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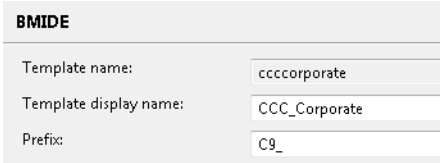
Section 1: Business Modeler IDE fundamentals

Create a new Business Modeler IDE project

Activity: Create a new Business Modeler IDE project

In this activity, you create the Business Modeler IDE **CCC_Corporate** project to contain activity data model configurations.



Launch the Create a new Business Modeler IDE project activity.

Related information

For more information, review these topics in the online help:

- *Create a Business Modeler IDE template project*

Create a new project resource

Step 1: Choose **Start→All Programs→Teamcenter 10→Business Modeler IDE**.

Step 2: To the right of the **Workspace** box, click **Browse**.

Step 3: Navigate to *STUDENT_HOME***bmide_projects**.

Use the scroll bar as needed.

Step 4: Select **bmide_projects**.

Step 5: Click **OK**.

Step 6: Select the check box.

☑ **Use this as the default and do not ask again**.

Step 7: In the **Select a workspace** dialog box, click **OK**.

The **Welcome** dialog box of the Business Modeler IDE appears.

Step 8: Click **Create a new BMIDE Template**.

Step 9: In the **Project name** box, type **CCC_Corporate**.

Step 10: In the **Template name** box, keep **ccccorporate**.

Step 11: In the **Template display name** box, keep **CCC_Corporate**.

Step 12: In the **Template Description** box, type **CCC Corporate template settings**.

Step 13: In the **Prefix** box, type **C9_**

Caution

Ensure that you have **C9_** exactly as shown (capital **C** with one underscore).

Step 14: Verify **Dependent templates directory** contains *TC_ROOT***bmide\templates**.

Step 15: Verify the **Use default location** check box is selected ☑ and **Location** contains *STUDENT_HOME***bmide_projects\CCC_Corporate**.

Step 16: Click **Next**.

Select dependent templates and locale

Step 1: In the **Dependent Templates** list, verify that ☑ **Foundation** is selected.

Step 2: Select the check box ☑ for the **cm Change Management** template.

Caution

Other templates *may* be listed, but do *not* select them for this course.

Step 3: Click **Next**.

Step 4: In the **Locales Selector** list, verify that **en_US - English (United States)** is selected.

Step 5: Click **Next**.

The remaining wizard dialog boxes pertain to code generation and configuration for programming.

Step 6: Click **Finish**.

The **CCC_Corporate** project is created and loaded. This takes a few moments.

Verify the new project properties

Step 1: Close these views.

a. Click **X** on the **BMIDE Assistant** view.

b. Click **X** on the **Help** view.

Step 2: Right-click the **CCC_Corporate** project and choose **Properties**.

Step 3: In the left pane, expand ▸ **Teamcenter** by clicking the small arrow symbol.

Step 4: In the left pane, choose **BMIDE**.

Step 5: Note the following values:

- **Template name** is **ccccorporate**.
- **Template display name** is **CCC_Corporate**.
- **C9_** is the **Prefix** value.

Step 6: Note that live updates are enabled with the setting ☑ **Enable Live Updates?**

This is default for a standard template.

Step 7: Note the **Dependent Templates**:

- **Foundation**
- **Change Management**

Note

Other templates *may* be listed, but do *not* select them for this course.

Step 8: In the left pane, choose **Project Backup**.

Step 9: Note the **Project Backup** default settings:

☑ **Enable backup to Local File System**
☑ **Enable backup to Teamcenter Database**

Step 10: Click **Cancel**.

Caution

Do *not* make any changes.

Edit server connection profile

Step 1: Choose **Window→Preferences**.

The **Preferences** dialog box appears.

Step 2: In the left pane, expand ▸ **Teamcenter** by clicking the small arrow symbol.

Step 3: Choose **Server Connection Profiles**.

Note

Get advice from the instructor if the *Teamcenter Training* profile is not listed.

Step 4: Select *Teamcenter Training*.

Step 5: Click **Modify**.

Caution

Do *not* change the **Host**, **Port** and **Server Id** settings.

Step 6: In the **User ID** box, type ***jgordon*** (case sensitive).

Step 7: In the **Group** box, type **dba** (case sensitive).

Step 8: In the **Role** box, type **DBA** (case sensitive).

Step 9: Click **Finish**.

Step 10: Click **OK** in the **Preferences** dialog box.

Add a new extension file

Step 1: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 2: In the **File name** box, type **sampleitem_business_object.xml**.

Step 3: Confirm the **Set as active extension file** box is selected ☑.

Step 4: Click **Finish**.

Step 5: Expand the **CCC_Corporate** folder.

Step 6: Expand the **Project Files** folder.

Step 7: Expand the **extensions** folder.

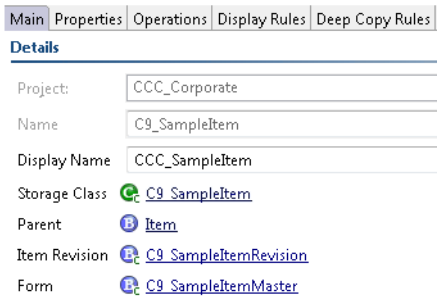
Note that the **sampleitem_business_object.xml** is the active extension file.

Section 2: BMIDE process and data model

Create the C9_SampleItem business object

Activity: Create the C9_SampleItem business object

In this activity, you create a **C9_SampleItem** business object with the COTS **Item** business object as its parent.



Launch the Create the C9_SampleItem business object activity.

Related information

For more information, review these topics in the online help:

- *Create an item business object*

Define a new C9_SampleItem business object

Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Item** in the **Wizards** filter box and click **Next**.

The **New Business Object** dialog box appears.

Step 3: Confirm **Project** is **CCC_Corporate**.

Step 4: In the **Name** box, type **C9_SampleItem**.

Tip

Use the keyboard **Tab** key to move to the next field.

Step 5: In the **Display Name** box, type **CCC_SampleItem**.

Step 6: In the **Description** box, type **CCC**.

Step 7: Note that **Parent** is **Item**.

Step 8: Use these default settings:

- ☑ **Create primary Business Object**
- ☐ **Is Abstract?**

Caution

Do *not* click **Finish** at this time.

Define the properties for the C9_SampleItem business object

Step 1: To the right of **Properties**, click **Add**.

The **New property** dialog box appears.

Step 2: In the **Name** box, type **c9_MakeBuy**.

Tip

Use the keyboard **Tab** key to move to the next field.

Step 3: In the **Display Name** box, type **CCC_MakeBuy**.

Step 4: In the **Description** box, type **CCC**.

Step 5: Note that **Attribute Type** is **String** and **String Length** is **32**.

Name	Attribute Type	String Length
c9_MakeBuy	String	32

Use the other default values.

Step 6: Click **Finish**.

Step 7: Click **Next** in the **New Business Object** dialog box.

Define the properties for the C9_SampleItemRevision business object

Step 1: Change the **Display Name** to **CCC_SampleItemRevision**.

Step 2: Note the following for **C9_SampleItemRevision**:

- **Name** is **C9_SampleItemRevision**.
- **Parent** is **ItemRevision**.

These are automatically set and cannot be changed.

Step 3: To the right of **Properties**, click **Add**.

Step 4: In the **Name** box, type **c9_Material**.

Step 5: In the **Display Name** box, type **CCC_Material**.

Step 6: In the **Description** box, type **CCC**.

Step 7: Note that **Attribute Type** is **String** and **String Length** is **32**.

Name	Attribute Type	String Length
c9_Material	String	32

Use the other default values.

Step 8: Click **Finish**.

Step 9: Click **Add** to open the **New property** dialog box.

Step 10: In the **Name** box, type **c9_Cost**.

Step 11: In the **Display Name** box, type **CCC_Cost**.

Step 12: In the **Description** box, type **CCC**.

Step 13: For the **Attribute Type**, select **Double**.

Name	Attribute Type
c9_Cost	Double

Use the other default values.

Step 14: Click **Finish**.

Step 15: Click **Finish** in the **New Business Object** dialog.

The **C9_SampleItem** business object is listed below **Item** in the **Business Objects** view.

Verify the C9_SampleItem

Step 1: Choose **BMIDE→Find**.

Step 2: In the **Find Business Object** dialog box, clear **COTS**.

Step 3: Note the related **C9_SampleItem** business objects:

- **C9_SampleItem** (new item)
- **C9_SampleItemMaster** (item master form)
- **C9_SampleItemMasterS** (item master form's storage class)
- **C9_SampleItemRevision** (item revision)
- **C9_SampleItemRevisionMaster** (item revision master form)
- **C9_SampleItemRevMasterS** (item revision master form's storage class)

Step 4: Click **Cancel**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Make c9_MakeBuy property visible during create

Step 1: Double-click **C9_SampleItem** to open the editor.

Step 2: Click the **Operation Descriptor** tab.

Step 3: Click **Add** to open the **New OperationInput Property** dialog box.

Add a Property from Business Object is selected by default.

Step 4: Click **Next**.

Step 5: To the right of **Property Name** box, click **Browse**.

Step 6: Double-click **c9_MakeBuy**.

Step 7: Use these default settings:

- ☐ **Required**
- ☑ **Visible**

Name	Required	Visible
c9_MakeBuy	No	Yes

Step 8: Click **Finish**.

The **c9_MakeBuy** property is added to the table.

Make revision properties visible during create

Step 1: Click the **Main** tab in the **C9_SampleItem** editor.

Step 2: Click the **C9_SampleItemRevision** link (to the right of **Item Revision**).

C9_SampleItemRevision opens into its own editor tab.

Step 3: Confirm **Display Name** is **CCC_SampleItemRevision**.

Step 4: Click the **Operation Descriptor** tab (from the **C9_SampleItemRevision** editor).

Step 5: Click **Add**.

Add a Property from Business Object is selected by default.

Step 6: Click **Next**.

Step 7: Add the **c9_Cost** property to **Operation Descriptor**.

a. Click **Browse**.

b. Double-click **c9_Cost**.

c. Click **Finish**.

Name	Required	Visible
c9_Cost	No	Yes

Step 8: Add the **c9_Material** property to **Operation Descriptor**.

a. Click **Add**.

b. Click **Next**.

c. Click **Browse** in the **New OperationInput Property** dialog box.

d. Double-click **c9_Material**.

e. Click **Finish**.

Name	Required	Visible
c9_Material	No	Yes

Step 9: Note that the **c9_Cost** and **c9_Material** properties are added to the table.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

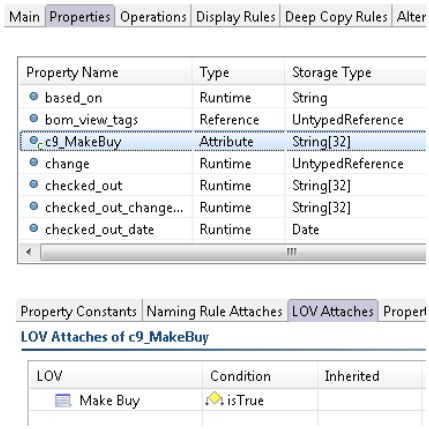
Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Attach the Make Buy LOV to C9_SampleItem

Activity: Attach the Make Buy LOV to C9_SampleItem

In this activity, you attach the COTS **Make Buy** LOV to the **c9_MakeBuy** property of the **C9_SampleItem** business object.



Launch the Attach the Make Buy LOV to C9_SampleItem activity.

Related information

For more information, review these topics in the online help:

- *Creating lists of values (LOVs)*

View the existing COTS Make Buy LOV

Step 1: Choose **BMIDE→Find**.

Step 2: In the filter box, type **Make**.

The **Make Buy** Classic LOV is shown.

Step 3: Double-click the **Make Buy** Classic LOV.

The **Make Buy** opens into an editor tab and is selected on the left .

Step 4: Note that the **CCC_Corporate** project expands to the **Make Buy** Classic LOV, and the **Make Buy** opens into an editor tab.

Step 5: Note the **Make Buy** three values.

Value
None
Make
Buy

Step 6: Note that **Usage** is **Exhaustive**.

Attach the Make Buy LOV

Step 1: Select the **C9_SampleItem** editor tab.

Step 2: Click the **Properties** tab (in the **C9_SampleItem** editor).

Step 3: Select the **c9_MakeBuy** property in the **Property Name** column.

You may need to scroll down a little in the properties table.

Step 4: Select the **LOV Attaches** tab.

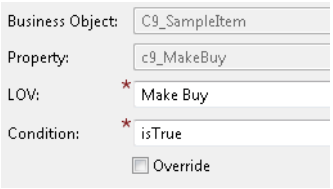
Step 5: To the right of the **LOV Attaches** table, click **Add**.

Step 6: To the right of the **LOV** box, click **Browse**.

Step 7: In the filter box, type **Make**.

The **Make Buy** LOV is shown and **Preview Values** displays the **Make Buy** values.

Step 8: Click **OK**.



Step 9: Click **Finish** in the **LOV Attachment** dialog box.

The **Make Buy** LOV is listed in the **LOV Attaches** table.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Advanced** perspective.

The **Advanced** perspective is better to view the deployment results.

Step 2: If the **BMIDE Assistant** appears, click **X** to close the tab.

Step 3: Click the **Deploy Template** icon on the toolbar.

Step 4: Click **Next** in the **Recommendations for Backing up....** dialog box.

Use the default settings.

Step 5: Verify the **Server Connection Profiles** is set to **Teamcenter Training**.

Step 6: Verify the **User ID** box is ***jgordon***.

Step 7: In the **Password** box, type ***jgordon***.

Step 8: Verify the **Group** box is **dba**.

Step 9: Verify the **Role** box is **DBA**.

Step 10: Click **Connect** (for connection to the server).

Step 11: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box shows status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 12: The deployment finishes, and the **Deployment Results** dialog appears.

Note

These files are created by the deployment.

- **deploy.log**
- **deploy_lang.log**
- **server_metadata_cache.log**

Step 13: Click **OK** in the **Deployment Results** dialog box.

Verify that the deploy action was successful

Step 1: In the lower left of the **Advanced** perspective, click the **Console** view.

Note that the **Console** view shows files (with the path) created by deployment.

Step 2: Click the first file link, which is the **deploy.log**.

Step 3: Verify all **Deploy Summary** steps have **Success**.

As needed, mouse over the vertical divider bar (and drag) to resize views.

Step 4: Scroll past the **Deploy Summary** section to take note of the changes.

Step 5: Verify all steps have **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 6: Click **X** on the *deploy.log* tab to close the file.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify CCC_SampleItem business object

Activity: Verify CCC_SampleItem business object

In this activity, you verify that the users can create the new **CCC_SampleItem** item.

Launch the Verify CCC_SampleItem business object activity.

Related information

For more information, review these topics in the online help:

- *Viewing and modifying object properties*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Verify that CCC_SampleItem is available for users to create

Step 1: In the rich client, select **My Teamcenter**.

Step 2: Select the **Home** folder.

Step 3: Choose **File→New→Item**.

Step 4: Select **CCC_SampleItem** and select **Next**.

Step 5: From the **CCC_MakeBuy** property list, select **Make**.

Step 6: To the right of **ID**, click **Assign**.

Step 7: In the **Name** box, type **Sample1**.

Step 8: Click **Next**.

Step 9: In the **CCC_Cost** box, type **12.34**.

The value for **CCC_Cost** must be a double.

Step 10: In the **CCC_Material** box, type **Steel**.

Step 11: To the right of **Revision**, click **Assign**.

Step 12: Click **Finish**.

Step 13: Click **Cancel** to close the **New Item** dialog box.

Step 14: Note that **Sample1** is in your **Home** folder.

Confirm CCC_MakeBuy property on CCC_SampleItem

Step 1: Right-click the **Sample1** (the **CCC_SampleItem** item) and choose **Edit Properties**.

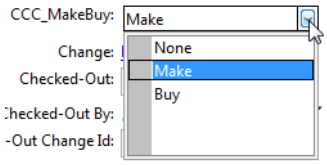
Step 2: Click **Yes** (to show general properties).

Step 3: In the **Edit Properties** dialog box, click **All**.

Step 4: Scroll to the bottom and click **Show empty properties**.

Step 5: Locate the **CCC_MakeBuy** property.

Step 6: From the **CCC_MakeBuy** property list, select **Make**.



Step 7: Click **Save and Check-In**.

Step 8: Click **Yes**.

Confirm the CCC_SampleItemRevision properties

Step 1: Click the arrow symbol ▹ to expand **Sample1** (the **CCC_SampleItem** item).

Optionally click the arrow symbol ▹ to expand **CCC_SampleItemRevision**.

Step 2: Right-click **CCC_SampleItemRevision** and choose **View Properties**.

Step 3: In the **Properties** dialog box, click **All**.

Step 4: Scroll to the bottom and click **Show empty properties**.

Step 5: Locate the new **CCC_SampleItemRevision** properties.

- **CCC_Cost**
- **CCC_Material**

Step 6: Click **Cancel**.

Note

To access the new properties directly, a tab (labeled *CCC_Props*) can be added to the **Properties** dialog with the following XML in a **C9_SampleItemRevision** stylesheet:

```
<page title="CCC_Props" titleKey="CCC_Props">
<property name="c9_Cost" />
<property name="c9_Material" />
</page>
```

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Package extension into a solution template

Activity: Package extension into a solution template

In this activity, you package the **CCC_Corporate** project extension into a solution template.

Several files are created, including the following.

- ccccorporate_install.zip
- ccccorporate_template.zip
- feature_ccccorporate.xml
- ccccorporateBundle_en_US.xml

> **Note**
>
> The locale filename may differ (follows this format): **template-nameBundle_language-code_country-code.xml**.

Launch the Package extension into a solution template activity.

Related information

For more information, review these topics in the online help:

- *Package extensions into a template*

Package the extensions for the CCC_Corporate project as a solution template

Step 1: In Business Modeler IDE, choose **File→New→Other...**.

Step 2: Expand **Business Modeler IDE**.

Step 3: Select **Package Template Extensions** and click **Next**.

Step 4: In the **Project** box, confirm **CCC_Corporate**.

Step 5: Leave default location selected.

Step 6: Click **Finish**.

View the location of the CCC_Corporate project files

Step 1: Click the **Navigator** view.

Step 2: Right-click the **CCC_Corporate** project and choose **Properties**.

Step 3: With **Resource** selected on the left, note the **Location** value on the right.

Step 4: Click **Cancel**.

Verify that the solution template files were created

Step 1: Open a Windows Explorer dialog box.

Step 2: Navigate to the **CCC_Corporate** project at *STUDENT_HOME***bmide_projects\CCC_Corporate**.

Step 3: From this location, navigate to **output\packaging\full_update**.

Step 4: Note that several files are created, including the following.

- **ccccorporate_install.zip**
- **ccccorporate_template.zip**
- **feature_ccccorporate.xml**
- **ccccorporateBundle_en_US.xml**

Note

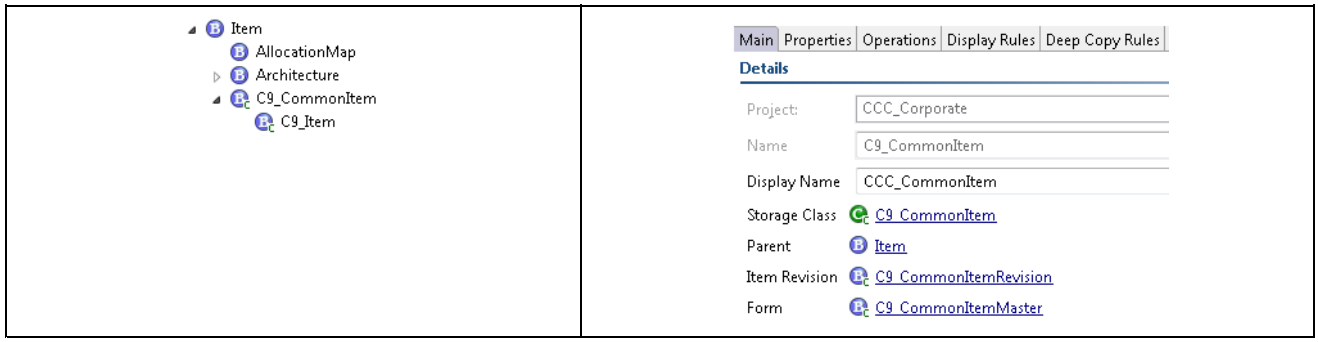
The locale file name may differ, but be in this format: **template-nameBundle_language-code_country-code.xml**.

Section 3: Item business object configuration

Create the C9_CommonItem business object

Activity: Create the C9_CommonItem business object

In this activity, you import the **C9_CommonItem** business object definition. The COTS **Item** business object is the parent of **C9_CommonItem**.



Launch the Create the C9_CommonItem business object activity.

Related information

For more information, review these topics in the online help:

- *Import a template file*

Prepare to create the C9_CommonItem business object

Step 1: Return to the Business Modeler IDE with the **Advanced** perspective.

Step 2: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 3: In the **File name** box, type **item_business_objects.xml**.

Step 4: Confirm the **Set as active extension file** box is selected ☑.

Step 5: Click **Finish**.

Step 6: Click the **Navigator** view.

Step 7: View the **item_business_objects.xml** file.

a. Expand the **CCC_Corporate** folder.

b. Expand the **extensions** folder.

Step 8: Click the **Business Objects** view.

Step 9: Locate the **Item** business object.

a. Click the bookmarks ▾ down arrow.

b. Choose **CCC_Corporate→Item**.

Item is selected in the **Business Objects** list.

Step 10: Expand the **Item** business object.

Note the **C9_SampleItem** business object created earlier.

Import the C9_CommonItem business object

Step 1: Choose **File→Import**.

Step 2: Expand **Business Modeler IDE**.

Step 3: Select **Import template file** and click **Next**.

Step 4: Note that **Project** is **CCC_Corporate**.

Step 5: To the right of **Template file**, click **Browse**.

Step 6: Navigate to *STUDENT_HOME***import_bus_objs**.

Step 7: Select **c9_commonitem.xml**.

Step 8: Click **Open**.

Step 9: In the **Extension file** dialog box, select **item_business_objects.xml**.

Step 10: Click **Finish**.

The **C9_CommonItem** business object appears in the **Business Objects** view under **Item**.

Import the C9_CommonItem display names

Step 1: Choose **File→Import**.

Step 2: Below the **Business Modeler IDE** folder, select **Import Localizations** and click **Next**.

Step 3: Note that **Project** is **CCC_Corporate**.

Step 4: To the right of **Files to Import**, click **Add**.

Step 5: Navigate to *STUDENT_HOME***import_bus_objs**.

Step 6: Select **c9_commonitem_lang.xml**.

Step 7: Click **Open**.

The **c9_commonitem_lang.xml** file is added to the **Files to Import** table.

Step 8: Click **Finish**.

Verify the C9_CommonItem business object

Step 1: Choose **BMIDE→Find**.

Step 2: In the **Find Business Object** dialog box, clear **COTS**.

Step 3: Note the related **C9_CommonItem** business objects:

- **C9_CommonItem** (new item)
- **C9_CommonItemMaster** (item master form)
- **C9_CommonItemMasterS** (item master form's storage class)
- **C9_CommonItemRevision** (item revision)
- **C9_ItemCommonRevisionMaster** (item revision master form)
- **C9_ItemCommonRevMasterS** (item revision master form's storage class)

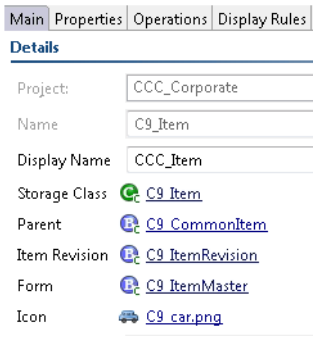
Step 4: Click **Cancel**.

Create the C9_Item business object

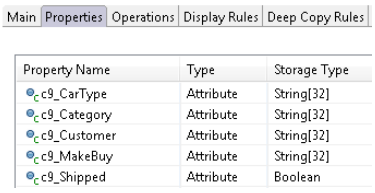
Activity: Create the C9_Item business object

In this activity, you import the **C9_Item** business object definition. The **C9_CommonItem** business object is the parent of **C9_Item**.

Launch the Create the C9_Item business object activity.

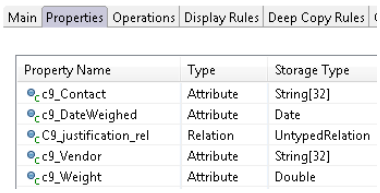


C9_Item properties



Property Name	Type	Storage Type
c9_CarType	Attribute	String[32]
c9_Category	Attribute	String[32]
c9_Customer	Attribute	String[32]
c9_MakeBuy	Attribute	String[32]
c9_Shipped	Attribute	Boolean

C9_ItemRevision properties



Property Name	Type	Storage Type
c9_Contact	Attribute	String[32]
c9_DateWeighed	Attribute	Date
C9_justification_rel	Relation	UntypedRelation
c9_Vendor	Attribute	String[32]
c9_Weight	Attribute	Double

Related information

For more information, review these topics in the online help:

- *Import a template file*

Import the C9_Item business object

Step 1: Choose **File→Import**.

Step 2: Below the **Business Modeler IDE** folder, select **Import template file**.

Step 3: Click **Next**.

Step 4: Note that **Project** is **CCC_Corporate**.

Step 5: To the right of **Template file**, click **Browse**.

Step 6: Navigate to *STUDENT_HOME***import_bus_objs**.

Step 7: Select **c9_item.xml**.

Step 8: Click **Open**.

Step 9: In the **Extension file** dialog box, select **item_business_objects.xml**.

Step 10: Click **Finish**.

Step 11: Locate the new **C9_Item** business object.

a. Choose **BMIDE→Find**.

b. In the **Find Business Object** dialog box, clear **COTS**.

Step 12: Note the related **C9_Item** business objects:

- **C9_Item** (new item)
- **C9_ItemMaster** (item master form)
- **C9_ItemMasterS** (item master form's storage class)
- **C9_ItemRevision** (item revision)
- **C9_ItemRevisionMaster** (item revision master form)
- **C9_ItemRevMasterS** (item revision master form's storage class)

Step 13: Click **Cancel**.

Note

The **C9_Item** business object also can be located in the **Business Objects** view by expanding **C9_CommonItem**.

Import the C9_Item display names

Step 1: Choose **File→Import**.

Step 2: Under the **Business Modeler IDE** folder, select **Import Localizations**.

Step 3: Click **Next**.

Step 4: Note that **Project** is **CCC_Corporate**.

Step 5: To the right of **Files to Import**, click **Add**.

Step 6: Navigate to *STUDENT_HOME***import_bus_objs**.

Step 7: Select **c9_item_lang.xml**.

Step 8: Click **Open**.

The **c9_item_lang.xml** file is added to the **Files to Import** table.

Step 9: Click **Finish**.

Review the C9_Item business object definition

Step 1: In the **Business Object** view, locate **C9_Item**.

Step 2: Double-click **C9_Item** to open its editor.

Note the following values:

Name	**C9_Item**
Parent	**C9_CommonItem**
Storage Class	**C9_Item**

Step 3: Click the **Properties** tab.

Confirm the following:

Property Name	Storage Type
c9_CarType	**String[32]**
c9_Category	**String[32]**
c9_Customer	**String[32]**
c9_MakeBuy	**String[32]**
c9_Shipped	**Boolean**

Step 4: Click the **Main** tab.

Step 5: Click the **C9_ItemRevision** link to open its editor.

Note these values:

Name	**C9_ItemRevision**
Parent	**C9_CommonItemRevision**
Storage Class	**C9_ItemRevision**

Step 6: Click the **Properties** tab.

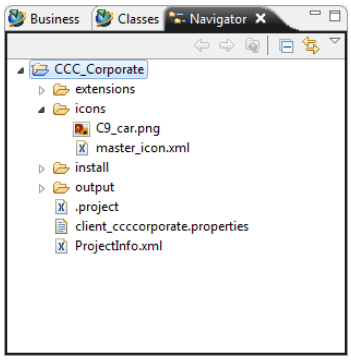
Note these additional values:

Property Name	Storage Type
c9_Contact	**String[32]**
c9_DateWeighed	**Date**
c9_Vendor	**String[32]**
c9_Weight	**Double**

Add a business object icon

Activity: Add a business object icon

In this activity, you add an icon to the new **C9_Item** business object. You also attach the COTS **Make Buy** LOV to the **c9_MakeBuy** property of the **C9_Item**.



Launch the Add a business object icon activity.

Related information

For more information, review these topics in the online help:

- *Add or change a business object icon*

Add the icon to the Business Modeler IDE project

Step 1: Click the **Business Objects** view tab.

Step 2: Right-click **CCC_Corporate** and choose **Add Icon**.

Step 3: Navigate to the icon image file:
*STUDENT_HOME***ccc_item_icon**.

Step 4: Choose the **C9_car.png** file and click **Open**.

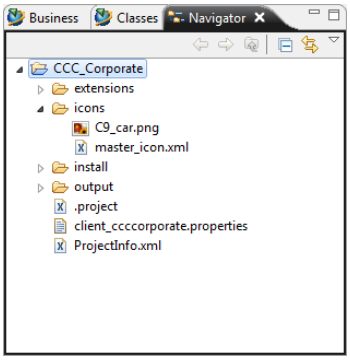
The file is placed in the **icons** folder under the project.

Step 5: Click the **Navigator** view.

Step 6: From the **Navigator** view, expand the **CCC_Corporate** project.

Step 7: Expand the **icons** folder.

The file is visible in the **icons** folder.



Step 8: Click the **Business Objects** view tab.

Specify the primary icon to represent CCC_Item

Step 1: Start from the **C9_Item** business object in the editor.

If necessary, locate the **C9_Item** business object with **BMIDE→Find**.

Step 2: In the **Main** tab, locate the **Business Object Constants** table.

Step 3: Select the **Fnd0Icon** business object constant.

Step 4: Click **Edit**.

Step 5: To the right of the **Icon** box, click **Browse**.

Step 6: Select the **C9_car.png** file and click **OK**.

Step 7: Click **Finish**.

The icon appears in the **Fnd0Icon** business object constant row of the table.

Business Object Constants

Name	Value	Overriden	COTS	Template
BatchPrintProvi...	SIEMENS		✔	foundation
BatchPrintServi...	batchprint		✔	foundation
CreateInput	C9_ItemCreI	✔		ccccorporate
DisplayName	$item_id+"-"...		✔	foundation
Fnd0AllowChec...	false		✔	foundation
Fnd0Checkout...			✔	foundation
Fnd0EnableIceC...	false		✔	foundation
Fnd0Icon	C9_car.png	✔		ccccorporate
Fnd0IsCheckout...	true		✔	foundation

Attach the Make Buy LOV

Step 1: Select the **C9_Item** editor tab.

Step 2: Click the **Properties** tab (in the **C9_Item** editor).

Step 3: Select the **c9_MakeBuy** property in the **Property Name** column.

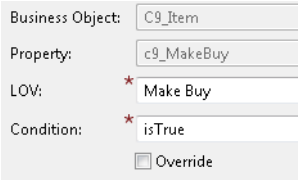
Step 4: Select the **LOV Attaches** tab.

Step 5: To the right of the **LOV Attaches** table, click **Add**.

Step 6: To the right of the **LOV** box, click **Browse**.

Step 7: In the filter box, type **Make**.

Step 8: Click **OK**.



Step 9: Click **Finish** in the **LOV Attachment** dialog box.

The **Make Buy** LOV is listed in the **LOV Attaches** table.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify the new item business objects

Activity: Verify the new item business objects

In this activity, you verify that users can create the new **CCC_Item** item.

Launch the Verify the new item business objects activity.

Related information

For more information, review these topics in the online help:

- *Viewing and modifying object properties*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Verify that CCC_Item is available for users to create

Step 1: In the rich client, select **Home**.

Step 2: Choose **File→New→Item**.

Note that **CCC_CommonItem** is not available (because it is uninstantiable).

Further note that **CCC_Item** is represented by the car icon.

Step 3: Select **CCC_Item** and click **Next**.

Step 4: Enter values as follows:

a. In the **CCC_CarType** box, type **GLS**.

b. Leave the **CCC_Category** box blank.

c. In the **CCC_Customer** box, type **ACME**.

d. From the **CCC_MakeBuy** list, select **Make**.

e. In the **CCC_Shipped** box, keep the default value.

Step 5: To the right of **ID**, click **Assign**.

Step 6: In the **Name** box, type **Item1**.

Step 7: Click **Next**.

Step 8: Enter values as follows:

a. In the **CCC_Contact** box, type **SIEMENS**.

b. In the **CCC_DateWeighed** box, select *yesterday's date* from the built-in calendar.

c. In the **CCC_Vendor** box, type **Best Vendor**.

d. In the **CCC_Weight** box, type **40.70**.

The value for **CCC_Weight** must be a double.

Step 9: To the right of **Revision**, click **Assign**.

Step 10: Click **Finish**.

Step 11: Click **Cancel**.

Step 12: Expand your new **CCC_Item** item.

a. Click the arrow next to **CCC_Item**.

b. Click the arrow next to the item revision.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

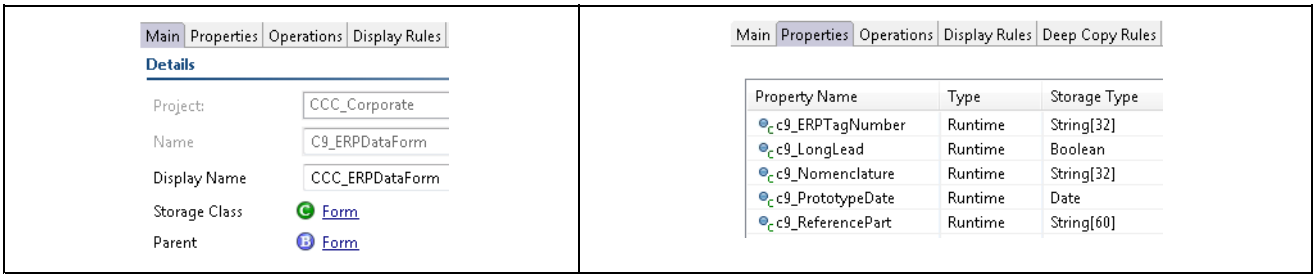
Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Section 4: Form business object configuration

Create C9_ERPDataForm business object

Activity: Create C9_ERPDataForm business object

In this activity, you define a new **C9_ERPDataForm** business object with **Form** business object as its parent.



Launch the Create C9_ERPDataForm business object activity.

Related information

For more information, review these topics in the online help:

- *Create a form business object*

Add a new extension file

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 3: In the **File name** box, type **form_business_objects.xml**.

Step 4: Confirm the **Set as active extension file** box is selected ☑.

Step 5: Click **Finish**.

Define the new C9_ERPDataForm business object

Step 1: Locate the **Form** business object.

a. Click the bookmarks down arrow.

b. Choose **CCC_Corporate**→**Form**.

the **Form** business objects is selected.

Step 2: Right-click **Form** and choose **New Business Object**.

Step 3: In the **Name** box, type **C9_ERPDataForm**.

Tip

Use the keyboard **Tab** key to move to the next field.

Step 4: In the **Display Name** box, type **CCC_ERPDataForm**.

Step 5: Note that **Parent** is **Form**.

Step 6: Keep the **Storage Class** default setting.

Note

Do *not* click **Finish** at this time.

Add the string properties

Step 1: Add the **c9_ERPTagNumber** property.

a. Click **Add**.

b. In the **Name** box, type **c9_ERPTagNumber**.

c. In the **Display Name** box, type **CCC_ERPTagNumber**.

d. In the **Description** box, type **CCC**.

Name	Attribute Type	String Length
c9_ERPTagNumber	String	32

Use these default settings:

- **Attribute Type** is **String**.
- **String Length** is **32**.

Note

Use the other default settings.

Step 2: Click **Finish**.

The **c9_ERPTagNumber** property is added.

Step 3: Add the **c9_Nomenclature** property.

a. Click **Add**.

b. In the **Name** box, type **c9_Nomenclature**.

c. In the **Display Name** box, type **CCC_Nomenclature**.

d. In the **Description** box, type **CCC**.

e. In the **String Length** box, type **60**.

Name	Attribute Type	String Length
c9_Nomenclature	String	60

Use this default setting:

- **Attribute Type** is **String**.

Note

Use the other default settings.

Step 4: Click **Finish**.

The **c9_Nomenclature** property is added.

Step 5: Add the **c9_ReferencePart** property.

a. Click **Add**.

b. In the **Name** box, type **c9_ReferencePart**.

c. In the **Display Name** box, type **CCC_Reference_Part**.

d. In the **Description** box, type **CCC**.

e. In the **String Length** box, type **60**.

Name	Attribute Type	String Length
c9_ReferencePart	**String**	**60**

Use this default setting.

- **Attribute Type** is **String**.

  Note

  Use the other default settings.

Step 6: Click **Finish**.

The **c9_ReferencePart** property is added.

Add the boolean property c9_LongLead

Step 1: To the right of **Properties**, click **Add**.

The **New Property** dialog appears.

Step 2: In the **Name** box, type **c9_LongLead**.

Step 3: In the **Display Name** box, type **CCC_LongLead**.

Step 4: In the **Description** box, type **CCC**.

Step 5: For the **Attribute Type**, select **Boolean**.

Step 6: Type **false** in the **Initial Value** box.

Name	Attribute Type	Initial value
c9_LongLead	Boolean	false

Note

Use the other default values.

Step 7: Click **Finish**.

The **c9_LongLead** property is added.

Add the date property c9_PrototypeDate

Step 1: To the right of **Properties**, click **Add**.

The **New Property** dialog appears.

Step 2: In the **Name** box, type **c9_PrototypeDate**.

Step 3: In the **Display Name** box, type **CCC_PrototypeDate**.

Step 4: In the **Description** box, type **CCC**.

Step 5: For the **Attribute Type**, select **Date**.

Name	Attribute Type	Initial value
c9_PrototypeDate	Date	Not applicable

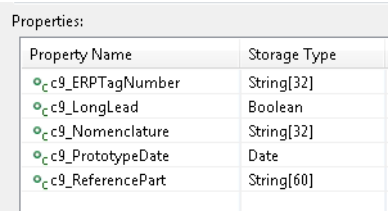
Note

Use the other default values.

Step 6: Click **Finish**.

The **c9_PrototypeDate** property is added.

Step 7: Confirm the **c9_PrototypeDate** properties.



Step 8: Click **Finish** in the **Create new Form Business Object** dialog.

The **CCC_ERPDataForm** business object is visible under **Form**.

Verify the C9_ERPDataForm object was created

Step 1: In the **Business Object** view, double-click **C9_ERPDataForm**.

The **C9_ERPDataForm** editor opens.

Step 2: Note **C9_ERPDataFormStorage** is the **Class Name**.

Step 3: Click the **Properties** tab.

Step 4: Note that **C9_ERPDataForm** has the following properties.

Property Name
c9_PrototypeDate
c9_LongLead
c9_Nomenclature
c9_ReferencePart
c9_ERPTagNumber

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Import C9_Change_Form and C9_ProductImpact definitions

Activity: Import C9_Change_Form and C9_ProductImpact definitions

In this activity, you import the **C9_Change_Form** and **C9_ProductImpact** form business object definitions.

C9_Change_Form

Main | Properties | Operations | Display Rules | Deep Copy Rules | GRM Rules

Property Name	Type	Storage Type
c9_AuthorizingDocument	Runtime	String[32]
c9_ChangeCode	Runtime	String[32]
c9_ChangeReason	Runtime	String[32]
c9_EstimatedCost	Runtime	Double
c9_EstimatedReleaseDate	Runtime	Date
c9_ProblemDescription	Runtime	String[240]
c9_SolutionDescription	Runtime	String[240]

C9_ProductImpact

Main | Properties | Operations | Display Rules | Deep Copy Rules

Property Name	Type	Storage Type
c9_Facility	Runtime	String[32]
c9_Location	Runtime	String[32]
c9_Production_Lines	Runtime	String[32]
c9_Project_Name	Runtime	String[32]

Launch the Import C9_Change_Form and C9_ProductImpact definitions activity.

