



QDABRA DATABASE ACCELERATOR V2.3

How to migrate a document to a new Document Type

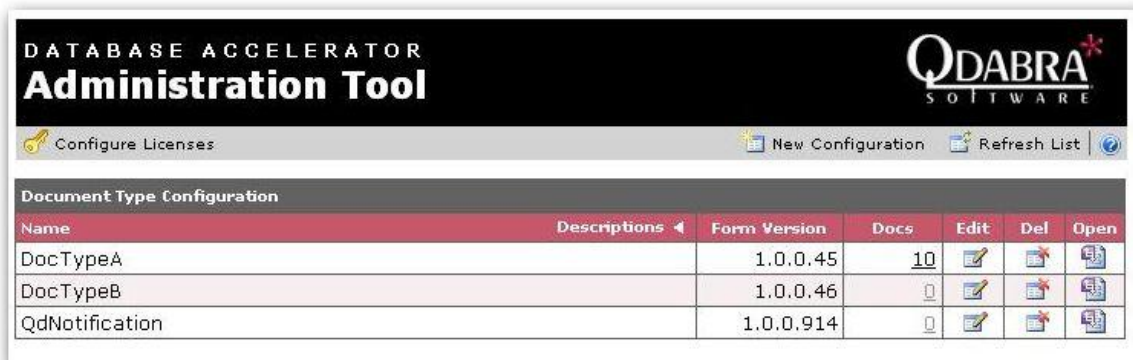
After designing your InfoPath form and creating a DBXL Document Type, you begin adding documents to your solution. After some time, you might want to revise your InfoPath form, perhaps to add some new fields. What to do with your existing documents?

DBXL v2.3 will allow you to migrate your documents from one Document Type to another. Using a new method called `ChangeDocumentTypeOfDocument`, you can migrate these documents to a Document Type that uses the new version of your InfoPath form. You can also maintain its SQL and SharePoint mappings.

This document will walk you through the steps necessary for this scenario.

PRE-REQUISITES

This tutorial assumes that you already have a DocType (DocTypeA in figure below) configured in DAT. Documents are already submitted to this DocType.



The screenshot shows the 'Administration Tool' interface for 'DATABASE ACCELERATOR'. It features a table titled 'Document Type Configuration' with columns: Name, Descriptions, Form Version, Docs, Edit, Del, and Open. The table lists three document types: DocTypeA, DocTypeB, and QdNotification. DocTypeA has 10 documents, while the others have 0. Each row has icons for editing, deleting, and opening the document type configuration.

Name	Descriptions	Form Version	Docs	Edit	Del	Open
DocTypeA		1.0.0.45	10			
DocTypeB		1.0.0.46	0			
QdNotification		1.0.0.914	0			



Documents							Refresh
Doc. ID	Ref. ID	Version #	Name	Author	Description	New	
4	4	2	Frosted Flakes	Breakfast Foods	\$54.02	Open	☐
5	5	2	Folgers Cappuccino	Coffee and Tea	\$25.80	Open	☐
6	6	1	Nestle Hot Cocoa Mix	Hot Cocoa	\$18.04	Open	☐
7	7	1	Welch's Fruit Snacks	Fruits and Vegetables	\$30.71	Open	☐
8	8	1	French's Potato Sticks	Fruits and Vegetables	\$22.45	Open	☐
9	9	1	Fiber One Bars	Snacks and Candies	\$40.98	Open	☐
10	10	1	ChocoMix	Milk	\$23.98	Open	☐
11	11	1	Hershey's Chocolate Mix	Milk	\$45.12	Open	☐
12	12	1	Swiss Miss	Hot Cocoa	\$39.56	Open	☐
13	13	1	Coke Zero	Beverages	\$25.56	Open	☐

In this example, I used a sample Inventory form template. We will refer to the old template as DocTypeA and the new template as DocTypeB. DocTypeA's fields are as follows:

Inventory Form	
ProductID:	
ProductCode:	
ProductName:	
Category:	
Sub-category:	
Price:	
Unit of Measure:	
Brand:	
Packaging:	
Submit	
Section	

DocTypeB has one more added field. In this case, "Supplier":



The screenshot shows a web form titled "Inventory Form" with a blue header. The form contains several input fields with yellow backgrounds and dashed borders. The fields are labeled: ProductID:, ProductCode:, ProductName:, Category:, Sub-category:, Price:, Unit of Measure:, Brand:, Packaging:, and Supplier:. The "Supplier:" field is highlighted with a red rectangular border. Below the fields is a "Submit" button. At the bottom left, there is a "Section" dropdown menu.

