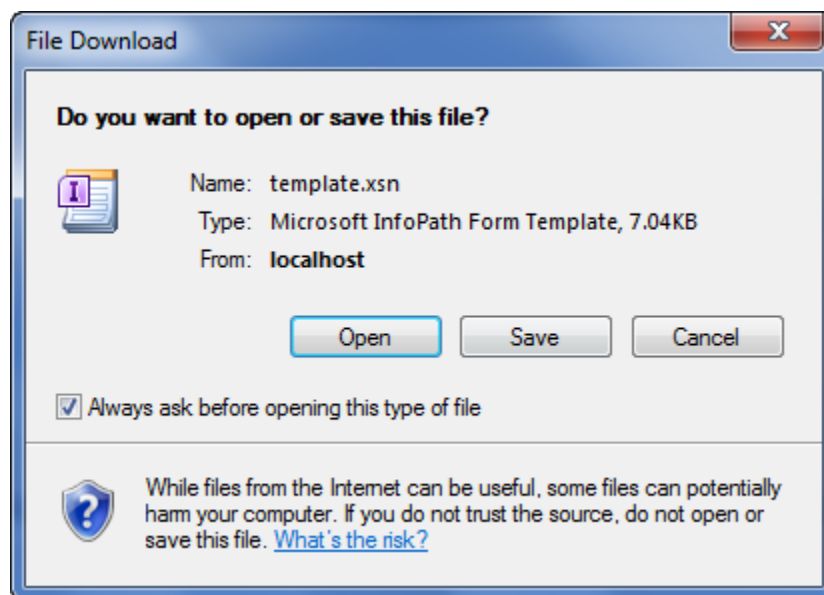
<http://www.qdabra.com>

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Document Type Configuration						
Name	Descriptions ◀	Form Version	Docs	Edit	Del	Open
HostDocumentType		1.0.0.7	0			
QdExpenseReport-Sample		1.0.0.4	4			
TargetDocumentType		1.0.0.24	0			

- b. When prompted to open the file, click **Open**.



- c. The Host Document Type form will open:



Host Document Type

XML-to-XML Sample Form

Submit Action:	None ▼
Doc ID:	

Employee ID:	
Employee Name:	
Department:	
Phone No:	
Email Address:	
Title:	
Date Hired:	

Section

Section

Section

- d. Fill out the form. Enter any values in the fields except the following:
- i. Make sure to select “Create” in the **Submit Action** dropdown.
 - ii. Do not enter anything in the **Doc ID** field.



Submit Action: Create

Doc ID:

Employee ID:

Employee Name:

Department:

Phone No:

Email Address:

Title:

Date Hired: 

- e. Click **Submit** button.
2. Back in DAT, click on the **Documents** tab of the Host Document Type.

General	Database	Permissions	SharePoint	Documents	Taxonomy Tree
Document Type Details					
Name					Solution Group
HostDocumentType					
Description					
Last Modified By					
AUTONOMYSYSTEMS\jo-anne					
InfoPath Form Template					
XSN File			Form Template Properties		
 HostDocumentTypexsn Microsoft InfoPath Form Template 7.07 KB Open			Form Version: 1.0.0.8 Last Modified: 12/21/2011 8:55:03 PM ☐ Form template is signed ☐ URN-based solution		

3. You'll see the document you just submitted. Click on the **Open** link to re-open the newly submitted form.



Documents							Refresh
							Delete Delete All Reshred Reshred All
Doc. ID	Ref. ID	Version #	Name	Author	Description	New	
228	1	1	John Smith	john.smith@qd...	Project Manager	Open	

4. You'll notice that the **DocID** field now has a value. DocID **229** refers to the document ID of the mapped document in the Target Document Type, which we'll check in a moment. Close the form.

Submit Action:

Doc ID:

Employee ID:

Employee Name:

Department:

Phone No:

5. Click on the **Catalog** button to go back to the Catalog view.

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Document Type: HostDocumentType

Save Save As... Catalog

General Database Permissions SharePoint Documents Taxonomy Tree

6. Notice that the Target Document Type also has 1 document submitted. This means that your sub document mapped successfully.

