Modify classes and properties

In a development environment, you continually design, build, test, and refine your design. In some instances, you might have an application design that is a large investment in time that just needs a few minor changes. To make metadata changes, you must be aware of the metadata dependencies, and how to work around them.

Change the display Name for a metadata object

The display name for each object is displayed in Administration Console for Content Platform Engine (ACCE) and in the IBM Content Navigator desktop. The symbolic name does not change when you change the display name. Because APIs use the symbolic name, they continue to function after the display name is changed.

You can modify the Display Name of the following objects:

- Class definitions
- Property templates
- Choice lists

An example scenario for changing a display name for a metadata object:

You originally created a property template with a display name: product_type_178. The Graphical User Interface (GUI) team suggests that you change the display name to a more user-friendly name. The display name is shown in the user client. You must change the name from product_type_178 to Product Type.

Property template modifications:

- You can rename property templates and property definitions.
- When you change the name of the property template, it is propagated to the property definitions based on the property template

  However, any other changes to the property template are not propagated to the property definitions.

- You can change the description, but cannot change the data type or cardinality.

Modify a choice list

You can modify a choice list in the following ways:

- Change the choice list display name or description
- Add new choice items and groups
- Edit choice items and groups

You cannot delete the choice list object when it is associated with a property template.

When you change the value of an existing choice list item of a choice list:

- only the objects that are created after the change will have the new value

- the objects that are created before the change retain the old value

Refer to the IBM FileNet P8 Platform V5.5.x Knowledge Center for more on the implications of changing existing choice list items:
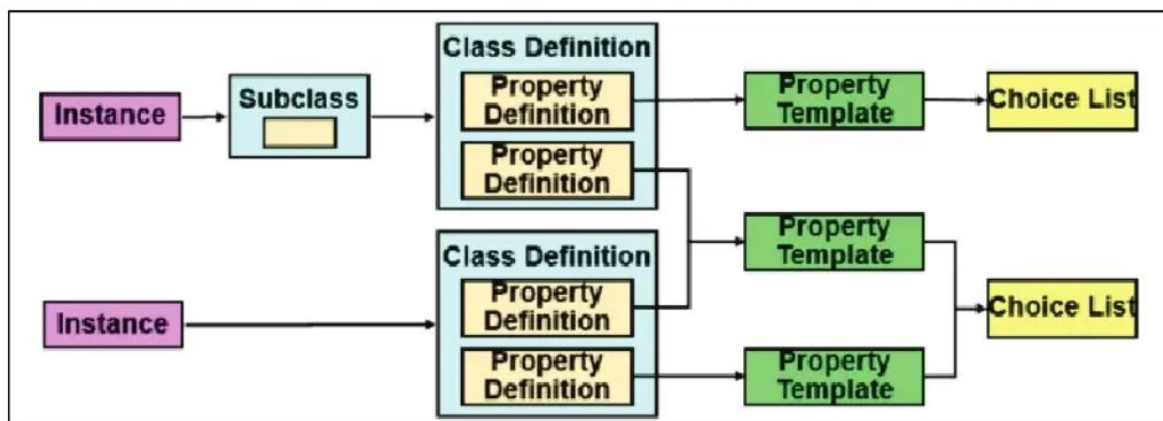
https://www.ibm.com/support/knowledgecenter/SSNW2F_5.5.0/com.ibm.p8.ce.admin.tasks.doc/choicelists/chl_concepts_choice_lists.htm#chl_concepts_choice_lists__ex1

An example scenario for adding a choices group to an existing choice list:

Your company deals with hardware products. You created a choice list that is called Product Type that contains hardware items such as laptops and monitors. Your company decided to add software products to its portfolio. You must add a choices group for software items to the existing choice list (Product Type).

How does the metadata dependencies work?

The following diagram provides a model of how class metadata is interrelated.

When one object references another object, the first object has a dependency on the second object. The following list shows the flow of dependency:

- An object instance depends on its subclass or class definition

- A subclass definition depends on its parent class definition

- A class definition depends on its property definitions

- A property definition depends on its property template

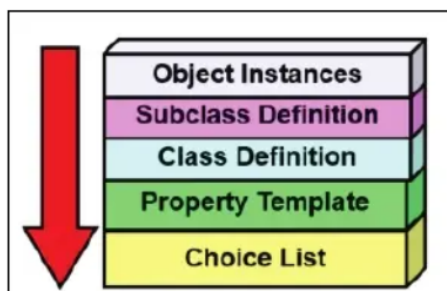- A property template depends on its choice list

Sometimes the dependencies are complex because the metadata objects are reusable.