Related information

For more information, review these topics in the online help:

- *Import a template file*

Import two form business objects

Step 1: From the Business Modeler IDE, choose **File→Import**.

Step 2: Expand **Business Modeler IDE** if necessary.

Step 3: Select **Import template file** and click **Next**.

Step 4: Note that **Project** is **CCC_Corporate**.

Step 5: To the right of the **Template file** box, click **Browse**.

Step 6: Navigate to *STUDENT_HOME***\import_bus_objs**.

Step 7: Select **c9_change_form.xml**.

Step 8: Click **Open**.

Step 9: In the **Extension file** dialog box, select **form_business_objects.xml**.

Step 10: Click **Finish**.

The **C9_Change_Form** business object is added to the **Business Objects** view.

Step 11: Repeat the previous steps to import **C9_ProductImpact**.

Import the file *STUDENT_HOME***\import_bus_objs\c9_product_impact.xml**.

Step 12: Note that below the **Form** business object are both **C9_Change_Form** and **C9_ProductImpact**.

Import the form display names

Step 1: Choose **File→Import**.

Step 2: Expand **Business Modeler IDE** if necessary.

Step 3: Select **Import Localizations**.

Step 4: Click **Next**.

Step 5: Confirm **Project** is **CCC_Corporate**.

Step 6: To the right of **Files to Import**, click **Add**.

Step 7: Navigate to *STUDENT_HOME***\import_bus_objs**.

Step 8: Select **c9_change_form_lang.xml**.

Step 9: Click **Open**.

The following is in the **Files to Import** list.

*STUDENT_HOME***\import_bus_objs\c9_change_form_lang.xml**

Step 10: To the right of **Files to Import**, click **Add**.

Step 11: Navigate to *STUDENT_HOME***\import_bus_objs**.

Step 12: Select **c9_product_impact_lang.xml**.

Step 13: Click **Open**.

The following is in the **Files to Import** list.

*STUDENT_HOME***\import_bus_objs\c9_change_form_lang.xml**

*STUDENT_HOME***\import_bus_objs\c9_product_impact_lang.xml**

Step 14: Click **Finish**.

The form display names are imported.

Step 15: Verify that the following are listed in the **Business Object** view.

- **C9_Change_Form**
- **C9_ProductImpact**

Confirm the C9_Change_Form import

Step 1: Double-click the **C9_Change_Form** to open it and confirm the following.

	Value
Name	C9_Change_Form
Display Name	CCC_Change_Form
Parent	Form
Class Name	C9_Change_FormStorage

Step 2: Click the **Properties** tab to confirm the following.

Property Name	Storage Type
c9_AuthorizingDocument	String[32]
c9_ChangeCode	String[32]
c9_ChangeReason	String[32]
c9_EstimatedCost	Double
c9_EstimatedReleaseDate	Date
c9_ProblemDescription	String[240]
c9_SolutionDescription	String[240]

Confirm the C9_ProductImpact import

Step 1: Double-click **C9_ProductImpact** to confirm the following.

	Value
Name	**C9_ProductImpact**
Display Name	**CCC_ProductImpact**
Parent	**Form**
Form Storage Class	**C9_ProductImpactStorage**

Step 2: Click the **Properties** tab to confirm the following.

Property Name	Storage Type
c9_Facility	**String[32]**
c9_Location	**String[32]**
c9_Production_Lines	**String[32]**
c9_Project_Name	**String[32]**

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify the new form business objects

Activity: Verify the new form business objects

In this activity, you verify that users can create the new forms:

- **CCC_ERPDataForm**
- **CCC_Change_Form**
- **CCC_ProductImpact**

Launch the Verify the new form business objects activity.

Related information

For more information, review these topics in the online help:

- *End user form creation*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Verify the new forms are available for users

Step 1: Select the **Home** folder.

Step 2: Choose **File→New→Form**.

The **New Form** dialog appears.

Step 3: Type **CCC** into the filter box.

Step 4: Scroll down and look at the list to confirm the following exist.

- **CCC_Change_Form**
- **CCC_ERPDataForm**
- **CCC_ProductImpact**

Step 5: Select **CCC_ERPDataForm** and click **Next**.

Step 6: In the **Name** box, type **CCC_ERPDataForm1**.

Step 7: Click **Finish**.

The new **CCC_ERPDataForm1** form appears in your **Home** folder.

Step 8: Click **Cancel**.

Verify the CCC_ERPDataForm1 form has the correct properties

Step 1: Double-click your new **CCC_ERPDataForm1**.

Step 2: Confirm that **CCC_ERPDataForm1** has the following properties.

Property Name
CCC_PrototypeDate
CCC_LongLead
CCC_Nomenclature
CCC_Reference_Part
CCC_ERPTagNumber

Step 3: Click **Close**.

Step 4: Ensure that **CCC_ERPDataForm1** is selected.

Step 5: Click the **Viewer** tab to view the **CCC_ERPDataForm1** properties.

Step 6: Click the **Summary** tab.

Confirm the properties in the other forms

Repeat the previous steps to confirm the properties in the other forms.

Step 1: Select the **Home** folder.

Step 2: Create a **CCC_Change_Form** form.

a. Choose **File**→**New**→**Form**.

b. Type **CCC** into the filter box.

c. Select **CCC_Change_Form** and click **Next**.

d. In the **Name** box, type **CCC_Change_Form1**.

e. Click **Finish**.

Step 3: Confirm the following properties with the steps done before.

Property Name
CCC_AuthorizingDocument
CCC_ChangeReason
CCC_ChangeCode
CCC_EstimatedCost
CCC_EstimatedReleaseDate
CCC_ProblemDescription
CCC_SolutionDescription

Step 4: In the rich client, select **Home**.

Step 5: Create a **CCC_ProductImpact** form.

a. Choose **File**→**New**→**Form**.

b. Type **CCC** into the filter box.

c. Select **CCC_ProductImpact** and click **Next**.

d. In the **Name** box, type **CCC_ProductImpact1**.

e. Click **Finish**.

Step 6: Confirm the following properties with the steps done before.

Property Name
CCC_Project_Name
CCC_Location
CCC_Facility
CCC_Production_Lines

Confirm that the form properties are also visible in the Properties dialog box

Note

As needed, refer to the tables above for the property names.

Step 1: Repeat the following steps for each form.

- **CCC_ERPDataForm**
- **CCC_Change_Form**
- **CCC_ProductImpact**

Step 2: Right-click the form and choose **View Properties**.

The **Properties** dialog box appears (initially with general properties).

Step 3: In the **Properties** dialog box, click **All**.

Step 4: Scroll to the bottom of the **Properties** dialog and click **Show empty properties**.

Step 5: Locate the **CCC** properties in the list.

Tip

Resize the **Properties** dialog taller.

Step 6: Click **Cancel**.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

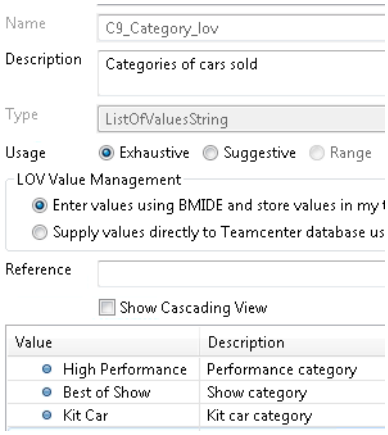
Section 5: LOV (list of value) extensions

Create the C9_Category_lov

Activity: Create the C9_Category_lov

In this activity, you create the **C9_Category_lov** LOV whose values correspond to categories of cars sold by custom car company. This LOV is used with the **c9_category** property.

Launch the Create the C9_Category_lov activity.



Related information

For more information, review these topics in the online help:

- *Add a list of values (LOV)*

Add a new extension file

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 3: In the **File name** box, type **lovs.xml**.

Step 4: Confirm the **Set as active extension file** box is selected ☑.

Step 5: Click **Finish**.

Define the C9_Category_lov

Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Classic LOV** in the **Wizards** filter box and click **Next**.

Step 3: In the **Name** box, type **C9_Category_lov**.

Step 4: In the **Description** box, type **Categories of cars sold**.

Step 5: Use these default values:

- **Type** is **ListOfValuesString**.
- **Usage** is **Exhaustive**.

Add values to C9_Category_lov

Step 1: To the right of the **LOV Values** table, click **Add**.

Step 2: In the **Value** box, type **High Performance**.

The **Value Display Name** box defaults to **High Performance**.

Step 3: In the **Description** box, type **Performance category**.

Step 4: Click **Apply**.

Tip

Move the **Add LOV Value** dialog box to see value(s) on the list.

Step 5: Repeat to add **Best of Show**.

a. In the **Value** box, type **Best of Show**.

b. Use the default for **Best of Show** for **Value Display Name**.

c. In the **Description** box, type **Show category**.

d. Click **Apply**.

Value	Value Display Name	Description
Best of Show	Best of Show	Show category

Step 6: Repeat to add **Kit Car**.

a. In the **Value** box, type **Kit Car**.

b. Use the default for **Kit Car** for **Value Display Name**.

c. In the **Description** box, type **Kit car category**.

d. Click **Finish**.

Value	Value Display Name	Description
Kit Car	Kit Car	Kit car category

Step 7: In the **Classic LOV** dialog box, click **Finish**.

The **C9_Category_lov** LOV appears below the **Classic LOV** folder.

Attach the C9_Category_lov to C9_Item

Step 1: Start from the **C9_Item** business object in the editor.

Step 2: In the **C9_Item** editor, click the **Properties** tab.

Step 3: Locate **c9_Category** in the **Property Name** column.

Step 4: Select the **c9_Category** property.

Step 5: Click the **LOV Attaches** tab.

Step 6: To the right of the **LOV Attaches of c9_Category** table, click **Add**.

Step 7: To the right of the **LOV** box, click **Browse**.

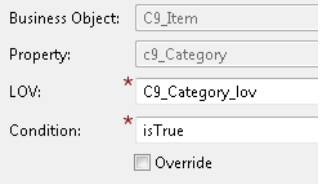
Step 8: In the **Find LOV** dialog box, clear **COTS**.

Step 9: Select **C9_Category_lov**.

Note **Preview Values** at the bottom of the **LOV Attachments** dialog box.

Best of Show
High Performance
Kit Car

Step 10: Click **OK** in the **Find LOV** dialog box.



Step 11: Click **Finish** in the **LOV Attachment** dialog box.

The **C9_Category_lov** LOV is listed in the **LOV Attaches** table of **C9_Item**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

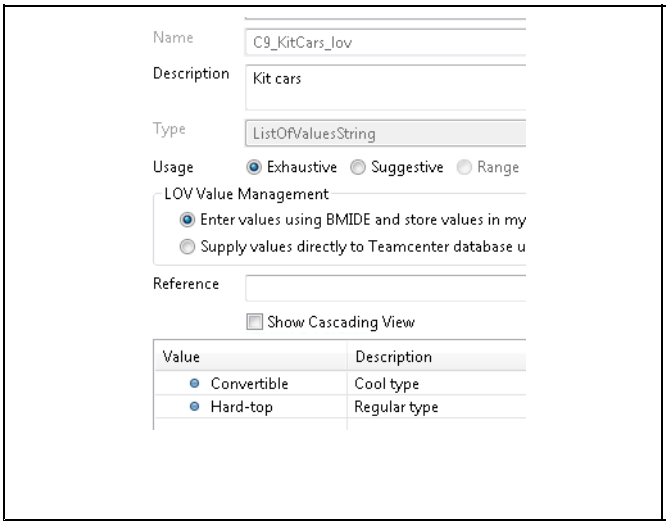
Step 3: Click **OK**.

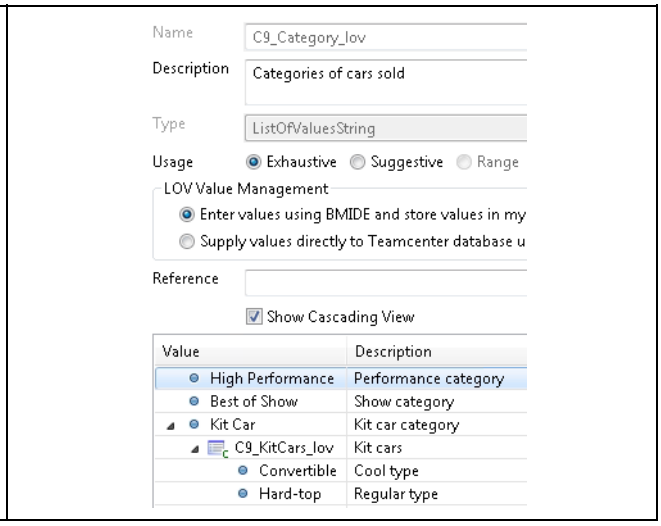
Create a cascading LOV

Activity: Create a cascading LOV

In this activity, you create a cascading LOV from the **C9_Category_lov** LOV. First you create the **C9_KitCars_lov** LOV. Second you add **C9_KitCars_lov** LOV to the **Kit Car** value of the **C9_Category_lov** LOV.

Launch the Create a cascading LOV activity.





Related information

For more information, review these topics in the online help:

- *Create a cascading LOV*

Create a new C9_KitCars_lov

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→Organize Extensions→Set active extension file**.

Step 3: Select **lovs.xml** and click **OK**.

Step 4: Choose **BMIDE→New Model Element**.

Step 5: Type **Classic LOV** in the **Wizards** filter box and click **Next**.

Step 6: In the **Name** box, type **C9_KitCars_lov**.

Step 7: In the **Description** box, type **Kit cars**.

Step 8: Use these default values:

- **Type** is **ListOfValuesString**.
- **Usage** is **Exhaustive**.

Step 9: To the right of the **LOV Values** table, click **Add**.

Step 10: In the **Value** box, type **Convertible**.

The **Value Display Name** box defaults to **Convertible**.

Step 11: In the **Description** box, type **Cool type**.

Step 12: Click **Finish**.

Step 13: Repeat to add **Hard-top**.

a. In the **Value** box, type **Hard-top**.

b. Use the default for **Hard-top** for **Value Display Name**.

c. In the **Description** box, type **Regular type**.

d. Click **Finish**.

Value	Value Display Name	Description
Hard-top	Hard-top	Regular type

Step 14: The **LOV Values** table shows the following.

Value	Description
Convertible	Cool type
Hard-top	Regular type

Step 15: In the **Classic LOV** dialog box, click **Finish**.

The **C9_KitCars_lov** LOV appears below the **Classic LOV** folder.

Make C9_KitCars_lov a sub-LOV to C9_Category_lov

Step 1: If necessary, open the **C9_Category_lov** into an editor.

a. From the **Extensions** view, expand the **CCC_Corporate** project.

b. Expand the **LOV** folder.

c. Double-click **C9_Category_lov**.

The values table currently shows the following.

Value	Description
High Performance	**Performance category**
Best of Show	**Show category**
Kit Car	**Kit car category**

Step 2: In the **LOV Value Management** box, use the default setting.

Step 3: In the **C9_Category_lov** editor, select the **Show Cascading View** check box so that it is selected ☑.

Step 4: In the values table, select **Kit Car**.

Step 5: To the right of the values table, click **Add Sub LOV**.

Step 6: To the right of the **LOV** box, select **Browse**.

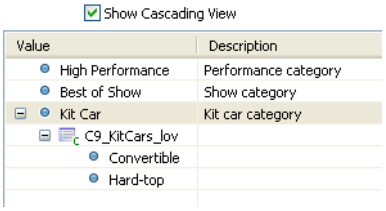
Step 7: Clear **COTS** and select the **C9_KitCars_lov** LOV.

Note **Preview Values** at the bottom of the **Find LOV** dialog box.

Step 8: Click **OK** in the **Find LOV** dialog box.

Step 9: Click **Finish** in the **LOV Attachment** dialog box.

Step 10: Expand the **Kit Car** to see the values.



Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

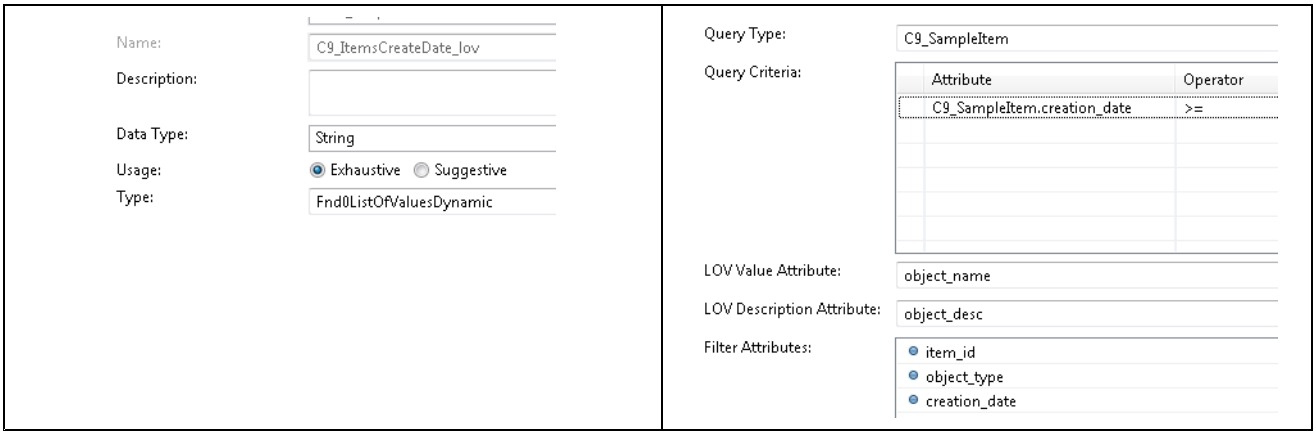
Step 3: Click **OK**.

Create a dynamic LOV

Activity: Create a dynamic LOV

In this activity, you create a dynamic LOV that has a query to search for items created during this class (based on the creation date).

Launch the Create a dynamic LOV activity.



Related information

For more information, review these topics in the online help:

- *Create a cascading LOV*

Create the dynamic LOV

Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Dynamic LOV** in the **Wizards** filter box and click **Next**.

Step 3: Click **Dynamic LOV** and click **Next**.

Step 4: In the **Name** box, type **C9_ItemsCreateDate_lov**.

Step 5: Use these default settings:

- **Data Type** is **String**.
- **Usage** is **Exhaustive**.
- **Type** is **Fnd0ListOfValuesDynamic**.

Step 6: To the right of the **Query Type** dialog box, click **Browse**.

Step 7: Type **C9_SampleItem** in the filter box and select **C9_SampleItem** from the list.

Step 8: Click **OK**

Define the dynamic LOV query

Step 1: To the right of the **Query Criteria** table, click **Add**.

The **Query Clause Attribute** dialog box appears.

Step 2: Confirm the **Filter** is set to **Attributes and References**.

Step 3: Type **creation** in the filter box and select **creation_date** from the list.

Step 4: Click **Finish**

The **C9_SampleItem.creation_date** attribute is added to the **Query Criteria** table.

Step 5: Set the query **Operator** and **Value**.

a. Click the **Operator** cell and choose **>=**

b. Click the **Value** and the built-in calendar.

c. From the calendar, choose the date one week earlier than today.

Step 6: To the right of the **LOV Value Attribute** dialog box, click **Browse**.

Step 7: Select **object_name** and click **OK**

Step 8: To the right of the **LOV Description Attribute** dialog box, click **Browse**.

Step 9: Select **object_desc** and click **OK**

Step 10: To the right of the **Filter Attributes** dialog box, select these attributes.

- **item_id**
- **object_type**
- **creation_date**

Repeat the steps as needed.

a. Click **Add**.

b. In the filter box, type the attribute listed above.

c. Select the attribute from the list and click **OK**

Step 11: Click **Finish**.

The **C9_ItemsCreateDate_lov** LOV appears below the **Dynamic LOV** folder.

Test the dynamic LOV from BMIDE

Step 1: Double-click the **C9_ItemsCreateDate_lov** to open the editor.

Step 2: Review the **C9_ItemsCreateDate_lov** settings.

Step 3: Locate the **Test** button. You may need to scroll down.

Step 4: Click **Test**.

The **Test Dynamic LOV** dialog box display to enter logon credentials.

Step 5: Enter the necessary Teamcenter credentials.

a. Verify the **Server Profile** is *Teamcenter Training*.

b. Verify the **User ID** box is ***jgordon***.

c. In the **Password** box, type ***jgordon***.

d. Verify the **Group** box is **dba**.

e. Verify the **Role** box is **DBA**.

Step 6: Click **Connect**.

The Business Modeler IDE client connects to the server to display the results.

Step 7: Click **Next**.

Step 8: In the **Dynamic LOV Test Results** dialog, verify that the **CCC_SampleItem** items created earlier in class were found.

Step 9: In **Dynamic LOV Test Results**, click **Finish**.

Step 10: Stop the **TAO ImR**.

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Attach the c9_ItemsCreateDate_lov

Step 1: Start from the **C9_ERPDataForm** business object in the editor.

If necessary, locate the **C9_ERPDataForm** with **BMIDE→Find**.

Step 2: In the **C9_ERPDataForm** editor, click the **Properties** tab.

Step 3: Select **c9_ReferencePart** in the **Property Name** column.

Step 4: Click the **LOV Attaches** tab.

Step 5: To the right of the **LOV Attaches of c9_ReferencePart** table, click **Add**.

Step 6: To the right of the **LOV** box, click **Browse**.

Step 7: In the **Find LOV** dialog box, clear **COTS**.

Step 8: Select **C9_ItemsCreateDate_lov**.

Step 9: Click **OK** in the **Find LOV** dialog box.

Step 10: Click **Finish** in the **LOV Attachment** dialog box.

The **C9_ItemsCreateDate_lov** LOV is listed in the **LOV Attaches** table of **C9_ERPDataForm**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Test the new LOV definitions

Activity: Test the new LOV definitions

In this activity, you test the LOV definitions of the following:

- **CCC_EstimatedReleaseDate** property in **CCC_Change_Form**
- **Kit Car** cascading LOV in **CCC_Item**
- **CCC_Reference_Part** dynamic LOV in **CCC_ERPDataForm**.

Launch the Test the new LOV definitions activity.

Related information

For more information, review these topics in the online help:

- *List of values (LOV) options*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Verify properties in the CCC_Change_Form

Step 1: Locate and double-click your **CCC_Change_Form** form.

Step 2: Click **Check-Out and Edit**.

Step 3: Click **Yes**.

Step 4: Locate the **CCC_EstimatedReleaseDate** property.

Step 5: Set a date value for **CCC_EstimatedReleaseDate** using the built-in calendar.

a. Select the **No date set** calendar button.

b. Choose today's date from the calendar.

c. Click **OK**.

Step 6: Click **Save and Check-In**.

Step 7: Click **Yes**.

Verify that the cascading LOV performs correctly

Step 1: Select the **CCC_Item** named **Item1**.

Step 2: Right-click the **CCC_Item** and choose **Edit Properties**.

Step 3: Click **Yes**.

The **Properties** dialog box appears (initially with general properties).

Step 4: Display other **CCC_Item** properties.

a. In the **Properties** dialog, click **All**.

b. Scroll to the bottom and click **Show empty properties**.

Step 5: Locate the **CCC_Category** property.

Step 6: Click the cascading LOV icon of the **CCC_Category** property to see the list of values now available.

Step 7: If necessary, expand the **Kit Car** sub list.

Step 8: Double-click **Convertible**.

Step 9: Click **Save and Check-In**.

Step 10: Click **Yes**.

Verify that the dynamic LOV performs correctly

Step 1: Locate and double-click your **CCC_ERPDataForm1** form.

Step 2: Click **Check-Out and Edit**.

Step 3: Click **Yes**.

Step 4: Click the **CCC_Reference_Part** property list.

The dynamic LOV shows the values from the query defined in the LOV.

Step 5: Select **Sample1**.

Step 6: Click **Save and Check-In**.

Step 7: Click **Yes**.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

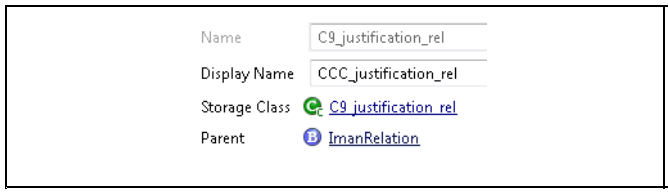
Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

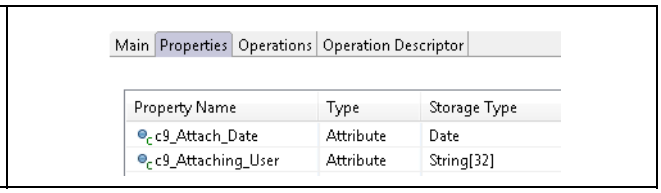
Section 6: Relation business object configuration

Create a new Relation business object

Activity: Create a new Relation business object

In this activity, you create a new relation business object to be used between two Teamcenter objects. Additionally, you add properties to the new relation that can be set by the Teamcenter user.





Launch the Create a new Relation business object activity.

Related information

For more information, review these topics in the online help:

- *Create a relation business object*

Prepare to create the new relation business object

Step 1: If necessary, start the Business Modeler IDE.

Step 2: Click the **Business Object** view.

Step 3: Set the active extension file to **item_business_objects.xml**.

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **item_business_objects.xml**.

c. Click **OK**.

Step 4: In the **Business Objects** view, locate the **ImanRelation** business object.

a. Choose **BMIDE→Find**.

b. In the filter string box, begin typing **ImanRelation**.

c. Double-click **ImanRelation** to open the editor.

Note

The **Business Objects** view expands to the **ImanRelation**.

Create the C9_justification_rel relation

Step 1: In the **Business Objects** view, right-click **ImanRelation** and choose **New Business Object**.

Step 2: In the **Name** box, type **C9_justification_rel**.

Step 3: In the **Display Name** box, type **CCC_justification_rel**.

Step 4: Note that **Parent** is **ImanRelation**.

Step 5: Use these default settings:

- ☑ **Create primary Business Object**
- ☐ **Is Abstract?**

Step 6: Click **Finish**.

The **C9_justification_rel** relation is added to the **Business Objects** view.

Add properties to C9_justification_rel relation

Step 1: Double-click **C9_justification_rel** to open the editor.

Step 2: In the **C9_justification_rel** editor, click the **Properties** tab.

Step 3: Click **Add**.

Step 4: Use **Persistent** (the default), and click **Next**.

Step 5: Provide these values in the **New Property** dialog box,

a. In the **Name** box, type **c9_Attaching_User**.

b. In the **Display Name** box, type **CCC_Attaching_User**.

c. In the **Description** box, type **CCC**.

Note

Use the other default values.

Step 6: Click **Finish**.

Step 7: Click **Add**.

Step 8: Use **Persistent** (the default), and click **Next**.

Step 9: Provide these values in the **New Property** dialog box,

a. In the **Name** box, type **c9_Attach_Date**.

b. In the **Display Name** box, type **CCC_Attach_Date**.

c. In the **Description** box, type **CCC**.

d. For the **Attribute Type**, select **Date**.

Note

Use the other default values.

Step 10: Click **Finish**.

Step 11: Use the other default values. Click **Finish**.

Name	Attribute Type	String Size
c9_Attaching_User	String	32
c9_Attach_Date	Date	Not applicable

Attach COTS User Names to c9_Attaching_User

Step 1: In the properties table, select the **c9_Attaching_User** property.

Step 2: Below the properties table, click the **LOV Attaches** tab.

Step 3: To the right of the **LOV Attaches** table, click **Add**.

The **LOV Attachment** dialog box appears.

Step 4: To the right of the **LOV** box, click **Browse**.

Step 5: In the filter box, type **User**.

Step 6: Select **User Names** and click **OK**.

Step 7: Click **Finish** in the **LOV Selection** dialog box.

The **User Names** LOV is listed in the **LOV Attaches** table.

Add a relation property to C9_CommonItemRevision

Step 1: In the **Business Objects** view, locate the **C9_CommonItemRevision** business object.

a. Choose **BMIDE→Find**.

b. In the filter string box, begin typing **C9_CommonItemRevision**.

c. Double-click **C9_CommonItemRevision** to open the editor.

Step 2: In the **C9_CommonItemRevision** editor, click the **Properties** tab.

Step 3: To the right of **Properties**, click **Add**.

Step 4: Click **Relation** and click **Next**.

Step 5: To the right of **Relation Business Object**, click **Browse**.

Step 6: Clear **COTS** in the **Find Relation Business Object** dialog box.

Step 7: Double-click **C9_justification_rel**.

Step 8: In the **Description** box, type **CCC**.

Step 9: Click **Finish**.

The **C9_justification_rel** relation is added to the properties list (scroll down to confirm).

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify the new Relation business object

Activity: Verify the new Relation business object

In this activity, you do the following:

- Finish the new relation setup by updating the **ItemRevision_DefaultChildProperties** site option.
- Use **Paste Special** with the new **CCC_justification_rel** relation.
- Set values to the new properties of **CCC_justification_rel**.

Launch the Verify the new Relation business object activity.

Related information

For more information, review these topics in the online help:

- *User-specified relation types*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Update the preference to display the C9_justification_rel relations

Step 1: Choose **Edit→Options**.

Step 2: Click **Filters** in the lower left corner.

Step 3: Locate the **Search by preference name** box (in the **Filters** section).

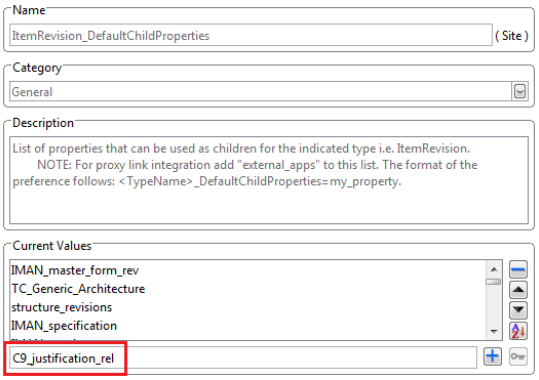
Step 4: Begin typing **ItemRevision_DefaultChildProperties** until it is visible.

Step 5: Click **ItemRevision_DefaultChildProperties**.

Step 6: Click **Edit**.

Step 7: In the new value box of the **Values**, type **C9_justification_rel**.

> **Warning**
>
> This **C9_justification_rel** value is case sensitive and must be typed exactly as indicated (and match the Business Modeler IDE relation business object).



Step 8: Click the plus sign button +.

The **C9_justification_rel** relation is added to the list in the last (bottom) position.

Step 9: Scroll to the bottom of the **Current Values** to confirm the new value **C9_justification_rel** is in the list.

Step 10: Click **Save**.

> **Tip**
>
> To confirm, click another preference. Click **ItemRevision_DefaultChildProperties** again. Scroll down **Current Values** to see **C9_justification_rel**.

Step 11: Click **Close** to close the **Options** dialog.

Create a new dataset

Step 1: In the rich client, select the **Home** folder.

Step 2: Choose **File→New→Dataset**.

The **New Dataset** dialog box appears.

Step 3: Locate **MSWord** as the dataset type. If necessary, click **More** (on the left).

Step 4: Select **MSWord** as the dataset type.

Step 5: In the **Name** box, type **Spec**.

Step 6: Click **OK**.

The **Spec** dataset is added to your **Home** folder.

Use Paste Special with the new CCC_justification_rel relation

Step 1: Select the **Spec** dataset and click **Copy** (or choose **Edit**→**Copy**).

Step 2: Locate your **CCC_Item** with the name **Item1** that you created earlier.

If you cannot locate it, create a **CCC_Item** for this activity.

Step 3: Expand the **CCC_Item** by clicking the small arrow symbol to show the **CCC_ItemRevision**.

Step 4: Select the **CCC_ItemRevision**.

> **Caution**
>
> In the next step, be sure to choose **Edit**→**Paste Special**, rather than **Edit**→**Paste**, to access the **Paste...** dialog box.

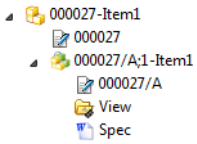
Step 5: Choose **Edit**→**Paste Special**.

The **Paste Special** dialog box appears.

Step 6: Scroll down and choose **CCC_justification_rel** (for **Add As**).

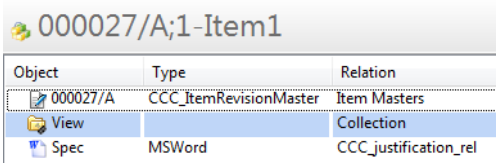
Step 7: Click **OK**.

Step 8: Expand the **CCC_ItemRevision** by clicking the arrow symbol to show the **Spec** dataset.



Step 9: Select the **CCC_ItemRevision**.

Step 10: Click the **Details** tab to confirm the **Relation** column has **CCC_justification_rel** for the **Spec** dataset.



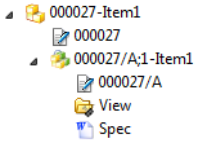
Step 11: Cut the **Spec** dataset from the **Home** folder.

a. Select the **Spec** dataset in the **Home** folder

b. Choose **Edit**→**Cut**.

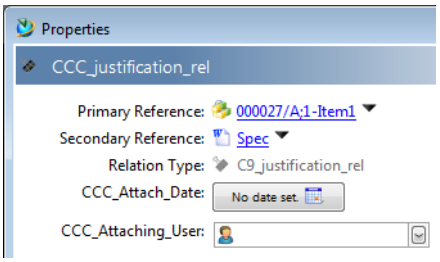
Set property values in the CCC_justification_rel relation

Step 1: Right-click the **Spec** dataset (inside the **CCC_ItemRevision**) and choose **Properties on Relation**.



Step 2: Click **Show empty properties** to see the properties that do not have values.

This shows the two properties: **CCC_Attach_Date** and **CCC_Attaching_User**.



Step 3: Set a date value for **CCC_Attach_Date** using the built-in calendar.

a. Select the **No date set** calendar button.

b. Choose today's date from the calendar.

c. Click **OK**.

Step 4: From the **CCC_Attaching_User** list, select *Gordon, Jack*.

Step 5: Click **OK** to save the values.

Step 6: Verify the property values on **CCC_justification_rel**.

a. Right-click the **Spec** dataset.

b. Choose **Properties on Relation**.

Step 7: Click **Cancel**.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Section 7: Dataset business object configuration

Create a tool option

Activity: Create a tool option

In this activity, you create a tool option and add it to the list of tools for the **Text** dataset business object.

Launch the Create a tool option activity.

Related information

For more information, review these topics in the online help:

- *Add a tool*

Add a new extension file

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 3: In the **File name** box, type **options_tools.xml**.

Step 4: Confirm the **Set as active extension file** box is selected ☑.

Step 5: Click **Finish**.

Define a new tool

Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Tool** in the **Wizards** filter box and click **Next**.

Step 3: Confirm **Project** is **CCC_Corporate**.

Step 4: In the **Name** box of the **New Tool** dialog box, type **C9_WizTextEditor**.

Step 5: In the **MIME/TYPE** box, type **text/plain**.

Step 6: In the **Shell/Symbol** box, type **$TC_BIN/tc_edit**.

Step 7: In the **Revision** box, type **1.0**.

Step 8: Click **Next**.

Set the acceptable input and output formats

Step 1: For the **Input** table, add **ASCII**.

a. To the right of the **Input** table, click **Add**.

b. In the **Default Value** box, type **ASCII**.

c. Click **Finish**.

Step 2: For the **Output** table, add **ASCII**.

a. To the right of the **Input** table, click **Add**.

b. In the **Default Value** box, type **ASCII**.

c. Click **Finish**.

Step 3: Click **Finish** in the **New Tool** dialog box.

Step 4: In the **Extensions** view, double-click the new **C9_WizTextEditor** to open the editor.

Step 5: Confirm your settings by viewing the **New Tool Type** and **Tool Input/Output** tabs.

Add the new tool to the Text dataset business object

Step 1: Click the **Business Objects** view.

Step 2: Click the **Find Business Object** button.

Step 3: In the **Find Business Object** dialog box, type **Text**.

Step 4: In the list, double-click the **Text**.

Text is selected in the list of **Business Objects**.

Step 5: Double-click **Text** to open the **Text** editor.

Step 6: To the right of the **Tools for Edit** table, click **Add**.

Step 7: Double-click **C9_WizTextEditor**.

Step 8: In the same way, add **C9_WizTextEditor** to the **Tools for View** list.

Step 9: Confirm the **C9_WizTextEditor** has been added to **Tools for Edit** and **Tools for View**.

Add the tool for Open action

Step 1: Click the **ToolActions** tab.

Step 2: To the right of the **Tool Action** table, click **Add**.

Step 3: To the right of **Tools**, click **Browse**.

Step 4: Double-click **C9_WizTextEditor**.

Step 5: Confirm **Operations** is set to **Open**.

Step 6: Add **Text** as a **Reference**.

a. To the right of **References**, click **Add**.

b. Confirm **Select the Reference Name** is **Text**.

c. Select the **Export** check box ☑.

d. Click **Finish** in the **Add Reference** dialog box.

Step 7: Add **$Text** as a **Parameter**.

a. To the right of **Parameters**, click **Add**.

b. Confirm **$Text** is in the **Enter the parameter** box.

c. Click **Finish**.

Step 8: Click **Finish** in the **New Dataset Tool Action** dialog box.

Add the tool for OpenUsing action

Step 1: To the right of the **Tool Action** table, click **Add**.

Step 2: To the right of **Tools**, click **Browse**.

Step 3: Double-click **C9_WizTextEditor**.

Step 4: From the **Operations** list, select **OpenUsing**.

Step 5: Add **Text** as a **Reference**.

a. To the right of **References**, click **Add**.

b. Confirm **Select the Reference Name** is **Text**.

c. Select the **Export** check box ☑.

d. Click **Finish** in the **Add Reference** dialog box.

Step 6: Add **$Text** as a **Parameter**.

a. To the right of **Parameters**, click **Add**.

b. Confirm **Enter the parameter** is **$Text**.

c. Click **Finish**.

Step 7: Click **Finish** in the **New Dataset Tool Action** dialog box.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

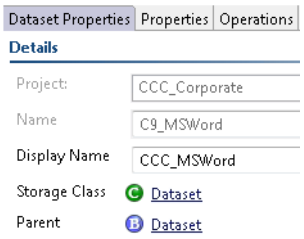
Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Create a new dataset business object

Activity: Create a new dataset business object

In this activity, you create a **C9_MSWord** dataset business object that uses the COTS **MSWord** tool to view and edit associated files.



Launch the Create a new dataset business object activity.

Related information

For more information, review these topics in the online help:

- *Create a dataset business object*

Add a new extension file

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 3: In the **File name** box, type **dataset_business_objects.xml**.

Step 4: Confirm the **Set as active extension file** box is selected ☑.

Step 5: Click **Finish**.

Define a new dataset business object

Step 1: Click the **Business Objects** view.

Step 2: Locate the **Dataset** business object.

a. Click the bookmarks down arrow.

b. Choose **CCC_Corporate**→**Dataset**.

The **Dataset** business object is selected in the list of **Business Objects**.

Step 3: Right-click **Dataset** and choose **New Business Object**.

Step 4: In the **Name** box, type **C9_MSWord**.

Step 5: In the **Display Name** box, type **CCC_MSWord**.

Step 6: Use the other default values.

Note

Do *not* click **Finish** at this time.

Define a new dataset Tool settings

Step 1: To the right of the **Tools for Edit** table, click **Add**.

Step 2: In the filter string box of the **Find Tool Object** dialog box, type **msword**.

Step 3: In the filtered list, double-click **MSWord**.

The **MSWord** tool is added to **Tools for Edit**.

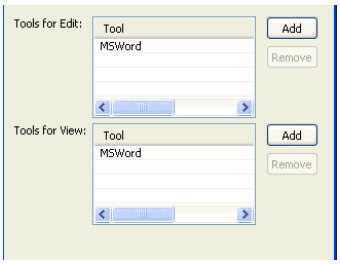
Step 4: To the right of the **Tools for View** table, click **Add**.

Step 5: In the filter string box of the **Find Tool Object** dialog box, type **msword**.

Step 6: In the filtered list, double-click **MSWord**.

