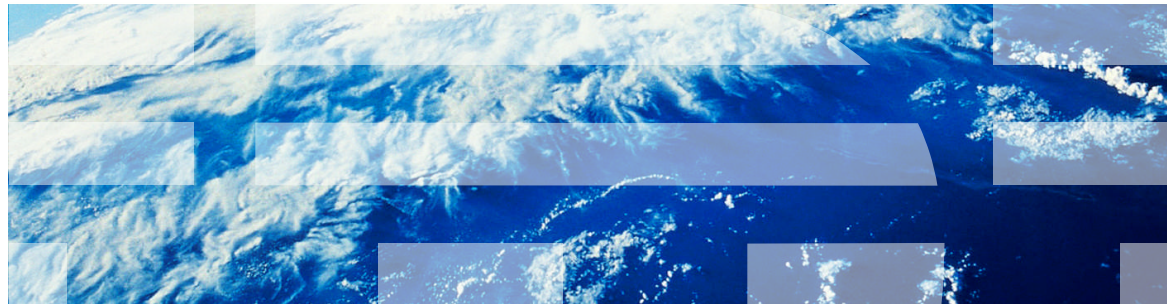


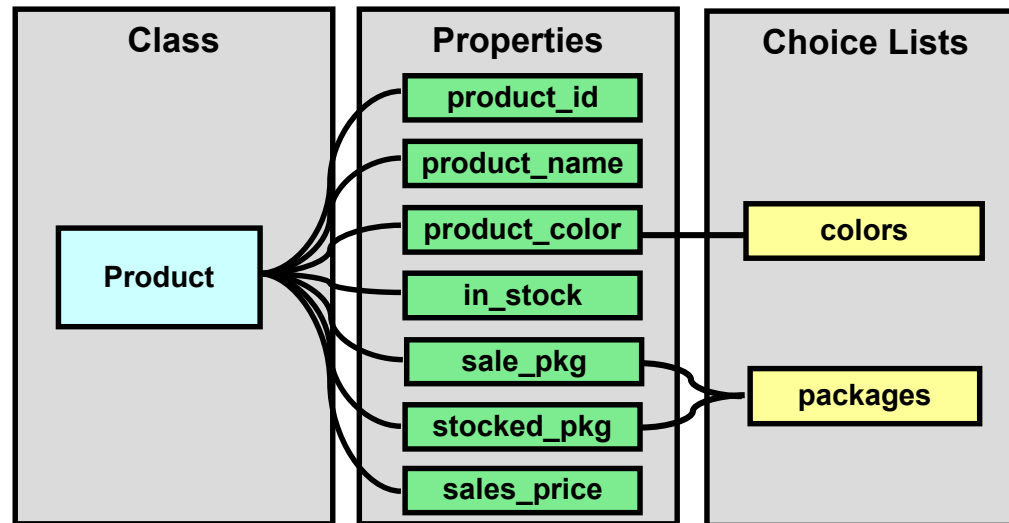
Content Data Structures



Create content data structures

What are classes, properties, and choice lists?

- Each class consists of its root class properties and additional properties.
- Each property has a name and data type.
 - Each property can also have a choice list, a set of predefined values.



Create content data structures

Attributes of the root classes

- Shared attributes of Custom Object, Folder, Document classes:
 - Extensible using properties and events
 - Persistent with a unique ID
 - Searchable
 - Relatable using object-valued properties (one- to-many relationship)
 - Containable in a folder
- Additional attribute of the Folder class
 - Folder containment
- Additional attributes of the Document class
 - Has document content
 - Is versionable
 - Has lifecycle capabilities