You must consider object dependencies before deleting metadata. You cannot delete an object when another object refers to it. If you try to delete an object that is referenced by other objects, you will get an error message. Delete the referenced object or remove the reference to remove a dependency. The dependencies result in the following constraints:

- If the class has subclasses or instances, you cannot delete the class.

  To remove a dependency, you can either delete the object or edit the object to remove the dependency. If alternatives exist, avoid deleting an object to prevent data loss.

- If the property template has dependent property definitions, you cannot delete the property template.

  To delete a property template, you must remove the corresponding property definition from the class definition.

- If a choice list is used by property templates, you cannot delete the choice list.

  To delete a choice list, you must remove the choice list from the property template as well as remove the corresponding property definition from the class definition.

Remove dependencies in the following sequence, starting with object instance, subclass definition, class definition, property template, and then finally, choice list.

The following diagram shows dependencies of various objects in an object store.

Do not delete any metadata that is referenced by custom code to prevent breaking references in custom code.

Always use a test object store before you make metadata changes to a production system to identify and create solutions for any issues that might occur.

Use FileNet Deployment Manager (FDM) to move class and template definitions between object stores to help maintain consistency across environments.

The FDM topic is discussed in a later section.

Activity: Change the property template name

In this activity, you modify the display name of a property template and check how the system displays the property name to users. This activity requires that you have completed the previous activities in the *Create property templates and classes* section.
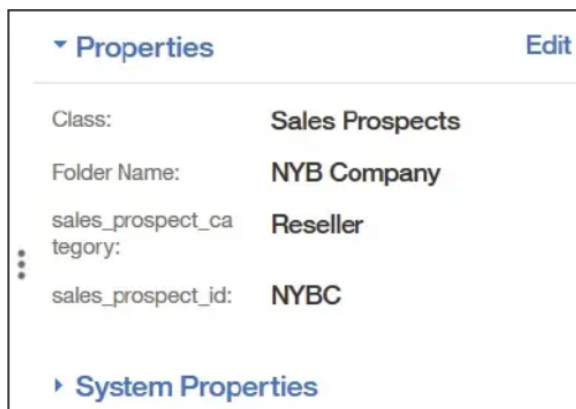
In this activity, you will accomplish the following:

- View the property template display name before the change.
- Change the property template display name.
- Verify the name change in the Folder class.
- Update the remaining property display names.

View the property template display name before the change.

In this task, you will check the property template display name.

- Ensure that the IBM FileNet P8 Platform components are started.

  If you have not started them earlier, start the components by using the earlier activity: *Prepare your system - Start IBM FileNet P8 Platform.*

- In the **Mozilla Firefox** browser, click the **Sample Desktop** bookmark or type the following URL: **http://vclassbase:9081/navigator**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- Select the **SalesQA** repository from the list on the upper right of the page.

- Select **SalesQA** on the leftmost pane and then click the **NYB Company** folder on the middle pane to open its properties.

  Single-click of the folder opens the properties, and double-click opens the folder. Expand Properties on the right pane if they are not expanded.

  If the right pane is not available, click the three dots to open the right pane.

- Observe the property display name **sales_prospect_id**.

Properties		Edit
Class:	Sales Prospects	
Folder Name:	NYB Company	
sales_prospect_ca tegory:	Reseller	
sales_prospect_id:	NYBC	
▸ System Properties		

  You will change this display name to Prospect ID in the next task.

- Log out of the ICN **Sample Desktop** and close the browser.

Change the property template display name.

In this task, you change the display name of the sales_prospect_id property template to Prospect ID.

- In the **Mozilla Firefox** browser, click the **ACCE** bookmark or type the following URL: **http://vclassbase:9080/acce**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- On the left pane of the **EDU_P8** tab, expand the **Object Stores** folder and click the **SalesQA** object store.