Document Type Configuration						
Name	Descriptions	Form Version	Docs	Edit	Del	Open
HostDocumentType		1.0.0.8	1			
QdExpenseReport-Sample		1.0.0.4	4			
TargetDocumentType		1.0.0.24	1			

7. Click on the document link as shown above.
8. You'll see that the **DocID** of the mapped document is also the same as we've seen in step 4: DocID 299.



Documents			
Doc. ID	Ref. ID	Version #	Name
229	1	1	

9. In the **Documents** view, click on **Open** link to open the mapped document.

Documents							Refresh
							Delete Delete All Reshred Reshred All
Doc. ID	Ref. ID	Version #	Name	Author	Description	New	
229	1	1				Open	

10. The sub document contains the same values as you submitted in the Host Document Type.

Target Document Type

XML-to-XML Sample Form

Employee ID	Email Address
5409	john.smith@qdabra.com
Employee Name	Title
John Smith	Project Manager
Department	Date Hired
Engineering	12/21/2011
Phone Number	
529-132-913	

11. Close the form.

HOW TO UPDATE FORMS

By this point, you would want to know how to update your forms. In order to make an update, you need to add the select the "update" value in your **Submit Action** field attribute. The **update** action extracts the nodes defined in the mapping to create an updated XML string which is submitted to the target document type.



1. Open the existing document you submitted in your host document type. In DAT, if you are in the Catalog view, just click the document link in the Host Document Type.

Document Type Configuration						
Name	Descriptions	Form Version	Docs	Edit	Del	Open
HostDocumentType		1.0.0.8	<u>1</u>			
QdExpenseReport-Sample		1.0.0.4	<u>4</u>			
TargetDocumentType		1.0.0.24	<u>1</u>			

2. The documents view will open. Click the **Open** link for the document.

Documents						
						Delete Delete All Reshred Reshred All Refresh
Doc. ID	Ref. ID	Version #	Name	Author	Description	New
228	1	1	John Smith	john.smith@qd...	Project Manager	Open

3. Once opened, make some changes to the values in the form and select **Update** in the **Submit Action** dropdown.

Submit Action: None ▼

Doc ID: None

Employee ID: 5409 - testing update

Employee Name: John Smith

Department: Engineering

Phone No: 529-132-913

Email Address: john.smith@qdabra.com

Title: Project Manager

Date Hired: 12/21/2011

4. Remember that after creating a new document, XML-to-XML returns the DocID of the sub document in your form. If you put the **DocID** attribute in your form's view, you will see that DocID value when you open a form:



Submit Action:

Doc ID:

This way DBXL will know that you are submitting that XML fragment, for example, to document **229** that is in your target document type

5. After making the changes, click the **Submit** button and close the form.
6. Back in the documents view, click on **Catalog**.



7. Open the sub document in the Target Document Type by clicking the document link.

Document Type Configuration						
Name	Descriptions ◀	Form Version	Docs	Edit	Del	Open
HostDocumentType		1.0.0.8	<u>1</u>			
QdExpenseReport-Sample		1.0.0.4	4			
TargetDocumentType		1.0.0.24	<u>1</u>			

8. In the documents view, click **Open** link and let's see if the change has been applied to this sub document.
9. The sub document will open and you'll see the changes applied.

Target Document Type

XML-to-XML Sample Form

Employee ID	Email Address
5409 - testing update	john.smith@qdabra.com
Employee Name	Title
John Smith	Project Manager
Department	Date Hired
Engineering	12/21/2011
Phone Number	
529-132-913	



You've just seen how it's easy to map documents using XML-to-XML. If your document types are mapped to a SQL database that's configured in DAT's Database Mapping tab, your data will also shred to SQL.

SUPPORT

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

Licensed customers can contact us via Support@Qdabra.com. Alternatively, please use the InfoPathDev.com [Qdabra Product support forums](http://Qdabra.com/support) to request help.



<http://www.qdabra.com>

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