The following section will guide you through the configuration of your new doctype, DocTypeB.

CONFIGURE A NEW DOCTYPE IN DAT

1. Open DAT (i.e. the DBXL Administration Tool).
2. Click Edit for DocTypeA.
3. In the header, click **Save As**. Attach the new form template (DocTypeB.xsn) and name the configuration DocTypeB. Click **Save** and then click **OK** in the confirmation dialog.

The **Save As** button allows us to create a new document type while retaining the SQL and SharePoint mappings. In addition, we have replaced the form template to the new version.

SET UP DBXL PERMISSIONS

When performing a migration you need be aware of DBXL permissions. If you are a DBXLAdmin, you have enough permissions to continue and can therefore skip this step. Otherwise, you need to set up the permissions as stated below in order for DBXL to allow you to migrate documents from one DocType to another.

1. Edit DocTypeA configuration in DAT.
2. Click on the **Permissions** tab.
3. Click **Insert document type level permissions** link under **Document Type Level Permissions**.
4. Enter a name for the permissions (e.g. DocTypeA permission).
5. In **Role Name** field, enter your domain user account (e.g. servername\<username>).
6. Check **Write** permissions.



7. Check **Enforce Permissions** checkbox right above the **Document Type Level Permissions** section.
8. Click **Save** in DAT.

DocTypeA permissions should now look like this:

The screenshot shows the 'Administration Tool' interface for 'DocTypeA'. The 'Permissions' tab is selected. The 'Enforce Permissions' checkbox is checked. Below it, the 'Document Type Level Permissions' section contains a table with columns: Name, Role Name, Add, Read, Write, L-Read, L-Write, Del, and Admin. A row for 'DocTypeA permission' is shown with the 'Add' checkbox checked. Below this table is a checkbox for 'Insert document type level permissions'. The 'Document Level Permissions' section is also visible with columns: Name, Membership XPath, Read, Write, L-Read, L-Write, and Del. A checkbox for 'Insert document level permissions' is present below this section.

Name	Role Name	Add	Read	Write	L-Read	L-Write	Del	Admin
DocTypeA permission		☒	☐	☐	☐	☐	☐	☐

9. Click on **Catalog** button to go back to catalog view.
10. Open DocTypeB configuration in DAT.
11. Click on the **Permissions** tab.
12. Click **Insert document type level permissions** link under **Document Type Level Permissions**.
13. Enter a name for the permissions (e.g. DocTypeB permission).
14. In the **Role Name** field, enter your domain user account (e.g. servername\<username>).
15. Check **Add** permissions.
16. Check **Enforce Permissions** checkbox above the **Document Type Level Permissions** section.
17. Click **Save** in DAT.

DocTypeB permissions should now look like this:



DATABASE ACCELERATOR Administration Tool

Document Type: DocTypeB

Save Save As... Catalog

General Database **Permissions** SharePoint Documents Taxonomy Tree

☒ Enforce Permissions

Document Type Level Permissions

At least one role must be given Admin permission at the document type level. Otherwise a global DBXL admin is required to edit the document type. Only one user should be configured per row. Do not list users delimited with semicolons.

Name	Role Name	Add	Read	Write	L-Read	L-Write	Del	Admin
DocTypeB permission		☒	☐	☐	☐	☐	☐	☐

☒ Insert document type level permissions

Document Level Permissions

Name	Membership XPath	Read	Write	L-Read	L-Write	Del
------	------------------	------	-------	--------	---------	-----