- From the **SalesQA** tab, expand the **SalesQA** > **Data Design** node on the left pane and click **Property Templates**.

- From the **Property Templates** tab on the right pane, type **prospect** in the filter field to make the property easier to find and then click **sales_prospect_id**.

- From the **sales_prospect_id** tab > **General** subtab, delete the existing value in the **Display name** field and then type **Prospect ID** as the new value for this field.

  Observe that the Symbolic Name field and Description field continue to display sales_prospect_id. The system uses the Symbolic Name internally.

- Change the **Description** field value to **Prospect ID**, click **Save** to save the changes and then **Close**.

- In the **Property Templates** tab, click **Refresh** and then verify that the property template is listed as **Prospect ID**.

- Close the **Property Templates** tab.

Verify the name change in the Folder class.

In this task, you will check the name change both in the administration console and in the Content Navigator client.

- In the administration console > **SalesQA** tab, click **Refresh**.

- Expand the **SalesQA** > **Data Design** > **Classes** > **Folder** node on the left pane and click **Sales Prospects** folder.

- On the **Sales Prospects** tab > **Property Definitions** subtab, verify that the value is displayed as **Prospect ID**.

- Log out of the administration console.

  Next, you will verify the new display name for the property definition in the IBM Content Navigator.

- In the **Mozilla Firefox** browser, clear the cache by clicking **History** > **Clear Recent History** from the top menu.

- On the **Clear All History** window, verify that **Cache** is selected, click **Clear Now** and then close the browser.

- Reopen the **Mozilla Firefox** browser and then click the **Sample Desktop** bookmark or type the following URL: **http://vclassbase:9081/navigator**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- On the **Browse** page, select the **SalesQA** object store from the upper right.

- Click the **NYB Company** folder to view its properties on the right pane and verify that the property display name now shows as **Prospect ID**.

Prospect ID:	NYBC

- Verify that the value of the property (NYBC) was retained.

- Log out of the ICN **Sample Desktop** and close the browser.

    The name change to the property template was automatically propagated to the corresponding property definition of the class.

Activity: Modify a choice list

In this activity, you will modify a choice list by adding a group and then verify the changes.

In this activity, you will accomplish the following:

- Add a group to a choice list.

- Verify the modified choice list.

Add a group to a choice list.

In this task, you modify a choice list by adding a group and a few choice list items to the new group.

- In the **Mozilla Firefox** browser, click the **ACCE** bookmark or type the following URL: **http://vclassbase:9080/acce**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- On the left pane of the **EDU_P8** tab, expand the **Object Stores** folder and click the **SalesQA** object store.

- From the **SalesQA** tab, expand the **SalesQA** > **Data Design** > **Choice Lists** node on the left pane and click **Prospect Type**.

- From the **Prospect Type** tab on the right pane, open the **Choice Items** subtab, select the **Prospect Type** node, and then click **New Groups**.

- On the **New Groups** window, type **Manufacturer** in the **Display name** field and then click **Add**.
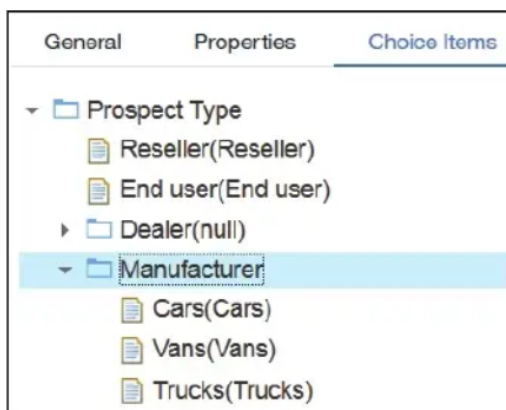
  The group name is added to the pane.

- Click **OK**.

- On the **Choice Items** subtab, select **Manufacturer** and then click **New Items**.

- On the **New Items** page, for each of the following name, type the choice item name in the **Display name** field and then click **Add**.

  - **Cars**

  - **Vans**

  - **Trucks**

  When you click outside Display name field, the value is automatically populated in the Value field. Verify that the Value field is populated before you click Add.

- Scroll down and then click **OK** to close the **New Item** window.

- In the **Prospect Type** tab, verify that your completed choice list includes the new group.