The **MSWord** tool is added to **Tools for View**.

The **Tool** settings should look like the following.



Step 7: Click **Next**.

Add the reference file definitions

Step 1: Verify that you are at the **References** table.

Step 2: To the right of the **References** table, click **Add**.

Step 3: In the **Reference** box, type **C9_msword_doc**.

Step 4: In the **File Type** box, type ***.doc**.

Step 5: In the **Format** box, select **BINARY**.

Step 6: Click **Finish**.

References:

Reference	File Type	Format
C9_msword_doc	*.doc	BINARY

Step 7: Repeat the previous steps to **Add** a reference to Microsoft Word 2007 (***.docx**) document.

a. In the **Reference** box, type **C9_msword_docx**.

b. In the **File Type** box, type ***.docx**.

c. In the **Format** box, select **BINARY**.

References:

Reference	File Type	Format
C9_msword_doc	*.doc	BINARY
C9_msword_docx	*.docx	BINARY

Step 8: Click **Next**.

Add the DatasetToolAction tool and reference

Step 1: Verify that you are at the **Tool Action** table.

Step 2: To the right of the **Tool Action** table, click **Add**.

Step 3: To the right of **Tools**, click **Browse**.

Only tools defined in the **Tools for Edit** and **Tools for View** sections appear.

Step 4: Double-click **MSWord**.

Step 5: Confirm **Operations** is set to **Open**.

Step 6: To the right of **References**, click **Add**.

Step 7: Add **C9_msword_doc** as a reference name.

a. To the right of the **Select the Reference Name** box, verify **C9_msword_doc** is selected.

b. Select the **Export** check box ☑.

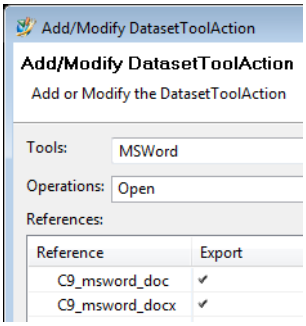
c. Click **Finish** in the **Add Reference** dialog box.

Step 8: Add **C9_msword_docx** as a reference name.

a. To the right of the **Select the Reference Name** box, verify **C9_msword_docx** is selected.

b. Select the **Export** check box ☑.

c. Click **Finish** in the **Add Reference** dialog box.



Note

Do *not* click **Finish** at this time.

Add the DatasetToolAction parameters

Step 1: Continue with the **New Dataset Tool Action** dialog box.

Step 2: Add **$C9_msword_doc** as a parameter.

a. To the right of **Parameters**, click **Add**.

b. In the **Enter the parameter** box in the **Add Parameter** dialog box, verify **$C9_msword_doc** is selected.

c. Click **Finish** in the **Add Parameter** dialog box.

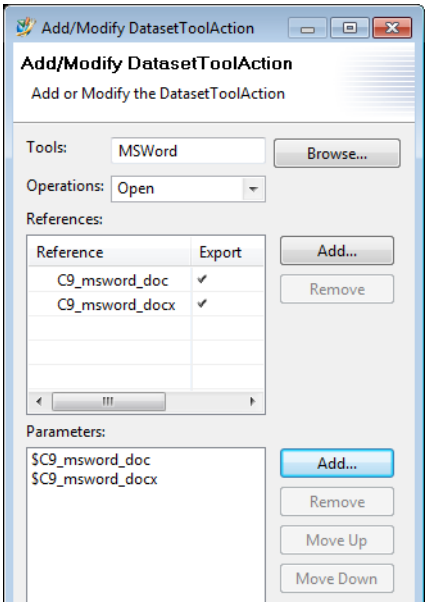
Step 3: Add **$C9_msword_docx** as a parameter.

a. To the right of **Parameters**, click **Add**.

b. In the **Enter the parameter** box in the **Add Parameter** dialog box, select **$C9_msword_docx**.

c. Click **Finish** in the **Add Parameter** dialog box.

Step 4: The result has two references with corresponding parameters.



Step 5: In the **Add/Modify DatasetToolAction** dialog box, click **Finish**.

Step 6: In the **New Dataset** dialog box, click **Finish**.

The **C9_MSWord** dataset is added to the **Business Objects** list.

Confirm the C9_MSWord business object settings

Step 1: In the **Business Objects** view, double-click **C9_MSWord**.

Step 2: In the **Dataset Properties** tab, verify:

- **Display Name** is **CCC_MSWord**.
- **Storage Class** is **Dataset**.

Step 3: In the **References** tab, verify these reference exist.

- A ***.doc** file type in **BINARY** format.
- A ***.docx** file type in **BINARY** format.

Step 4: In the **ToolActions** tab, verify that there is an **Open** action for **Tool Action**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Test the new tool and dataset

Activity: Test the new tool and dataset

In this activity, you test the new dataset business objects.

Launch the Test the new tool and dataset activity.

Related information

For more information, review these topics in the online help:

- *Creating datasets*

Verify that the new WizTextEditor tool is available

Step 1: Log into the rich client as *jgordon* and click the **My Teamcenter** perspective.

Step 2: Select **Home**.

Step 3: Choose **File→New→Dataset**.

Step 4: Click **More** and select **Text**.

Step 5: In the **Name** box, type **WizTextEditor_Test**.

Step 6: In the **Tool Used** box, select **C9_WizTextEditor**.

Step 7: Click **OK**.

Step 8: Double-click the **WizTextEditor_Test** dataset.

Step 9: In the text editor that opens, type some text.

Step 10: Save and close the text file.

Verify that the new CCC_MSWord dataset is available

Step 1: Select **Home**.

Step 2: Choose **File**→**New**→**Dataset**.

Step 3: Click **More**.

Step 4: Select **CCC_MSWord**.

Step 5: In the **Name** box, type **CCC_MSWord_Test**.

Step 6: Click **OK**.

The **CCC_MSWord_Test** dataset appears in your **Home** folder.

Verify the tool and file references for the CCC_MSWord dataset

Step 1: Double-click the **CCC_MSWord_Test** dataset.

Step 2: Using Microsoft Word, type some text into the **CCC_MSWord_Test** file.

Step 3: Save the Microsoft Word file.

a. Choose **File→Save As**.

The Microsoft **Save As** dialog box appears.

b. To the right of the Microsoft **Save as type** box, click the drop-down selector.

c. Select **Word document (*.docx)**.

d. Click **Save**.

Step 4: Exit Microsoft Word and return to **My Teamcenter**.

Step 5: Select the **CCC_MSWord_Test** dataset.

Step 6: Choose **File→View**.

The **CCC_MSWord_Test** dataset is opened in read-only mode.

Step 7: Exit Microsoft Word and return to **My Teamcenter**.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Section 8: Option extensions and BMIDE reports

Create a note type

Activity: Create a note type

In this activity, you create a note type to store a torque value. The torque value is a LOV (as shown in the table) that you also create in this activity.

From Structure Manager, the user can select from a list predefined torque values for a component in an assembly.

Value	Description
10	**10 ft-lbs**
20	**20 ft-lbs**
30	**30 ft-lbs**

Launch the Create a note type activity.

Related information

For more information, review these topics in the online help:

- *Add a note type*

Create the C9_Torque_lov

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Set the active extension file to **lovs.xml**.

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **lovs.xml**.

c. Click **OK**.

Step 3: Choose **BMIDE→New Model Element**.

Step 4: Type **Classic LOV** in the **Wizards** filter box and click **Next**.

The **Classic LOV** dialog box appears.

Step 5: In the **Name** box, type **C9_Torque_lov**.

Step 6: In the **Description** box, type **Torque values**.

Step 7: Use these default values:

- **Type** is **ListOfValuesString**.
- **Usage** is **Exhaustive**.

Step 8: To the right of the **LOV Values** table, click **Add**.

Step 9: In the **Add LOV Value** dialog box, type entries in the **Value** and **Description** columns.

Note

Use **Apply** after each entry (except for the last, click **Finish**).

Value	Value Display Name	Description
10	10	10 ft-lbs
20	20	20 ft-lbs
30	30	30 ft-lbs

Step 10: Click **Finish** in the **New LOV** dialog box.

Step 11: In the **Classic LOV** dialog box, click **Finish**.

The **C9_Torque_lov** LOV is added below the **Classic LOV** folder.

Step 12: Click the **Extensions** view (to see **C9_Torque_lov**).

Define a new note type

Step 1: Set the active extension file to **options_tools.xml**.

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **options_tools.xml**.

c. Click **OK**.

Step 2: Choose **BMIDE→New Model Element**.

Step 3: Type **Note Type** in the **Wizards** filter box and click **Next**.

The **Note Type** dialog box appears.

Step 4: In the **Name** box, type **C9_Fastener_Torque**.

Step 5: In the **Display Name** box, type **CCC_Fastener_Torque**.

Step 6: In the **Description** box, type **Fastener torque**.

Step 7: Confirm the **Attach Value List** box is selected ☑.

Step 8: Click **Browse** to the right of **LOV**.

Step 9: In the **Find LOV** dialog box, clear **COTS**.

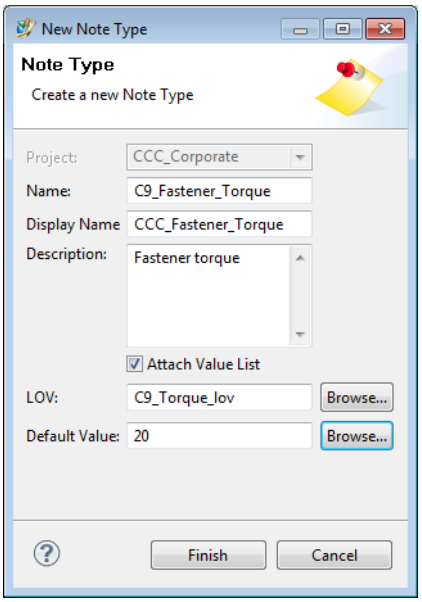
Step 10: Select **C9_Torque_lov**.

Note the **Preview Values** at the bottom of the **Find LOV** dialog box.

Step 11: Click **OK**.

Step 12: Click **Browse** to the right of **Default Value**.

Step 13: Select **20** and click **OK**.



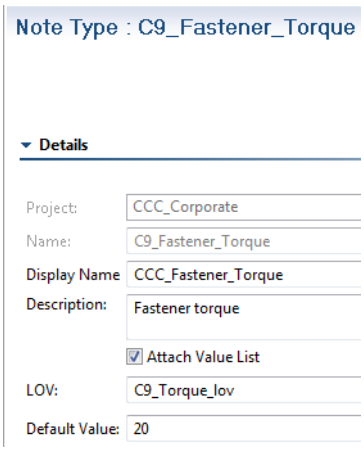
Step 14: Click **Finish**.

The **C9_Fastener_Torque** note type is added to the **Extensions** view.

Verify that the note type was properly created

Step 1: In the **Extensions view**, double-click **C9_Fastener_Torque**.

Step 2: Review the settings for **C9_Fastener_Torque**.



Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Create statuses

Activity: Create statuses

In this activity, you create statuses to be used in a product development workflow. Common workflow tasks include approving and releasing parts. Statuses are used to help track the progress of those tasks.

Name	Display Name
C9_ECPending	**CCC_ECPending**
C9_PreReleased	**CCC_PreReleased**
C9_Released	**CCC_Released**

Launch the Create statuses activity.

Related information

For more information, review these topics in the online help:

- *Add a status type*

Define a new status

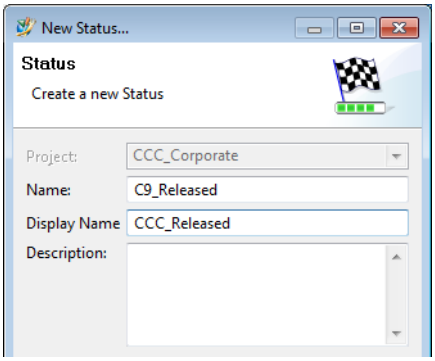
Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Status** in the **Wizards** filter box and click **Next**.

The **Status** dialog box appears.

Step 3: In the **Name** box, type **C9_Released**.

Step 4: In the **Display Name** box, type **CCC_Released**.



Step 5: Click **Finish**.

The **C9_Released** status is added to the **Extensions** view.

Step 6: In the same way, create the following statuses.

Tip

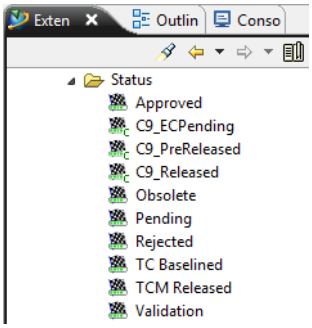
Right-click the **Status** folder (in the **Extensions** view) and choose **New Status**.

Name	Display Name
C9_PreReleased	CCC_PreReleased
C9_ECPending	CCC_ECPending

Step 7: When you are finished, confirm that the status list looks like the following:

Note

The COTS statuses are without the **C9_** prefix.



Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Create units of measure

Activity: Create units of measure

In this activity, you create units of measure to represent inches and ounces for business objects.

Name	Symbol
C9_inch	**in**
C9_ounce	**oz**

Launch the Create units of measure activity.

Related information

For more information, review these topics in the online help:

- *Add a unit of measure*

Define a new unit of measure

Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Unit of Measure** in the **Wizards** filter box and click **Next**.

The **Unit of Measure** dialog box appears.

Step 3: In the **Name** box, type **C9_inch**.

Step 4: In the **Symbol** box, type **in**.

Name	Symbol
C9_inch	in

Step 5: Click **Finish**.

The **C9_inch** UOM is added to the **Extensions** view.

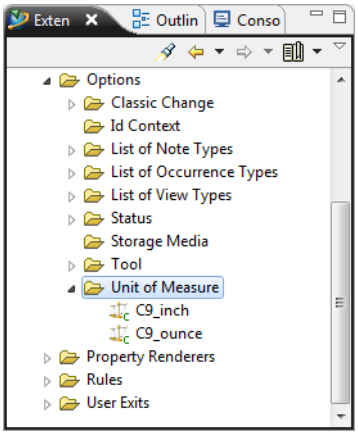
Step 6: Repeat to create the unit of measure in the following table.

Tip

Right-click the **Unit of Measure** folder (in the **Extensions** view) and choose **New Unit of Measure**.

Name	Symbol
C9_ounce	oz

Step 7: When complete, your **Unit of Measure** list should look like the following.



Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Test new options

Activity: Test new options

In this activity, you verify that the following were deployed to the server. The new status values are tested in the workflow activities.

- **CCC_Fastener_Torque** note type (in Structure Manager) and the associated **CCC_Torque_lov** LOV
- **C9_inch** and **C9_ounce** units of measure

Launch the Test new options activity.

Related information

For more information, review these topics in the online help:

- *Viewing and modifying object properties*
- *Set the value of an occurrence note*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Create and open an assembly into Structure Manager

Step 1: Select **Home**.

Step 2: Choose **File→New→Item**.

Step 3: Select **CCC_SampleItem** and click **Next**.

Step 4: Click **Assign**.

Step 5: In the **Name** box, type **Assm0**.

Step 6: Click **Finish**.

The **Assm0** item is added to your **Home** folder.

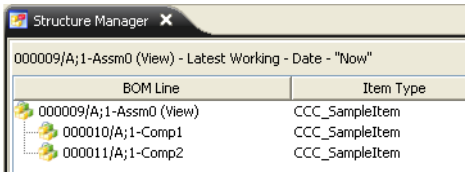
Step 7: Click **Cancel**.

Step 8: Right-click **Assm0** and choose **Send To→Structure Manager**.

The Structure Manager application opens.

Step 9: Select **Assm0** in Structure Manager.

Step 10: Repeat the next steps to create **Comp1** and **Comp2** as shown.



a. Choose **File→New→Item**.

b. Select **CCC_SampleItem** and click **Next**.

c. Click **Assign**.

d. In the **Name** box, type **Comp1** (or **Comp2** as needed).

e. Click **Finish**.

Step 11: In the **New Item** dialog box, click **Cancel**.

Step 12: In Structure Manager, choose **File→Save**.

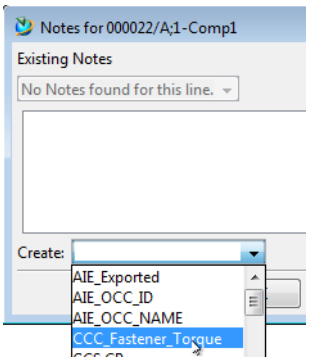
Create a CCC_Fastener_Torque note on Comp1

Step 1: Continue working from the Structure Manager application.

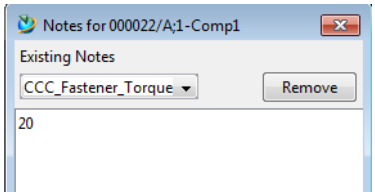
Step 2: Select **Comp1**.

Step 3: Choose **View→Notes**.

Step 4: From the **Create** list, select **CCC_Fastener_Torque**.



The **CCC_Fastener_Torque** note is added to **Comp1** with a value of **20** (ft-lbs).



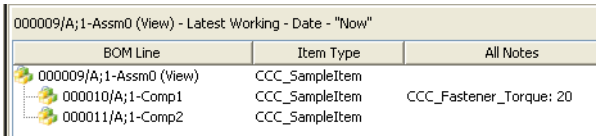
The default value is set to **20** (ft-lbs) as you defined for the note.

Step 5: Click **OK**.

The **CCC_Fastener_Torque** note is added to **Comp1** with a value of **20** (ft-lbs).

Step 6: To view the new note, locate the **All Notes** column by using the bottom scroll bar.

Step 7: Click the **All Notes** column and drag it to the left as shown.



Step 8: In Structure Manager, choose **File→Save**.

A new note or change in note value requires a Structure Manager save.

Create a CCC_Fastener_Torque note on Comp2

Step 1: Continue working from the Structure Manager application.

Step 2: Select **Comp2**.

Step 3: Choose **View→Notes**.

Step 4: From the **Create** list, select **CCC_Fastener_Torque**.

Step 5: Click **OK**.

Step 6: In Structure Manager, choose **File→Save**.

Confirm the CCC_Fastener_Torque values

Step 1: Continue working from the Structure Manager application.

Step 2: Right-click **Comp1** and choose **Properties**.

Step 3: In the **Properties** dialog box, locate the value for **All Notes**.

Step 4: Confirm the value for **CCC_Fastener_Torque**.

Step 5: Click **Cancel** to close the **Properties** dialog box.

Step 6: In Structure Manager, choose **File→Close**.

Verify the new units of measure were deployed

Step 1: Select **My Teamcenter**.

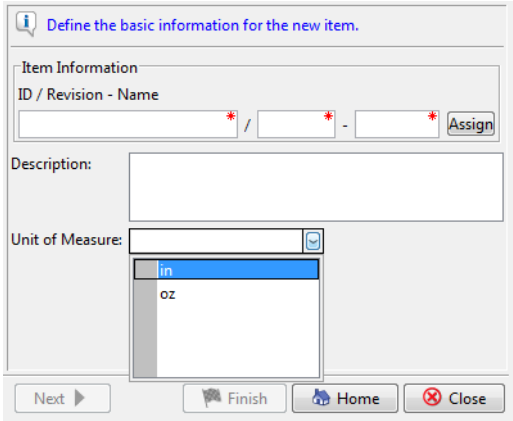
Step 2: Select **Home**.

Step 3: Choose **File→New→Item**.

Step 4: Select **CCC_SampleItem** and click **Next**.

Step 5: Select the **Unit of Measure** property list.

Step 6: Verify that following **Unit of Measure** are available in the list.



Step 7: Click **Cancel**.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File→Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Report template project data model

Activity: Report template project data model

In this activity, you run the Business Modeler IDE report to show your template project data model.

Launch the Report template project data model activity.

Data Model Report

Template = ccccorporate

Report Criteria

Criteria	Value
Model	CCC_Corporate
Templates Shown:	ccccorporate
Elements Selected for Report	Business Objects and Schema,Application,Business Object,Business Object (Operation Input),Class,Meta-interface

Summary of Elements		
Business Object = 41	Business Object (Operation Input) = 68	Class = 25

Related information

For more information, review these topics in the online help:

- *Run data model reports*

Start the template project report

Step 1: In the Business Modeler IDE, choose **BMIDE→Reports**.

Step 2: Select **Data Model** and click **Next**.

Step 3: For the **Input Model Source**, select **Template Project**.

Step 4: Click **Next**.

Step 5: Confirm the **Project** box contains **CCC_Corporate**.

Step 6: Confirm **ccccorporate** is the only template selected.

Caution

Do not select **foundation** or **cm** for this activity.

Step 7: Click **Next**.

View the template project report results

Step 1: In the **Select Model Elements** dialog box, click **Select All**.

Step 2: Click **Next**.

Step 3: Confirm you wish to continue. Click **OK**.

When a large number of instances is possible, this dialog box is presented.

Step 4: Expand the folder tree and select the **reports** folder.

a. Expand **CCC_Corporate**.

b. Expand the **output** folder.

c. Select the **reports** folder.

Step 5: In the **File name** box, type **DataModel.html**.

Step 6: Click **Finish**.

- The **Data Model Report** is shown.
- The **DataModel.html** file in placed in the **output\reports** folder.

Step 7: Use the scroll bar to locate the **Summary of Elements** section within the report.

Step 8: Within the **Summary of Elements** section, click a shortcut to view the elements (for example, click **Business Object**).

Step 9: Use the scroll bar to locate other elements within the report.

Step 10: Click **X** on the report tab to close the file.

Section 9: Rule extensions

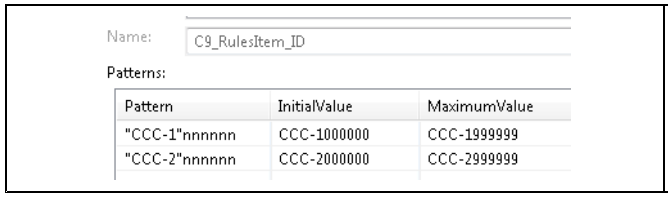
Create naming rules for an item

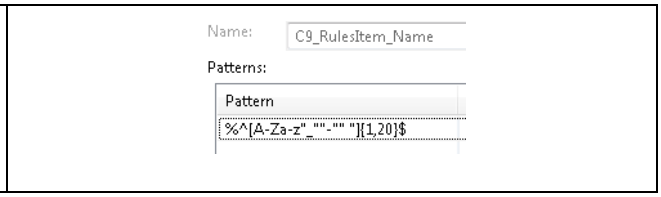
Activity: Create naming rules for an item

In this activity, you create naming rules and attach them to the **ID** and **Name** properties of an item business object.

Note

Your rules are attached to a new **RulesItem** business object that you also create in this activity.





Launch the Create naming rules for an item activity.

Related information

For more information, review these topics in the online help:

- *Add a naming rule*

Create the C9_RulesItem business object

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Set the active extension file to **item_business_objects.xml**.

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **item_business_objects.xml**.

c. Click **OK**.

Step 3: Locate the **C9_CommonItem** business object.

a. Click the bookmarks down arrow.

b. Choose **CCC_Corporate→Item**

c. Expand **Item**, if necessary, to see **C9_CommonItem** in the **Business Objects** view.

Step 4: Right-click **C9_CommonItem** and choose **New Business Object**.

Step 5: Note that **Project** is **CCC_Corporate**.

Step 6: In the **Name** box, type **C9_RulesItem**.

Step 7: In the **Display Name** box, type **CCC_RulesItem**.

Step 8: Note that **Parent** is **C9_CommonItem**.

Step 9: Use these default settings:

- ☑ **Create primary Business Object**.
- ☐ **Is Abstract?**

Step 10: Click **Next** to show the **C9_RulesItemRevision** settings.

Step 11: In the **Display Name** box, type **CCC_RulesItemRevision**.

Step 12: Click **Finish**.

C9_RulesItem is added below **C9_CommonItem**.

Step 13: In the **Business Objects** view, double-click **C9_RulesItem** to open its editor.

Prepare to create a new naming rule

Step 1: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 2: In the **File name** box, type **naming_rules.xml**.

Step 3: Confirm the **Set as active extension file** box is selected ☑.

Step 4: Click **Finish**.

Create the first naming rule for Item ID

Step 1: In the **Extensions** view, expand the **CCC_Corporate** project.

Step 2: Expand the **Rules** folder.

Step 3: Expand the **Naming Rules** folder.

Step 4: Right-click **Naming Rules** folder and choose **New Naming Rules**.

Step 5: In the **Name** box, type **C9_RulesItem_ID**.

Step 6: To the right of **Pattern** table, click **Add**.

The **Add Naming Rule Pattern** dialog box appears.

Step 7: In the **Pattern** box, type **"CCC-1"nnnnnn**.

Note

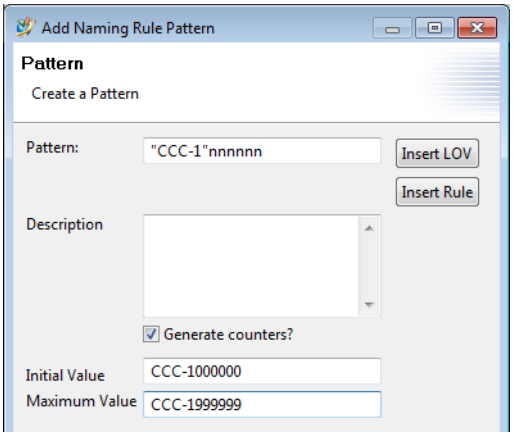
Include the quotes in the pattern.

Step 8: Click ☑ **Generate counters?**.

The **Add Naming Rule Pattern** dialog box indicates an error until you are finished entering the **Maximum Value**.

Step 9: In the **Initial Value** box, type **CCC-1000000**.

Step 10: In the **Maximum Value** box, type **CCC-1999999**.



Step 11: Click **Finish** to close the **Add Naming Rule Pattern** dialog box.

Do *not* click **Finish** in the **New Naming Rules** dialog box.

Create a second naming rule for Item ID

Step 1: To the right of **Pattern** table, click **Add**.

Step 2: In the **Pattern** box, type **"CCC-2"nnnnnn**.

Note

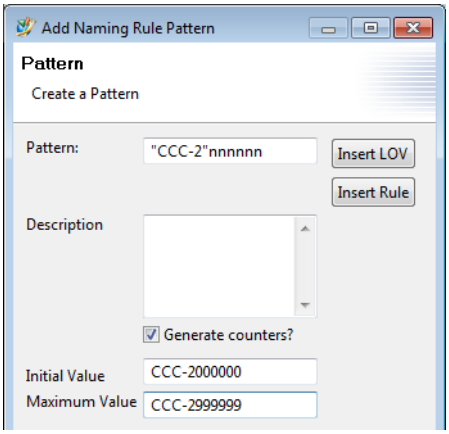
Include the quotes in the pattern.

Step 3: Click ☑ **Generate counters?**.

The **Add Naming Rule Pattern** dialog box indicates an error until you are finished entering the **Maximum Value**.

Step 4: In the **Initial Value** box, type **CCC-2000000**.

Step 5: In the **Maximum Value** box, type **CCC-2999999**.



Step 6: Click **Finish** to close the **Add Naming Rule Pattern** dialog box.

Step 7: Click **Finish** to close the **New Naming Rules** dialog box.

Step 8: Double-click your new **C9_RulesItem_ID** to check the patterns.

Create a naming rule for the Name

Step 1: Right-click **Naming Rules** and choose **New Naming Rules**.

Step 2: In the **Name** box, type **C9_RulesItem_Name**.

Step 3: To the right of **Pattern** table, click **Add**.

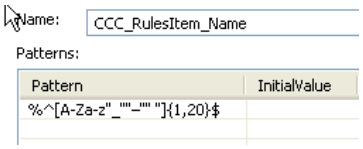
Step 4: In the **Pattern** box, type **%^[A-Za-z"_""-"" "]{1,20}$**

This pattern allows any case letter (A-Za-z), an underscore ("_"), a hyphen ("-"), and a space (" ") for up to and including 20 characters.

Step 5: Click **Finish** to close the **Add Naming Rule Pattern** dialog box.

Step 6: Click **Finish** to close the **New Naming Rules** dialog box.

Step 7: Double-click your new **C9_RulesItem_Name** to check the pattern.



Attach the naming rule to Item ID property

Step 1: Click the **C9_RulesItem** editor.

If needed, find the **C9_RulesItem** and open its editor.

Step 2: In the **C9_RulesItem** editor, click the **Properties** tab.

Step 3: Using the scroll bar of the properties table, locate the **item_id** property.

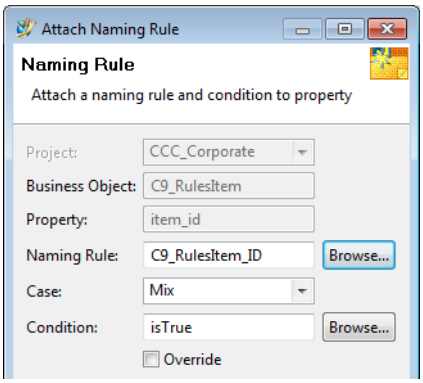
Step 4: Select the **item_id** property.

Step 5: Below the properties table, click the **Naming Rule Attaches** tab.

Step 6: To the right of the **Naming Rule Attaches of item_id** section, click **Add**.

Step 7: To the right of the **Naming Rule** box, click **Browse**.

Step 8: Double-click **C9_RulesItem_ID**.



Step 9: Click **Finish**.

The **Naming Rule Attaches of item_id** section displays the **C9_RulesItem_ID** naming rule.

Attach the naming rule to the Name property

Continue in the **C9_RulesItem** editor with the **Properties** tab.

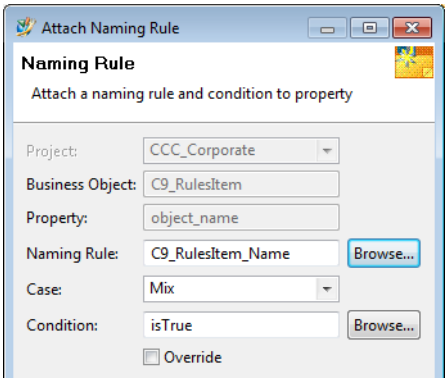
Step 1: In the properties table, locate the **object_name** property.

Step 2: Select the **object_name** property.

Step 3: To the right of the **Naming Rule Attaches** section, click **Add**.

Step 4: To the right of the **Naming Rule** box, click **Browse**.

Step 5: Double-click **C9_RulesItem_Name**.



Step 6: Click **Finish**.

The **Naming Rule Attaches** section displays the **C9_RulesItem_Name** naming rule.

Note

You can also see the **Naming Rule Attachments** in **C9_RulesItem_ID** and **C9_RulesItem_Name** editors.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

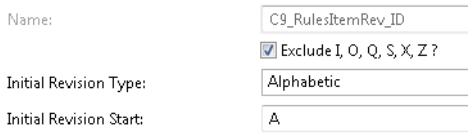
Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Create naming rules for an item revision

Activity: Create naming rules for an item revision

In this activity, you create a revision naming rule and attach it to the **Revision ID** property of an item revision business object.



Launch the Create naming rules for an item revision activity.

Related information

For more information, review these topics in the online help:

- *Add a revision naming rule*

Prepare to create a new revision naming rule

Step 1: In the **Extensions** view, locate the **TcRevisionSkipLetters** LOV.

a. Click the **Find Extension Object** button.

b. In the filter string box, type **TcRev**.

c. Double-click **TcRevisionSkipLetters**.

Step 2: Double-click **TcRevisionSkipLetters** to open it into its editor.

Step 3: Review the **TcRevisionSkipLetters** for the letters to skip (**I, O, Q, S, X, Z**).

Create the naming rule pattern for Revision ID

Step 1: In the **Extensions** view, expand the **CCC_Corporate** project.

Step 2: Expand the **Rules** folder.

Step 3: Locate the **Revision Naming Rules** folder.

Step 4: Right-click **Revision Naming Rules** and choose **New Revision Naming Rules**.

The **New Revision Naming Rules** dialog box appears.

Step 5: In the **Name** box, type **C9_RulesItemRev_ID**.

Step 6: Confirm the **Exclude** box is selected ☑.

Note that the letters to skip are the same as **TcRevisionSkipLetters** LOV.

Step 7: In the **Initial Revision Start** box, change the **-** (dash) to **A**.

Step 8: Confirm the new revision naming rule settings.

Confirm that **Initial Revision Start** is **A**

Use the other default settings.

Name:	C9_RulesItemRev_ID
	☑ Exclude I, O, Q, S, X, Z ?
Initial Revision Type:	Alphabetic
Initial Revision Start:	A

Step 9: Click **Finish**.

The **C9_RulesItemRev_ID** naming rule is added to the **Revision Naming Rules** folder.

Step 10: In the **Revision Naming Rules** folder, double-click **C9_RulesItemRev_ID** to open it into the editor.

Attach the naming rule to the Revision ID

Step 1: Locate the **C9_RulesItem** editor tab.

Step 2: Right-click **C9_RulesItem** and choose **Close Others**.

Step 3: In the **C9_RulesItem** editor, click the **Main** tab.

Step 4: Click the **C9_RulesItemRevision** link.

Step 5: In the **C9_RulesItemRevision** editor, click the **Properties** tab.

Step 6: Using the scroll bar of the properties table, locate the **item_revision_id** property.

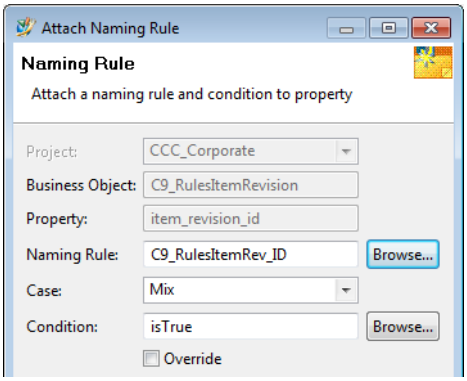
Step 7: Select the **item_revision_id** property.

Step 8: Below the properties table, click the **Naming Rule Attaches** tab.

Step 9: To the right of the **Naming Rule Attaches of item_revision_id** section, click **Add**.

Step 10: To the right of the **Naming Rule** box, click **Browse**.

Step 11: Double-click **C9_RulesItemRev_ID**.



Step 12: Click **Finish**.

The **Naming Rule Attaches** section displays the **C9_RulesItemRev_ID** naming rule.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

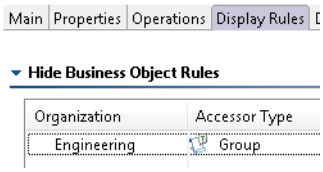
Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Modify display rules for a business object

Activity: Modify display rules for a business object

In this activity, you create a business object display rule so that users in the **Engineering** group (for example, the **twhite** user) cannot create **CCC_RulesItem** items



Launch the Modify display rules for a business object activity.

Related information

For more information, review these topics in the online help:

- *Add a business object display rule*

Create a new extension file

Step 1: Choose **BMIDE→Organize Extensions→Add new extension file**.

Step 2: In the **File name** box, type **item_rules.xml**.

Step 3: Confirm the **Set as active extension file** box is selected ☑.

Step 4: Click **Finish**.

Open a Teamcenter Organization dialog box

Step 1: Start from the **C9_RulesItem** editor.

Step 2: In the **C9_RulesItem** editor, click the **Display Rules** tab.

Step 3: To the right of **Hide Business Object Rules** table, click **Add**.

Step 4: To the right of **Organization**, click **Browse**.

The **Browse** opens a connection to the Teamcenter rich client.

Step 5: If the **Teamcenter Repository Connection** dialog box appears:

a. In the **Server Profile** box, select ***Teamcenter Training***.

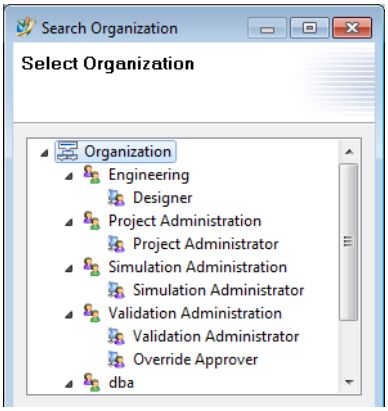
b. In the **Password** box, type ***jgordon***.

c. Click **Connect**.

d. Click **Finish**.

The **Teamcenter Repository Connection** dialog box would not appear if the Business Modeler IDE had previous connected to the Teamcenter Organization.

Step 6: The **Search Organization** dialog box should appear with the Teamcenter organization. At times the **Organization** dialog box may be behind the **Hide Display Rule** dialog box.

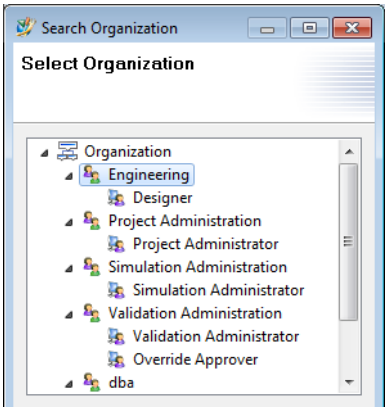


Step 7: Continue with the **Search Organization** open for the next task.

Modify the display rules for Engineering group

Step 1: Select **Engineering**.

This hides the creation of the **C9_RulesItem** from the **Engineering** group.



Step 2: Click **Finish** in the **Select Organization** dialog box.

Step 3: Click **Finish** in the **Hide Display Rule** dialog box.

Hide Business Object Rules updates with the **Engineering** group.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

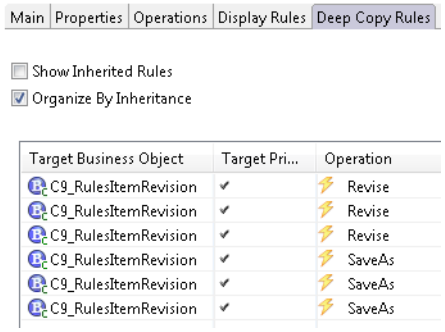
Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Add deep copy rules

Activity: Add deep copy rules

In this activity, you add a deep copy rule to the **C9_RulesItemRevision** business object. The rule definition is to create *specification* objects with the revise operation. You also import a template file that contains other deep copy rules for the **C9_RulesItemRevision** business object.



Launch the Add deep copy rules activity.

Related information

For more information, review these topics in the online help:

- *Add deep copy rules*

Create a deep copy rule

Step 1: In the **C9_RulesItemRevision** editor, click the **Deep Copy Rules** tab.

Note

Confirm that you are using the **C9_RulesItemRevision** editor.

Step 2: Clear the **Show Inherited Rules** check box.

Step 3: Click **Add**.

Step 4: Add a rule for the *revise* operation so that *all IMAN_specification* attachments are *copied as a new object*.

From **Operation Type**, select **Revise**.

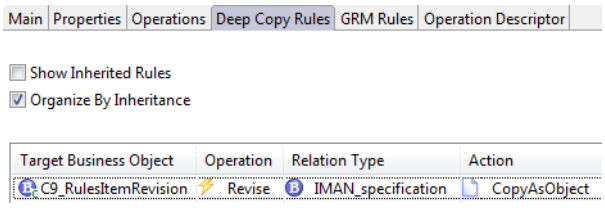
Step 5: To the right of **Relation**, use **Browse** to find **IMAN_specification**.

Step 6: To the right of **Attached Business Object**, use **Browse** to find **Match All**.

Step 7: To the right of **Action**, verify the value is **CopyAsObject**.

Operation Type	**Revise**
Relation	**IMAN_specification**
Attached Business Object	**Match All**
Condition	**isTrue**
Action	**CopyAsObject**

Step 8: Click **Finish** to use the other default values.



Import the other deep copy rules

Tip

To see the import results, the editor in view should be **C9_RulesItemRevision** with the **Deep Copy Rules** tab selected.

Step 1: From the Business Modeler IDE, click **File→Import**.

Step 2: Expand **Business Modeler IDE** if necessary.

Step 3: Select **Import template file**.

Step 4: Click **Next**.

Step 5: Note that **Project** is **CCC_Corporate**.

Step 6: For **Template file**, click **Browse**.

Step 7: Navigate to *STUDENT_HOME***import_rules**.

Step 8: Select **c9_deep_copy_rules.xml**.