Create content data structures

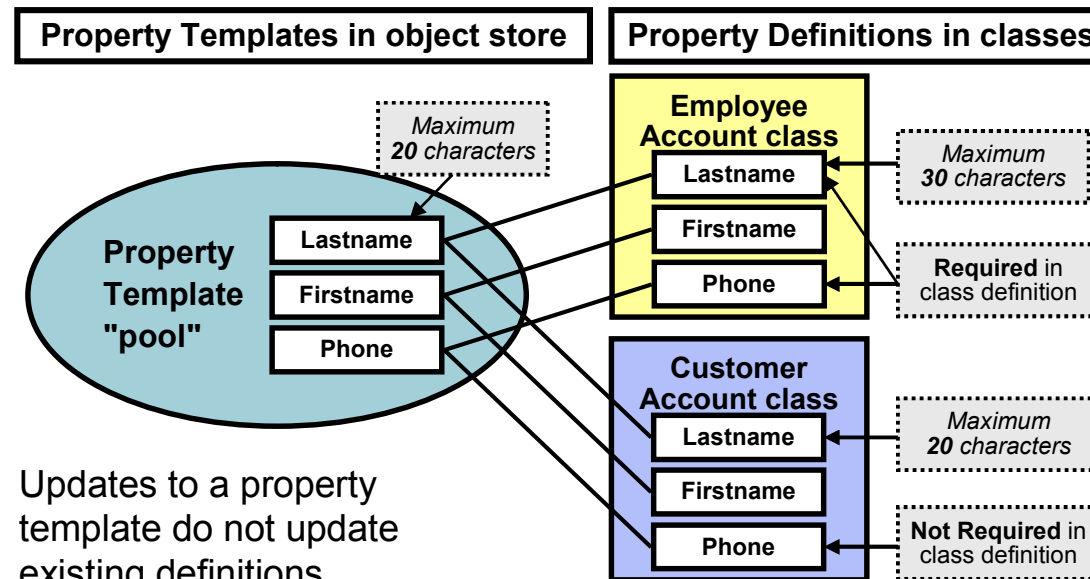
What are properties and property templates?

- Properties
 - Are individual values that describe an object.
 - Custom properties are based on property templates you define.
 - You assign property templates to a class, creating property definitions.
- Properties have an assigned data type:
 - Binary, Boolean, DateTime, Float, ID, Integer, Object, String
 - Select the data type for a property according to its planned use.
- Property values
- Property values can be defined with these options:
 - Required or optional
 - Read-only or editable
 - Single or multiple (multi-value)

Create content data structures

What are property definitions?

- Use a property template to create a property definition.
 - A property template can be used by multiple classes.
 - Each resulting property definition is specific to the class.

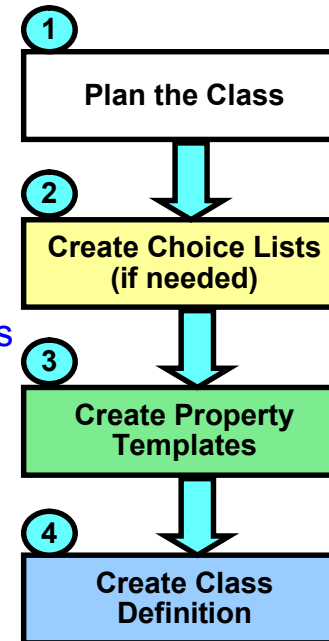


What are choice lists?

- A choice list is a preset list of property values (choice items).
 - Maximum number of choices visible is set in Site Preferences on the General Settings page, in the Choice List size field.
 - The user selects a value instead of typing an entry.
- Choice lists are used to do the following:
 - Ensure valid entries.
 - Simplify and speed data entry.
 - Present elements in logical groups.
- Other choice list features
 - Choice lists can be hierarchical.
 - Choice lists can have groups of items.
 - Choice lists can be associated with multiple properties

Steps to create a class

1. Plan the class.
 - Select the root class: Custom Object, Folder, Document
 - Identify needed property templates
 - Identify needed choice lists.
2. Create choice lists, if needed.
 - Example: colors
3. Create property templates.
 - Associate any choice lists with property templates
 - Example: product_color
4. Create the class definition.
 - Associate properties with the class.
 - Example: Product



Create content data structures

Creating content data structures (1)

- Object description
 - Always enter a specific description for each metadata object.
 - Accurate descriptions make the metadata self-documenting.
- Check for duplicates and synonyms
 - Before creating a new class, property, or choice list, check the existing metadata structure for duplicates and synonyms.
 - The system does not allow duplicate names.
 - Avoid functional duplicates, such as product_name/ProductName.
 - Avoid synonyms, such as client_name/customer_name

Create content data structures

Creating content data structures (2)