- Click **Save** to save the choice list changes and then click **Close** to close the **Prospect Type** tab.

- On the **SalesQA** tab, click **Refresh**.

- Log out of the administration console and then close the browser.

Verify the modified choice list.

In this task, you will create a folder in the IBM Content Navigator Sample Desktop and verify that you are able select a choice item from your new choice group.

- In the **Mozilla Firefox** browser, click the **Sample Desktop** bookmark or enter the following URL: **http://vclassbase:9081/navigator**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- In the Content Navigator Sample Desktop, select the **SalesQA** repository from the list on the upper right of the page.

- Click **New Folder**.

- From the **New Folder** page > **Properties** section, for the **Class** field, select **Sales Prospects** from the list and then click **OK**.

- For the **Folder Name** field, type **Test New Choice**.

- For the **sales_prospect_category** field, expand **Prospect Type** > **Manufacturer**, select **Cars** from the list and then click **OK**.

- Type **TNC** for the **Prospect ID** field.

  The value for the field is required.

- Click **Add** to create the folder.

  Verify that your new folder is listed.

- Click the **Test New Choice** folder and then verify that the properties are shown in the rightmost pane.

  Optional: Do the following steps to examine an existing folder (that was created before you added the new choice item) to verify the new choice group.

- Right-click the **NYB Company** folder and then click **Properties**.

- On the **Properties** page, for the **sales_prospect_category** field, select **Prospect Type** > **Manufacturer** > **Vans** from the list and then click **OK**.

- Click **Save**.

- Select the **NYB Company** folder and verify that the new value (**Vans**) is shown in the **Properties** section on the rightmost lane.

- Log out of the ICN **Sample Desktop** and then close the browser.

Activity: Work with metadata dependencies

In this activity, you replace a choice list with a data entry value for a property template. The updates to a property template do not automatically update the existing property definitions of a class. You must apply this change to a class definition. You must remove the original property definition from the class and add the updated one.

This change will not affect existing objects (such as a document) that use this property template, until you check out and then check in the object.

In this activity, you will accomplish the following:

- Remove the choice list from a property template.

- Remove a property definition from a class.

- Assign the property definition to the class.

- Verify the modifications.

- Examine the ProspectsFolder class.

Remove the choice list from a property template.

In this task, you remove the association of a choice list (Prospect Type) from a property template (sales_prospect_category) and make the template a data entry value.

- In the **Mozilla Firefox** browser, click the **ACCE** bookmark or type the following URL: **http://vclassbase:9080/acce**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- On the left pane of the **EDU_P8** tab, expand the **Object Stores** folder and click the **SalesQA** object store.

- From the **SalesQA** tab, expand the **SalesQA** > **Data Design** node on the left pane and then click **Property Templates**.

- On the **Property Templates** tab, type **sales** in the filter and then click **sales_prospect_category**.

- From the **sales_prospect_category** tab, open the **Properties** subtab and then click the **Property Name** column to list the items in alphabetical order.

- Scroll down and find the **Choice List** property.

   Observe that this property template is associated with the Prospect Type choice list.

- To remove the association of the choice list, click the down arrow next to it and select **Unset Value**.

Property Name		Property Value	Data Type
Choice List		Prospect Type	
Class Description		Property Template String	

Copy Object Reference
Paste Object
Unset Value

- Verify that the **Choice List** field shows **<Value not set>** and then click **Save** to save the changes.

  This change makes the sales_prospect_category a data entry property template (without a choice list).

- Leave the **sales_prospect_category** tab open for the next ask.

Remove a property definition from a class.

In this task, you will check the classes that use the sales_prospect_category property template and then you will remove the original (prior to modification) sales_prospect_category property definition that is associated with the Sales Prospect Doc class definition.

- From the **sales_prospect_category** tab > **Properties** subtab, click the **Property Name** column to list the items in alphabetical order (if the list is already not ordered).

- Scroll down to find the **Used in Classes** property, click the down arrow to go to the list, and then observe the classes that use this property template.

  Sales Prospects and Sales Prospect Doc are listed.

Used in Classes	Used in Classes	^
Uses Long Column	Sales Prospects	
	Sales Prospect Doc	

- Close the **sales_prospect_category** tab.