Step 9: Click **Open**.

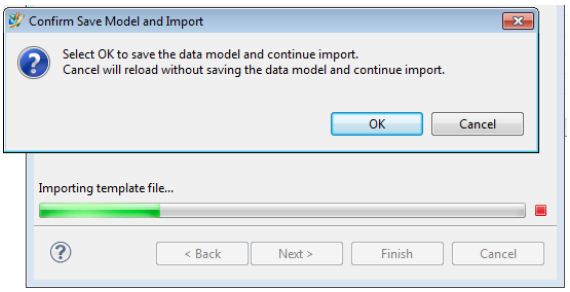
Step 10: In the **Extension file** dialog box, select **item_rules.xml**.

Step 11: Click **Finish**.

Step 12: If necessary, click **OK** in the **Confirm Save Model and Import** dialog box.

Note

Confirm Save Model and Import only displays when a new extension file is used.



Step 13: Repeat the previous steps to import deep copy rules for the **C9_justification_rel** relation.

Note

To do this step, the **C9_justification_rel** relation must have been created.

a. Choose **File→Import**

b. Select **Import template file**.

c. Navigate to *STUDENT_HOME***import_rules**.

d. Select file **c9_deep_copy_justification.xml**

e. Click **Open**.

f. In the **Extension file** dialog box, select **item_rules.xml**.

g. Click **Finish**.

Step 14: Verify the new deep copy rules on the **C9_RulesItemRevision** business object.

a. Start from the **C9_RulesItemRevision** editor.

b. Click the **Deep Copy Rules** tab.

c. Clear the **Show Inherited Rules** check box.

d. Click, hold and arrange the column headings to easily see the results.

Operation	Relation Type	Action	Object Type
Revise	IMAN_specification	CopyAsObject	Match All
Revise	IMAN_reference	CopyAsReference	Match All
Revise	C9_justification_rel	CopyAsObject	Match All
SaveAs	IMAN_reference	CopyAsReference	Match All
SaveAs	IMAN_specification	CopyAsObject	Match All
SaveAs	C9_justification_rel	CopyAsObject	Match All

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

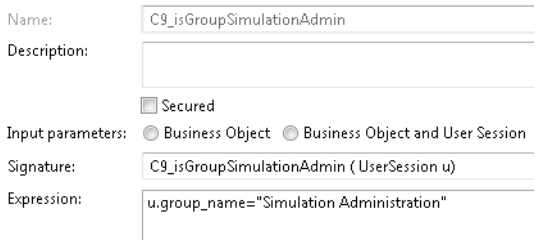
Step 3: Click **OK**.

Create and attach a condition

Activity: Create and attach a condition

In this activity, you create a condition that is used with a naming rule pattern as follows:

- The **ID** property of the **C9_RulesItem** business object uses the **"SIM-1"nnnnnn** naming rule pattern.
- The condition is associated to the **ID** property of the **C9_RulesItem** business object.
- The condition is *true* only when the current session **Group** is **Simulation Administration**.



Launch the Create and attach a condition activity.

Related information

For more information, review these topics in the online help:

- *Add a condition*

Create conditions on current session group

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→New Model Element**.

Step 3: Type **Condition** in the **Wizards** filter box and click **Next**.

The **Condition** dialog box appears.

Step 4: In the **Name** box, type **C9_isGroupSimulationAdmin**.

Step 5: For **Input parameters**, click **Custom**.

Step 6: Define the condition **Signature**.

a. To the right of **Signature**, click **Browse**.

b. Click **Add**.

c. To the right of **Parameter type**, click **Browse**.

d. In the filter box, type **UserSession**.

e. Select **UserSession**.

f. Click **OK**.

Step 7: Provide the signature **Parameter name**.

a. Type **u** in **Parameter name**.

b. Click **Finish**.

c. Click **Finish** in the **Custom Parameters** dialog box.

Step 8: Define the condition **Expression**.

a. Type **u.** (and wait a second) in the **Expression**.

Note

The properties of **UserSession** appear.

b. Double-click **group_name**.

c. Finish typing to get this result:

```
u.group_name="Simulation Administration"
```

Note

The expression is case sensitive.

Step 9: Click **Finish** in the **Condition** dialog box.

Step 10: Click the **Extensions** view (to see the **C9_isGroupSimulationAdmin**).

Create a new naming rule

Step 1: Choose **BMIDE→New Model Element**.

Step 2: Type **Naming Rule** in the **Wizards** filter box and click **Next**.

The **Naming Rule** dialog box appears.

Step 3: In the **Name** box, type **C9_RulesItem_ID_Simulation**.

Step 4: To the right of **Pattern** table, click **Add**.

The **Add Naming Rule Pattern** dialog box appears.

Step 5: In the **Pattern** box, type **"SIM-1"nnnnnn**.

Note

Include the quotes in the pattern.

Step 6: Click ☑ **Generate counters?**.

The **Add Naming Rule Pattern** dialog box indicates an error until you are finished entering the **Maximum Value**.

Step 7: In the **Initial Value** box, type **SIM-1000000**.

Step 8: In the **Maximum Value** box, type **SIM-1999999**.

Step 9: Click **Finish** to close the **Add Naming Rule Pattern** dialog box.

Step 10: Click **Finish** to close the **New Naming Rules** dialog box.

Step 11: Double-click your new **C9_RulesItem_ID_Simulation** to check the pattern.

Attach the naming rule with the condition

Step 1: Start from the **C9_RulesItem** business object.

If needed, find the **C9_RulesItem** and open its editor.

Step 2: In the **C9_RulesItem** editor, click the **Properties** tab.

Step 3: Using the scroll bar of the properties table, locate the **item_id** property.

Step 4: Select the **item_id** property.

Step 5: Below the properties table, click the **Naming Rule Attaches** tab.

Step 6: To the right of the **Naming Rule Attaches of item_id** section, click **Add**.

Step 7: To the right of the **Naming Rule** box, click **Browse**.

Step 8: Double-click **C9_RulesItem_ID_Simulation**.

Note

Do not click **Finish** at this time.

Step 9: To the right of the **Condition** box, click **Browse**.

Step 10: Double-click **C9_isGroupSimulationAdmin**.

Step 11: Click **Finish**.

The **C9_RulesItem_ID_Simulation** naming rule appears the **Naming Rule Attaches of item_id**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify the display and naming rules

Activity: Verify the display and naming rules

In this activity, you verify that the new naming rules were correctly deployed to the server.

- For the **C9_RulesItem** business object:
  - The **item_id** patterns **"CCC-1"nnnnnn** or **"CCC-2"nnnnnn**.
  - The **item_name** pattern **%^[A-Za-z"_""-"" "]{1,20}$**.
- For **C9_RulesItemRevision** skipping letters **I, O, Q, S, X, Z**.

In this activity, you also verify the new **Display Rules**.

Launch the Verify the display and naming rules activity.

Related information

For more information, review these topics in the online help:

- *Create an item*

Test the Item ID and Revision ID naming rules

Step 1: Log into the rich client as *jgordon* and click the **My Teamcenter** perspective.

Step 2: Select **Home**.

Step 3: Choose **File→New→Item**.

Step 4: Select **CCC_RulesItem** and click **Next**.

Step 5: Select the **ID** property list to notice the **"CCC-1"nnnnnn** and **"CCC-2"nnnnnn** patterns.

Step 6: Select the default **"CCC-1"nnnnnn** pattern.

Do *not* click **Assign**.

Step 7: Enter the following values:

Item ID	**ccc-123**
Name	**Pattern1**

Warning

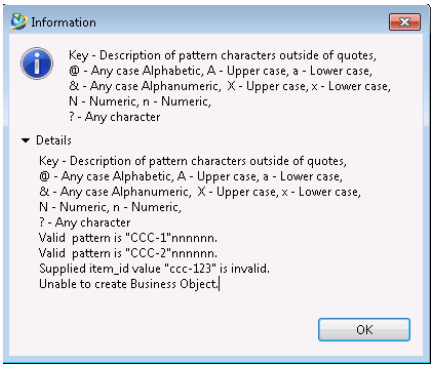
The **Item ID** value is purposely an invalid format.

This tests the **C9_RulesItem_ID** naming rule.

The next step generates an **Information** dialog box.

Step 8: Click **Finish**.

The **Information** dialog box appears because **ccc-123** for the **ID** does not fit the pattern defined in the **C9_RulesItem_ID** rule.



Step 9: Click **OK** in the **Information** dialog box.

Step 10: In the **Item ID** box, type **CCC-1234567**.

Test the C9_RulesItem_Name naming rule

Step 1: The **Name** box, should have **Pattern1**. If it does not, type **Pattern1** in the **Name** box.

Warning

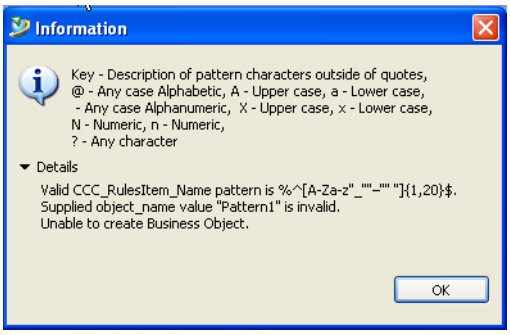
The **Name** value is purposely an invalid format.

This tests the **C9_RulesItem_Name** naming rule.

The next step generates an **Information** dialog box.

Step 2: Click **Finish**.

The **Information** dialog box appears because **Pattern1** for the **Name** does not fit the pattern defined in the **C9_RulesItem_Name** rule.



Step 3: Click **OK** in the **Information** dialog box.

Step 4: In the **Name** box, type **PatternOne**, which is a valid name.

Step 5: Click **Next**.

Step 6: From the **Revision** list, select **A**.

This tests the **C9_RulesItemRev_ID** naming rule which starts with **A** and has skipped letters.

Step 7: Click **Finish**.

Step 8: Click **Cancel**.

Verify condition on naming rule

Step 1: Log on to the rich client rich client as *jgordon* (with password *jgordon*).

Step 2: Click the current logon information link.

The **User Settings** dialog box appears.

The **Session** tab is selected.

Step 3: From the **Group** list, select **Simulation Administration**.

Step 4: Click **OK**.

The current logon information link displays the **Simulation Administration** group.

Step 5: Select **Home**.

Step 6: Choose **File→New→Item**.

Step 7: Select **CCC_RulesItem** and click **Next**.

Step 8: Note that the **ID** pattern is **"SIM-1"nnnnnn**.

Note

The **"SIM-1"nnnnnn** naming rule pattern is the only pattern available.

Step 9: Click **Assign**.

Step 10: Click **Cancel**.

Verify that CCC_RulesItem is hidden

Step 1: Click the current logon information link.

The **User Settings** dialog box appears.

The **Session** tab is selected.

Step 2: From the **Group** list, select **Engineering**.

Step 3: Click **OK**.

The current logon information link displays the **Engineering** group.

Step 4: Select the **Home** folder.

Step 5: Choose **File→New→Item**.

Step 6: Verify that **CCC_RulesItem** is not listed.

Step 7: Click **Cancel** to close the **New Item** dialog box.

Return to the dba group

Step 1: Click the current logon information link to display the **User Settings** dialog box.

The **Session** tab is selected.

Step 2: From the **Group** list, select **dba**.

Step 3: Click **OK**.

The current logon information link displays the **dba** group.

Verify deep copy rules

Activity: Verify deep copy rules

In this activity, you verify the deep copy rules on **CCC_RulesItemRevision**.

Launch the Verify deep copy rules activity.

Related information

For more information, review these topics in the online help:

- *Creating new items based on existing items or item revisions*

Create a CCC_RulesItem for testing

Step 1: Verify your current logon information link displays the **dba** group.

If needed, change your logon session to the **dba** group.

a. Click the current logon information link to display the **User Settings** dialog box.
b. From the **Group** list, select **dba**.
c. Click **OK**.

Step 2: In the rich client, select **Home** folder.

Step 3: Choose **File→New→Item**.

Step 4: Select **CCC_RulesItem** and click **Next**.

Step 5: From the **ID** list, select **"CCC-2"nnnnnn** (pattern).

Step 6: Click **Assign**.

Step 7: In the **Name** box, type **Test**.

Step 8: Click **Finish**.

Step 9: Click **Cancel** to close the **New Item** dialog box.

Add a Text dataset as Specifications

Step 1: Expand the **CCC_RulesItem** with the name **Test**.

Step 2: Select the **CCC_RulesItemRevision**.

Step 3: Choose **File→New→Dataset**.

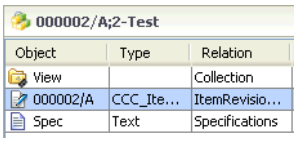
Step 4: Locate **Text** as the dataset type. If necessary, click **More** (on the left).

Step 5: Select **Text** as the dataset type.

Step 6: In the **Name** box, type **Spec**.

Step 7: Click **OK**.

Step 8: In the right-hand pane, select the **Details** view.



Step 9: Note that the relationship between the revision and the **Spec** dataset is **Specifications**.

Add text to the Spec dataset

Step 1: Double-click **Spec**.

Step 2: In the text editor, type **Original spec text**.

Step 3: Save and close the file.

Add a Text dataset as References

Step 1: Select the **CCC_RulesItemRevision** named **Test**.

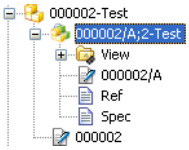
Step 2: Choose **File→New→Dataset**.

Step 3: Select **Text** as the dataset type.

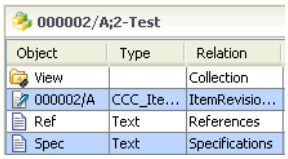
Step 4: In the **Name** box, type **Ref**.

Step 5: From the **Relation** list, select **References**.

Step 6: Click **OK**.



Step 7: Note that the relationship between the revision and the **Ref** dataset is **References**.



Add text to the Ref dataset

Step 1: Double-click **Ref**.

Step 2: In the text editor, type **Original ref text**.

Step 3: Save and close the file.

Save the revision as a new object

Step 1: Select the **CCC_RulesItem** named **Test**.

Step 2: Choose **File→Save As**.

Step 3: Click **Assign**.

Step 4: In the **Name** box, type **TestSA**.

Step 5: Click **Finish**.

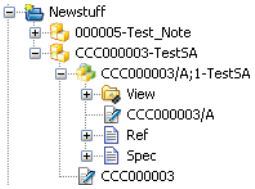
Step 6: Expand the **NewStuff** folder.

Step 7: A new **CCC_RulesItem** with the name **TestSA** was created in the **NewStuff** folder.

Step 8: Expand **CCC_RulesItem** named **TestSA**.

Step 9: Expand the **CCC_RulesItemRevision** named **TestSA**.

Step 10: Note that the **Spec** and **Ref** datasets were copied under **TestSA**.



Verify the Spec dataset is a new object

Step 1: Double-click the **Spec** dataset under the **CCC_RulesItemRevision** for **TestSA**.

Step 2: In the text editor, change the text to read, **New spec text**.

Step 3: Save and close the file.

Step 4: Double-click the **Spec** dataset that is under the **CCC_RulesItemRevision** named **Test**..

Step 5: Verify that the text did not change and that it still reads **Original spec text**.

Step 6: Close the file.

Verify the Ref dataset is a linked object

Step 1: Double-click the **Ref** dataset under the **CCC_RulesItemRevision** for **TestSA**.

Step 2: In the text editor, change the text to read, **Edited ref text**.

Step 3: Save and close the file.

Step 4: Double-click the **Ref** dataset that is under the **CCC_RulesItemRevision** named **Test**.

Step 5: Note that the text changed and it now reads **Edited ref text**.

Step 6: Close the file.

Revise the CCC_RulesItemRevision named Test

Step 1: Select the **CCC_RulesItemRevision** named **Test**.

Step 2: Choose **File→Revise**.

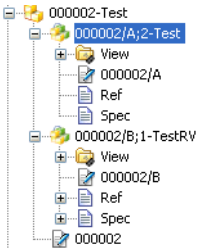
Step 3: Use the down arrow in the **Revision** box to select **B** revision.

Step 4: In the **Name** box, type **TestRV**.

Step 5: Click **Finish**.

Step 6: Click **Close** (to close the **Revise** dialog box).

Step 7: Note that the new revision with the name **TestRV**.



Verify that the Spec dataset is a new object

Step 1: Double-click the **Spec** dataset under **TestRV**.

Step 2: In the text editor, change the text to read, **Revised spec text**.

Step 3: Save and close the file.

Step 4: Double-click the **Spec** dataset that is under the *original* **CCC_RulesItemRevision** named **Test**.

Step 5: Verify that the text did not change and that it still reads **Original spec text**.

Step 6: Close the file.

Verify that the Ref dataset in a linked object

Step 1: Expand the new **TestRV** item revision.

Step 2: Double-click the **Ref** dataset under **TestRV**.

Step 3: In the text editor, change the text to read, **More edits to the ref text**.

Step 4: Save and close the file.

Step 5: Double-click the **Ref** dataset that is under the *original* **CCC_RulesItemRevision** named **Test**.

Step 6: Note that the text changed and that it now reads **More edits to the ref text**.

Step 7: Close the file.

Section 10: Data model live updates

View Live Updates settings

Activity: View Live Updates settings

In this activity, you:

- View the Business Modeler IDE standard template **Live Updates** setting.
- View the rich client **Live Updates** option.

Launch the View Live Updates settings activity.

Related information

For more information, review these topics in the online help:

- *Managing and setting preferences*

View the standard template Live Updates setting

Note

A standard Business Modeler IDE template has the ☑ **Enable Live Updates?** box selected by default. These steps just confirm the setting.

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

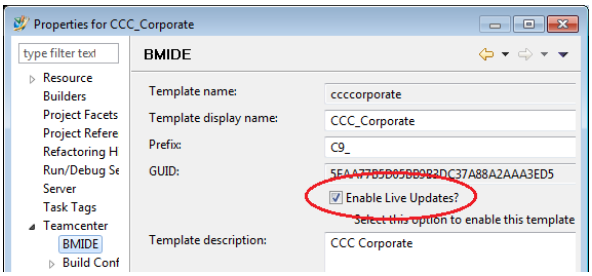
Step 2: Right-click the **CCC_Corporate** project and choose **Properties**.

Step 3: In the left pane, expand ▷ **Teamcenter** by clicking the small arrow symbol.

Step 4: Choose **BMIDE**.

Step 5: In the **BMIDE** dialog box, confirm the **Enable Live Updates?** box is selected ☑.

This check box is selected by default when you create a new template project.



Step 6: Click **Cancel** at the bottom of the dialog box.

View the rich client Live Updates option

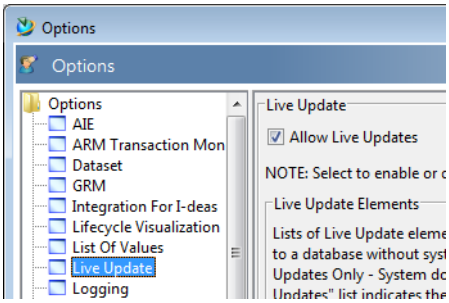
Note

The Teamcenter rich client has the ☑ **Allow Live Updates** box selected by default. These steps just confirm the setting.

Step 1: If necessary, log on to Teamcenter using *jgordon* (password *jgordon*).

Step 2: In **My Teamcenter**, choose **Edit→Options**.

Step 3: Click **Live Update** in the left **Options** pane.



Step 4: Confirm the ☑ **Allow Live Updates** box is selected.

Step 5: Click **Close** at the bottom of the **Options** dialog box.

Step 6: Click the **TAO ImR** icon in your taskbar.

Step 7: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Update LOV values with Live Updates

Activity: Update LOV values with Live Updates

In this activity, you create a live update project and add the **Fuel Economy** value to **C9_Category_lov** LOV (in the live update project).

Value	Value Display Name	Description
High Performance	**High Performance**	**Performance category**
Best of Show	**Best of Show**	**Show category**
Kit Car	**Kit Car**	**Kit car category**
Fuel Economy	**Fuel Economy**	**Fuel economy category**

Launch the Update LOV values with Live Updates activity.

Related information

For more information, review these topics in the online help:

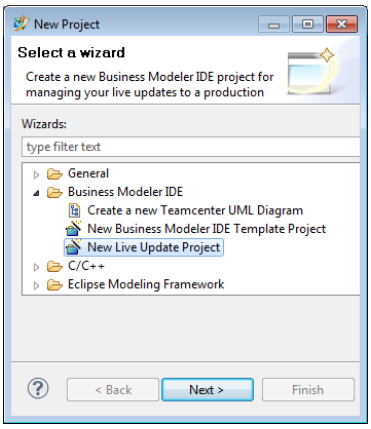
- *Create a Business Modeler IDE template project*

- *List of values (LOV) options*

Create a live update project

Step 1: From the Business Modeler IDE, choose **File→New→Project**.

Step 2: Expand the **Business Modeler IDE** folder and select **New Live Update Project**.



Step 3: Click **Next**.

Step 4: Confirm the **Server Profile** is set to *Teamcenter Training*.

Step 5: Verify the **User ID** box is *jgordon*.

Step 6: In the **Password** box, type ***jgordon***.

Step 7: Verify the **Group** box is **dba**.

Step 8: Verify the **Role** box is **DBA**.

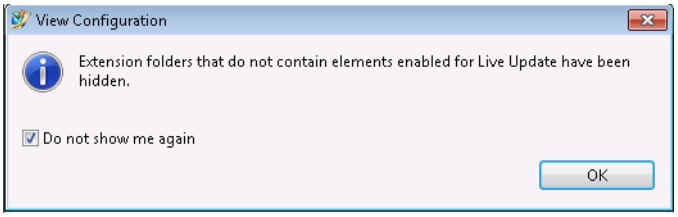
Step 9: Click **Connect**.

The Business Modeler IDE client connects to the server.

Step 10: After the Business Modeler IDE client connects to the server, click **Finish**.

The **Progress Information** dialog box displays the progress.

Step 11: Select the check box ☑ **Do not show me again**.



Step 12: Click **OK**.

A project named **ccccorporate_live_update** is created.

Note

You may get the **Open Associated Perspective?** dialog box. If so, click **Yes** and the **Live Update** perspective is opened. If the **Getting Started** pane is opened, click the **X** icon to close **Getting Started**.

Add a value to a LOV

Step 1: Click the **Extensions** view.

Step 2: If necessary, collapse the **CCC_Corporate** project.

Step 3: Expand the **ccccorporate_live_update** project.

Step 4: Expand the **LOV** folder.

Step 5: Expand the **Classic LOV** folder.

Step 6: Double-click **C9_Category_lov**.

Step 7: Verify that the previously-deployed **C9_Category_lov** values are correct.

Value	Value Display Name	Description
High Performance	High Performance	Performance category
Best of Show	Best of Show	Show category
Kit Car	Kit Car	Kit car category

Step 8: To the right of the **LOV Values** table, click **Add**.

The **Add LOV Value** dialog box appears.

Step 9: In the **Value** box, type **Fuel Economy**.

Step 10: Verify **Value Display Name** is **Fuel Economy**.

Step 11: In the **Description** box, type **Fuel Economy category**.

Step 12: Click **Finish**.

The **Fuel Economy** value is added to the **LOV Values** table.

Save the data model

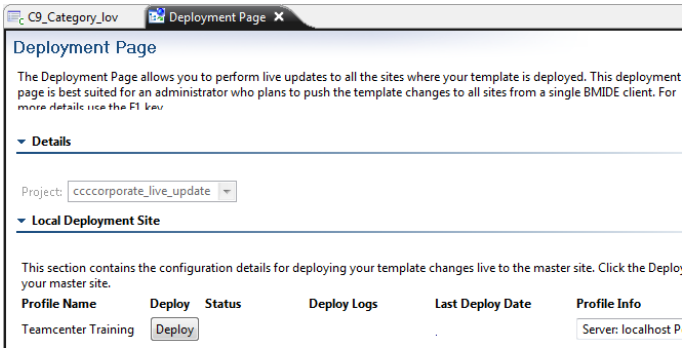
Step 1: Click the icon on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **ccccorporate_live_update** is selected.

Step 3: Click **OK**.

Deploy the live update project

Step 1: Choose **BMIDE→Live Update→Deployment Page**



Step 2: Click the **Deploy** button.

Step 3: In the **Password** box, type ***jgordon***.

Step 4: Click **Connect**.

Step 5: Click **Finish**.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Confirm the added LOV value to the Teamcenter server

Activity: Confirm the added LOV value to the Teamcenter server

In this activity, you test the updated LOV definitions for the **CCC_Category** property containing the **Fuel Economy** value.

Launch the Confirm the added LOV value to the Teamcenter server activity.

Related information

For more information, review these topics in the online help:

- *Viewing and modifying object properties*
- *Viewing object properties*

Log on to the Teamcenter server

Note

To see the data changes, end users must log off and log on again and wait for servers to cycle through the changes.

Step 1: Log on to Teamcenter using *jgordon* (password *jgordon*).

Step 2: If necessary, open the **My Teamcenter** perspective, by clicking the **My Teamcenter** button in the navigation pane.

Confirm the added LOV value

Step 1: In the rich client, select **Home**.

Step 2: Choose **File**→**New**→**Item**.

Step 3: Select **CCC_Item** and click **Next**.

Step 4: Enter values as follows.

a. In the **CCC_CarType** box, type **GLS**.

b. From the **CCC_Category** property list, select **Fuel Economy**.

c. In the **CCC_Customer** box, type **ACME**.

d. From the **CCC_MakeBuy** property list, select **Make**.

e. In the **CCC_Shipped** box, keep the default value.

Step 5: To the right of **ID**, click **Assign**.

Step 6: In the **Name** box, type **Item8**.

Step 7: Click **Next**.

Step 8: To the right of **Revision**, click **Assign**.

Step 9: Click **Finish**.

Step 10: Click **Cancel**.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Incorporate latest live update changes

Activity: Incorporate latest live update changes

In this activity, you:

- Incorporate LOV value **Fuel Economy** into **CCC_Corporate** project.
- Confirm **Fuel Economy** has been added to **CCC_Corporate** project.

Launch the Incorporate latest live update changes activity.

Related information

For more information, review these topics in the online help:

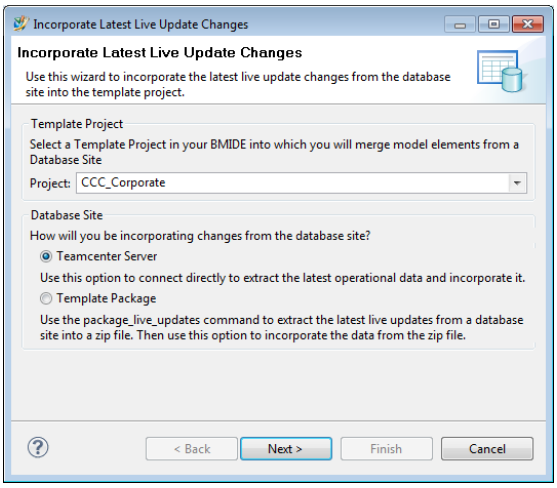
- *Create a Business Modeler IDE template project*
- *Package extensions into a template*

Incorporate live updates into standard project

Step 1: Choose **BMIDE→Live Update→Incorporate Latest Live Update Changes**

Step 2: In the **Template Project** box, confirm the **Project** is **CCC_Corporate**

Step 3: In the **Database Site** box, select **Teamcenter Server**.



Step 4: Click **Next**.

The **Database Site** dialog box appears.

Step 5: Verify the **Server Profile** is *Teamcenter Training*.

Step 6: Verify the **User ID** box is *jgordon*.

Step 7: In the **Password** box, type ***jgordon***.

Step 8: Verify the **Group** box is **dba**.

Step 9: Click **Connect**.

The Business Modeler IDE client connects to the server.

Step 10: After the Business Modeler IDE client connects to the server, click **Next**.

Incorporate latest live update changes determines the merge information.

Step 11: Locate the **LOV** for **Fuel Economy**.

Step 12: In the **Merge Data Model** dialog box, click **Finish**.

Step 13: Click **OK**.

Confirm new value is merged to LOV

Step 1: Click the **Extensions** view.

Step 2: Collapse the **ccccorporate_live_update** project.

Step 3: Expand the **CCC_Corporate** project.

Step 4: Expand the **LOV** folder.

Step 5: Expand the **Classic LOV** folder.

Step 6: Double-click **C9_Category_lov**.

Step 7: Verify that **C9_Category_lov** values are correct.

Value	Value Display Name	Description
High Performance	High Performance	Performance category
Best of Show	Best of Show	Show category
Kit Car	Kit Car	Kit car category
Fuel Economy	Fuel Economy	Fuel Economy category

Prepare a live update project for other servers

Activity: Prepare a live update project for other servers

In this activity, you package the **ccccorporate_live_update** project (so that it can be deployed with the TEM).

Launch the Prepare a live update project for other servers activity.

Related information

For more information, review these topics in the online help:

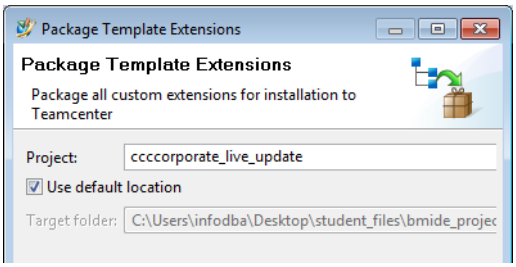
- *Package extensions into a template*

Package the live update template

Step 1: In the Business Modeler IDE, choose **BMIDE→Package Template Extensions**.

Step 2: From the **Project** list, select **ccccorporate_live_update**.

Step 3: Leave **Use default location** selected.



Step 4: Click **Finish**.

Step 5: Open a Windows Explorer dialog box.

Step 6: Navigate to the **ccccorporate_live_update** project: *STUDENT_HOME***bmide_projects\ccccorporate_live_update**.

Step 7: From this location, navigate to **output\packaging\live_update**.

Step 8: Note that the **ccccorporate_template_live_update.zip** file has been created.

Step 9: Close the Windows Explorer dialog box.

Note

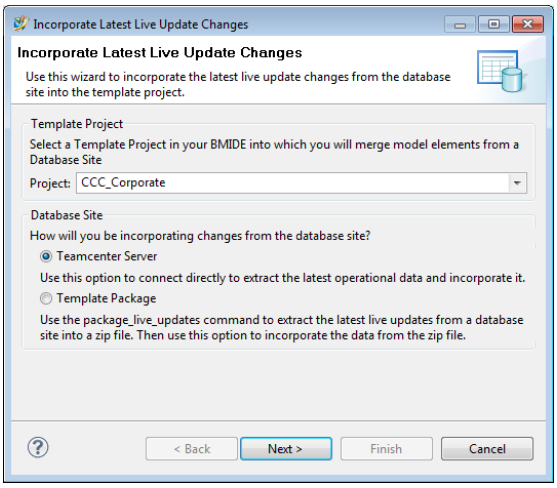
Not in class, but in your environment, you would copy the **ccccorporate_template_live_update.zip** file from the packaging directory on your Business Modeler IDE client to a directory that is accessible by the administrators at other sites.

Incorporate latest live updates

Step 1: In the Business Modeler IDE, choose **BMIDE→Live Update→Incorporate Latest Live Update Changes**.

Step 2: Select your standard template project **CCC_Corporate**.

Step 3: Under **Database Site**, select **Teamcenter Server**.



Step 4: Click **Next**.

Step 5: Enter *jgordon* in the **Password** box.

Step 6: Click **Connect**.

Step 7: Click **Next**.

Step 8: In the **Merge Data Model** dialog box, resolve any conflicts that the merge compare identified between the data model in your target project and in the source.

Step 9: Click **Finish**.

Step 10: Click **OK**.

Section 11: Organization

Create a new group and role

Activity: Create a new group and role

In this activity, you create a new group called **high performance** and a new **Manager** role.

Launch the Create a new group and role activity.

Related information

For more information, review these topics in the online help:

- *Defining groups*
- *Defining roles*
- *Defining groups example*

Log on to Teamcenter

Step 1: Log on to Teamcenter by first double-clicking the **Teamcenter 10** desktop icon.

If there is no desktop icon, choose **Start→All Programs→Teamcenter 10→Teamcenter 10**.

Step 2: Type *jgordon* in the **User ID** box.

Step 3: Type *jgordon* in the **Password** box.

Step 4: Click **Login**.

Prepare Teamcenter rich client navigation pane

Step 1: Click **Configure Applications** » (double arrow icon) at the bottom of the navigation pane.

Step 2: Select **Navigation Pane Options**.

Step 3: Set up this list of **Secondary Applications** buttons (order not important).

These applications are used frequently in the remainder of the class.

1. **Access Manager**
2. **Authorization**
3. **Organization**
4. **Project**
5. **Query Builder**
6. **Workflow Designer**
7. **ADA License**
8. **Report Builder**
9. **PLM XML/TC XML Export Import Administration**

Use the following techniques within the **Navigation Pane Options** dialog box:

- Select an application in the **Secondary Application** list and click the minus sign − to remove the application.
- Select an application in the **Available Application** list and click the plus sign + to add the application.
- Click ↑ to move the application up in the list and click ↓ to move the application down in the list.

Step 4: Continue with the Teamcenter rich client for the next task.

Create a role

Step 1: Open the Organization application.

Step 2: Double-click **Roles** in the bottom left **Organization List** pane.

Step 3: In the **Role** box in the right pane, type **Manager**.

Step 4: Click **Create**.

Create a group

Step 1: Double-click **Roles** in the bottom left **Organization List** pane.

The **Roles** list collapses.

Step 2: Double-click **Groups** in the bottom left **Organization List** pane.

Step 3: In the **Name** box on the right pane, type **high performance**.

Note

Make sure to include a space and use all lowercase letters for **high performance**.

Step 4: In the **Default Volume** box, click the volume button .

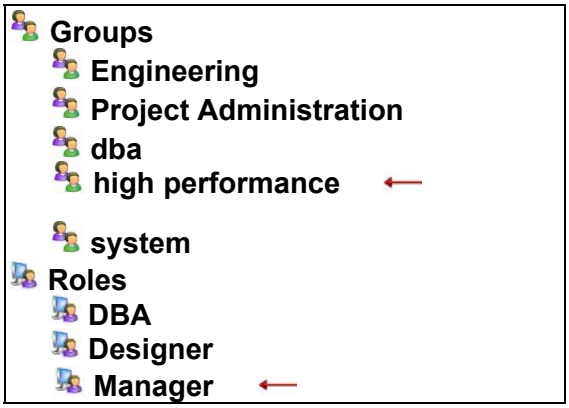
Step 5: In the **Volumes** dialog box, double-click the **volume** volume.

Step 6: Select the **Manager** role in the **List of Defined Roles** list.

Step 7: Click the plus sign button .

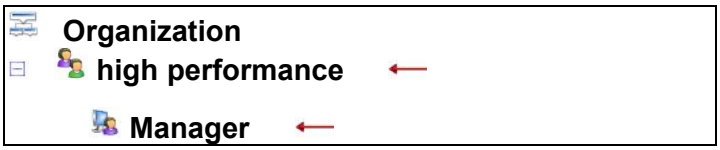
Step 8: Click **Create**.

The new role and group are added in the bottom left **Organization List** pane.



Step 9: Click the plus sign to the left of the **high performance** group in the upper left **Organization** tree.

The **Manager** role is shown.



Step 10: Do not exit the Organization application at this time.

Add a new user to a new group and role

Activity: Add a new user to a new group and role

In this activity, you use the Organization User wizard to add **Maria Andretti** as the **high performance** group's manager.

Launch the Add a new user to a new group and role activity.

Related information

For more information, review these topics in the online help:

- *Defining users*
- *Add a new user to a group/role*

Add a user to the Manager role

Step 1: Verify you are in the Organization application.

Step 2: Click the plus sign ⊞ to the left of the **high performance** group in the **Organization** tree.

Step 3: Select the **Manager** role.

Step 4: In the right pane, click the **Add User** button .

Step 5: Select **Add new user to the group/role**.

Step 6: Click **Next**.

The **Specify New User** dialog box is displayed.

Step 7: In the **Person Name** box, type **Andretti, Maria**.

Note

Make sure to include a space before the first name so it matches the name in the script for the **make_user** utility used later in the lesson.

Step 8: In the **User ID** box, type **mandretti**.

Step 9: In the **OS Name** box, type **mandretti**.

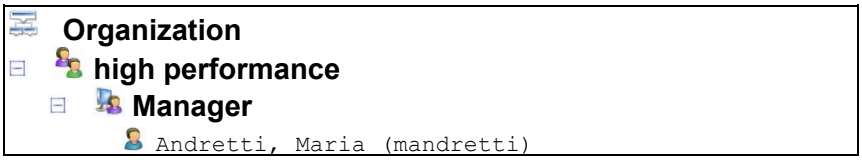
Step 10: In the **Password** box, type **mandretti**.

Step 11: Click **Finish**.

Step 12: Click **Close** in the **Organization User Wizard** dialog box.

Step 13: Expand the **Manager** role under the **high performance** group.

The new user appears under the group in the **Organization** tree.



Make the new user a group administrator

Step 1: Click **Andretti, Maria (mandretti)**.

Step 2: Select the **Group Administrator** check box ☑.

Step 3: Click **Modify**.

Step 4: Do not exit the Organization application at this time.

Create an organization hierarchy using the make_user utility

Activity: Create an organization hierarchy using the make_user utility

In this activity, you use the **make_user** utility to add your organization.

Launch the Create an organization hierarchy using the make_user utility activity.

Related information

For more information, review these topics in the online help:

- *Getting started with Organization*
- *Organization utilities*
- *Utility: make_user*

View and edit the make_user utility

Step 1: Locate the **mu.bat** file in your *STUDENT_HOME***import_organization** directory.

Step 2: Open the **mu.bat** file in a text editor.

Step 3: Review the **mu.bat** file to answer the following questions.

- □ How many times is the **make_user** utility executed to assign new groups to a volume?
- □ How many times is the **make_user** utility executed to create new users? Why?
- □ How many times is the **make_user** utility executed to assign jgordon to each group with the DBA role?

Step 4: Close the **mu.bat** file.

View the associated file with the file argument in the make_user utility

Step 1: Locate the **mu.txt** file in the *STUDENT_HOME***import_organization** directory.

Step 2: Open the **mu.txt** file in a text editor.

Step 3: Review the **mu.txt** file.

Step 4: Close, but do not save, the **mu.txt** file.

Execute the make_user utility

Step 1: Choose **Start**→**All Programs**→**Teamcenter 10**→*tc_TC101svr* **Command Prompt**.

tc_TC101svr is the node ID and depends on the installation.

Step 2: In the *tc_TC101svr* **Command Prompt**, change the directory to the *STUDENT_HOME***import_organization** directory.

Step 3: Type **mu.bat** and press Enter.

Warning

Wait until the script completes before moving on to the next step.

View the organization

Step 1: Choose **File→Exit** to log off and exit your current Teamcenter session.

Step 2: Log back on to Teamcenter using the *jgordon* account.

Step 3: Verify you are in the Organization application.

Step 4: Choose **View→Refresh Window**.

Step 5: In the **Refresh Window** dialog box, click **Yes**.

Step 6: In the **Organization** tree, expand the groups and roles to see the organization that was created with the **make_user** commands in the **mu.bat** script.

Step 7: In the **Organization List** tree, double-click each organization category to see its contents.

Step 8: Do not exit the Organization application at this time.

Find a group and modify user settings

Activity: Find a group and modify user settings

In this activity, you use the search capability to find and update the organization hierarchy.

Launch the Find a group and modify user settings activity.

Related information

For more information, review these topics in the online help:

- *Getting started with Organization*
- *Organization interface*
- *Using Organization find*
- *Defining users*

Find the best of show group and modify the user settings

Step 1: From the **Organization** application, type **best of show** in the search box.

best of show	

Step 2: Click the group button to the right of the search box.

The **best of show** group appears in the upper left **Organization** tree.

Organization
best of show

Step 3: Expand the **Manager** role under the group.

Step 4: Click the **Earnhardt, David** user.

Step 5: Select both the **Group Administrator** check box and **Default Role** check box.