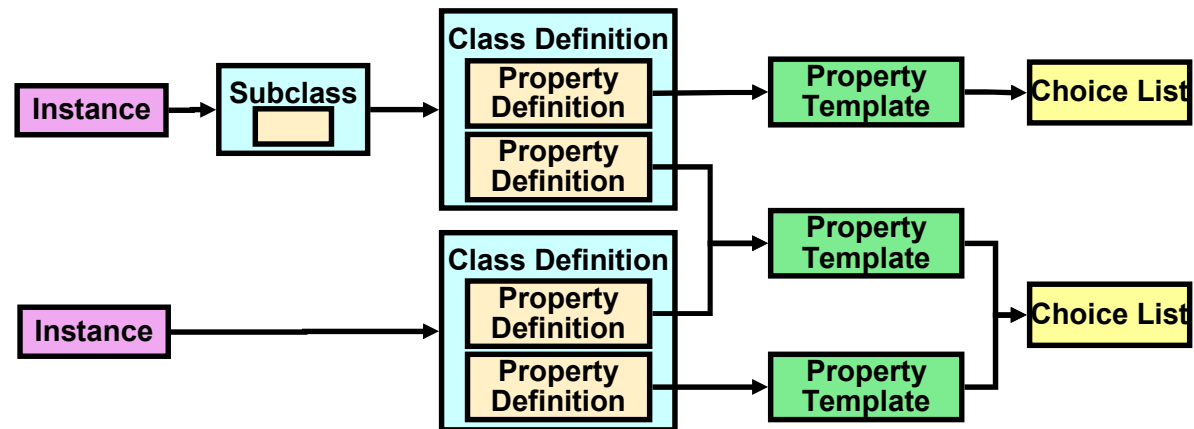


- Add properties in sequence
 - Add properties to classes in the sequence that you want them to be displayed in Content Navigator or use entry templates to re-order the sequence.
- Add a prefix or suffix
 - To identify properties that map to properties in FileNet Image Services, FileNet Content Services, and other external systems with federated content.
 - Examples:
 - IS_Name
 - CE_Name

Modify content data structures

Metadata dependencies

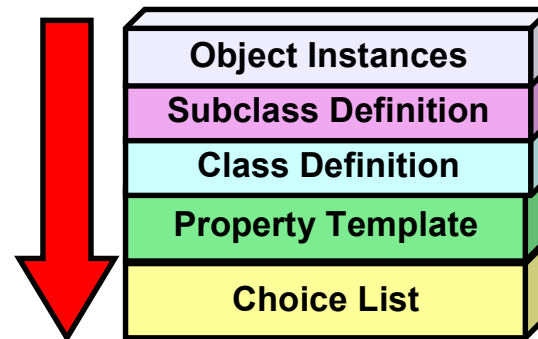
- An object instance depends on its subclass or class definition.
- A subclass definition depends on its class definition.
- A class definition depends on its property definitions.
- A property definition depends on its property template.
- A property template depends on its choice list.



Modify content data structures

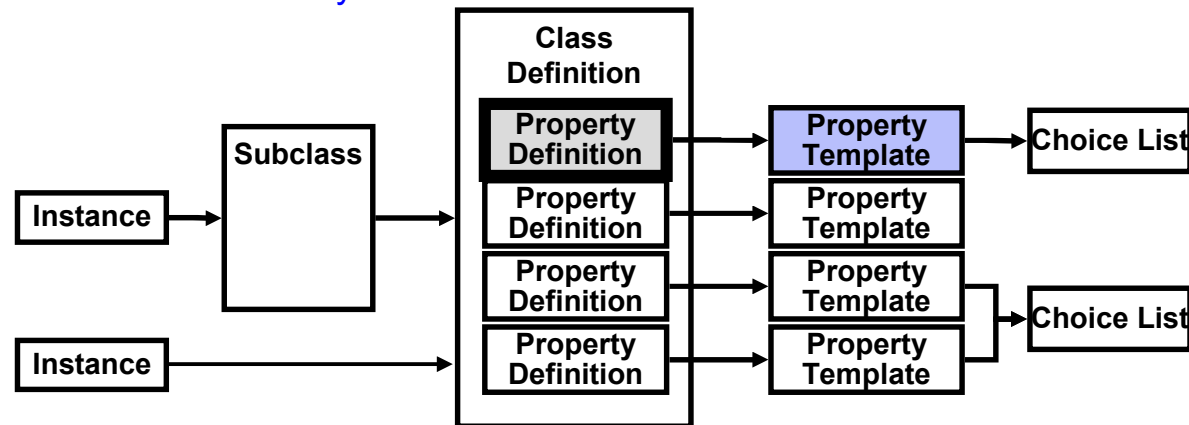
Deleting metadata

- Object dependencies
 - When one object references another object, the first object has a dependency on the second object.
 - You cannot delete an object that is referenced by other objects until you remove the references in other objects.
 - Delete the referenced object or remove the reference in order to remove a dependency.
- Remove dependencies in the following sequence:
 1. Object instance
 2. Subclass definition
 3. Class definition
 4. Property template
 5. Choice list



Delete a property template

- Example
 - To delete the shaded property template, what is removed first?
 - The property definition in the dark lined box must be removed first.
 - This property definition is based on the shaded property template.
 - **Note:** All instantiated objects with that property lose that property and its values.
 - It is not necessary to delete the whole class.