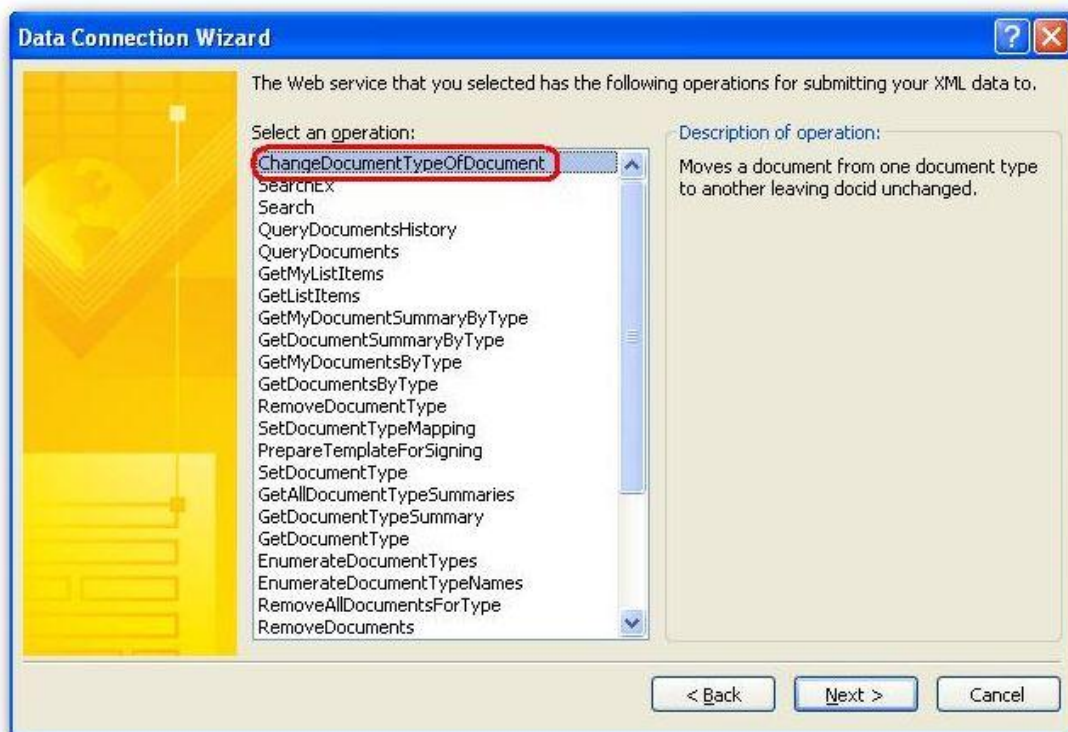
☒ Insert document level permissions

Summarizing, an end-user must have at least Document Type Level **Write** and **Delete** permissions in the source DocType and Document Type Level **Add** permissions in the target DocType. However, the form template needs to be modified; for that operation you will also need **Admin** permissions for DocTypeA.

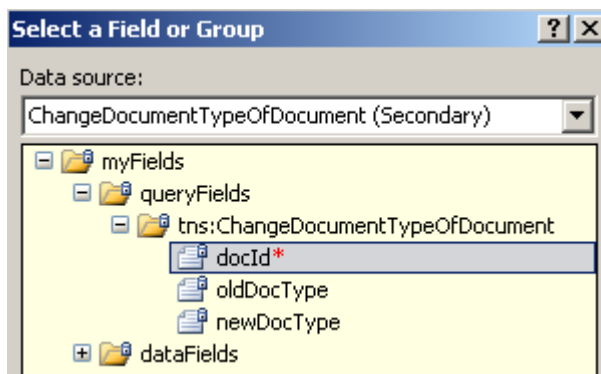
CREATE THE DATA CONNECTIONS

We will now modify the form itself (DocTypeA) to add the data connection that will migrate the documents.

1. Create a new data connection that will call **ChangeDocumentTypeOfDocument** method, by selecting **Tools > Data Connections**, and clicking **Add**.
2. Select **Create a new connection to** and select **Receive data**. Click **Next**.
3. Select **To a Web service** and click **Next**.
4. Enter the URL to the DBXLDocumentService, usually <http://<servername>/QdabraWebService/DBXLDocumentService.asmx> and click **Next**.
5. Select **ChangeDocumentTypeOfDocument** from the list of operations and click **Next**.



6. Select the `tns:oldDocType` parameter and enter the name for your current Document Type (DocTypeA).
7. Select the `tns:newDocType` parameter and enter the name for your new Document Type (DocTypeB).
8. Click **Next** twice, uncheck the checkbox for **Automatically retrieve data when form opens** and click **Finish**.
9. **Close** the Data Connections dialog.
10. Add a button and double click on it to open **Button Properties**.
11. Change the **Action** dropdown to **Rules and Custom Code** and change the label to **Convert**. Click on **Rules**.
12. Click **Add**, and then click **Add Action**.
13. Select **Set a field's value**. For Field, select the `docId` node, as seen in the screenshot below.





14. For **Value**, click on the function button () and enter the following:

```
substring-before(substring-after(/processing-instruction())[local-name(.) = "QdabraDBXL"], 'docid="')', '')
```

15. Click **OK** twice, and then click **Add Action**.
16. Select **Query using a data connection**.
17. Make sure that the ChangeDocumentTypeOfDocument data connection is selected.
18. Click **OK**.
19. *Optional:* Click on **Add Action**. Select **Show a dialog box message** and type in the message "Document is successfully converted".
20. Click **OK** to close all the dialogs.
21. Select **File > Save** to save the form to your local drive.