- On the **Property Templates** tab, click **Refresh** and then close the tab.

- From the **SalesQA** tab, expand the **SalesQA** > **Data Design** > **Classes** > **Document** node on the left pane and then click **Sales Prospect Doc**.

- From the **Sales Prospect Doc** tab, click the **Property Definitions** subtab, select the **sales_prospect_category** property definition, and then click **Remove**.

  Verify that the property is removed from the list.

- Click **Save** and then click **Close** to close the tab.

- In the **SalesQA** tab, click **Refresh**.

Assign the property definition to the class.

In this task, you will assign the modified sales_prospect_category property (without the choice list) to the Sales Prospect Doc class.

- From the **SalesQA** tab, expand the **SalesQA** > **Data Design** > **Classes** > **Documents** node on the left pane and then click **Sales Prospect Doc** class.

- From the **Sales Prospect Doc** tab, open the **Property Definitions** subtab and then click **Add**.

- On the **Add Properties** page, type **prospect** into the filter, select **sales_prospect_category**, scroll down, and then click **OK**.

  Verify that the property is added to the list. This adds the updated property definition.

- Click **Save** and then click **Close** to close the tab.

- In the **SalesQA** tab, click **Refresh**.

- Log out of administration console and then close the browser.

Verify the modifications.

In this task, you will create a document of the Sales Prospect Doc class and verify the change in the property definition. IBM Content Navigator (ICN) has a metadata cache that retains metadata in the application for an interval. To refresh the metadata within that interval, you must restart the ICN application first in the WebSphere Integrated Solutions Console.

- In the **Mozilla Firefox** browser, click the **WAS** bookmark or enter the following URL: **https://vclassbase:9043/ibm/console/logon.jsp**

- Type the following values for user ID and password and click **Log in**.

  - User ID: **wasadmin**

  - Password: **FileNet1**

- In the console, expand the **Applications** > **Application Types** and then click the **WebSphere enterprise applications** node on the left pane.

- On the right pane, select **navigator** from the list and then click **Stop**.

  Wait until the message is shown.

- Select **navigator** again and click **Start**.

  Wait until the message is shown. It takes a while.

- Log out of the **WebSphere Integrated Solutions Console.**

- Clear the **Firefox** browser cache:

  - In the Tools bar, click **History** > **Clear Recent History**.

  - In the **Clear All History** window, verify that **Cache** is selected and then click **Clear Now**.

  - Close the browser.

- In the **Mozilla Firefox** browser, click the **Sample Desktop** bookmark or enter the following URL: **http://vclassbase:9081/navigator**

- Type **p8admin** for the **User name** field, **FileNet1** for the **Password** field, and then click **Log In**.

- In the ICN Sample Desktop > **Browse** page, select the **SalesQA** repository from the list on the upper right of the page.

- Expand the **SalesQA** object store node and click the **NYB Company** folder to open.

- Click **Add Document** in the tool bar.

- On **Add Document** page, for the **What do you want to save?** field, select **Information about the document** from the list.

- In the **Properties** section, select **Sales Prospect Doc** from the list for the **Class** field and then click **OK**.

- Enter the following values for the other fields:

  - Document Title: **Test Prop**

  - sales_prospect_name: **Gloria Stanton**

- For the **sales_prospect_category** field, notice that there is no choice list, type **Dealer** for the value and then click **Add**.

- Verify that your new document is listed in the folder, click the document, and view the values of the properties that you entered on the right pane.

Examine the ProspectsFolder class.

Recall that you created a Folder class (Sales Prospects) that also uses the sales_prospect_category property template. This class still retains the choice list, because this property definition for the folder class was not updated after you removed the choice list from the template. The change in the property template is not automatically propagated to the classes.

In this task, you will verify the sales_prospect_category property of the folder class.

- On the ICN desktop **Browse** page, click **SalesQA** on the left pane and then select the **NYB Company** folder from the middle pane.

- Click **Action** > **Properties** from the toolbar.

- On the **Properties** page, click the down arrow next to the **sales_prospect_category** property to edit the value and verify that the choice list is available.

- Click **Cancel** to close the choice list.

- Click **Cancel** to close the **Properties** page.

- Log out of the ICN **Sample Desktop** and close the browser.