Finding dependencies



- How do you find metadata dependencies?
 - When you delete a property definition, the error message states that the property is referenced by other objects.
 - Or, you can use the Properties page of the class object.
- To identify the objects that refer to the property definition:
 1. Open the Properties page for the property template.
 2. On the Properties tab, select Custom & System properties.
 3. Scroll down to the *Used in Classes* property.
 4. Review the listed classes.

Modify content data structures

Delete classes and property definitions



- To delete a class with dependencies, do the following:
 1. Remove its dependent subclasses.
 2. Remove its dependent instances.
 3. Delete the class.
- To delete a property definition with dependencies, do the following:
 1. Edit the property definition in the class to another property definition.
 2. Remove the property definition from the classes it belongs to.

Modify content data structures

Deleting property templates and choice lists



- To delete a property template with dependencies, do the following:
 1. Remove the property definitions from classes.
 2. Use the Delete option on the Action menu.
- To delete a choice list with dependencies, do the following:
 1. Disassociate from property template or property definition.
 2. Delete the choice list.

Changing a display name



- Display name or symbolic name?
 - If a name change for a metadata object is needed, consider changing the display name instead of its symbolic name.
 - The display name for each object is visible in IBM Content Navigator
 - Use the Rename option on the Action menu.
 - 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.
- What objects can be renamed?
 - You can modify the Display Name of the following objects:
 - Class definitions, property templates, choice lists

Modifying a choice list



- To modify a choice list
 - Modify the choice list name or description.
 - Add items to the choice list or remove items.
 - Change property values or change the choice list security.
- Choice list changes
 - To modify a choice list, use its Properties page.
 - Choice Lists can be applied to a Property template and then when that property template is applied to a class the resulting property definition will utilize the choice list
 - Choice Lists can also be applied to a specific property definition via the More tab configuration option thus leaving the originating property template without the choice list assigned

Modify content data structures

Modify choice lists in property templates



- You can add (assign) a choice list to a property template.
 - The choice list must have the same data type as the property.
- You can select another choice list.
 - Use the Edit operation.
- You can remove a choice list from the property template.
 - Select <None> or another choice list to remove the current one.
- More tab
 - Use the More tab on the Properties page of the property template to modify it.

Modify content data structures

Modify property templates



- Property template modifications
 - You can rename property templates and property definitions.
 - A change to the property template name propagates to the property definitions based on the property template.
 - You can change the description.
 - You can edit the property value on the More tab.
 - The data type determines available options.
- What cannot be changed
 - You cannot change the data type or cardinality.

Modify content data structures

Add a property definition to an existing class

- You can add custom properties to a class definition.
 - You cannot add system properties or inherited properties.
 - Use the Property Definitions tab on the Properties page.
 - Previously instantiated objects do not have values for the new property.
 - Values can be added manually or added with a script.
- Avoid adding a custom property to a root class.
 - If a property is added to a root class, the property is automatically propagated to all subclasses.

Modify content data structures

Remove property definitions from a class



- You can remove custom properties from a class definition.
 - Use Add/Remove on the Property Definitions tab of the Properties page.
 - Refresh metadata cache to verify the removal.
 - You cannot remove system properties or inherited properties.
 - You can hide these properties.
- Superclass property removal
 - If you remove a custom property from a superclass, the property may remain on child classes as a custom property if the user elects to retain it on the child classes via a pop-up dialog.
 - This dialog will be presented to the user during the delete process

Changing the class of an object

- You can change the class of an object.
 - Properties that are not in the new class are removed from the object, along with their values.
 - Sometimes you want to delete object instances with their data.
 - Other times you want to keep data that is deleted when the instances are deleted.
- To preserve object instances with important data:
 1. Identify a similar class with properties for the data that must be saved.
 2. If important properties are missing, add them to this class.
 3. Change the important instances to the similar class.
 4. Delete the original class definition of the objects.

Modify content data structures

Working with properties



- Root classes
 - Do not add properties to the root classes
 - Do not change properties in the root classes in any way.
- Property templates
 - Name property templates carefully, after analysis and design.
 - Re-use property templates whenever possible.
 - Minimize the number of property templates that you use.
 - Use the same prefix in the names of property templates that are used together.
 - List the property templates that use a choice list in the description of the choice list.
 - Identify the property templates dependent on the choice list.