Step 6: Click **Modify** to update the user.

The user **Earnhardt, David** is modified.

Step 7: In the same way, also set the group administrators in this table with **Group Administrator** and **Default Role** check boxes.

Group	Role	Name
standards	**DBA**	**Gordon, Jack**
shop floor	**Crew Chief**	**Andretti, Maria**

Type the group in the search box. Click the group button to the right of the search box. Then expand group and role to see the user.

The users **Gordon, Jack** and **Andretti, Maria** are modified.

Step 8: Close the Organization application.

Step 9: Do not exit Teamcenter at this time.

Section 12: Access Manager

View default protections

Activity: View default protections

In this activity, you create a new item, view the default Access Manager defined privileges, and test one of the default privileges.

Launch the View default protections activity.

Related information

For more information, review these topics in the online help:

- *View access privileges*

Change your group/role

Step 1: Verify that you are logged into Teamcenter as *jgordon* (password *jgordon*).

Step 2: Click **My Teamcenter**.

Step 3: Choose **Edit→User Setting**.

The **User Settings** dialog box appears.

Tip

To open **User Settings** quickly, click your current logon information.

Step 4: From the **Session** tab, change **Group** to **high performance** and **Role** to **DBA**.

Step 5: Click **OK**.

Create an item

Step 1: Select the **Home** folder.

Step 2: Choose **File→New→Item**.

The **New Item** dialog box is displayed.

Step 3: Select **Item** as the type.

Step 4: Click **Next**.

Step 5: Click **Assign** next to the **ID** field to automatically assign **ID**.

Step 6: Click **Assign** next to the **Revision** field to automatically assign **Revision**.

Step 7: Type **Test Access** in the **Name** box.

Step 8: Click **Finish**.

Step 9: Click **Cancel**.

Review the protections of the new item

Step 1: Select the **Test Access** item.

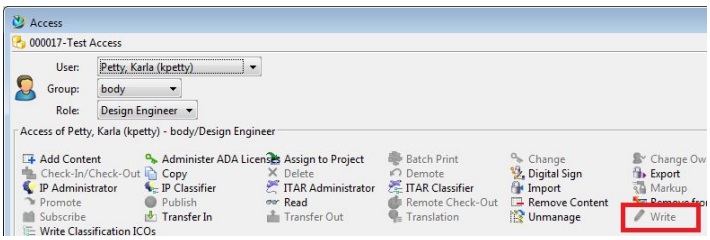
Step 2: Click on the toolbar.

Step 3: Review privileges on the item.

A grayed-out icon means the privilege is denied.

Step 4: Select **Petty, Karla (kpetty)** from the **User** list.

Notice that the **Write** icon is grayed-out for Karla. This means that she does not currently have **Write** access to this item.



View the ACL for the item

Step 1: Click the **Access Control List** in the **Access** dialog box.

The complete **Access Control List** dialog box appears.

Step 2: Click **Cancel** in the **ACL Control List** dialog box.

Step 3: Click **Close** in the **Access** dialog box.

Test Write access for kpetty

Step 1: Exit Teamcenter and log back on using the **kpetty** account (password **kpetty**).

Step 2: Click **My Teamcenter**.

Step 3: To search for the **Test Access** item, first click the menu icon ▼ at the top of the navigation pane and select **Item Name**.

Step 4: Type **Test Access** into the quick **Search** input box and click **Perform Search**.

Step 5: Right-click the **Test Access** object and choose **Edit Properties**.

The **Properties** dialog box opens, but it is read-only. This is because the user does not have **Write** access to this item.

Step 6: Click **Cancel** to close the **Properties** dialog box.

Modify a named ACL

Activity: Modify a named ACL

In this activity, you define object specific access control list data to grant write access to a single user.

Launch the Modify a named ACL activity.

Related information

For more information, review these topics in the online help:

- *Modify an access control list (ACL)*

Check your ability to add object specific ACL data

Step 1: Exit Teamcenter and log back on using the *jgordon* account (password *jgordon*).

Step 2: Select the **Test Access** item.

Step 3: Click the **Access Control List** on the toolbar.

Notice that you have **Change** privilege for the item.

This privilege allows you to add entries to the default ACL defined by the Access Manager rule tree. Any additions you make in this manner only apply to this object.

Add the object-specific ACL data for the item

Step 1: Click the **Access Control List** in the **Access** dialog box.

Because you have **Change** privilege, plus + is active.

From this dialog box, you can also identify what AM rule is granting you the **Change** privilege. In this case, the **Working Named ACL** rule has granted **Change** to the **Owning User** (*jgordon*).

Step 2: Click + in the **ACL Control List** dialog box.

A new line appears at the bottom of the list with **Object** listed in the **Named ACL** column.

Tip

Widen the first two columns for **Type of Accessor** and **ID of Accessor**.

Step 3: Double-click the empty access control entry (ACE) cells to choose the following.

- **User** for **Type of Accessor**.
- **Petty, Karla (kpetty)** for **ID of Accessor**.
- The ✓ setting for **Write** privilege.

The result should be like the following.

Access Control List of 000017-Test Access

World					
Owning User			✓	✓	✓
Owning Group			✓		
System Admi...				✓	✓
World		✓	X	X	X
User	Petty, Karla (kpetty)		✓		

Step 4: Click **OK** in the **Access Control List** dialog box.

Step 5: Click **Close** in the **Access** dialog box.

Test the object ACL

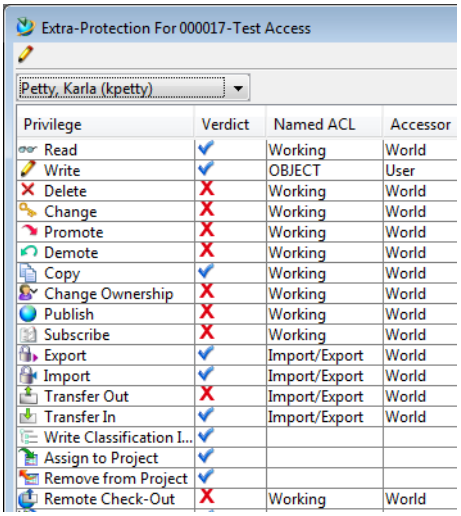
Step 1: Select the **Test Access** item.

Step 2: Click the **Access Control List** on the toolbar.

Step 3: Select **Petty, Karla (kpetty)** from the **User** list.

Step 4: Click **Display extra protection** in the **Access** dialog box.

Notice that write access is granted for **kpetty**.



Privilege	Verdict	Named ACL	Accessor
Read	✓	Working	World
Write	✓	OBJECT	User
Delete	X	Working	World
Change	X	Working	World
Promote	X	Working	World
Demote	X	Working	World
Copy	✓	Working	World
Change Ownership	X	Working	World
Publish	X	Working	World
Subscribe	X	Working	World
Export	✓	Import/Export	World
Import	✓	Import/Export	World
Transfer Out	X	Import/Export	World
Transfer In	✓	Import/Export	World
Write Classification I...	✓		
Assign to Project	✓		
Remove from Project	✓		
Remote Check-Out	X	Working	World

Step 5: Click **Close** in the **Extra-Protection** dialog box.

Step 6: Click **Close** in the **Access** dialog box.

Retest Write access for kpetty

Step 1: Exit Teamcenter and log back on using the **kpetty** account (password **kpetty**).

Step 2: Click **My Teamcenter**.

Step 3: Search for the **Test Access** item using the search field at the top of the navigation pane.

a. Click the menu icon ▼ at the top of the navigation pane and select **Item Name**.

b. Type **Test Access** into the quick **Search** input box.

c. Click **Perform Search**.

Step 4: Right-click the **Test Access** object and choose **Edit Properties**.

The **Check-Out** dialog box appears.

Step 5: Click **Yes**.

Step 6: Add text in the **Description** field and click **Save and Check-In**.

Step 7: Click **Yes** in the **Check-In** dialog box.

Because of the ACL granting **Write** access, the user was now permitted to make changes to the **Test Access** item.

Export the Access Manager rule tree

Activity: Export the Access Manager rule tree

In this activity, you export Access Manager rules before you make a change in the rule tree.

Launch the Export the Access Manager rule tree activity.

Related information

For more information, review these topics in the online help:

- *Export the Access Manager rule tree*
- *Distributing, reverting, and repairing the rule tree*

Change your group/role, if necessary

Step 1: Exit Teamcenter and log back on using the *jgordon* account (password *jgordon*).

Step 2: Verify that your session information is the **dba** group and the **DBA** role.

In necessary, change your session information to **dba** and **DBA**.

a. Click the current logon information link.

b. In the **User Settings** dialog box, from the **Session** tab, change the **Group** to **dba**.

c. Change the **Role** to **DBA**.

d. Click **OK**.

Export the Access Manager rule tree

Step 1: Open the Access Manager application .

Step 2: Choose **File**→**Export**.

The export dialog box appears.

Step 3: Navigate to the *STUDENT_HOME* folder.

Step 4: Type **am_tree_cots.xml** in the **File name** box, including the **.xml** file extension.

Step 5: Click **Export**.

Step 6: Click **OK**.

Add an Access Manager rule to the rule tree

Activity: Add an AM rule to the rule tree

In this activity, you add an Access Manager rule to the rule tree to grant write access to members of the standards group.

Launch the Add an Access Manager rule to the rule tree activity.

Related information

For more information, review these topics in the online help:

- *Creating and managing rules*
- *Add an Access Manager rule*

Open Access Manager and locate the rule tree

Step 1: From the **Access Manager** application, locate this rule, and click the plus symbol ⊞ to the left of this rule to expand the branch.

⊞ **Has Class(POM_application_object) –> Working**

↔ If needed, widen the **Access Manager** perspective by moving the perspective separator.

Step 2: Locate this rule branch.

⊞ **Has Class(Item)**

Create and attach a new named ACL to this branch

Step 1: Select **Has Class(Item)**.

The branch editor pane displays the three parts of this branch definition: **Condition**, **Value**, and **Named ACL**.

Step 2: Type **CAMod** in the **ACL Name** box.

Step 3: Click the create button to the right of the **ACL Name** box.

Step 4: Click + to the right of the ACE contents box to add the first access control entry.

Step 5: Double-click the ACE boxes to add the values shown.

Group	**standards**				

Tip

After you double-click in the **Type of Accessor** ACE box, press the keyboard g key to quickly select **Group**.

Step 6: Click in **Named ACL** pane to save the ACL.

Step 7: Click **Add** to modify the branch.

The new named ACL has been attached to the **Has Class(Item)** branch.

```
Has Class (POM_object)
...
Has Class (POM_application_object) –> Working
  Has Class (Item)
    Has Class (Item) –> CAMod
```

Step 8: Close the Access Manager application.

Step 9: Click **Yes** to save the changes.

Test the new Access Manager rule

Step 1: Go to the My Teamcenter application.

Step 2: Select **Test Access**.

Step 3: Click on the toolbar.

The **Access** dialog box displays your access to the object.

Step 4: Click in the **Access** dialog box.

The complete **Extra-Protection** dialog box appears.

Step 5: Locate the **CAMod** named ACL listed next to **Write** privilege. Consider the following:

The **CAMod** named ACL is listed next to **Write** privilege. This is because the **Has Class(Item)** branch that applies the **CAMod** ACL takes precedence over the **Has Class(POM_application_object)** branch that applies the **Working** ACL.

CAMod only shows when a user to whom it applies is selected.

Step 6: Click **Close** in the **Extra-Protection** dialog box.

Step 7: Click **Close** in the **Access** dialog box.

Import the AM rule tree

Activity: Import the AM rule tree

In this activity, you import the original Access Manager rules.

Launch the Import the AM rule tree activity.

Related information

For more information, review these topics in the online help:

- *Import the Access Manager rule tree*
- *Distributing, reverting, and repairing the rule tree*

Import the AM rule tree

Step 1: Open the Access Manager application.

Step 2: Choose **File→Import**.

The import dialog box appears.

Step 3: Navigate to the *STUDENT_HOME* folder.

Step 4: Select the **am_tree_cots.xml** file.

Step 5: Click **Import**.

A confirmation dialog box appears indicating the import was successful.

Step 6: Click **OK**.

Step 7: Expand the tree, and notice that the **CAMod** branch is gone. The rule tree once again contains only COTS branches.

Step 8: Close the Access Manager application.

Log off the rich client

Step 1: Choose **File→Exit**.

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: If there is a **TAO ImR** window in your taskbar, bring it up and click the **X** icon to close the window.

Section 13: Projects to control access

Create a project with team members

Activity: Create a project with team members

In this activity, you create the **CCC High Performance** project.

Launch the Create a project with team members activity.

Related information

For more information, review these topics in the online help:

- *Configuring projects and programs*
- *Working with projects and programs*
- *Configuring security for project and program data*

Log on to the rich client

Step 1: Start a Teamcenter rich client session, by double-clicking the **Teamcenter** icon on the desktop.

If there is no desktop icon, choose **Start→All Programs→Teamcenter 10→Teamcenter 10**, or the **Teamcenter 10** selection for your training environment.

Step 2: Log on to Teamcenter rich client as ***jgordon*** (with password ***jgordon***).

The Teamcenter application is started.

Create a project and add the members

Step 1: Open the Teamcenter Project application.

As needed, use the **Configure Applications** » at the bottom of the navigation pane to add **Project** in the **Secondary Applications** list.

Step 2: In the **ID** box, type **CCC100**.

Step 3: In the **Name** box, type **CCC High Performance**.

These users are added to the project in the next steps.

	Group	Role	User
1	high performance	Design Engineer	rwallace
2	high performance	Manager	mandretti

Step 4: In the left-hand side of the **Member Selection** area, expand the **high performance** group.

Step 5: Expand the **Design Engineer** role.

Step 6: Select the **Wallace, Randy (rwallace)** user.

Step 7: Click the plus sign button +.

Step 8: Expand the **Manager** role.

Step 9: Select the **Andretti, Maria (mandretti)** user.

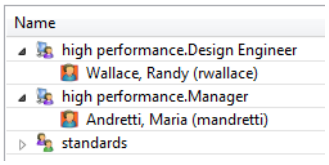
Step 10: Click the plus sign button +.

Step 11: Scroll down and select the **standards** group.

Step 12: Click the plus sign button +.

The **standards** group is added to the right side of the **Member Selection** area.

Step 13: Verify the following assignments have been made:



Step 14: Do not close the Teamcenter Project application.

Choose the team administrator and the privileged team members

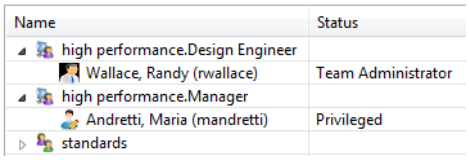
Step 1: In the right-hand side of the **Member Selection** area, set member privileges.

a. Right-click **Wallace, Randy (rwallace)** and choose **Select a Project team administrator**.

b. Right-click **Andretti, Maria (mandretti)** and choose **Set Privileged Users**.

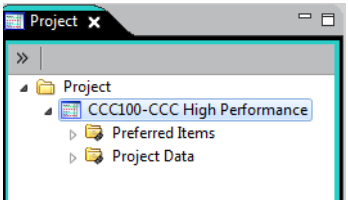
Step 2: Verify the member privileges.

The **Status** of **rwallace** is now set to **Team Administrator** and the **Status** of **mandretti** is set to **Privileged**.



Step 3: Click **Create** in the **Definition** pane to finish creating the project.

The new project displays in the **Projects** list under the **Projects** folder.



Step 4: Choose **File→Close** to close the Teamcenter Project application.

Section 14: Managing preferences

Modify a site preference

Activity: Modify a site preference

In this activity, you modify an existing site preference.

Launch the Modify a site preference activity.

Related information

For more information, review these topics in the online help:

- *Managing and setting preferences*
- *Introduction to preferences*

Locate the QRYColumnsShownPref preference

Step 1: If necessary, log on to Teamcenter using *jgordon* (password *jgordon*).

Step 2: If needed, open the **My Teamcenter** perspective by clicking the **My Teamcenter** button in the navigation pane.

Step 3: Set your session information to the **dba** group and the **DBA** role.

a. Click the current logon information link.

b. In the **User Settings** dialog box, from the **Session** tab, change the **Group** to **dba**.

c. Change **Role** to **DBA**.

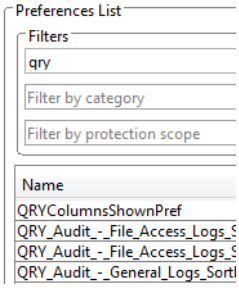
d. Click **OK**.

Step 4: In My Teamcenter, choose **Edit→Options**.

Step 5: Click the **Filters** link at the bottom of the **Options** dialog box.

Step 6: In the **Search by preference name** box, type **qry**.

The system displays the possible values in the **Preferences List**.

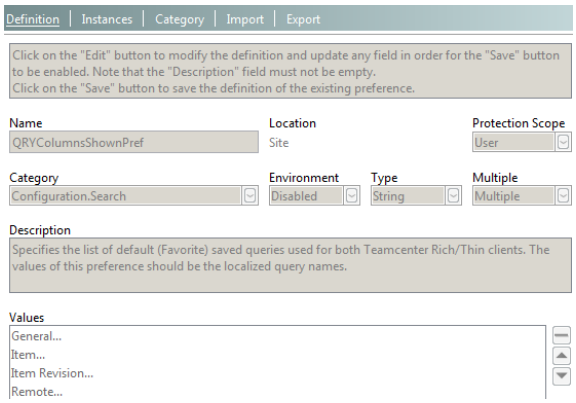


Modify the QRYColumnsShownPref preference

Step 1: Select the **QRYColumnsShownPref** preference.

Step 2: Notice the following key information in the **Definition** pane.

- **Location** is listed as **Site**, indicating that this preference instance is active at the site level.
- **Protection Scope** is set to **User**, indicating that this preference instance can be modified or a new instance can be created at the **User** level.
- The preference values in the **Values** list.



Step 3: Click **Edit** at the bottom of the **Definition** pane to enable modification of the preference definition.

Step 4: Select the first value in the **Values** list.

Step 5: Press and hold the Shift key and then select the last value in the list.

This selects all the values.

Step 6: Click − to remove them from the list.

Step 7: In the box below the **Values** section, type the following values, clicking + (or pressing **Enter**) after each one to add them to the **Values** list:

Item ID
Item Name
Item...

Step 8: After the values are added, click **Save** .

The **QRYColumnsShownPref** preference at the site level displays new values.

Caution

Make sure to click **Save** to save the preference before the next step.

Step 9: Click **Close** to close the **Options** dialog box.

Create a user preference

Activity: Create a user preference

In this activity, you create a user preference that takes precedence over the site preference.

Launch the Create a user preference activity.

Related information

For more information, review these topics in the online help:

- *Managing and setting preferences*
- *Introduction to preferences*

Change to a user account

Step 1: Choose **File→Exit** to log off and exit your current Teamcenter session.

Step 2: Log on to Teamcenter using the **mandretti** account (password **mandretti**).

Maria Andretti is the manager of the high performance group.

Verify the new site preference

Step 1: Click **Search** to load the **Search** criteria pane.

Step 2: Click the arrow to the right of the **Select a Search** button .

The top values are the current values saved in the **QRYColumnsShownPref** site preference.

Item ID
Item Name
Item...

Step 3: Close the **Search** criteria pane.

Define a new user preference

Step 1: Choose **Edit→Options**.

Step 2: Click the **Filters** link at the bottom of the **Options** dialog box.

Step 3: In the **Search by preference name** box, type **qry**.

Step 4: Select the site preference for **QRYColumnsShownPref**.

Step 5: Click **Create a new preference instance** in the top left of the **Preferences By Filters** pane.

Step 6: In the **Values** list, select **Item ID** and click to remove it from the **Values** list:

Step 7: After the **Values** list is modified, click **Save**.

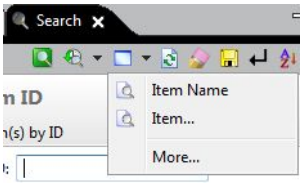
Step 8: Click **Close**.

Verify the User preference

Step 1: Click **Search** to load the **Search** criteria pane.

Step 2: Click the arrow to the right of the **Select a Search** button .

The top values are the current values saved in the **QRYColumnsShownPref** user preference.



Step 3: Close the **Search** criteria pane.

Step 4: Choose **File**→**Exit** and log off Teamcenter.

Create a group preference

Activity: Create a group preference

In this activity, you use a group administrator account to create a group preference.

Launch the Create a group preference activity.

Related information

For more information, review these topics in the online help:

- *Managing and setting preferences*
- *Introduction to preferences*

Change to a user account

Step 1: Log on to Teamcenter using *jgordon* (password *jgordon*).

Step 2: Set your session information to the **standards** group and the **DBA** role.

a. Click the current logon information link.

b. In the **User Settings** dialog box, from the **Session** tab, change **Group** to **standards**.

c. Change **Role** to **DBA**.

d. Click **OK**.

Create a Group preference

Step 1: Choose **Edit→Options**.

Step 2: Click the **Organization** link at the bottom of the **Options** dialog box.

Step 3: Select **Organization** at the top of the group tree.

Step 4: In the **Search by preference name** box, type **qry**.

Step 5: Select the **QRYColumnsShownPref** site preference.

Step 6: Scroll down the organization list and select the **standards** group.

Step 7: With the **QRYColumnsShownPref** site preference selected, click **Create a new preference instance** in the top left of the **Preferences By Organization** pane.

Step 8: Click to remove each value from the list.

Step 9: Type **Item Revision...** in the **Values** box and press Enter.

Step 10: Click **Save**.

Step 11: Click **Close** to close the **Options** dialog.

Step 12: Log off Teamcenter.

Use an account from the standards group to verify the group preference

Step 1: Log on to Teamcenter using the **djarrett** account (password **djarrett**), the **standards** group, and the **Standards Engineer** role.

a. Double-click the **Teamcenter 10** desktop icon.

b. In the **User ID** box, type **djarrett**.

c. In the **Password** box, type **djarrett**.

d. In the **Group** box, type **standards**.

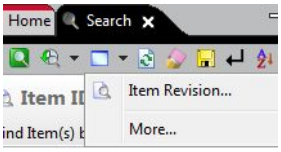
e. In the **Role** box, type **Standards Engineer**.

f. Click **Login**.

The Teamcenter application is started.

Step 2: Click **Search** to load the **Search** criteria pane.

Step 3: Click the arrow to the right of the **Select a Search** button .



Step 4: Close the **Search** criteria pane.

Step 5: Log off Teamcenter.

Create a modified site preference report

Activity: Create a modified site preference report

In this activity, you export modified site preferences into an XML report and then to an external XML file.

Launch the Create a modified site preference report activity.

Related information

For more information, review these topics in the online help:

- *Managing and setting preferences*
- *Introduction to preferences*

Select the a report preference

Step 1: Log on to Teamcenter using the *jgordon* account (password *jgordon*) and a blank **Group** box.

> **Caution**
>
> Verify the **Group** and **Role** boxes are clear to ensure the *jgordon* default group and role are used.

a. Double-click the **Teamcenter 10** desktop icon.

b. Click **Clear**.

c. In the **User ID** box, type *jgordon*.

d. In the **Password** box, type *jgordon*.

e. Click **Login**.

The Teamcenter application is started.

Step 2: In My Teamcenter, choose **Edit→Options**.

The **Options** dialog box appears.

Step 3: Click the **Filters** button in the lower left corner.

The **Preferences By Filters** pane appears.

Step 4: Click the **Report** icon at the top of the pane.

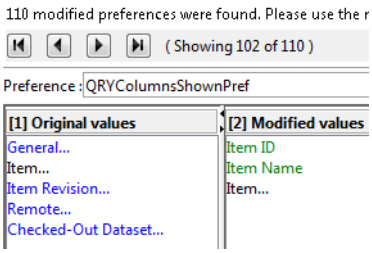
The scope list appears.

Step 5: Click **Site**.

The **Report Changes** dialog box appears.

Step 6: Set the **Preference** box to **QRYColumnsShownPref**.

Notice the **QRYColumnsShownPref** original values.



Save the preferences report to XML file

Step 1: To the right of the **Export To File** box, click the browse button.

The **Export Preferences** dialog box appears.

Step 2: Navigate to *STUDENT_HOME*.

Step 3: In the **File name** box, type **site_report.xml**.

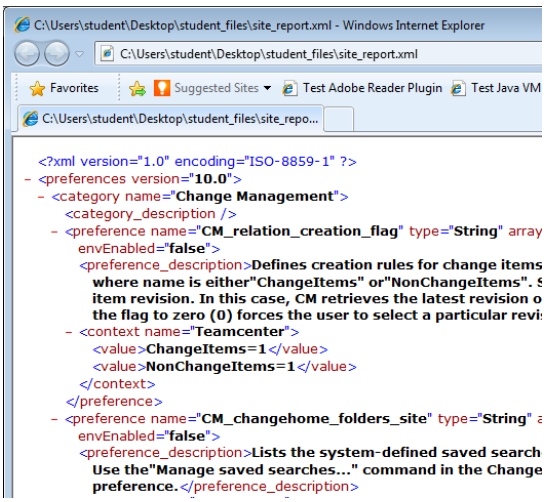
Step 4: Click **Export**.

The **Export Preferences** dialog box closes and the **Export To File** box fills with *STUDENT_HOME***site_report.xml**.

Step 5: In the **Report Changes** dialog box, select **Open After Export**.

Step 6: Click **Export**.

The **site_report.xml** file appears in an Internet browser.



Step 7: Close the Internet browser.

Step 8: Click **Cancel** to close the **Report Changes** dialog box.

Step 9: Click **Close** to close the **Options** dialog box.

Verify the file site_report.xml

Step 1: Use a Windows Explorer window to navigate to *STUDENT_HOME*.

Step 2: Verify the site report is at *STUDENT_HOME***site_report.xml**.

Create a modified group preference report

Activity: Create a modified group preference report

In this activity, you create a **Group** preference report.

Launch the Create a modified group preference report activity.

Related information

For more information, review these topics in the online help:

- *Managing and setting preferences*
- *Introduction to preferences*

Change your user group

Step 1: Set your session information to the **standards** group and the **DBA** role.

a. Click the current logon information link.

b. In the **User Settings** dialog box, from the **Session** tab, change the **Group** to **standards**.

c. Change **Role** to **DBA**.

d. Click **OK**.

Define the group preference report

Step 1: Choose **Edit→Options**.

The **Options** dialog box appears.

Step 2: Click the **Filters** link at the bottom of the pane.

The **Preferences By Filters** pane appears.

Step 3: Click **Report** at the top of the pane.

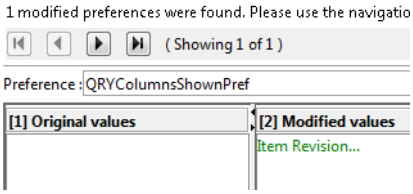
The scope list appears.

Step 4: Click **Group**.

The **Report Changes** dialog box appears.

Step 5: Set the **Preference** box to **QRYColumnShowPref**.

Notice the **QRYColumnShowPref** modified value.



Save the preferences report to XML file

Step 1: Click the **Export To File** browse button.

The **Export Preferences** dialog box appears.

Step 2: Navigate to *STUDENT_HOME*.

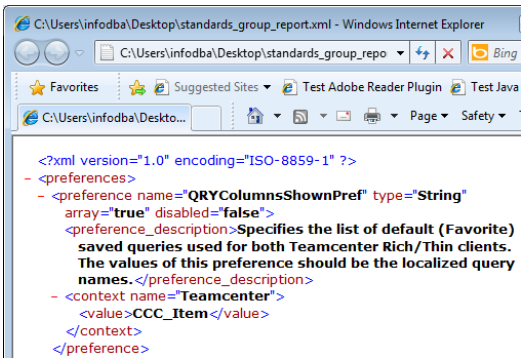
Step 3: In the **File name** box, type **standards_group_report.xml**.

Step 4: Click **Export** to close the **Export Preferences** dialog box.

Step 5: In the **Report Changes** dialog box, select **Open After Export**.

Step 6: Click **Export**.

The **standards_group_report.xml** file appears in an Internet browser.



Step 7: Close the Internet browser.

Step 8: Click **Cancel** to close the **Report Changes** dialog box.

Step 9: Click **Close** to close the **Options** dialog box.

Step 10: Verify that the **standards_group_report.xml** file is in the *STUDENT_HOME* folder location.

Change your user group back to dba

Step 1: Set your session information back to the **dba** group and the **DBA** role.

a. Click the current logon information link.

b. In the **User Settings** dialog box, from the **Session** tab, change the **Group** to **dba**.

c. Change **Role** to **DBA**.

d. Click **OK**.

Section 15: Query Builder definitions

Copy Item... query to create CCC_Item query

Activity: Copy Item... query to create CCC_Item query

In this activity, you start from the existing **Item...** query to create a **CCC_Item** query.

Launch the Copy Item... query to create CCC_Item query activity.

Related information

For more information, review these topics in the online help:

- *Create queries*

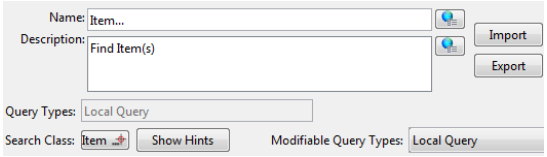
Define a query name and description

Step 1: Click **Query Builder** in the navigation pane.

When needed, widen the **Query Builder** perspective by moving the perspective separator .

Step 2: In the **Saved Queries** tree, select **Item...**.

The attributes for the **Item** query load in the **Query Builder** window.



Step 3: Type **CCC_Item** in the **Name** box.

Step 4: Type **Find CCC Item(s)** in the **Description** box.

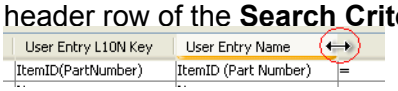
Step 5: Click **Create** .

The **CCC_Item** query is saved in the **Saved Queries** tree.

Modify the CCC_Item query attributes

Step 1: Verify **CCC_Item** is in the **Name** box.

Step 2: Widen a **User Entry L10N Key** column by moving the small column separator in the header row of the **Search Criteria** table.



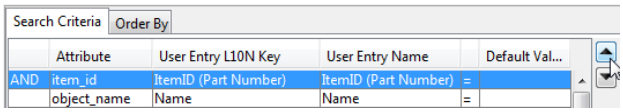
Step 3: Change **ItemID** to **ItemID (Part Number)**.

a. In the **User Entry L10N Key** column, click in the **ItemID** cell.

b. Type **ItemID (Part Number)**.

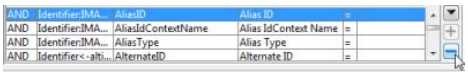
c. Press Enter.

Step 4: Move the **ItemID (Part Number)** to the top of the **Search Criteria** list by selecting the **ItemID (Part Number)** row and clicking the up arrow on the far right.



Step 5: To the left of the **object_name** attribute, set **AND**.

Step 6: Remove **AliasID** from the **Search Criteria** by selecting the **AliasID** attribute and clicking the minus sign (**Remove the selected clause(s)**) on the far right.



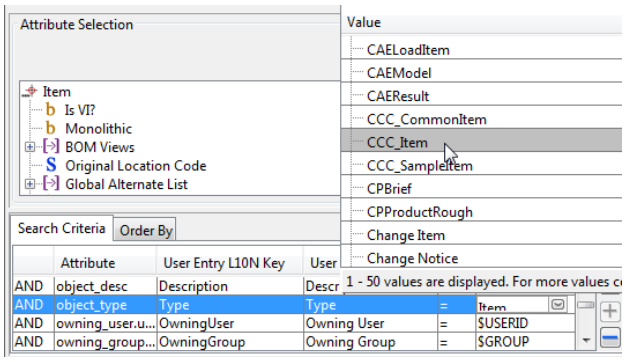
Step 7: Repeat the previous step to remove the following from the **Search Criteria**:

- **AliasIDContextName**
- **AliasType**
- **AlternateID**
- **AlternateIDContextName**
- **AlternateType**

Step 8: For **Type**, set **Default Value** to **C9_Item**.

a. In the **Default Value** column, click the drop-down button.

b. From the list, locate and select **CCC_Item**.



c. The **CCC_Item** changes to **C9_Item**.

d. Click **Modify** to save the query.

Step 9: For **Owning User** and **Owning Group**, remove the default values..

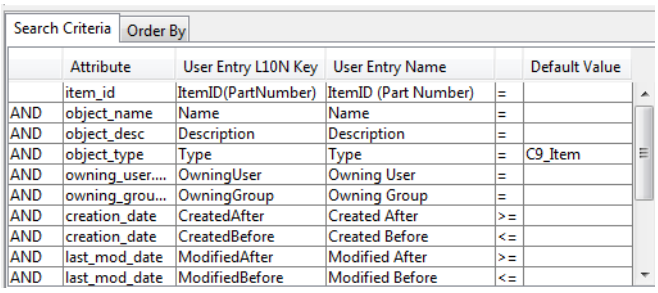
Click the cell in the **Default Value** column and press the delete key on your keyboard.

Warning

Do not click **Clear** as it will remove values from all the fields.

Step 10: Click **Modify**.

The **Search Criteria** is saved in the **CCC_Item** query.



Search Criteria | Order By

	Attribute	User Entry L10N Key	User Entry Name		Default Value
	item_id	ItemID(PartNumber)	ItemID (Part Number)	=	
AND	object_name	Name	Name	=	
AND	object_desc	Description	Description	=	
AND	object_type	Type	Type	=	C9_Item
AND	owning_user....	OwningUser	Owning User	=	
AND	owning_grou...	OwningGroup	Owning Group	=	
AND	creation_date	CreatedAfter	Created After	>=	
AND	creation_date	CreatedBefore	Created Before	<=	
AND	last_mod_date	ModifiedAfter	Modified After	>=	
AND	last_mod_date	ModifiedBefore	Modified Before	<=	

Step 11: Close the **Query Builder** application with the icon.

Test the CCC_Item query

Step 1: Open the **My Teamcenter** window.

Step 2: Click **Open Search View** to load the **Search** criteria view.

Step 3: Click the **Select a Search** button .

The **Change Search** dialog box appears.

Step 4: Click **More...**.

Step 5: Locate and select **CCC_Item**.

Step 6: Click **OK**.

The **CCC_Item** query definition loads in the **Search** view.

Step 7: Do not add any additional values in the search form.

Type defaults to **CCC_Item** from the query definition.

Step 8: Click **Execute the search** .

The results appear in the **Search Results** view.

Step 9: Click the button to close the **Search Results** view.

Create a query at the CCC_CommonItem class

Activity: Create a query at the CCC_CommonItem class

In this activity, you create a query using the **CCC_CommonItem** class and its properties.

Because the **CCC_CommonItem** properties are inherited by **CCC_Item**, those items are also found.

Launch the Create a query at the CCC_CommonItem class activity.

Related information

For more information, review these topics in the online help:

- *Create queries*

Define the first query information

Step 1: Click **Query Builder** in the navigation pane.

Step 2: Click **Clear**.

Step 3: Type **CCC_CommonItem search** in the **Name** box.

Step 4: Type **Search with CCC_CommonItems attributes** in the **Description** box.

Step 5: Select **Local Query** in the **Modifiable Query Types** list.

Step 6: Click the **Search Class** button.

Step 7: Type **C9_CommonItem** in the **Class/Attribute Selection Popup** dialog box.

Step 8: Click the **Press to find input name** button to locate and select the **C9_CommonItem** class.

Step 9: Click **Close**.

Build the attribute criteria for the query

Step 1: Click **Display Settings** .

Step 2: Select the **All Attributes** option.

Step 3: Click **Close** .

Step 4: In the **Attribute Selection** box, locate and double-click **ID**.

A new row is added to the **Search Criteria** table.

Step 5: Click **Create** .

Step 6: Locate and double-click these attributes. As you scroll through the list, double-click the attributes as you see them.

Display Name	*Real Name*
Name	**object_name**
Description	**object_desc**
Type	**object_type**

Step 7: After you have all that are on the list, arrange the order by using the up and down arrows.

Step 8: Click **Modify** to save the query.

Step 9: Close the Query Builder application with the **Close** button.

Test the query

Step 1: Open the **My Teamcenter** window and **Search** criteria pane if necessary.

Step 2: Click the **Select a Search** button .

The **Change Search** dialog box appears.

Step 3: Click **More...**.

Step 4: Locate and select **CCC_CommonItem search**.

Step 5: Click **OK**.

Step 6: In the **ID** box, type ***** (asterisk).

Step 7: Click **Execute the search** .

The results appear in the **Search Results** view.

Details of the **Search Results** view can be viewed by performing the following:

- In the **Search Results** view, select the top object.
- Select the **Details** view for a tabular display of properties.

Step 8: Click the **Close** button to close the **Search Results** view.

Create a query: CCC_Item properties

Activity: Create a query: CCC_Item properties

In this activity, you create a query that returns **CCC_Items** using search criteria that include some custom attributes, such as **CCC_MakeBuy** and **CCC_Customer**.

Launch the Create a query: CCC_Item properties activity.

Related information

For more information, review these topics in the online help:

- *Create queries*

Define the first query information

Step 1: Click **Query Builder** in the navigation pane.

Step 2: Click **Clear**.

Step 3: Type **CCC_Item_properties search** in the **Name** box.

Step 4: Type **Search for CCC_Item(s) from its properties** in the **Description** box.

Step 5: Select **Local Query** in the **Modifiable Query Types** list.

Step 6: Click the **Search Class** button.

Step 7: Type **C9_Item** in the **Class/Attribute Selection Popup** dialog box.

Step 8: Click the **Press to find input name** button to locate and select the **C9_Item** class.

If, after you click the **Press to find input name** button, the class is not visible, click on the **Press to find input name** button again.

Step 9: Click **Close**.

Build the attribute criteria for the query

Step 1: Change **Display Settings** to display **Class Attributes**.

a. Click **Display Settings** .

b. Select the **Class Attributes** option.

c. Click **Close** .

Step 2: In the **Attribute Selection** box, locate and double-click the following attributes to the query.

Display Name	Real Name
CCC_MakeBuy	c9_MakeBuy
CCC_CarType	c9_CarType
CCC_Customer	c9_Customer
CCC_Shipped	c9_Shipped

For each attribute, a new row is added to the **Search Criteria** table.

Step 3: Change the **User Entry L10N Key** value to match the **Display Name** value.

For each attribute,

a. Click in the **User Entry L10N Key** cell.
b. Enter the **Display Name** value.
c. Press Enter.

Step 4: Type **FALSE** in the **Default Value** box of **c9_Shipped**.

Step 5: Press Enter.

Step 6: At this time, click **Create** .

Step 7: Change **Display Settings** to **All Attributes**.

a. Click **Display Settings** .

b. Select the **All Attributes** option.

c. Click **Close** .

Step 8: Locate and double-click these attributes:

Display Name	Real Name
ID	item_id
Name	object_name
Description	object_desc
Type	object_type

Tip

As you scroll through the list, double-click the attributes as you see them. After you have all that are on the list, arrange the order by using the up ▲ and down ▼ arrows.

Step 9: Select **CCC_Item** in the **Type** row for **Default Value**.

CCC_Item changes to **C9_Item**.

Step 10: Click **Modify** to save the query.

Note

If **Modify** is not available, confirm that **AND** is in the left column for all rows.

Step 11: Close the **Query Builder** application with the ✕ icon.

Test the query

Step 1: Open the **My Teamcenter** window and **Search** criteria pane if necessary.

Step 2: Click the **Select a Search** button .

The **Change Search** dialog box appears.

Step 3: Click **More...**.

Step 4: Locate and select **CCC_Item_properties search**.

Step 5: Click **OK**.

Step 6: Use the default values and click **Execute the search** .

Step 7: In the **CCC_Customer** box, type **ACME**.

Note

You may need to click **More** to see the **CCC_Customer** field.

Step 8: Click **Execute the search** .

Step 9: Verify the new attributes in the search form.

Step 10: Click the **Close** button to close the **Search Results** view.

Section 16: Report Builder definitions

Create a summary report definition

Activity: Create a summary report definition

In this activity, you create a summary report for the **CCC** items. The report uses the **CCC_CommonItem search** query that you created earlier, a new property set, and a style sheet (which is set up in another activity).