CONFIGURE REF ID IN DOCTYPEB

The Reference ID of DocTypeB must be manually set to start above the last Reference ID of DocTypeA to prevent duplicates. This also assumes that DocTypeA is now being discontinued and no documents are being added to DocTypeA in the future.

1. Edit DocTypeA configuration in DAT.
2. Click on **Documents** tab.
3. Note the final RefID in the list. In this example, the Ref ID of the last document in DocTypeA is 10:

Documents							
Doc. ID	Ref. ID	Version #	Name	Author	Description	New	
102	1	1	ChocoMix	Milk	\$23.98	Open	☐
103	2	1	Hershey's Chocolate Mix	Milk	\$45.12	Open	☐
104	3	1	Swiss Miss	Hot Cocoa	\$39.56	Open	☐
105	4	1	Coke Zero	Beverages	\$25.56	Open	☐
106	5	1	Frosted Flakes	Breakfast Foods	\$54.02	Open	☐
107	6	1	Folgers Cappuccino	Coffee and Tea	\$25.80	Open	☐
108	7	1	Nestle Hot Cocoa Mix	Hot Cocoa	\$18.04	Open	☐
109	8	1	Welch's Fruit Snacks	Fruits and Vegetables	\$30.71	Open	☐
110	9	1	French's Potato Sticks	Fruits and Vegetables	\$22.45	Open	☐
111	10	1	Fiber One Bars	Snacks and Candies	\$40.98	Open	☐

4. Click on **Catalog**, and then edit DocTypeB configuration in DAT.
5. In the **General** tab, find the **Ref. ID** section. In the Base Reference # field, enter the last RefID of the document in DocTypeA.



Ref. ID		
Format for Ref. ID	Base Reference #	XPath to Inject Ref. ID Into (Leave Blank to Disable)
	10	

6. Click on **Save**.

This will mean that the RefID of the next document added to DocTypeB will start with a RefID one integer higher than those documents that are migrated. This guarantees we won't have duplicate RefIDs.

CONVERT DOCUMENTS

1. Open DocTypeA configuration in DAT.
2. Re-attach DocTypeA saved in Step 8 and click **Save** in DAT.

Note that DocTypeB has no documents submitted. We have 0 documents for DocTypeB as you can see in the following figures:

DATABASE ACCELERATOR		QDABRA SOFTWARE	
Administration Tool			
Configure Licenses		New Configuration	Refresh List
Document Type Configuration			
Name	Descriptions	Form Version	Docs
DocTypeA		1.0.0.45	10
DocTypeB		1.0.0.46	0
QdNotification		1.0.0.914	0

DATABASE ACCELERATOR		QDABRA SOFTWARE	
Administration Tool			
Document Type: DocTypeB		Save	Save As...
General Database Permissions SharePoint Documents Taxonomy Tree		Catalog	
Import Documents			
No Documents Found.			
New Refresh			

As we proceed in this step, documents from DocTypeA will be moved to DocTypeB.

3. Open a document that is submitted to DocTypeA. You can use the document handler URL:
<http://<servername>/QdabraWebService/Documents/<DocID>/<DocID>.xml>.



- Once opened, click the **Convert** button.

The screenshot shows an 'Inventory Form' with a blue header. The form fields are as follows:

ProductID:	PID98653521
ProductCode:	PCD986
ProductName:	ChocoMix
Category:	Milk
Sub-category:	Milk
Price:	\$23.98
Unit of Measure:	8-Count Boxes
Brand:	Nestle
Packaging:	Pack of 12

At the bottom right of the form is a 'Convert' button, which is highlighted with a red rectangle.

- You will receive a confirmation message stating that document is submitted. Click **OK**. Then close the document.
- Verify document is moved to DocTypeB, by clicking on **Catalog** button in DAT. Note that there is now 1 document for DocTypeB which indicates that the document is moved.

The screenshot shows the 'Database Accelerator Administration Tool' interface. At the top, it says 'DATABASE ACCELERATOR Administration Tool' and 'QDABRA SOFTWARE'. Below this is a toolbar with 'Configure Licenses', 'New Configuration', and 'Refresh List'. The main section is titled 'Document Type Configuration' and contains a table with the following data:

Name	Descriptions	Form Version	Docs	Edit	Del	Open
DocTypeA		1.0.0.46	9			
DocTypeB		1.0.0.46	1			
QdNotification		1.0.0.914	1			
qRulesTemplateTest_QDABRA		1.0.0.28	9			

The 'Docs' column for 'DocTypeB' has a red circle around the number '1'.