Launch the Create a summary report definition activity.

Related information

For more information, review these topics in the online help:

- *Create a summary report definition*

Create a new property set with CCC properties

Step 1: Click **Report Builder** in the navigation pane.

Note

As needed, use the **Configure Applications** button at the bottom of the navigation pane to locate **Report Builder**.

Step 2: Choose **File→Create Property Set**.

The **New Property Set** dialog box appears.

Step 3: Select the **TC_2009_801_CrfReports_TIE** property set.

Step 4: Type **CCC_CommonItem_PropertySet** in the **Property Set Name** box.

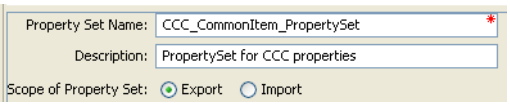
Step 5: Type **PropertySet for CCC properties** in the **Description** box.

Step 6: Leave **Scope of Property Set** set to **Export**.

Step 7: Click **Create**.

After a few seconds, the new property set appears on the list.

Step 8: Select the **CCC_CommonItem_PropertySet** in the property set list.



Add attributes from the CCC_Item class

Step 1: Before continuing, make sure that you have selected **CCC_CommonItem_PropertySet**.

Step 2: Ensure **Search** is set to **Class**.

Step 3: Click the **Class/Attribute Selection** button .

The **Class/Attribute Selection Popup** dialog box appears.

Step 4: Type **C9_CommonItem** in the **Class/Attribute Selection Popup** dialog box.

Step 5: Click the **Press to find input name** button.

Step 6: Expand the **C9_CommonItem** class by clicking the small plus symbol .

Step 7: Double-click the **C9_Item** class.

The **Class/Attribute Selection Popup** closes.

The attributes of **C9_Item** are visible.

Step 8: Scroll to the bottom of the list of attributes.

Step 9: Double-click the following attributes to add each to the clause table.

- **c9_CarType**
- **c9_Category**
- **c9_Customer**
- **c9_MakeBuy**
- **c9_Shipped**

Step 10: Ensure each new attribute has a **Relation Type** of **ATTRIBUTE**.

Primary Obj...	Primary Object	Relation Type	Related Property ...	Property...
CLASS	C9_Item	ATTRIBUTE	c9_CarType	DO
CLASS	C9_Item	ATTRIBUTE	c9_Category	DO
CLASS	C9_Item	ATTRIBUTE	c9_Customer	DO
CLASS	C9_Item	ATTRIBUTE	c9_MakeBuy	DO
CLASS	C9_Item	ATTRIBUTE	c9_Shipped	DO
CLASS	WorkspaceObject	ATTRIBUTE	object_type	DO

Step 11: Click **Modify** to save the property set.

Step 12: In the **New Property Set** dialog box, click the **Close** button.

Create a new summary report definition

Step 1: Choose **File→Create Report**.

The **Create Report Definition Template** dialog box appears.

Step 2: Select **Summary Report** and click **Next**.

Step 3: Click **Assign** to automatically assign an ID.

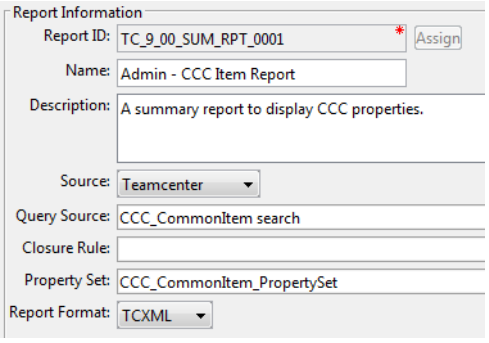
Step 4: Type **Admin - CCC Item Report** in the **Name** box.

Step 5: Type **A summary report to display CCC properties.** in the **Description** box.

Step 6: Select **CCC_CommonItem search** in the **Query Source** list.

Step 7: Select **CCC_CommonItem_PropertySet** in the **Property Set** list.

Step 8: Set **Report Format** to **TCXML**.



Step 9: Click **Finish** .

Step 10: Click **Close** to close the **Create Report Definition Template** dialog box.

Step 11: Expand the **Teamcenter Reports** folder to view the **Admin - CCC Item Report** summary report definition.

Step 12: Close **Report Builder** by clicking the **X** in the **Report Builder** tab.

Test the Admin - CCC Item Report summary report

Step 1: Click **My Teamcenter** in the navigation pane.

Step 2: Choose **Tools→Reports→Report Builder Reports**.

The **Report Generation Wizard** dialog box appears.

Step 3: From the **Name** column, select the **Admin - CCC Item Report** definition.

Step 4: Click **Next**.

Step 5: Type ***** (asterisk wildcard) in the **ID** box.

Step 6: Click **Finish** to generate the report.

Note

The following error may occur if a browser does not open the XML file by default:

```
This file does not have a program associated with it for performing this action.
```

If this occurs, open the file displayed in the error banner with another application to confirm the report data.

The report appears in the Internet browser in TC XML format.

Step 7: Review *your* file and find these TC XML elements:

- For COTS properties: **creation_date**, **object_name** and others.
- For new properties: **CCC_Category**, **CCC_Customer** and **CCC_Shipped**.

Step 8: Review this *sample* portion of a file for the TC XML elements.


```
  <?xml version="1.0" encoding="UTF-8" standalone="no" ?>
- <TcPLMXML xmlns="http://www.plmxml.org/Schemas/TcPLMXMLSchema">
  - <BOMView creation_date="2009-10-08T19:47:52Z" date_released="" elemId="id30"
      gov_classification="" ip_classification="" last_mod_date="2009-10-08T19:47:52Z"
      license_list="" object_name="000008-view" object_type="BOMView"
      owning_group="#id6" owning_site="#id3" owning_user="#id5" parent_item="#id12"
      project_list="" release_status_list="">
      <GSIdentity elemId="id15" label="UQGpc$BzxLJRsD" />
    </BOMView>
  - <CCC_Item CCC_Category="Best of Show" CCC_Customer="ACME" CCC_Shipped="Y"
      creation_date="2009-09-21T21:06:47Z" date_released="" elemId="id33"
      gov_classification="" ip_classification="" item_id="000004" last_mod_date="2009-
      10-09T14:50:08Z" license_list="" object_name="Item1" object_type="CCC_Item"
      owning_group="#id6" owning_site="#id3" owning_user="#id5" project_list=""
      release_status_list="">
      <GSIdentity elemId="id1" label="DrLp7tgjxLJRsD" />
    </CCC_Item>
```


Step 9: Close the Internet browser.

Step 10: Click **Close** to close the **Report Generation Wizard** dialog box.

Attach a style sheet

Activity: Attach a style sheet

In this activity, you:

- Add a report style sheet to format the report output into HTML

Launch the Attach a style sheet activity.

Related information

For more information, review these topics in the online help:

- *Attach a stylesheet to an existing Teamcenter report definition*

Import a report style sheet

Step 1: Click **Report Builder** in the navigation pane, or click the **Report Builder** tab.

Step 2: Expand the **Teamcenter Reports** folder.

Step 3: Select the **Admin - CCC Item Report** definition.

Step 4: Click the **Report Data** tab.

Step 5: Click **Import** in the middle area of **Report Stylesheets**.

The **Import Stylesheet** dialog box appears.

Step 6: Ensure **Dataset Type** is **HTML**.

Step 7: Click **Browse**.

Tip

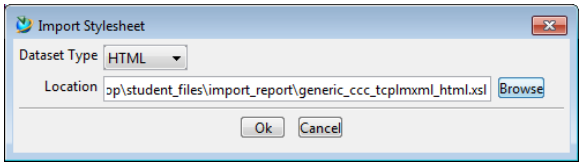
If you do not see the **Browse** button, make the dialog box wider.

Step 8: Navigate to the *STUDENT_HOME***import_report** folder.

Step 9: Locate and select the **generic_ccc_tcplmxml_html.xsl** style sheet.

Step 10: Click **Select**.

Step 11: Click **Ok** in the **Import Stylesheet** dialog box.



The **generic_ccc_tcplmxml_html.xsl** style sheet appears in the **Defined Stylesheets** list.

Attach the style sheet to the report

Step 1: Ensure the **Admin - CCC Item Report** definition is selected.

Step 2: In the **Defined Stylesheets** list, select **generic_ccc_tcplmxml_html.xsl**.

Step 3: Click **Add** .

generic_ccc_tcplmxml_html.xsl appears in the **Selected Stylesheets** list.

Step 4: Click **Modify** .

Step 5: Close **Report Builder** by clicking the **X** in the **Report Builder** tab.

Run the Admin - CCC Item Report summary report output

Step 1: Click **My Teamcenter** in the navigation pane.

Step 2: Choose **Tools**→**Reports**→**Report Builder Reports**.

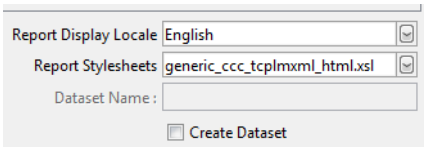
The **Report Generation Wizard** dialog box appears.

Step 3: From the **Name** column, select the **Admin - CCC Item Report** definition.

Step 4: Click **Next**.

Step 5: Type ***** (asterisk wildcard) in the **ID** box.

Step 6: Select **generic_ccc_tcplmxml_html.xsl** in the **Report Stylesheets** list.



Step 7: Click **Finish** to generate the report.

The report appears in the Internet browser.

Step 8: Review *your* report output property values in the Internet browser.

- COTS: **Object Name**, **Object ID**, and **Object ID**.
- New: **CustomerCategory**, **Shipped**, and **MakeBuy**.
- Other COTS properties.

Step 9: Review this *sample* portion of a file for property values.

Other COTS property values appear to the right of the Internet browser.

Business Objects Details

Object Name	Object ID	Object Type	Customer	Category	Shipped	MakeBuy
Item1	000004	CCC_Item	ACME	Best of Show	Y	
Comp2	000010	CCC_SampleItem	ACME			Make
Assm0	000008	CCC_SampleItem	ACME			Make
Comp1	000009	CCC_SampleItem	ACME			Make
Sample2	000006	CCC_SampleItem	ACME			Make
Sample1	000005	CCC_SampleItem	ACME			Buy

Step 10: Close the Internet browser.

Step 11: Click **Close** to close the **Report Generation Wizard** dialog box.

Section 17: PLM XML import and export

Create an item report definition

Activity: Create an item report definition

In this activity, you:

- Create a closure rule.
- Create a transfer mode.
- Create an item report definition to report items and item revisions found in a folder object.

Launch the Create an item report definition activity.

Related information

For more information, review these topics in the online help:

- *Create an item report definition*

Create a closure rule

Step 1: Click **PLM XML/TC XML Export Import Administration** in the navigation pane.

Note

As needed, use the **Configure Applications** » button at the bottom of the navigation pane to locate **PLM XML/TC XML Export Import Administration**.

Step 2: Select **ClosureRule** in the lower left pane.

Step 3: Type **CCC_folder_content_report** in the **Traversal Rule Name** box.

Step 4: Type **Closure rules for folder contents report** in the **Description** box.

Step 5: Select **Export** in the **Scope of Traversal** option.

Step 6: Select **PLMXML** in the **Output Schema Format** list.

Step 7: Click **Add** +.

Step 8: Define the **Primary Object** values.

a. Select **CLASS** in the **Primary Object Class Type** list.

b. Type **Folder** in the **Primary Object** box and press Enter.

Step 9: Define the **Secondary Object** values.

a. Select **CLASS** in the **Secondary Object Class Type** list.

b. Type **WorkspaceObject** in the **Secondary Object** box and press Enter.

Step 10: Define the **Relation** values.

a. Select **ATTRIBUTE** in the **Relation Type** list.

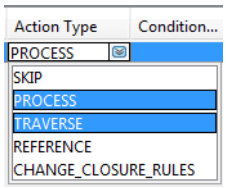
b. Type **contents** in the **Related Property or Object** box and press Enter.

Step 11: Select the **Action Type** values.

a. Click the **Action Type** drop-down arrow.

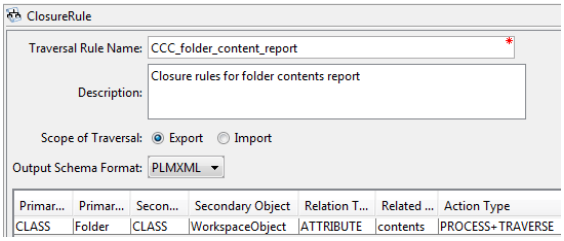
b. Press the Shift key.

c. Select **TRAVERSE** and **PROCESS**.



d. Press Enter.

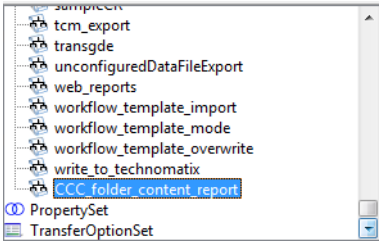
e. Verify the **ClosureRule** values.



Step 12: Click **Create** .

After a few seconds, the new closure rule appears in the list.

Step 13: Double-click (expand) the **ClosureRule** tree and scroll to the bottom to see the new closure rule.



Create a transfer mode

Create a transfer mode object for the folder report definition.

Step 1: Select **TransferMode** in the lower left pane.

Step 2: Type **CCC_folder_content_report** in the **Name** box.

Step 3: Type **DEFAULT_PIE_CONTEXT_STRING** in the **Context** box.

Step 4: Type **Transfer mode for folder contents report** in the **Description** box.

Step 5: Select **Export** in the **Type of Transfer** option.

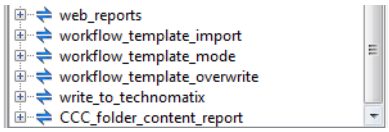
Step 6: Select **PLMXML** in the **Output Schema Format** list.

Step 7: Select **CCC_folder_content_report** in the **Closure Rule** option.

Step 8: Click **Create** .

After a few seconds, the new transfer mode appears in the list.

Step 9: Double-click (expand) the **TransferMode** and **PLM XML Import Export Modes** trees to see the **CCC_Folder_content_report** transfer mode.



Create an item report definition

Create an item report definition using the transfer mode that was just created as the data source.

Step 1: Click **Report Builder** in the navigation pane.

Step 2: Choose **File→Create Report**.

The **Create Report Definition Template** dialog box appears.

Step 3: Select **Item Report** and click **Next**.

Step 4: Click **Assign** to automatically assign an ID.

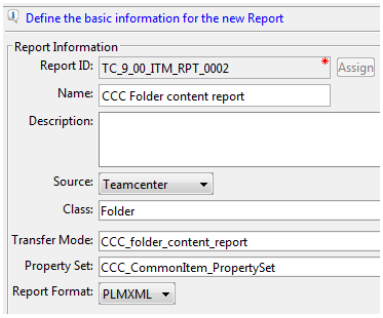
Step 5: Type **CCC Folder content report** in the **Name** box.

Step 6: Select **Folder** in the **Class** list.

Step 7: Select **CCC_folder_content_report** in the **Transfer Mode** list.

Step 8: Select **CCC_CommonItem_PropertySet** in the **Property Set** list.

Step 9: Verify the **Item Report** settings.



Step 10: Click **Finish**.

Step 11: Click **Close** to close the **Create Report Definition Template** dialog box.

Test the item report output

Test the **CCC Folder content report** item report output.

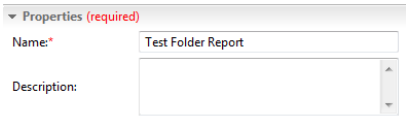
Step 1: In My Teamcenter, select your **Home** folder.

Step 2: Choose **File→New→Folder**.

Step 3: Select **Folder**.

Step 4: Select **Next**.

Step 5: In **Name**, type **Test Folder Report**.



Step 6: Click **Finish**.

Step 7: Click **Cancel**.

Step 8: Copy and paste several items and item revisions references into the test folder.

Step 9: Right-click the test folder and choose **Generate Report**.

The **Report Generation Wizard** dialog box appears.

Step 10: Select the **CCC_folder_content_report** report.

Step 11: Click **Next**.

Step 12: Click **Finish** to generate the report.

The report appears in the Internet browser in PLM XML format.

Note

A style sheet can be attached so that the report is displayed in a more readable, cleaner format.

Step 13: Close the Internet browser and the **Report Generation Wizard** dialog box.

Import objects using the PLM XML import utility

Activity: Import objects using the PLM XML import utility

In this activity, you use the **plmxml_import** utility to import the following:

- An Excel spreadsheet.
- A Teamcenter query.

- An assembly.

Launch the Import objects using the PLM XML import utility activity.

Related information

For more information, review these topics in the online help:

- *Utility: plmxml_import*

Import an Excel spreadsheet

Step 1: On your desktop, choose **Start**→**All Programs**→**Teamcenter 10**→*tc_TC101svr* **Command Prompt**.

tc_TC101svr is the node ID and depends on the installation.

Step 2: In the *tc_TC101svr* **Command Prompt**, change the directory to the *STUDENT_HOME***import_plmxml** directory.

Step 3: Type the following command:

```
plmxml_import -u=jgordon -p=jgordon -g=dba -xml_file=TcSE-DatabaseContents.xml -transfermo
```

Step 4: Press Enter.

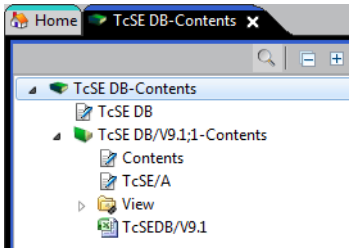
Warning

Wait until the script completes before moving on to the next step.

Step 5: Verify the import by first opening the My Teamcenter application.

Step 6: To search for the imported items, type **TcSE DB** in the quick **Search** box at the top of the navigation pane and click **Perform Search**.

Step 7: Expand the document revision to see the complete document structure brought in by the import, including the Excel spreadsheet, **TcSEDB/V9.1**.



Import a Teamcenter query

Step 1: In the *tc_TC101svr* **Command Prompt**, verify that you are in the *STUDENT_HOME***import_plmxml** directory.

Step 2: Type the following command:

```
plmxml_import -u=jgordon -p=jgordon -g=dba -xml_file=is_accepted.xml -import_mode=overwrit
```

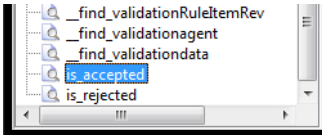
Step 3: Press Enter.

Warning

Wait until the script completes before moving on to the next step.

Step 4: Verify the import by first opening the Query Builder application.

Step 5: Scroll to the bottom of the **Saved Queries** tree and locate the import query, **is_accepted**.



Import an assembly

Step 1: In the *tc_TC101svr* **Command Prompt**, verify that you are in the *STUDENT_HOME***import_plmxml** directory.

Step 2: Type the following command:

```
plmxml_import -u=jgordon -p=jgordon -g=dba -xml_file=NI9201.xml -transfermode=ConfiguredDa
```

Note

Notice the transfer mode used for this import. The **ConfiguredDataImportDefault** transfer mode imports configured BOM assemblies including structure, forms, datasets, folders, occurrences, predecessors, activities, folders, variant conditions, and transformations.

Step 3: Press Enter.

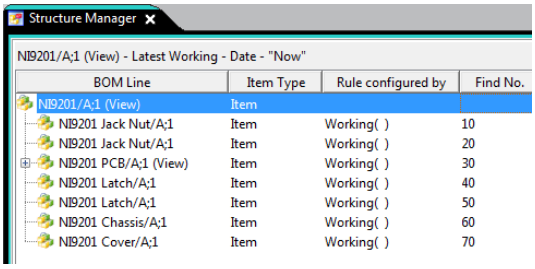
Warning

Wait until the script completes before moving on to the next step.

Step 4: Verify the import by first opening the Structure Manager application.

Step 5: To search for the imported items, type **NI9201** in the quick **Search** input box at the top of the navigation pane and click **Perform Search**.

Step 6: Select the **NI9201** item in the **Quick Open Results** window and click **Open** to view the imported assembly.



Section 18: Introduction to Workflow Designer

Create a multitask process

Activity: Create a multitask process

In this activity, you create a new multitask process template that includes signoffs for release approval.

Launch the Create a multitask process activity.

Related information

For more information, review these topics in the online help:

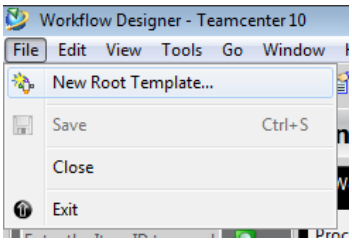
- *Adding tasks to workflow process templates*

Create a new process template

Step 1: If necessary, log on to Teamcenter using ***jgordon*** (password ***jgordon***).

Step 2: Click **Workflow Designer** in the navigation pane.

Step 3: Choose **File→New Root Template**.

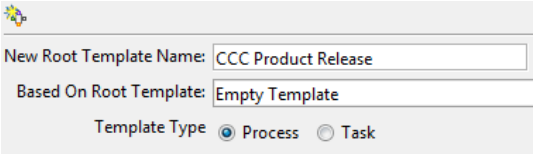


The **New Root Template Dialog** appears.

Step 4: Verify that the **Process** option is selected in **Template Type**.

Step 5: Type **CCC Product Release** in the **New Root Template Name** box.

Step 6: Verify that the **Based on Root Template** box is set to **Empty Template**.



Step 7: Click **OK**.

The **Workflow Designer** perspective changes to show the beginning process flow of the **CCC Product Release** process template.

Create the process tasks

Step 1: Select **Do Task Template** on the toolbar.

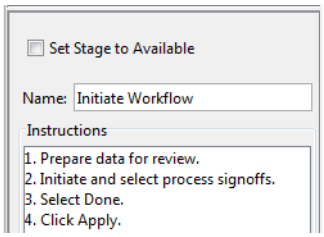
Step 2: Double-click in the process flow, immediately to the right of the green **Start** task.

A **New Do Task 1** is created.

Step 3: Type **Initiate Workflow** in the **Name** box and press Enter.

Step 4: Type the following in the **Instructions** box:

1. **Prepare data for review.**
2. **Initiate and select process signoffs.**
3. **Select Done.**
4. **Click Apply.**



Step 5: Select **Review Task Template** on the toolbar.

Step 6: Double-click in the process flow, immediately to the right of the **Initiate Workflow** task.

A **New Review Task 1** is created.

Step 7: Type **Design Review** in the **Name** box and press Enter.

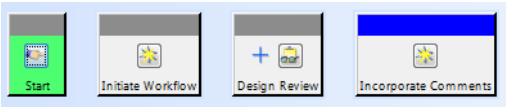
Step 8: Select **Do Task Template** on the toolbar.

Step 9: Repeat the procedure to create the **Incorporate Comments** as a **Do Task Template**.

a. Select **Do Task Template** on the toolbar.

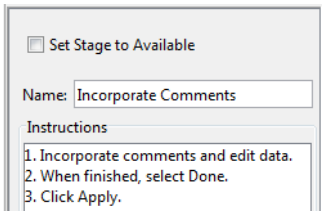
b. Double-click in the process flow, immediately to the right of the **Design Review** task.

c. Type **Incorporate Comments** in the **Name** box and press Enter.



Step 10: Type the following in the **Instructions** box:

1. **Incorporate comments and edit data.**
2. **When finished, select Done.**
3. **Click Apply.**



Step 11: Repeat the procedure to create two *review* tasks as **Review Task Templates** (the results are shown in the image below).

- **Standards Review**
- **Manufacturing Review**

Create the **Standards Review**.

a. Select **Review Task Template** on the toolbar.

b. Double-click in the process flow, immediately to the right of the **Incorporate Comments** task.

c. Type **Standards Review** in the **Name** box and press Enter.

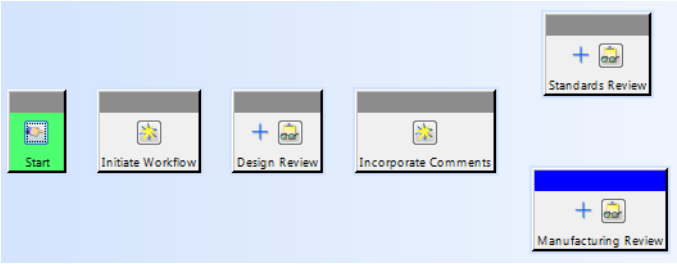
Create the **Manufacturing Review**.

a. Select **Review Task Template** on the toolbar.

b. Double-click in the process flow, immediately to the right of the **Incorporate Comments** task.

c. Type **Manufacturing Review** in the **Name** box and press Enter.

Arrange the two new **Review Task Templates** as shown.



Step 12: Select **Acknowledge Task Template** on the toolbar.

Step 13: Double-click in the process flow, after the **Standards Review** and **Manufacturing Review** tasks.

Tip

If you need more room to place new tasks, drag the **Finish** task to the right. A task can be repositioned by clicking the top part of the task and dragging it to a new location.

A **New Acknowledge Task 1** is created.

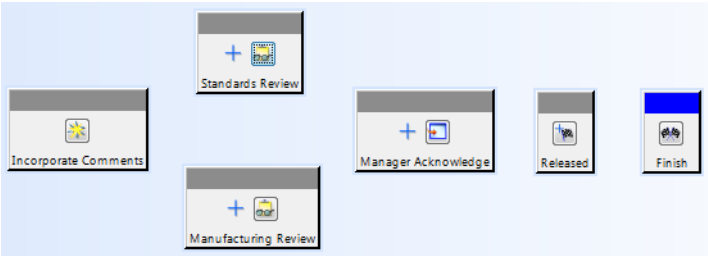
Step 14: Type **Manager Acknowledge** in the **Name** box and press Enter.

Step 15: Select **Add Status Task Template** on the toolbar.

Step 16: Double-click in the process flow, immediately to the right of the **Manager Acknowledge** task.

A **New Add Status Task 1** is created.

Step 17: Type **Released** in the **Name** box and press Enter.



Link the tasks from Start to Finish

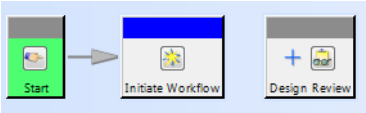
Step 1: Link the **Start** task to the **Initiate Workflow** task.

a. Place the mouse cursor in the **Start** task and press and hold the left mouse button.

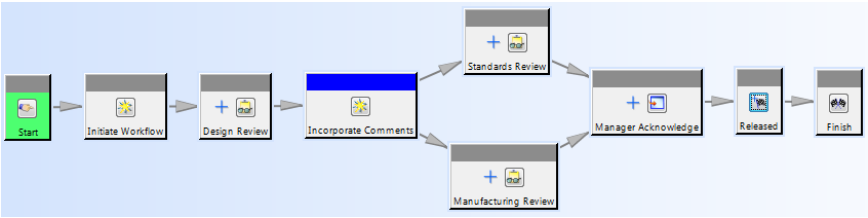
b. Drag the cursor to the **Initiate Workflow** task.

Tip: Place the mouse cursor in the lower portion of the task boxes, not the box gray banner.

An arrow should appear between the two tasks indicating they are linked.



Step 2: Repeat the process until all tasks are linked.



Tip: A task can be repositioned by clicking the top part of the task and dragging it to a new location.

Step 3: Click on the toolbar to save the workflow.

Section 19: Building workflow process templates

Define reviewer profiles

Activity: Define reviewer profiles

In this activity, you select the groups and roles for the proper signoff team in the **Design Review**, **Standards Review**, and **Manufacturing Review** tasks.

Launch the Define reviewer profiles activity.

Related information

For more information, review these topics in the online help:

- *Using Review tasks*

Select the signoff team for the Design Review task

Step 1: Verify that **Edit Mode** is active.

Step 2: Select the **CCC Product Release** process in the **Process Template** box.

Step 3: Choose **View→Expand Below**.

Step 4: Click **Yes** to continue.

Step 5: Select **select-signoff-team** in the **Design Review** task.

Step 6: Click **Display the Task Signoffs Panel** at the bottom of the pane.

The **Signoff Profiles** dialog box appears.

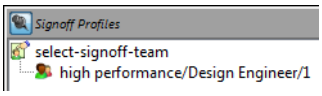
Step 7: Select **high performance** in the **Group** list.

Step 8: Select **Design Engineer** in the **Role** list.

Step 9: Leave **1** in the **Number of Reviewers** box.

Step 10: Click **Create**.

A Design Engineer from the high performance group is added to the signoff team.



Step 11: Close the **Signoff Profiles** dialog box.

Select the signoff team for the Standards Review task

Step 1: Select **select-signoff-team** in the **Standards Review** task.

Step 2: Click **Display the Task Signoffs Panel** at the bottom of the pane.

The **Signoff Profiles** dialog box appears.

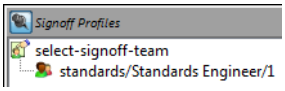
Step 3: Select **standards** in the **Group** list.

Step 4: Select **Standards Engineer** in the **Role** list.

Step 5: Leave **1** in the **Number of Reviewers** box.

Step 6: Click **Create**.

A Standards Engineer from the standards group is added to the signoff team.



Step 7: Close the **Signoff Profiles** dialog box.

Select the signoff team for the Manufacturing Review task

Step 1: Select **select-signoff-team** in the **Manufacturing Review** task.

Step 2: Click **Display the Task Signoffs Panel** .

The **Signoff Profiles** dialog box appears.

Step 3: Select **high performance** in the **Group** list.

Step 4: Select **Manufacturing Engineer** in the **Role** list.

Step 5: Leave **1** in the **Number of Reviewers** box.

Step 6: Click **Create**.

A Manufacturing Engineer from the high performance group is added to the signoff team.

Step 7: Close the **Signoff Profiles** dialog box.

Create a status configuration

Activity: Create a status configuration

In this activity, you add a status to the process.

Launch the Create a status configuration activity.

Related information

For more information, review these topics in the online help:

- *EPM-create-status*

Define the release status to be applied at the completion of the process

Step 1: In the **Template tree**, select the **Released** task.

Step 2: Click the **Display the Task Attributes Panel** button at the bottom of the pane.

The **Attributes** dialog box appears.

Step 3: Verify that the **Release Status** box is set to **TCM Released**. If not, select **TCM Released** from the drop-down list.

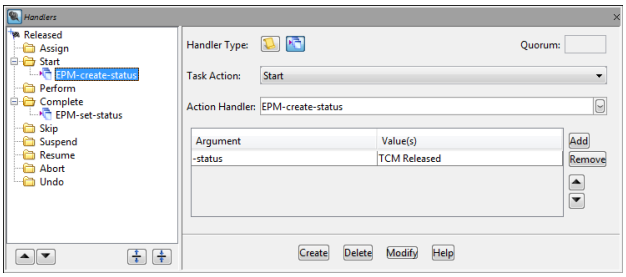
Step 4: Close the **Attributes** dialog box.

Step 5: Click the **Display the Task Handlers Panel** button at the bottom of the pane.

The **Handlers** dialog box appears.

Step 6: Expand the **Start** folder and select the **EPM-create-status** handler.

Step 7: Verify that the **TCM Released** argument value is in the **Start** action.



Step 8: Close the **Handlers** dialog box.

Add a resource pool to the signoff task

Activity: Add a resource pool to the signoff task

In this activity, you add a resource pool to allow any manager of the high performance group to accept responsibility of the signoff task.

Launch the Add a resource pool to the signoff task activity.

Related information

For more information, review these topics in the online help:

- *EPM-notify-report*

Configure a resource pool signoff task for the Manager Acknowledge task

Step 1: Verify that **Edit Mode** is active.

Step 2: Select **select-signoff-team** in the **Manager Acknowledge** task.

Step 3: Click **Display the Task Signoffs Panel** at the bottom of the pane.

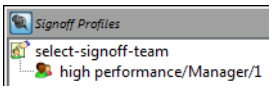
The **Signoff Profiles** dialog box appears.

Step 4: Select **high performance** in the **Group** list.

Step 5: Select **Manager** in the **Role** list.

Step 6: Click **Create**.

A Manager from the high performance group is added to the signoff team of the **Manager Acknowledge** task.



Step 7: Close the **Signoff Profiles** dialog box.

Add a handler to fill the reviewer from a resource pool

Step 1: Click the **Display the Task Handlers Panel** button at the bottom of the pane.

The **Handlers** dialog box appears.

Step 2: Select the **Start** action folder.

Step 3: To the right of the **Action Handler** box, select **EPM-fill-in-reviewers** from the drop-down list.

Step 4: Type **assignee** in the existing row of the **Argument** table.

Step 5: Type **resourcepool:high performance::Manager** in the **Value(s)** column.

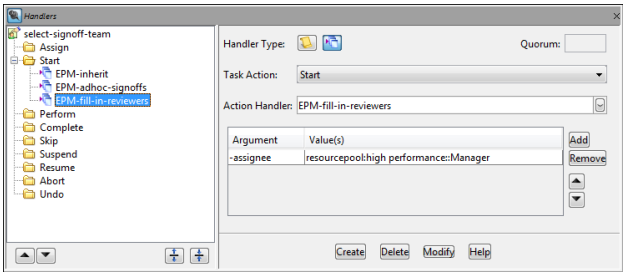
Warning

Handlers arguments are case sensitive. Verify that the group and roles names match those in the Organization application.

Step 6: Click **Create** at the bottom of the **Argument** table to add the handler to the **Start** folder action.

Tip

Select **EPM-fill-in-reviewers** to confirm the argument and value.



Step 7: In the **Start** folder, select **EPM-adhoc-signoffs** and click **Delete** at the bottom of the **Argument** table to remove that handler.

Step 8: Close the **Handlers** dialog box.

The task assigned to a resource pool appears in the **Task to Perform** folder and **Task to Track** folder of the **Manager** role in the **high performance** group. Any member of the resource pool can then accept responsibility and perform the task.

Add rules-based access for Workflow

Activity: Add rules-based access for Workflow

In this activity, you create new ACLs for editing and review tasks and select the accessors' privileges to work in the process.

Launch the Add rules-based access for Workflow activity.

Related information

For more information, review these topics in the online help:

- *EPM-set-rule-based-protection*

Add a write access rule to the Initiate Workflow task

Step 1: Verify that **Edit Mode** is active.

Step 2: Select the **Initiate Workflow** task.

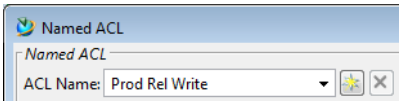
Step 3: Click the **Display the Task Attributes Panel** button at the bottom of the pane.

The **Attributes** dialog box appears.

Step 4: In the **Attributes** dialog box, click **Named ACL**.

Step 5: In the **Named ACL** dialog box, click the **Display workflow named ACL** button to display the workflow **Named ACLs**.

Step 6: Type **Prod Rel Write** in the **ACL Name** box and press Enter.



Step 7: In the **Named ACL** dialog box, click **Create**

Step 8: Click **Add access control entry to ACL** on the right side of the access control table.

Step 9: Double-click **Type of Accessor** and select **Owning User**.

Step 10: Double-click the cell corresponding to the **Read** privilege and select to grant this privilege.

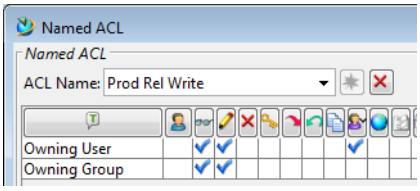
Step 11: Repeat to add **Write** and **Change Ownership** privileges.

Step 12: Click **Add** on the right side of the access control table to add another row.

Step 13: Double-click **Type of Accessor** and select **Owning Group**.

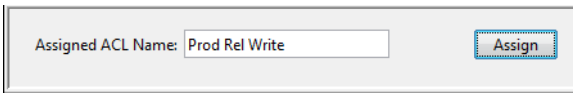
Step 14: Double-click the cell corresponding to the **Read** privilege and select to grant this privilege.

Step 15: Repeat to add the **Write** privilege.



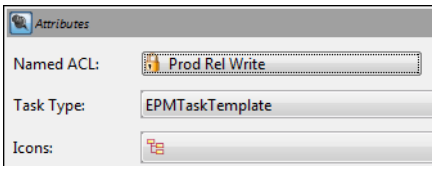
Step 16: Click **Save**.

Step 17: Click **Assign**.



Step 18: Close the **Named ACL** dialog box.

The **Prod Rel Write** access rule is assigned to the **Initiate Workflow** task.



Step 19: Close the **Attributes** dialog box.

Add the Prod Rel Write access rule to the Incorporate Comments task

Step 1: Select the **Incorporate Comments** task.

Step 2: Click the **Display the Task Attributes Panel** button at the bottom of the pane.

The **Attributes** dialog box appears.

Step 3: Click **Named ACL** .

The **Named ACL** dialog box appears.

Step 4: In the **Named ACL** dialog box, click the **Display workflow named ACL** button to display the workflow **Named ACLs**.

Step 5: Select **Prod Rel Write** from the list.

Step 6: Click **Assign**.

Step 7: Close the **Named ACL** dialog box.

The **Prod Rel Write** access rule is assigned to the **Incorporate Comments** task.

Step 8: Close the **Attributes** dialog box.

Create a Named ACL rule to limit the privileges for the Review tasks

Step 1: Select the **Manager Acknowledge** task.

Step 2: Click the **Display the Task Attributes Panel** button at the bottom of the pane.

The **Attributes** dialog box appears.

Step 3: Click **Named ACL** .

The **Named ACL** dialog box appears.

Step 4: Type **Prod Rel Lock** in the **ACL Name** box and click **Create** .

Step 5: Click **Add** on the right side of the access control table.

Step 6: Double-click **Type of Accessor** and select **Role**.

Step 7: Select **Manager** in the **ID of Accessor** list.

Step 8: Double-click the cell corresponding to the **Read** privilege and select to grant this privilege.

Step 9: Repeat to add **Promote** and **Demote** privileges.

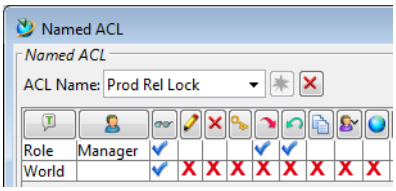
Step 10: Click **Add** on the right side of the access control table to add another row.

Step 11: Double-click the **Type of Accessor** and select **World**.

Step 12: Double-click the cell corresponding to the **Read** privilege and select to grant this privilege.

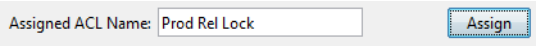
Step 13: Double-click the cell corresponding to the **Write** privilege and select to deny the **Write** privilege.

Step 14: Repeat to deny **Delete**, **Change**, **Promote**, **Demote**, **Copy**, **Change Ownership**, and **Publish** privileges.



Step 15: Click **Save** .

Step 16: Click **Assign**.



Step 17: Close the **Named ACL** dialog box.

The **Prod Rel Lock** access rule is assigned to the **Manager Acknowledge** task.

Step 18: Close the **Attributes** dialog box.

Assign the Prod Rel Lock ACL rule to other tasks

Step 1: Repeat Task 2 to assign the **Prod Rel Lock** ACL rule to the **Design Review**, **Standards Review,** and **Manufacturing Review** tasks.

If a task has the **Vault** ACL rule attached, overwrite the rule with the **Prod Rel Lock** ACL rule.

Tip

Click the **Display workflow named ACL** button to locate the **Prod Rel Lock** ACL rule.

Use task handlers

Activity: Use task handlers

In this activity, you add the required handlers to the workflow functionality and add the handlers needed to attach various types of data to the **CCC Product Release** process.

Launch the Use task handlers activity.

Related information

For more information, review these topics in the online help:

- *Workflow handlers*

Add the EPM-assert-targets-checked-in rule handler to the Initiate Workflow task

Step 1: Verify that **Edit Mode** is active.

Step 2: Select the **Initiate Workflow** task.

Step 3: Click **Display the Task Handlers Panel** button at the bottom of the pane.

The **Handlers** dialog box appears.

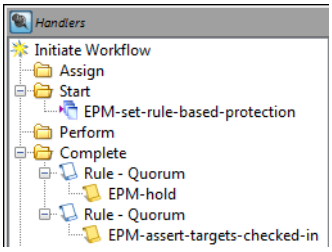
Step 4: Select the **Complete** task action folder.