- Click on the document link. Documents tab will be displayed with the document from DocTypeA. Data is migrated correctly. DocID, RefID and version # of the document are the same.



DATABASE ACCELERATOR Administration Tool

Document Type: DocTypeB

Save Save As... Catalog

General Database Permissions SharePoint Documents Taxonomy Tree

Export Documents

Import Documents

Query Documents

To limit the number of documents shown, enter a starting Doc. ID and the number of documents to show, and then click query. You can then jump forward or backward by the number of shown documents, or click Query All to show all documents. To search for a Document with a specific Ref. ID, type the ID into the field, and then click Query.

Starting Doc. ID: 102 Ref. ID: Range: 20 Previous Next Query Query All

Refresh

Documents Delete Delete All Reshed Reshed All

Doc. ID	Ref. ID	Version #	Name	Author	Description	New
102	1	1	ChocoMix	Milk	\$23.98	☐

Open

- Click on **Open** link. Your document will open using DocTypeB's template. In this example, with the added Supplier field.

Inventory Form

ProductID: PID98653521

ProductCode: PCD986

ProductName: ChocoMix

Category: Milk

Sub-category: Milk

Price: \$23.98

Unit of Measure: 8-Count Boxes

Brand: Nestle

Packaging: Pack of 12

Supplier:

Submit



9. You can then start opening each document and continue on the conversion by repeating Step 12. In the figure below, all of our documents are now moved to DocTypeB:

DATABASE ACCELERATOR

Administration Tool

Configure Licenses

New Configuration

Refresh List

Document Type Configuration

Name	Descriptions	Form Version	Docs	Edit	Del	Open
DocTypeA		1.0.0.55	0			
DocTypeB		1.0.0.46	10			
QdNotification		1.0.0.914	0			

Documents						
			Delete	Delete All	Reshred	Reshred All
Doc. ID	Ref. ID	Version #	Name	Author	Description	New
102	1	1	ChocoMix	Milk	\$23.98	
103	2	1	Hershey's Chocolate Mix	Milk	\$45.12	
104	3	1	Swiss Miss	Hot Cocoa	\$39.56	
105	4	1	Coke Zero	Beverages	\$25.56	
106	5	1	Frosted Flakes	Breakfast Foods	\$54.02	
107	6	1	Folgers Cappuccino	Coffee and Tea	\$25.80	
108	7	1	Nestle Hot Cocoa Mix	Hot Cocoa	\$18.04	
109	8	1	Welch's Fruit Snacks	Fruits and Vegetables	\$30.71	
110	9	1	French's Potato Sticks	Fruits and Vegetables	\$22.45	
111	10	1	Fiber One Bars	Snacks and Candies	\$40.98	

If applicable, you can also verify that documents moved to DocTypeB are also shredded correctly to your SQL database and to SharePoint.

SUBMIT NEW DOCUMENTS TO DOCTYPEB

Remember that we set the Reference ID of DocTypeB to start above the last Reference ID of document in DocTypeA. Let's submit a new document to test this.

1. Click **New** in the Documents tab.
2. Fill out the form with values and click **Submit**.
3. Click **OK** in the confirmation message then close the document.



4. Now go back to the **Documents** tab. See that the document started above the last RefID of the last document moved, as what we expected:

Documents							
Delete Delete All Reshred Reshred All Refresh							
Doc. ID	Ref. ID	Version #	Name	Author	Description	New	
102	1	1	ChocoMix	Milk	\$23.98	Open	☐
103	2	1	Hershey's Chocolate Mix	Milk	\$45.12	Open	☐
104	3	1	Swiss Miss	Hot Cocoa	\$39.56	Open	☐
105	4	1	Coke Zero	Beverages	\$25.56	Open	☐
106	5	1	Frosted Flakes	Breakfast Foods	\$54.02	Open	☐
107	6	1	Folgers Cappuccino	Coffee and Tea	\$25.80	Open	☐
108	7	1	Nestle Hot Cocoa Mix	Hot Cocoa	\$18.04	Open	☐
109	8	1	Welch's Fruit Snacks	Fruits and Vegetables	\$30.71	Open	☐
110	9	1	French's Potato Sticks	Fruits and Vegetables	\$22.45	Open	☐
111	10	1	Fiber One Bars	Snacks and Candies	\$40.98	Open	☐
118	11	1	Anchor Full Cream	Dairy Products	\$24.32	Open	☐

With this new versioning method, you will never worry about changing the design or schema of an existing form template. Migrating your documents' data to your new form template is as easy and simple as we have shown in this document.