Step 5: For **Handler Type**, click **Rule Handler**.

Step 6: To the right of the **Rule Handler** box, select **EPM-assert-targets-checked-in** from the drop-down list.

Step 7: Click **Create** at the bottom of the dialog box.

The **EPM-assert-targets-checked-in** rule handler is added to the **Complete** folder.



Step 8: Close the **Handlers** dialog box.

Add the EPM-assert-targets-checked-in handler to the Incorporate Comments task

Step 1: Repeat the steps in the previous task to add the **EPM-assert-targets-checked-in** handler to the **Incorporate Comments** task.

Add EPM-demote-on-reject to the Standards Review task

Step 1: Expand the **Standards Review** task.

Step 2: Select the **perform-signoffs** subtask.

Step 3: Click the **Display the Task Handlers Panel** button.

Step 4: Select the **Perform** action folder.

Step 5: For **Handler Type**, click **Action Handler** .

Step 6: To the right of the **Action Handler** box, select **EPM-demote-on-reject** from the drop-down list.

Step 7: Click **Create** at the bottom of the **Handlers** dialog box.

The **EPM-demote-on-reject** handler is added to the **Perform** action folder.

Step 8: Close the **Handlers** dialog box.

Add an argument to the EPM-demote handler to the Standards Review task

Step 1: Select the **Standards Review** task.

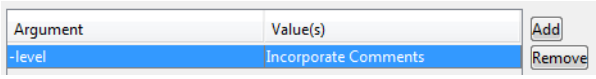
Step 2: Click the **Display the Task Handlers Panel** button.

Step 3: Expand the **Undo** action folder.

Step 4: Select the **EPM-demote** handler.

Step 5: Click **Add** to the right of the **Handlers** dialog box to add a row in the **Arguments** table.

Step 6: Type **level** in the **Argument** column and **Incorporate Comments** in the **Value(s)** column.



Handlers arguments are case sensitive. The **–level** argument specifies the task name that the process is demoted to.

Step 7: Click **Modify** at the bottom of the **Handlers** dialog box.

The argument is added to the **EPM-demote** handler.

Tip

Select **EPM-demote** to confirm the argument and value.

Step 8: Close the **Handlers** dialog box.

Add EPM-demote-on-reject handler and an argument to the EPM-demote handler to the Manufacturing Review task

Step 1: Repeat the steps in the previous two tasks to add the **EPM-demote-on-reject** handler and an argument to the **EPM-demote** handler to the **Manufacturing Review** task.

Add the EPM-disallow-adding-targets and EPM-disallow-removing-targets handlers to the Standards Review task

Step 1: Select the **Standards Review** task.

Step 2: Click **Display the Task Handlers Panel** .

Step 3: Select the **Perform** action folder.

> **Note**
>
> It is good practice to add this handler to the root task of the Perform action. This prevents target objects from being removed from a workflow process once it is started.

Step 4: For **Handler Type**, click **Rule Handler** .

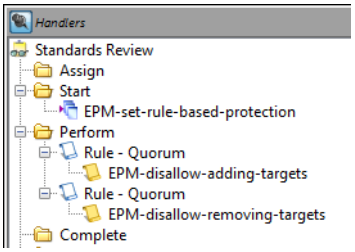
Step 5: To the right of the **Rule Handler** box, select **EPM-disallow-adding-targets** from the drop-down list.

Step 6: Click **Create** at the bottom of the **Handlers** dialog box.

The **EPM-disallow-adding-targets** rule handler appears in the **Perform** action folder.

Step 7: Repeat the process to add the **EPM-disallow-removing-targets** rule handler to the **Perform** action folder.

Both rule handlers appear in the **Perform** action folder.



Step 8: Close the **Handlers** dialog box.

Add EPM-disallow-adding-targets and EPM-disallow-removing-targets handlers to the Manufacturing Review task

Step 1: Repeat the steps in the previous task to add **EPM-disallow-adding-targets** and **EPM-disallow-removing-targets** handlers to the **Manufacturing Review** task.

Add special handlers to the Initiate Workflow task

Step 1: Select the **Initiate Workflow** task.

Step 2: Click the **Display the Task Handlers Panel** button at the bottom of the pane.

The **Handlers** dialog box appears.

Step 3: Select the **Complete** action folder.

Step 4: To the right of the **Action Handler** box, select **EPM-attach-related-objects** from the drop-down list.

Step 5: Type **relation** in the **Argument** column.

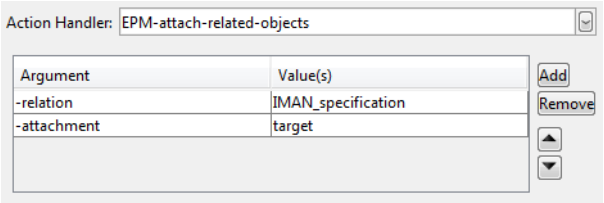
Step 6: Type **IMAN_requirement** in the **Value(s)** column.

Handlers arguments and values are case sensitive.

Step 7: Click **Add** to the right of the **Handlers** dialog box to add a row in the **Arguments** table.

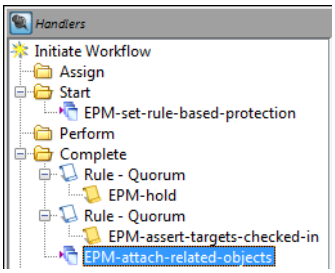
Step 8: Type **attachment** in the **Argument** column.

Step 9: Type **target** in the **Value(s)** column.



Step 10: Click **Create** at the bottom of the **Argument** table to add the handler.

The **EPM-attach-related-objects** handler is added to the **Complete** action folder.



Tip

Select the **EPM-attach-related-objects** to confirm the arguments and values.

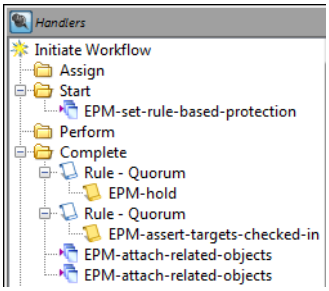
Step 11: Repeat the process to add the following values to the **Complete** action folder.

Action handler	Argument	Value
EPM-attach-related-objects	**relation**	**IMAN_specification**
	attachment	**target**

Tip

You can select the previous **EPM-attach-related-objects** handlers, change the values, and then click **Create**.

The **Complete** action folder of **Initiate Workflow** is configured to attach the required data.



Step 12: Close the **Handlers** dialog box.

Test the multitask process template

Activity: Test the multitask process template

In this activity, you:

- Test the **CCC Product Release** process template by first initiating a process targeting a **CCC_Item Revision**.
- Complete the review tasks.
- Obtain a **TCM Released** status for the targeted data.

Launch the Test the multitask process template activity.

Related information

For more information, review these topics in the online help:

- *Initiate a workflow process*

Make the CCC Product Release workflow available to the users

Step 1: Select the **Set Stage to Available** check box.

The **Stage Change** dialog box appears.

Step 2: Click **Yes**.

Create a new CCC_Item

Step 1: Return to your **Home** folder by clicking the **Home** quick link in the navigation pane.

Step 2: Make sure your **Home** folder is selected.

Step 3: Choose **File→New→Item**.

The **New Item** dialog box appears.

Step 4: Select **CCC_Item** as the item type to create.

Step 5: Click **Next**.

Step 6: Click **Assign** to assign a system generated ID.

Step 7: In the **Name** box, type **CCC Product Release**.

Step 8: Click **Finish**.

The **CCC Product Release** item is created in the **Home** folder.

Step 9: Click **Cancel**.

Create a MSWord dataset for the CCC Product Release item

Step 1: Expand the **CCC Product Release** item.

Step 2: Select the **CCC Product Release** item revision.

Step 3: Choose **File→New→Dataset**.

The **New Dataset** dialog box appears.

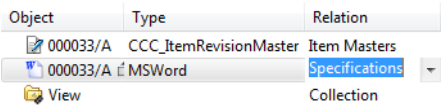
Step 4: Click **More** and select **MSWord** as the dataset type.

Step 5: Verify the **Open on Create** check box is not selected.

Step 6: Click **OK**.

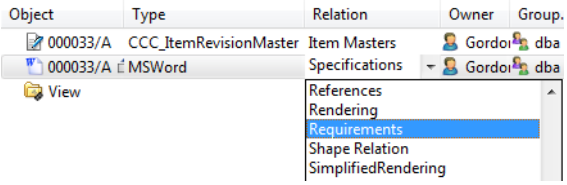
Change the relation type for the MSWord dataset from Specifications to Requirements

Step 1: From the **Details** tab, click the box that corresponds to the **Relation** attribute for the **MSWord** dataset. It displays the **Specifications** relation type.



Step 2: Click .

A list of the available relation types appears.



Step 3: Select **Requirements**.

Initiate an approval process for a CCC item revision

Step 1: Select the **CCC Product Release** item revision and choose **File→New→Workflow Process** or press Ctrl + P.

The **New Process Dialog** appears.

Step 2: Select **CCC Product Release** in the **Process Template** list.

Assign all tasks for the signoff teams

Note

Use the following method to select the signoff team, but an alternative method not used in the class is to create an assignment list prior to starting the workflow to preselect the signoff team.

Step 1: Click the **Assign All Tasks** tab.

The **CCC Product Release** process expands to show all the locations of the **select-signoff-team** tasks.

Step 2: In the **Profiles** list for the **Design Review** task, select **high performance/Design Engineer/1**.

Step 3: Set **User** to **Randy Wallace** and click **Add**.

Step 4: Repeat the process to assign the remaining users listed in the following table to the corresponding process task.

User	Group	Role
Debbie Jarrett	**standards**	**Standards Engineer**
Jay Burton	**high performance**	**Manufacturing Engineer**

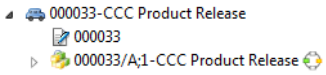
Note

Remember that **Manager Acknowledge** is automatically assigned to a resource pool so a user will not be assigned at this point.

Finalize process initiation

Step 1: When all the signoff teams have been assigned, click **OK** to start the process.

The in-process state symbol appears on target objects (you may need to refresh the window).



Complete the Initiate Workflow task

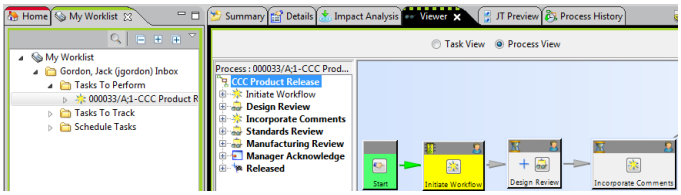
Step 1: Click **My Worklist** in the navigation pane.

Step 2: Expand the **Inbox** folder and then the **Tasks to Perform** folder.

Step 3: Select the **Initiate Workflow** task.

Step 4: Click the **Viewer** tab and select **Process View**.

The **Viewer** tab shows the full process and identifies (in yellow) the current task to be performed.



Step 5: Select **Task View**.

Step 6: Select **Done: Complete**.

Step 7: Click **Apply**.

Step 8: Notice that the **perform-signoffs** task is in your **Tasks to Track** folder.

You have initiated the process.

Log on as each user and complete all the reviewer tasks

In this step, you log on to Teamcenter as each user, go to **My Worklist**, expand the **Tasks to Perform** folder, select the **perform-signoff** task, set the display to the **Viewer** tab, and approve the task by clicking the **No Decision** link in the **Decision** column.

Step 1: First, log off from Teamcenter.

Step 2: Log on to Teamcenter using the **rwallace** account.

Step 3: Perform the following to approve the **Design Review** task:

- Go to **My Worklist**.
- Expand the **Inbox** folder and then the **Tasks to Perform** folder.
- Select the **perform-signoff** task.
- Click the **Viewer** tab and select **Task View**.
- Click the **No Decision** link in the **Decision** column.

  The **Signoff Decision** dialog box appears.
- Select **Approve**.
- Click **OK**.

Step 4: Log off and then log back on to Teamcenter using the ***jgordon*** account.

Step 5: Confirm completion of the **Incorporate Comments** task by selecting **Done: Complete** and then clicking **Apply**.

Step 6: Log off from Teamcenter.

Step 7: Log on to Teamcenter using the **djarrett** account.

Step 8: Approve the **Standards Review** task and then log off from Teamcenter.

Step 9: Log on to Teamcenter using the **jburton** account.

Step 10: Approve the **Manufacturing Review** task and then log off from Teamcenter.

Step 11: Log on to Teamcenter using the **mandretti** account.

Step 12: Open **My Worklist**, expand the **Inbox** folder, and then the **Tasks to Perform** folder.

Note

Because the **Manager Acknowledge** signoff was set to a resource pool and was not assigned a user at the beginning of the workflow, there are no tasks in the **Tasks to Perform** folder.

Step 13: Choose **Tools→Resource Pool Subscription**.

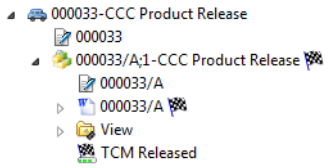
Step 14: Set **Group** to **high performance** and **Role** to **Manager** and click **Add**.

Step 15: Click **Cancel** to close the **Resource Pool Subscription** dialog box.

Step 16: Expand **high performance/Manager Inbox** and then the **Tasks to Perform** folder.

Step 17: Acknowledge the **Manager Acknowledge** task and then log off from Teamcenter.

Step 18: Log on to Teamcenter using the ***jgordon*** account and verify that the targeted **CCC_Item Revision** data has obtained the **TCM Released** status.



Section 20: Workflow sharing and additional paths

Import the is_rejected query definition

Activity: Import the is_rejected query definition

In this activity, you import the **is_rejected** query definition to the database, which will be used as a conditional query for workflow processes.

Launch the Import the is_rejected query definition activity.

Related information

For more information, review these topics in the online help:

- *Import query definitions*

If necessary, log on to Teamcenter

Step 1: Choose **Start→All Programs→Teamcenter 10→Teamcenter 10**.

Step 2: Type *jgordon* in the **User ID** box.

Step 3: Type *jgordon* in the **Password** box.

Step 4: Click **Login**.

The Teamcenter application is started.

Step 5: Verify your Teamcenter session has the following group and role.

If not, click your current session information and set **Group** to **dba** and **Role** to **DBA**.

Import the is_rejected query definition

Step 1: Click **Query Builder** in the navigation pane.

Step 2: Click the **Import** button in the **Query Builder** dialog box.

The **Import** dialog box appears.

Step 3: Click the **Browse** button on the lower right of the **Import** dialog box.

The **Read Query Definition** dialog box appears.

Step 4: Browse to the *STUDENT_HOME***import_queries** folder.

Step 5: Select the **is_rejected.xml** file and click the **Import** button.

The system displays the contents of the XML file in the **Import** dialog box.

Step 6: Click the **Verify** button.

The system verifies that the XML is organized properly and that classes used in the query exist in the database. If it is not, an error message describes the discrepancies.

Step 7: Click **OK** to load the query in the **Saved Query** tree and dismiss the **Import** dialog box.

Step 8: Click **Create**.

The **is_rejected** query is listed in the **Saved Queries** tree.

Step 9: Repeat the previous steps to import the following file:

*STUDENT_HOME***import_queries\user_data_3_equal_MAKE.xml**

The **user_data_3_equal_MAKE** query is listed in the **Saved Queries** tree.

Step 10: Close the Query Builder application.

Import process templates

Activity: Import process templates

In this activity, you import several process templates using a file definition.

Launch the Import process templates activity.

Related information

For more information, review these topics in the online help:

- *Import workflow templates*

Import the process file definition

Step 1: Start **Workflow Designer**.

Step 2: Choose **Tools**→**Import**.

The **Import Workflow Templates** dialog box appears.

Step 3: To the right of **Import File** box, click the browse button.

The **Select Directory** dialog box appears.

Step 4: Browse to your *STUDENT_HOME***import_workflow** directory and locate the **CCC_import_templates.xml** file.

Step 5: Select **CCC_import_templates.xml** and click **Select**.

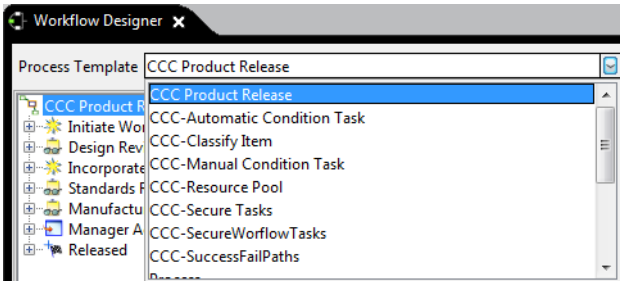
Step 6: Click **OK** in the **Import Workflow Templates** dialog box.

Wait for the **Import Completed** dialog box indicating the import is complete.

Step 7: Click **No** to close the **Import Completed** dialog after the import is complete.

Review the appended workflow processes

Step 1: Select the **Process Template** drop-down button to verify the new templates.



New processes starting with **CCC** were imported into the database.

Create workflow failure path process

Activity: Create workflow failure path process

In this activity, you use Workflow Designer to create workflow failure path process.

Launch the Create workflow failure path process activity.

Related information

For more information, review these topics in the online help:

- *Basic concepts for using Workflow Designer*

Load the CCC–SuccessFailPaths process template

Step 1: If necessary, log on to Teamcenter rich client as *jgordon* (with password *jgordon*).

Step 2: Open the Workflow Designer application.

Step 3: In Workflow Designer, select **CCC–SuccessFailPaths** from the **Process Template** box.

Step 4: Click **Edit Mode**.

Step 5: Click **Yes** in the **Offline?** dialog box.

Notice the **Under Construction** symbol in front of **CCC–SuccessFailPaths** that indicates the state of the template.

Create the Update task

Step 1: Select **Do Task** template on the toolbar.

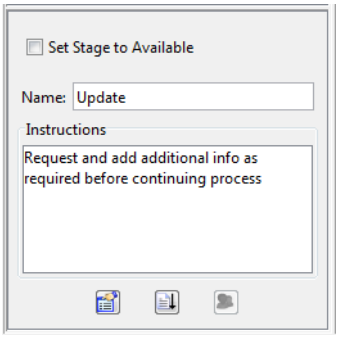
Step 2: Double-click in the process flow above the **Requirements** task.

A **New Do Task 1** is created.

> **Note**
>
> A task can be repositioned by clicking the top part of the task and dragging it to a new location.

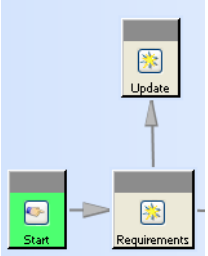
Step 3: Type **Update** in the **Name** box and press Enter.

Step 4: Type **Request and add additional info as required before continuing process** in the **Instructions** box.



Step 5: Next, specify the failure path for the **Update** tasks.

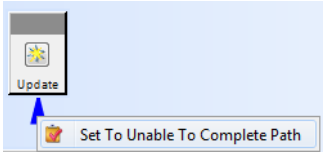
- Place the mouse cursor in the **Requirements** task.
- Press and hold the left mouse button.
- Drag the cursor to the **Update** task.



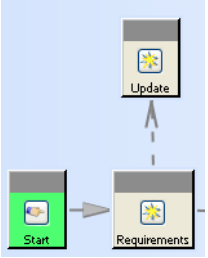
An arrow appears between the two tasks indicating they are linked.

Step 6: Right-click the link between the **Requirements** and **Update** tasks.

Step 7: Choose **Set To Unable To Complete Path**.

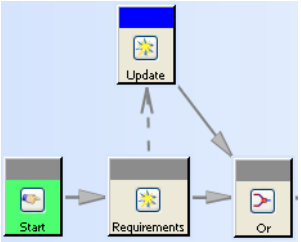


A dashed arrow appears between the two tasks.



Step 8: Next, specify the success path for the **Update** task.

- Place the mouse cursor in the **Update** task.
- Press and hold the left mouse button.
- Drag the cursor to the **Or** task.



A solid arrow appears between the two tasks indicating they are linked.

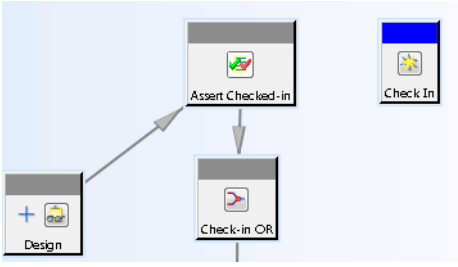
Create the Check in task

Step 1: Select **Do Task** template.

Step 2: Double-click in the process flow to the right of the **Assert Checked-In** task.

A **New Do Task 1** is created.

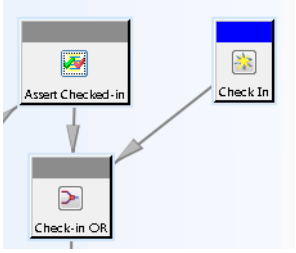
Step 3: Type **Check in** in the **Name** box and press Enter.



Step 4: Type **Check in target objects before proceeding** in the **Instructions** box.

Step 5: Next, specify the success path for the **Check in** task.

- Place the mouse cursor in the **Check in** task.
- Press and hold the left mouse button.
- Drag the cursor to the **Check-in OR** task.



A solid arrow appears between the two tasks indicating they are linked.

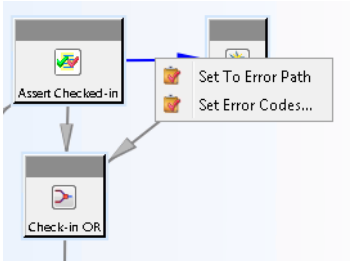
Step 6: Next, specify the error path for the **Check in** task.

- Place the mouse cursor in the **Assert Checked-In** task.
- Press and hold the left mouse button.
- Drag the cursor to the **Check in** task.

An arrow appears between the two tasks indicating they are linked.

Step 7: Right-click the link between **Assert Checked-In** and **Check in** tasks.

Step 8: Choose **Set to Error Path**.

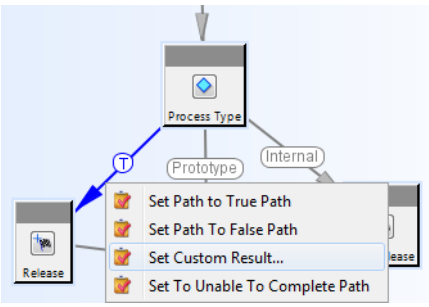


A dashed arrow appears between the two tasks.

Set custom results option for the Process Type task

Step 1: Right-click on the link between **Process Type** and **Released** tasks.

Step 2: Choose **Set Custom Result**.

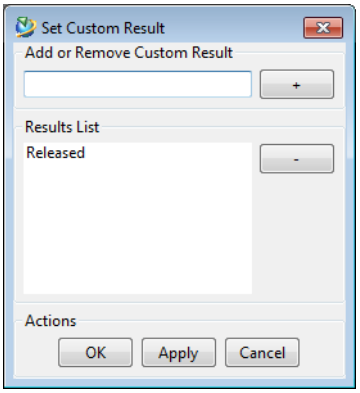


The **Set Custom Result** window appears.

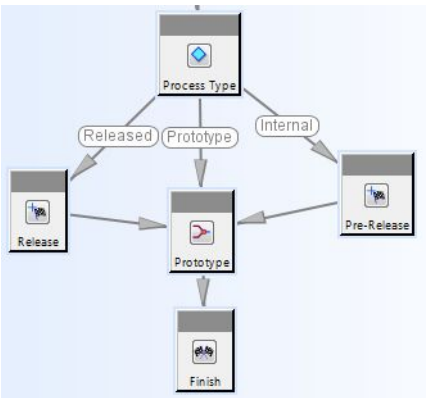
Step 3: In the **Results List**, select **true** and click the minus button - to remove the value.

Step 4: Type **Released** in the **Add or Remove Custom Result** box.

Step 5: Click the plus button + to add the value to the **Results List**.



Step 6: Click **OK**.



Save CCC_SuccessFailPaths process and make it available to users

Step 1: Choose **File→Close**.

The **Set to Available Stage Template Dialog** appears.

Step 2: Select **CCC-SuccessFailPaths** and click the right arrow to add it to the **Templates to be made Available** column.

Step 3: Click **OK**.

The Workflow Designer application closes.

Test the success and failure paths

Activity: Test the success and failure paths

In this activity, you use Workflow Designer to test the success and failure paths.

Launch the Test the success and failure paths activity.

Related information

For more information, review these topics in the online help:

- *Basic concepts for using Workflow Designer*

Create a new test item and dataset

Step 1: In the rich client, click **My Teamcenter** in the navigation pane.

Step 2: Click the **Home** folder .

Step 3: Create the new item for testing the workflow.

- Choose **File**→**New**→**Item**.
- Select **Item** and click **Next**.
- Click **Assign** next to the **ID** box.
- In the **Name** box, type **SuccessFailTest** and click **Finish**.

  The new item is created in the **Home** folder.
- Click **Cancel**.

Step 4: Create the new test dataset.

- Expand the **SuccessFailTest** item.
- Select the **SuccessFailTest** item revision.
- Choose **File**→**New**→**Dataset**.

  The **New Dataset** dialog box appears.
- If needed, click **More** and select **Text** as the dataset type.
- Click **OK**.

  The new dataset is created and added to the **SuccessFailTest** item revision.

Step 5: Expand the **SuccessFailTest** item revision to see the dataset.

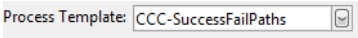
Initiate the workflow and assign tasks

Step 1: Select the **SuccessFailTest** item revision.

Step 2: Choose **File→New→Workflow Process**.

The **New Process Dialog** appears.

Step 3: Select **CCC-SuccessFailPaths** in the **Process Template** list.

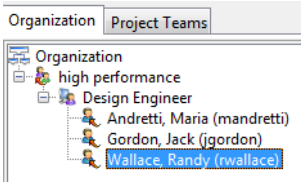


Step 4: Click the **Assign All Tasks** tab.

The **CCC-SuccessFailPaths** process expands to show all locations of all **select-signoff-team** tasks.

Step 5: In the **Profiles** list for the **Design Review** task, select **high performance/Design Engineer/1**.

Step 6: Set the **User** to **Wallace, Randy (rwallace)** and click **Add**.



Wallace, Randy (rwallace) is now listed for the signoff team.

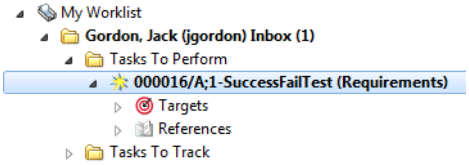
Step 7: Click **OK**.

Complete the Requirements and Update tasks

Step 1: On the toolbar, click **Open Worklist** .

Step 2: Expand the **My Worklist** folder and the **Inbox** folder to see **Tasks to Perform**.

Step 3: Expand the **Tasks to Perform** folder and select the **Requirements** task.



Step 4: Click **Viewer** and select **Task View**.

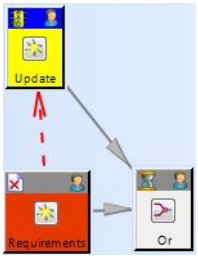
Step 5: To the right of **Done**, select **Unable To Complete**.

Step 6: Click **Apply**.

Step 7: Below **Tasks to Perform**, select the **Update** task.

Step 8: Select **Process View**.

The workflow has followed the failure path and moved to the **Update** task.



Step 9: Select **Task View**.

Step 10: To the right of **Done**, select **Complete**.

Step 11: Click **Apply**.

Check out the text dataset

Note

You check out this dataset to test the error path in the **Check in** task.

Step 1: Return to your **Home** folder.

Click the **Home** button below **Quick Links** in the navigation pane.

Step 2: If needed, expand the **SuccessFailTest** item revision to see the dataset.

Step 3: Right-click the dataset and choose **Check In/Out→Check Out**.

Step 4: Click **Yes** in the **Check-Out** window.

You explicitly checked out this dataset.

Perform the Design Engineer signoff

Step 1: Log off Teamcenter.

Step 2: Log on to Teamcenter using the **rwallace** account (password **rwallace**).

Step 3: On the toolbar, click **Open Worklist** .

Tip

Alternatively, below **Quick Links**, click **My Worklist** .

Step 4: Expand **My Worklist** to see the **Tasks to Perform** folder.

Step 5: Expand the **Tasks to Perform** folder.

Step 6: Select the **perform-signoffs** task.

Step 7: From the **Viewer** tab, make sure **Task View** is selected and click **No Decision**.

Step 8: Click **Approve**.

Step 9: Click **OK**.

Step 10: Log off Teamcenter.

Complete the Assert Check-in task

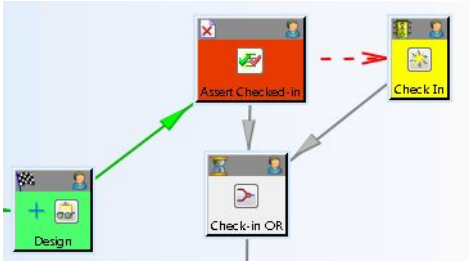
Step 1: Log on to Teamcenter rich client as *jgordon* (with password *jgordon*).

Step 2: On the toolbar, click **Open Worklist** .

Step 3: Expand the **Tasks to Perform** folder and select the **Check In** task.

Step 4: Select **Process View**.

The workflow has moved to the **Check in** error path because the dataset is checked out.



Step 5: In your **Home** folder, locate the target dataset.

Step 6: Right-click the dataset and choose **Check In/Out→Check In**.

Step 7: Click **Yes**.

Step 8: Return to **My Worklist**.

Step 9: Expand the **Tasks to Perform** folder.

Step 10: Select the **Check In** task.

Note

Make sure to click **Viewer** and select **Task View**.

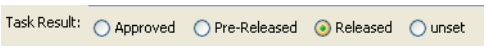
Step 11: To the right of **Done:**, select **Complete** and then click **Apply**.

Complete the Process Type task

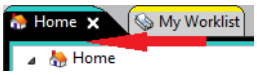
Step 1: In the **Tasks to Perform** folder, select the **Process Type** task.

Step 2: Click **Viewer** and select **Task View**.

Step 3: In **Task Result**, select the **Released** option and click **Apply**.



Step 4: Return to **Home**.



Step 5: Locate the **SuccessFailTest** item.

Step 6: Verify that it has the **Released** status.

Configure condition tasks

Activity: Configure condition tasks

In this activity, you use Workflow Designer to configure the condition tasks.

Launch the Configure condition tasks activity.

Related information

For more information, review these topics in the online help:

- *Basic concepts for using Workflow Designer*

Configure a manual Condition task

Step 1: Click **Workflow Designer** in the navigation pane.

Step 2: Select **CCC-Classify Item** from the **Process Template** list.

Step 3: Click **Edit Mode**.

Step 4: Click **Yes** in the **Offline?** dialog box.

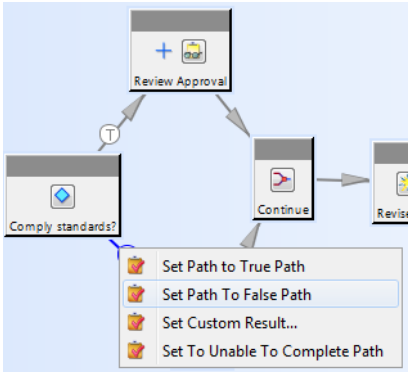
Notice the **Under Construction** symbol that indicates the state of the template.

Step 5: Select the **Comply standards?** task and review the instructions.

Step 6: Click the link between **Comply standards?** and **Rejected**.

The link turns blue.

Step 7: Right-click the link between **Comply standards?** and **Rejected**, and choose **Set Path to False Path**.



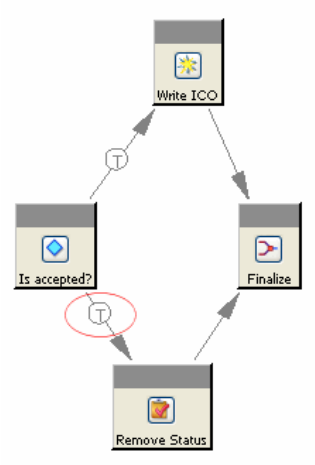
The link shows a **false** condition to the **Rejected** task.

You can also change this path by modifying the **EPM-check-condition** handler in the **Start** action for the **Rejected** task in the **Display the Task Handlers Panel**.

Additionally, you can modify **Condition Path** for the **Rejected** task in the **Display the Task Attributes Panel**.

Configure another manual Condition task

Step 1: Notice the branch from the **Is accepted?** to the **Remove Status** task is set to **true**.



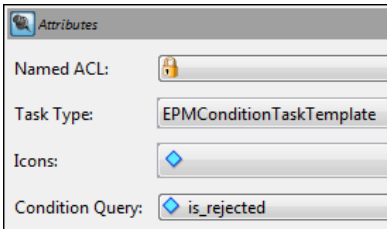
Step 2: Click the **Is accepted? Condition** task and review the instructions.

In this case, the **is_rejected** saved query controls the condition's branches, currently set to **true** for both.

Step 3: Click the **Display the Task Attributes Panel** button at the bottom of the pane.

The **Attributes** dialog box appears.

Step 4: Verify that the **is_rejected** query is loaded in the **Condition Query** box.



Step 5: Close the **Attributes** dialog box.

Configure the Remove Status task

Step 1: Select the **Remove Status** task in the process template tree.

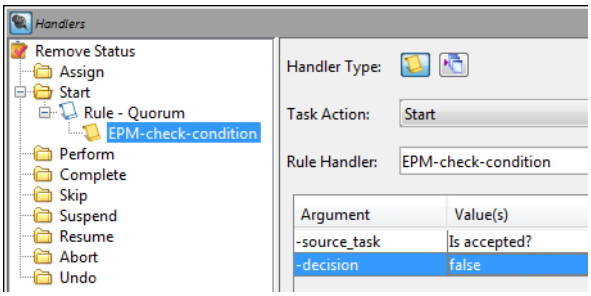
Step 2: Click the **Display the Task Handlers Panel** button at the bottom of the pane.

The **Handlers** dialog box appears.

Step 3: Click the **EPM-check-condition** rule handler in the **Start** action folder.

Step 4: Verify that the argument **-source_task** exists in the **Argument** table with a value of **Is accepted?** and that the **-decision** value is **true**.

Step 5: Type the value **false** in the **Value(s)** column and press Enter.



Step 6: Click **Modify** at the bottom of the **Handlers** dialog box.

Step 7: Select the **Start** action folder.

Step 8: For the **Handler Type**, click **Action Handler** .

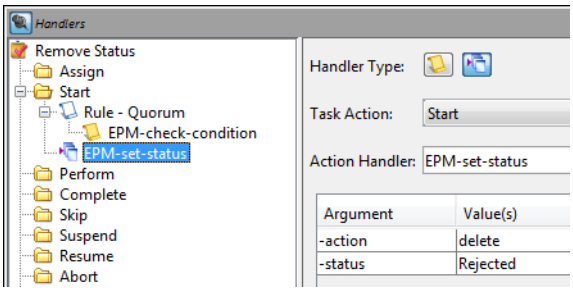
Step 9: Select the **EPM-set-status** action handler in the **Action Handler** list.

Step 10: Type **-action** in the **Argument** column and **delete** in the **Value(s)** column of the first row.

Step 11: Click **Add** to add a new row to the **Arguments** table.

Step 12: Type **-status** in the **Argument** column and **Rejected** in the **Value(s)** column of the new row.

Step 13: Click **Create** at the bottom of the **Handlers** dialog box.



Note

The **-action** argument with a **delete** value deletes the status specified by the **–status** argument from the target object.

Step 14: Close the **Handlers** dialog box.

Verify the condition setting to the Write ICO task

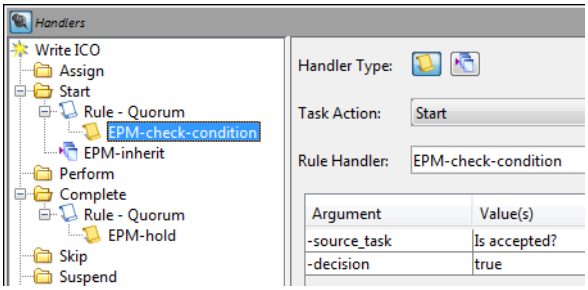
Step 1: Select the **Write ICO** task in the process template tree.

Step 2: Click the **Display the Task Handlers Panel** button at the bottom of the pane.

The **Handlers** dialog box appears.

Step 3: Select the **EPM-check-condition** rule handler in the **Start** action folder.

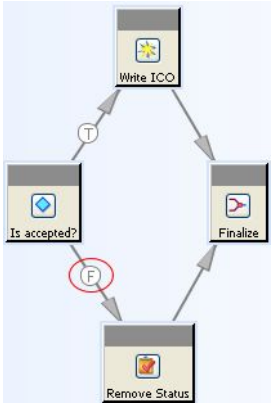
Step 4: Verify that the argument **-source_task** with a value of **Is accepted?** exists, and the **-decision** argument has a value set to **true**.



Step 5: Close the **Handlers** dialog box.

Step 6: Select the root process and choose **View→Refresh Window**.

The automatic **Condition** task now displays the true and false branches.



Step 7: Save the modifications to the **CCC-Classify Item** process.

- Choose **File→Close**.

  The **Set to Available Stage Template Dialog** appears.

- Select **CCC-Classify Item** and click the right arrow to copy it to the **Templates to be made Available** column.

- Click **OK**.

Test the condition tasks

Activity: Test the condition tasks

In this activity, you use Workflow Designer to test the condition tasks.

Launch the Test the condition tasks activity.

Related information

For more information, review these topics in the online help:

- *Basic concepts for using Workflow Designer*

Create a new test item

Step 1: From My Teamcenter, create a new item in your **Home** folder named **Test 2**.

Step 2: Initiate a workflow process by first expanding a newly created item and selecting its item revision.

Step 3: Choose **File→New→Workflow Process**.

Step 4: Set **Process Template** to **CCC-Classify Item**.

Note

Do *not* click **OK** yet.

Assign the necessary users and start the process

Step 1: Click the **Assign All Tasks** tab.

Step 2: Select ***/Standards Engineer/1** in the **Review Approval** task.

Step 3: Set **User** to **Debbie Jarrett** and click **Add**.

Step 4: Click **OK** to start the process.

Sign off on the manual condition task

Step 1: Open **My Worklist**, expand the **Tasks to Perform** folder, and select the **Item to classify** task.

Step 2: Click **Done: Complete** and then **Apply**.

Step 3: Select the **Comply standards?** task that appears.

Step 4: Notice the manual conditions of **true**, **false**, and **unset** at the bottom of the **Task View**.

Step 5: Select **true** and click **Apply**.

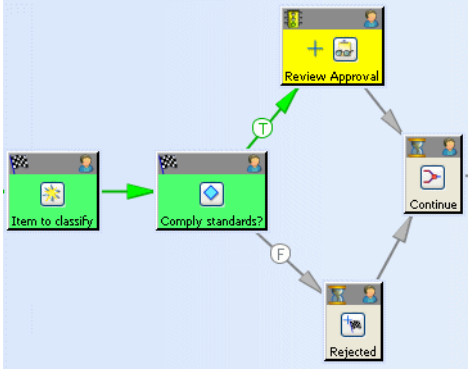
The process is now sent to the Standards Engineer.

Step 6: View the manual condition results.

Expand the **Tasks to Track** folder and select the **perform-signoffs** task.

Step 7: Click the **Process View** button and select the top-level **CCC-Classify Item** process.

Step 8: Notice that because **true** was selected in the manual signoff, the process branched in that direction.



Sign off the Review Approval task

The **Review Approval** task is used as an interim task between the manual and automatic **Condition tasks** and is signed off by a different user.

Step 1: Log off Teamcenter.

Step 2: Log on to Teamcenter using the **djarrett** account (**User ID=djarrett**, **Password=djarrett**).

Step 3: On the toolbar, click **Open Worklist** .

Step 4: Expand the **Tasks to Perform** folder and select the **perform-signoffs** task.

Step 5: Select **Task View** and click **No Decision**.

Step 6: Select **Approve** and click **OK**.

Complete the process

Step 1: Log off Teamcenter.

Step 2: Log on to Teamcenter rich client as *jgordon* (with password *jgordon*).

Step 3: Open the **Worklist**, expand the **Tasks to Perform** folder and select the **Revise Item** task.

Step 4: Select **Task View**, click **Done: Complete**, and then click **Apply**.

Because the remaining task was an **Automatic task**, the full workflow process has completed.

Find the completed process and review the results

Step 1: Click the **Search** button .

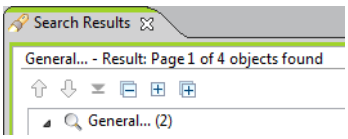
The **Search** view appears.

Step 2: In the **Search** view, click to select a search from the list of search types.

Step 3: Select **General...** and click **OK**.

Step 4: Set **Type** to **Job** and click the **Execute Search** button.

Results appear in the **Search Results** view.

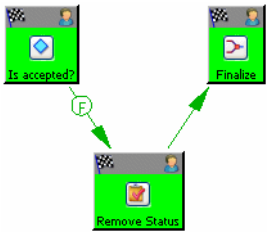


Step 5: Locate and select the workflow process that has the same name as the item revision you were using to test the workflow.

Step 6: Make sure the **Viewer** tab is selected.

Step 7: Scroll the process to the right until you can see the automatic condition task.

Because **false** is automatically set, the process branches in that direction.



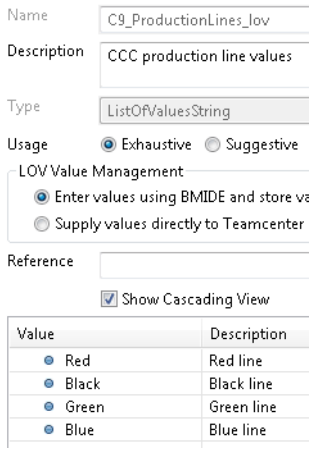
Section 21: Additional LOV extensions

Import LOV definition values

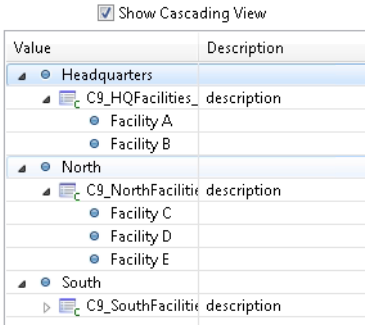
Activity: Import LOV definition values

In this activity, you import LOV definitions and their values for use in later activities.

Launch the Import LOV definition values activity.



Interdependent LOV



Related information

For more information, review these topics in the online help:

- *Creating lists of values (LOVs)*
- *Import a template file*

Import the LOV extensions

Step 1: In the **Extensions** view, expand the **Classic LOV** folder.

a. Click the **Extensions** view.

b. Expand the **CCC_Corporate** project.

c. Expand the **LOV** folder.

d. Expand the **Classic LOV** folder.

Step 2: From the Business Modeler IDE, click menus to use **Import template file**

a. Choose **File→Import**.

b. From the **Import** dialog, if necessary, expand **Business Modeler IDE**.

c. Select **Import template file**.

d. Click **Next**.

Step 3: From the **Import template file** dialog box, import the **c9_interdependent_lovs.xml** file.

a. Confirm **Project** is **CCC_Corporate**.

b. For **Template file**, click **Browse**.

c. Navigate to *STUDENT_HOME***import_lovs**.

d. Select **c9_interdependent_lovs.xml**.

e. Click **Open**.

f. In the **Extension file** dialog box, select **lovs.xml**.

g. Click **Finish**.

h. Note the new LOV in the **Classic LOV** folder.

Step 4: From the Business Modeler IDE, click menus to use **Import template file**

a. Choose **File→Import**.

b. Select **Import template file**.

c. Click **Next**.

Step 5: Repeat to import the **c9_production_line_lovs.xml** file.

a. Confirm **Project** is **CCC_Corporate**.

b. For **Template file**, click **Browse**.

c. Navigate to *STUDENT_HOME***import_lovs**.

d. Select **c9_production_line_lovs.xml**.

e. Click **Open**.

f. In the **Extension file** dialog box, select **lovs.xml**.

g. Click **Finish**.

h. Note the new LOV in the **Classic LOV** folder.

Verify that the LOV extensions were imported

Step 1: In the **Extensions** view, expand the **CCC_Corporate** project.

Step 2: Expand the **LOV** folder.

Step 3: Verify that the following **LOV** extensions are listed:

- **C9_HQFacilities_lov**
- **C9_Location_lov**
- **C9_NorthFacilities_lov**
- **C9_ProductionLines_lov**
- **C9_SouthFacilities_lov**

Import the LOV display names

Step 1: From the Business Modeler IDE, click menus to use **Import Localizations**

- Choose **File**→**Import**.
- From the **Import** dialog, if necessary, expand **Business Modeler IDE**.
- Select **Import Localizations**.
- Click **Next**.

Step 2: From the **Import Localizations** dialog box, import these files.

- **c9_interdependent_lovs_lang.xml**
- **c9_production_line_lovs_lang.xml**

a. Confirm **Project** is **CCC_Corporate**.

b. Click **Add**.

c. Navigate to *STUDENT_HOME***import_lovs**.

d. Select **c9_interdependent_lovs_lang.xml**.

e. Click **Open**.

The **c9_interdependent_lovs_lang.xml** file is added to the table.

f. Click **Add** to select **c9_production_line_lovs_lang.xml**.

g. Click **Open**.

The **c9_production_line_lovs_lang.xml** file is added to the table.

Step 3: Click **Finish**.

Create an interdependent LOV

Activity: Create an interdependent LOV

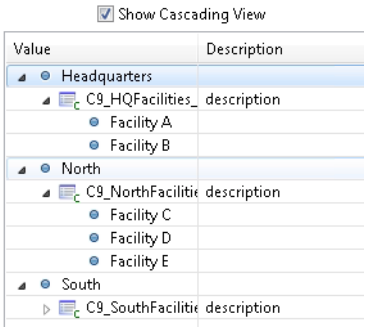
In this activity, you create an interdependent LOV that is attached to **c9_Location** and **c9_Facility** of the **C9_ProductImpact** form. The customer criteria for list of values (LOV):

C9_Location_lov

SubLovs

- **C9_HQFacilities_lov** (values Facility A, Facility B)
- **C9_NorthFacilities_lov** (values Facility C, Facility D, Facility E)
- **C9_SouthFacilities_lov** (values Facility F, Facility G, Facility H)

Launch the Create an interdependent LOV activity.



The scenario is to select the *Location*, which may be one of *HQFacilities*, *NorthFacilities*, or *SouthFacilities*. After you select the *Location*, you to select a *Facility* (A, B, C, D, E, F, G, or H) that exists at the previously selected *Location*.

Related information

For more information, review these topics in the online help:

- *Create an interdependent LOV*

Open the C9_Location_lov into the editor

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Set the active extension file to **lovs.xml**..

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **lovs.xml**.

c. Click **OK**.

Step 3: In the **Extensions** view, locate the **C9_Location_lov** business object.

a. Choose **BMIDE→Find**.

b. Confirm **Project** is **CCC_Corporate**.

c. In the filter string box, begin typing **C9_Location_lov**.

d. Double-click **C9_Location_lov** to open the editor.

Note

The **Extensions** view expands to the **C9_Location_lov**.

Create the cascading LOV

Step 1: In the **C9_Location_lov** editor, select **Show Cascading View**.

Step 2: Select **Headquarters** under the **Value** column.

Step 3: To the right of the values table, click **Add Sub LOV**.

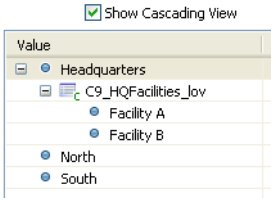
Step 4: To the right of the **LOV** box, select **Browse**.

Step 5: In the **Find LOV** dialog box, clear **COTS**.

Step 6: Double-click **C9_HQFacilities_lov**.

Step 7: Click **Finish**.

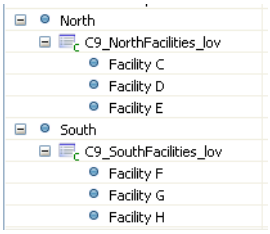
Step 8: Under the **Value** column, expand the **Headquarters** to see the values.



Step 9: Repeat the previous steps. Add the **Sub LOV** to **North** and **South** as shown in this table.

Value	Sub LOV
North	**C9_NorthFacilities_lov**
South	**C9_SouthFacilities_lov**

Step 10: Under the **Value** column, expand **North** and **South** to see the values.



Attach the C9_Location_lov to the C9_ProductImpact business object

Step 1: Scroll down in the **C9_Location_lov** editor to see the **LOV Attachments** section.

Step 2: In the **LOV Attachments** section, click **Attach**.

Step 3: To the right of the **Property** box, select **Browse**.

The **Property Attachment** dialog box appears.

> **Note**
>
> The **Property Attachment** dialog box requires two selections. Do not quickly double-click **Property Selection**. If you do, select **Browse** again.

Step 4: In the **Property Selection** filter string box, type **C9_Pro** to reduce the list.

Step 5: Select **C9_ProductImpact** to update the **Properties** list lower in the dialog.

> **Caution**
>
> You must select a property before you click **OK**.

Step 6: Scroll down in the **Properties** list until you can see **c9_Location**.

Step 7: Select **c9_Location**.

Step 8: Click **OK**.

Step 9: Click **Finish**.

> **Note**
>
> Confirm that **C9_ProductImpact.c9_Location** is listed in the **LOV Attachments** section before proceeding.

Add the interdependent LOVs to C9_Location_lov

Step 1: Continue to work from the **C9_Location_lov** editor.

Step 2: In the **LOV Attachments** section, select **C9_ProductImpact.c9_Location**.

Step 3: Click **Edit**.

The **Interdependent LOV Attachment** dialog appears.

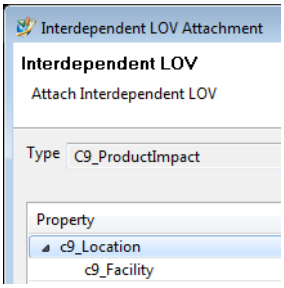
Step 4: In the upper table with the **Property** column, select **c9_Location**.

Step 5: To the right of upper table, click **Attach**.

Step 6: Select **c9_Facility**.

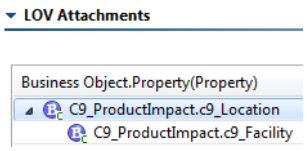
Step 7: Click **OK**.

Step 8: Expand **c9_Location** to see **c9_Facility**.



Step 9: Click **Finish**.

Step 10: In the **LOV Attachments** section of **C9_Location_lov**, expand **C9_ProductImpact.c9_Location** to show **C9_ProductImpact.c9_Facility**.



Attach the C9_Production_Lines_lov to the c9_Production_Lines property

Continuing with the previously stated scenario, now you attach a LOV to enable the selection of *Production Lines* within the *Facility*. This LOV allows multi-selection because the **c9_Production_Lines** property was defined as an array.

Step 1: In the **Business Objects** view, click the **Find Business Object** button.

Step 2: In the **Find Business Object** dialog, locate and double-click the **C9_ProductImpact**.

In the filter string box, begin typing **C9_Pro**.

Step 3: Double-click the **C9_ProductImpact** to open it into the editor.

Step 4: Click the **Properties** tab.

Step 5: In the properties table, select the **c9_Production_Lines** property.

Step 6: Click the **LOV Attaches** tab.

Step 7: To the right of **LOV Attaches**, click **Add**.

Step 8: To the right of the **LOV** click **Browse**.

Step 9: In the **Find LOV** dialog box, clear **COTS**.

Step 10: Select the **C9_Production_Lines_lov** LOV.

Note the **Preview Values**.

Step 11: Click **OK** in the **Find LOV** dialog box.

Step 12: Click **Finish** in the **LOV Attachment** dialog box.

The **C9_Production_Lines_lov** LOV is listed in the **LOV Attaches**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify the LOV definitions

Activity: Verify the LOV definitions

In this activity, you verify the following LOV definitions:

- **CCC_ProductionLines** property with multiple select list of values
- Interdependent LOV with the **CCC_Location** and **CCC_Facility** properties

Launch the Verify the LOV definitions activity.

Related information

For more information, review these topics in the online help:

- *Creating lists of values (LOVs)*
- *Import a template file*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Verify the multiple select LOV

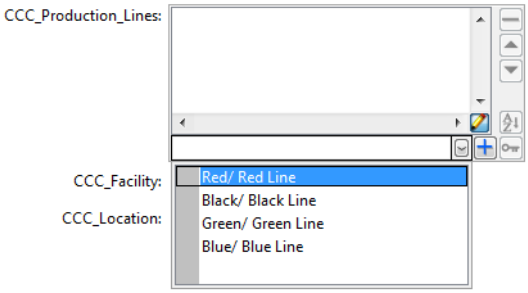
Step 1: Locate and double-click your **CCC_ProductImpact** form.

Step 2: Click **Check-Out and Edit**.

Step 3: Click **Yes**.

Step 4: To the lower right of the **CCC_ProductionLines** property box, click the corner pencil icon.

Step 5: Click the drop-down selector, and select a value (or multiple values with the + symbol).



Step 6: Continue with this **CCC_ProductImpact** form with the next task.

Verify that the interdependent LOV performs correctly

- First you must select the **CCC_Location** value, which may be one of **Headquarters**, **North**, or **South**.
- Second you select the **CCC_Facility** (A, B, C, D, E, F, G, or H), which is has a dependency on the **CCC_Location**.

  Note

  Choosing **CCC_Facility** before **CCC_Location** produces this warning:
  `Select a value for the property "CCC_Location".`

Step 1: Attempt to click the drop-down selector for the **CCC_Facility** property.

This produces the message that **CCC_Location** must be selected.

Step 2: Click the **CCC_Location** property list.

Step 3: Select one of the following:

- **Headquarters**
- **North**
- **South**

Step 4: Click the **CCC_Facility** property list.

Note

The available choices depend on the **CCC_Location** value.

Step 5: Select a value for **CCC_Facility**.

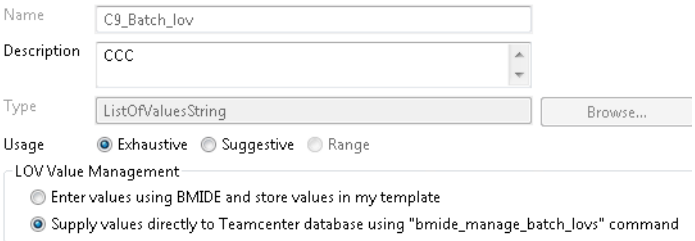
Step 6: Click **Save and Check-In**.

Step 7: Click **Yes**.

Create a batch LOV

Activity: Create a batch LOV

In this activity, you create a batch LOV that uses an externally managed XML file.



Launch the Create a batch LOV activity.

Related information

For more information, review these topics in the online help:

- *Creating lists of values (LOVs)*

Create the batch LOV

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Choose **BMIDE→New Model Element**.

Step 3: Type **Batch LOV** in the **Wizards** filter box and click **Next**.

Step 4: In the **Name** box, type **C9_Batch_lov**.

Step 5: In the **Description** box, type **CCC**.

> **Warning**
>
> The **Description** box *must* be **CCC** (all capitals letters) to match description in the externally managed XML file. This is a **bmide_manage_batch_lovs.exe** utility requirement.

Step 6: Confirm **Type** is **ListOfValuesString**.

Step 7: Confirm **Usage** is **Exhaustive**.

Step 8: Click **Finish**.

Two results occur:

- Sample data files and localization files are created (accessible from **Console** view).
- The **C9_Batch_lov** LOV is created (in the **Extensions**).

View the batch LOV and the sample files

Step 1: Start from the **Console** view.

Step 2: Adjust the vertical divider bar to see more of the **Console** view.

Place the cursor over the vertical divider bar and drag the bar to resize views.

Step 3: In the **Console** view, observe the information.

Sample data and localization files for your LOV: C9_Batch_lov, thatcan be used as input to bmide_manage_batch_lovs utility.

Step 4: In the **Console** view, click the new link.

A Windows Explorer dialog box opens to show the **C9_Batch_lov** folder.

The location is at:*STUDENT_HOME* `\bmide_projects\CCC_Corporate\output\Samples\LOVS\C9_Batch_lov`.

Step 5: Note the following folder and files.

- **C9_Batch_lov.xml**
- **lang**
  - **C9_Batch_lov_en_US.xml**

Expand (or double-click) the **lang** folder to see **C9_Batch_lov_en_US.xml**.

Note

These are sample files with the **Batch LOV** XML format.

Other files prepared for the class are used instead of these files.

Step 6: Close the Windows Explorer dialog box (by clicking its).

Attach the batch LOV

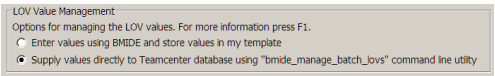
Step 1: Return to the Business Modeler IDE.

Step 2: Click **Extensions**.

The **C9_Batch_lov** LOV should be selected. If not, locate the **C9_Batch_lov** with **BMIDE→Find** or expand below the **Batch LOV** folder.

Step 3: Double-click the **C9_Batch_lov** to open its editor.

Step 4: Note that in the **LOV Value Management** box of the new batch LOV that the **Supply values directly to Teamcenter database using "bmide_manage_batch_lovs" command line utility** is selected.



Step 5: Scroll down to **LOV Attachments** table.

Step 6: To the right of the **LOV Attachments** table, click **Attach**.

Step 7: To the right of the **Property** box, click **Browse**.

Step 8: In the filter box, type **C9_ProductImpact**.

Step 9: Select **C9_ProductImpact**.

Caution

Do not select OK at this time.

Step 10: Below the **Properties** table, select **C9_Project_Name**.

Step 11: Click **OK**.

The **Property** value is **C9_ProductImpact.c9_Project_Name**.

Step 12: Click **Finish** in the **Property Attachment** dialog box.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Import and verify batch LOV values

Activity: Import and verify batch LOV values

In this activity, you work with the batch LOV values with the following tasks.

- Import the batch LOV values with the Teamcenter utility **bmide_manage_batch_lovs.exe**.
- Verify the batch LOV in the **CCC_ProductImpact** form.
- Make a change to the externally managed LOV file, and import the LOV values again.
- Again verify the batch LOV in the **CCC_ProductImpact** form.

Launch the Import and verify batch LOV values activity.

Related information

For more information, review these topics in the online help:

- *Creating lists of values (LOVs)*

Import batch LOV values

Step 1: Use a Windows Explorer dialog box to navigate to the *STUDENT_HOME***import_batch_lov** folder.

Step 2: Open **C9_Batch_lov.xml** to view the values.

a. Right-click the **C9_Batch_lov.xml** file and choose **Open With**→**Notepad**.

Note

If the **Open With** menu is not configured to open **Notepad**, use any available text editor to open the xml file.

b. View the planet values in the **C9_Batch_lov.xml** file.

Note

Pluto is removed in future steps.

c. Exit **Notepad**.

Step 3: Choose **Start**→**All Programs**→**Teamcenter 10**→*tc_TC101svr* **Command Prompt**.

Step 4: In the *tc_TC101svr* **Command Prompt**, change the directory to the *STUDENT_HOME***import_batch_lov** directory.

Step 5: Type **import_c9_batch_lov.bat** and press Enter.

Warning

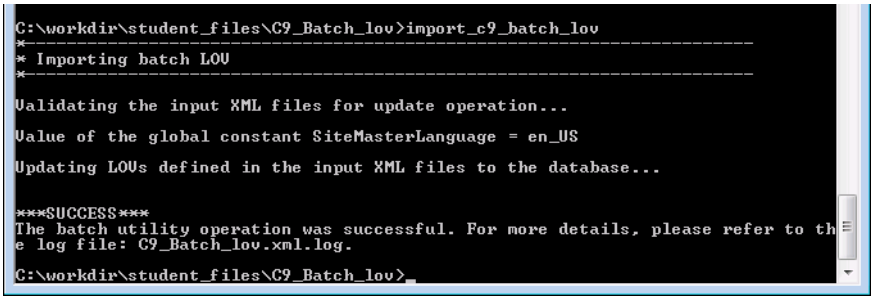
Wait until the script completes before moving on to the next step.

These two Teamcenter utilities are run from **import_c9_batch_lov.bat**.

```
TC_ROOT\bin\bmide_manage_batch_lovs.exe -u=<user id> -p=<password>
-g=<group> -option=update -file=C9_Batch_lov.xml

TC_ROOT\bin\generate_client_meta_cache.exe -u=<user id>
-p=<password> -g=<group> update lovs
```

Step 6: When the script completes, check the results in the *tc_TC101svr* **Command Prompt**.



Your results may differ slightly.

Step 7: Use a Windows Explorer dialog box to navigate to the *STUDENT_HOME***import_batch_lov** folder.

Step 8: View the results in the **C9_Batch_lov.xml.log** file.

a. Double-click **C9_Batch_lov.xml.log**.

b. Near the bottom, locate the **C9_Batch_lov** values after this line.

```
Processed Non-Schema Changes:

    C9_Batch_lov{::}Mercury
    C9_Batch_lov{::}Venus
    C9_Batch_lov{::}Earth
    C9_Batch_lov{::}Mars
    C9_Batch_lov{::}Jupiter
    C9_Batch_lov{::}Saturn
    C9_Batch_lov{::}Uranus
    C9_Batch_lov{::}Neptune
    C9_Batch_lov{::}Pluto
```

Note

Pluto is removed in future steps.

c. Exit **Notepad**.

Verify that the batch LOV performs correctly

Step 1: If **TAO ImR** is in your taskbar, stop the **TAO ImR** program.

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Caution

The **TAO ImR** must be stopped to update the LOV cache.

Step 2: Log on to the rich client rich client as *jgordon* (with password *jgordon*).

Step 3: Locate and double-click your **CCC_ProductImpact** form.

Step 4: Click **Check-Out and Edit**.

Step 5: Click **Yes**.

Step 6: From the **CCC_Project_Name** list, select **Earth**.

Step 7: Click **Save and Check-In**.

Step 8: Click **Yes**.

Step 9: In the rich client, choose **File**→**Exit** (or click).

Step 10: In the **Exit** dialog box, click **Yes**.

Step 11: Click the **TAO ImR** icon in your taskbar.

Step 12: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Change the LOV values and import again

Step 1: Start from the Windows Explorer dialog box with the *STUDENT_HOME***import_batch_lov** folder.

Step 2: Change **C9_Batch_lov.xml** to remove the **Pluto** value.

a. Right-click the **C9_Batch_lov.xml** file and choose **Open With**→**Notepad**.

Note

If the **Open With** menu is not configured to open **Notepad**, use any available text editor to open the xml file.

b. Near the bottom, locate this line containing:

```
TcLOVValue value="Pluto" description="Ninth planet"
```

c. Remove the entire line.

d. Save the changes to **C9_Batch_lov.xml**.

e. Exit **Notepad**.

Step 3: In the Windows Explorer dialog box navigate to the *STUDENT_HOME***import_batch_lov\lang** folder.

Note

Double-click the **lang** folder.

Step 4: Change **C9_Batch_lov_en_US.xml** to remove the **Pluto** value.

a. Right-click the **C9_Batch_lov_en_US.xml** file and choose **Open With**→**Notepad**.

b. Locate this line containing:

```
locale="en_US" id="LOVValue{::}C9_Batch_lov{::}Pluto"
```

c. Remove the entire line.

d. Locate this line containing:

```
locale="en_US" id="LOVValueDescription{::}C9_Batch_lov{::}Pluto"
```

e. Remove the entire line.

f. Save the changes to **C9_Batch_lov.xml**.

g. Exit **Notepad**.

Step 5: Locate your *tc_TC101svr* **Command Prompt** dialog box.

If you do not have an *tc_TC101svr* **Command Prompt** dialog box, choose **Start**→**All Programs**→**Teamcenter 10**→*tc_TC101svr* **Command Prompt**

Step 6: Type **import_c9_batch_lov.bat** and press Enter.

These two Teamcenter utilities are run again.

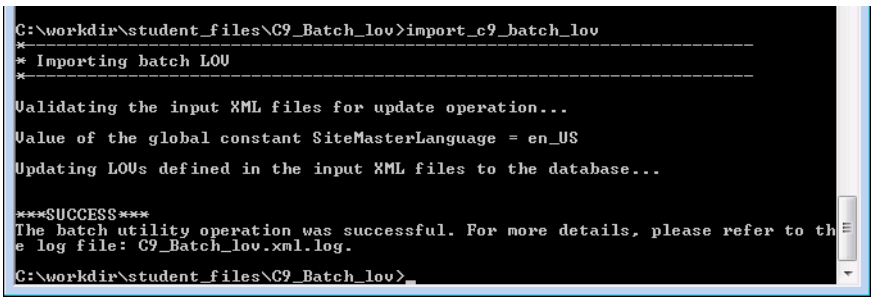
```
TC_ROOT\bin\bmide_manage_batch_lovs.exe -u=<user id> -p=<password>
-g=<group> -option=update -file=C9_Batch_lov.xml
```

```
TC_ROOT\bin\generate_client_meta_cache.exe -u=<user id>
-p=<password> -g=<group> update lovs
```

Warning

Wait until the script completes before moving on to the next step.

Step 7: When the script completes, check the results in the *tc_TC101svr* **Command Prompt**.



Your results may differ slightly.

Step 8: Type **exit** and press Enter to close the *tc_TC101svr* **Command Prompt**.

Verify the batch LOV values

Step 1: Stop **TAO ImR** (if it is in the taskbar).

Caution

The **TAO ImR** must be stopped to update the LOV cache.

Step 2: Log on to the rich client rich client as *jgordon* (with password *jgordon*).

Step 3: Locate and double-click your **CCC_ProductImpact** form.

Step 4: Click **Check-Out and Edit**.

Step 5: Click **Yes**.

Step 6: From the **CCC_Project_Name** list, select **Mars**.

Note that **Pluto** is not in the list.

Step 7: Click **Save and Check-In**.

Step 8: Click **Yes**.

Step 9: In the rich client, choose **File**→**Exit** (or click).

Step 10: In the **Exit** dialog box, click **Yes**.

Step 11: Click the **TAO ImR** icon in your taskbar.

Step 12: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Section 22: Compound property configuration

Create a compound property of attached form

Activity: Create a compound property of attached form

In this activity, you create a compound properties on **C9_ItemRevision** from the **C9_ERPDataForm** properties.

Launch the Create a compound property of attached form activity.

Related information

For more information, review these topics in the online help:

- *Add a compound property*

Create a compound property for the C9_ItemRevision

Step 1: Set the active extension file to **item_business_objects.xml**.

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **item_business_objects.xml**.

c. Click **OK**.

Step 2: In the **Find Business Object** dialog, locate **C9_ItemRevision**.

a. Choose **BMIDE→Find**.

b. Type **C9_ItemRevision** in the filter box and select **C9_ItemRevision**.

c. Select **C9_ItemRevision**.

d. Click **OK**.

Step 3: In the **Business Objects** view, double-click **C9_ItemRevision**.

Step 4: Click the **Properties** tab.

Step 5: To the right of the **Properties** table, click **Add**.

Step 6: Click **Compound**.

Step 7: Click **Next**.

Step 8: Provide these values for the new compound property.

a. In the **Name** box, type **c9_ERPTagNumber**.

b. In the **Display Name** box, type **CCC_ERPTagNumber**.

c. In the **Description** box, type **CCC**.

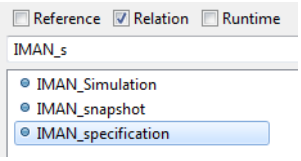
Note

Temporarily ignore the **Invalid Path** message.

Add the compound property to C9_ItemRevision

Step 1: Click **Add Segment**.

Step 2: Type **IMAN_s** in the filter box and select **IMAN_specification**.

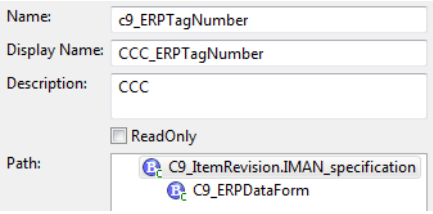


Step 3: Click **Next**.

Step 4: Clear the **COTS** check box.

Step 5: Locate and select **C9_ERPDataForm**.

Step 6: Click **Finish**.

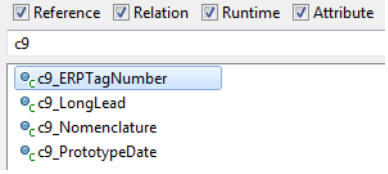


Temporarily ignore the **Invalid Path** message.

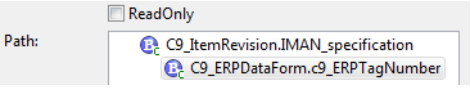
Step 7: In the **Path** box, select **C9_ERPDataForm**.

Step 8: Click **Add Final Segment**.

Step 9: Type **c9** in the box and select **c9_ERPTagNumber**.



Step 10: Click **Finish**.



Step 11: Click **Finish** in the **Compound Property Page** dialog box.

The compound property is added to the other properties.

Step 12: If necessary, locate the **c9_ERPTagNumber** in the properties table.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Make master form properties invisible

Activity: Make master form properties invisible

In this activity, you import an individual Business Modeler IDE template file to hide the COTS master form properties. The *visible* property constant is set to false with the template file.

Launch the Make master form properties invisible activity.

Related information

For more information, review these topics in the online help:

- *Import a template file*

Import a predefined template file

Step 1: Click the **Business Object** view.

Step 2: If needed, expand the **CCC_Corporate** project.

Step 3: Choose **File→Import**.

Step 4: Under the **Business Modeler IDE** folder, select **Import template file**.

Step 5: Click **Next**.

Step 6: Confirm **Project** is **CCC_Corporate**.

Step 7: To the right of **Template file**, click **Browse**.

Step 8: Navigate to *STUDENT_HOME***import_bus_objs**.

Step 9: Select **c9_hide_master_props.xml**.

Step 10: Click **Open**.

Step 11: Set the **Extension** file to **item_business_objects.xml**.

Step 12: Click **Finish**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify the compound properties

Activity: Verify the compound properties

In this activity, you verify compound properties for **CCC_ItemRevision** from the **CCC_ERPDataForm** properties.

Launch the Verify the compound properties activity.

Related information

For more information, review these topics in the online help:

- *Viewing and modifying object properties*

Verify master form property constant

Step 1: Choose **BMIDE→Find**.

Step 2: In the **Find Business Object** dialog box, clear **COTS**.

Step 3: In the list, double-click **C9_CommonItemMaster**.

C9_CommonItemMaster is selected in the list of **Business Objects**.

Step 4: Double-click **C9_CommonItemMaster** to open its editor.

Step 5: In the **C9_CommonItemMaster** editor, click the **Properties** tab.

Step 6: In the **Property Name** column, select **project_id**.

The **Property Constants** table updates.

Step 7: In the **Property Constants** table, verify **Visible** has the following.

Value	**false**
Overriden	☑
Template	**ccccorporate**

Likewise the same is true for other *master form* properties.

Step 8: Repeat for **C9_CommonItemRevisionMaster**.

a. In the **Business Object** view, click the **Find Business Object** button.

b. In the **Find Business Object** dialog, clear **COTS**.

c. In the list, double-click **C9_CommonItemRevisionMaster** to open the editor.

d. In the **C9_CommonItemRevisionMaster**, click the **Properties** tab.

e. In the **Property Name** column, select **project_id**.

f. In the **Property Constants** table, verify **Visible** has the following.

Value	**false**
Overriden	☑
Template	**ccccorporate**

Likewise the same is true for other *master form* properties.

Step 9: Close the **C9_CommonItemMaster** and **C9_CommonItemRevisionMaster** editor views.

Verify the compound properties

Step 1: Stop the**TAO ImR** (if it is in your bottom toolbar).

Step 2: Log on to Teamcenter rich client as ***jgordon*** (with password ***jgordon***).

Step 3: Select **Home**.

Step 4: Locate a **CCC_ERPDataForm** created in a previous activity.

Step 5: Open the **CCC_ERPDataForm** to verify the value of **CCC_ERPTagNumber**.

If **CCC_ERPTagNumber** has no value, set a value.

Step 6: If necessary for this test, copy/paste the **CCC_ERPDataForm** into the **CCC_ItemRevision** with an **IMAN_specification** relation.

Step 7: Right-click **CCC_ItemRevision** and choose **View Properties**.

The **Properties** dialog box appears (initially with general properties).

Step 8: Display other **CCC_ItemRevision** properties.

a. In the **Properties** dialog, click **All** to show properties *with* values.

b. Scroll to the bottom of the of the **Properties** dialog and click **Show empty properties**.

This shows the full list of properties (including properties without a value).

Note

A tab can be placed in the **Properties** dialog for the new properties making them accessible with one mouse click.

Step 9: Scroll through the properties list to locate the **CCC_ERPTagNumber** compound property.

Step 10: Click **Cancel**.

Section 23: Additional rules and operations

Create GRM rules for C9_ERPDataForm

Activity: Create GRM rules for C9_ERPDataForm

In this activity, you create two General Relationship Management (GRM) rules for the **C9_ERPDataForm**

- On **C9_Item** to not allow the **C9_ERPDataForm** to be pasted.
- On **C9_ItemRevision** to only allow one **C9_ERPDataForm** to be pasted as **IMAN_specification**, and to not allow the **C9_ERPDataForm** to be cut.

Launch the Create GRM rules for C9_ERPDataForm activity.

Related information

For more information, review these topics in the online help:

- *Add a GRM rule*

Prepare to create the new GRM rule for C9_Item

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Set the active extension file to **item_business_objects.xml**.

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **item_business_objects.xml**.

c. Click **OK**.

Step 3: In the **Business Objects** view, locate the **C9_Item** business object.

a. Choose **BMIDE→Find**.

b. Confirm **Project** is **CCC_Corporate**.

c. In the filter string box, begin typing **C9_Item**.

d. Double-click **C9_Item** to open the editor.

Create a GRM rule on C9_Item to not allow paste of C9_ERPDataForm

Step 1: Click the **GRM Rules** tab.

Step 2: Click **Add...**.

The **New GRM Rule** dialog box opens.

Step 3: To the right of the **Primary Object** box, click **Browse**.

Step 4: Locate and double-click **C9_Item**.

Step 5: To the right of the **Secondary Object** box, click **Browse**.

Step 6: Locate and double-click **C9_ERPDataForm**.

Step 7: To the right of the **Relation Object** box, click **Browse**.

Step 8: Locate and double-click **Match All**.

Step 9: Enter a **0** (zero) value in the cardinality box (on the right).

a. For **Primary Cardinality**, enter **0** (zero).

b. For **Secondary Cardinality**, enter **0** (zero).

Step 10: Click **Finish**.

The new GRM rule is displayed in the list.

Prepare to create a new GRM rule for the C9_ItemRevision

Step 1: Click the **Main** tab of the **C9_Item**.

Step 2: Click the **C9_ItemRevision** link to open its editor.

Step 3: Click the **GRM Rules** tab.

Create a GRM rule on C9_ItemRevision to not allow cut of C9_ERPDataForm

Step 1: Begin from the **C9_ItemRevision** editor.

Step 2: Click **Add...**.

The **New GRM Rule** dialog box opens.

Step 3: To the right of the **Primary Object** box, click **Browse**.

Step 4: Locate and double-click **C9_ItemRevision**.

Step 5: To the right of the **Secondary Object** box, click **Browse**.

Step 6: Locate and double-click **C9_ERPDataForm**.

Step 7: To the right of the **Relation Object** box, click **Browse**.

Step 8: Locate and double-click **IMAN_specification**.

Step 9: Enter a **1** (one) value in the cardinality box (on the right).

a. For **Primary Cardinality** enter **1** (one).

b. For **Secondary Cardinality** enter **1** (one).

Step 10: For **Changeability** select **AddOnly**.

Step 11: Click **Finish**.

The new GRM rule is displayed in the list.

View the inherited GRM rules for C9_ItemRevision

Step 1: Select the check box ☑ **Show Inherited Rules**.

Step 2: Note that the list is filtered with **Primary** as **C9_ItemRevision**, plus the business objects above the **C9_ItemRevision** business object hierarchy.

Step 3: To the right of the **Secondary Object** box, click **Browse**.

Step 4: Locate and double-click **C9_ERPDataForm**.

Step 5: Note that the list is filtered with **C9_ERPDataForm** as **Secondary**, plus the business objects above **C9_ERPDataForm** business object hierarchy.

Step 6: To the right of the **Relation Object** box, click **Browse**.

Step 7: Locate and double-click **IMAN_specification**.

Step 8: Select the check box for **Show Effective Rule** ☑.

Step 9: Note that the effective rule list contains the rule that you just created.

Step 10: Clear the **Show Effective Rule** check box ☐.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify C9_ItemRevision operations and GRM rules

Activity: Verify C9_ItemRevision operations and GRM rules

In this activity, you verify that new GRM rules were correctly deployed to the server.

- On **CCC_Item** to not allow the **CCC_ERPDataForm** to be pasted.
- On **CCC_ItemRevision** to only allow one **CCC_ERPDataForm** to be pasted as **IMAN_specification**, and to not allow the **CCC_ERPDataForm** to be cut.

Launch the Verify C9_ItemRevision operations and GRM rules activity.

Related information

For more information, review these topics in the online help:

- *Cutting, copying, pasting, and deleting data objects*

Stop the TAO ImR and log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Log on to Teamcenter rich client as ***jgordon*** (with password ***jgordon***).

Step 3: Click **My Teamcenter**.

Create a CCC_Item to test the GRM rules

Step 1: Select **Home**.

Step 2: Choose **File→New→Item**.

Step 3: Select **CCC_Item** and click **Next**.

Step 4: To the right of **ID**, click **Assign**.

Step 5: In the **Name** box, type **GRM_test_5**.

Step 6: Click **Finish**.

Step 7: Click **Cancel** to close the **New Item** dialog box.

Step 8: Expand the **CCC_Item** to see the **CCC_ItemRevision**.

Step 9: With the **CCC_ItemRevision** selected, choose **File→New→Form**.

Step 10: Click **More** to see more forms

Step 11: Select **CCC_ERPDataForm** and click **Next**.

Click **More** if needed to locate **CCC_ERPDataForm**.

Step 12: Click **Next**.

Step 13: In the **Name** box, type **CCC_ERPDataForm5**.

Step 14: Click **Finish**.

The **CCC_ERPDataForm** form is created under **CCC_ItemRevision** as an **IMAN_specification** relation.

Step 15: Click the **Summary** tab.

Attempt to cut the CCC_ERPDataForm from the CCC_ItemRevision

Step 1: Under the **CCC_ItemRevision**, right-click **CCC_ERPDataForm** and choose **Cut**.

Step 2: Note that a **Cut** dialog box appears stating that the operation failed. This is because of the **Add Only** rule.

Step 3: Click the red **X**.

An Error dialog box appears with more information about the failed operation.

Step 4: After reviewing the details of the error, click **OK** to close the **Error** dialog box.

Step 5: Click **OK** to close the **Cut** dialog box.

Attempt to paste a CCC_ERPDataForm into the CCC_ItemRevision

Step 1: Locate a **CCC_ERPDataForm** that was create earlier.

If needed, create a new **CCC_ERPDataForm** for this activity.

Step 2: Right-click a **CCC_ERPDataForm** and choose **Copy**.

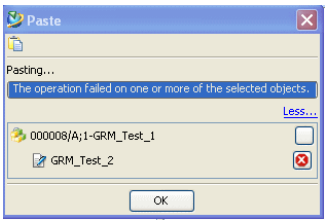
Caution

The next step tests the **Paste** GRM, but will purposely error.

Step 3: Right-click **CCC_ItemRevision** and choose **Paste**.

Step 4: Note that a **Paste** dialog box appears stating that the operation failed.

This is because a **CCC_ERPDataForm** already exists with an **IMAN_specification** relation.



Step 5: Click the red **X**.

An Error dialog box appears with more information about the failed operation.

Step 6: After reviewing the details of the error, click **OK** to close the **Error** dialog box.

Step 7: Click **OK** to close the **Paste** dialog box.

Add operation on C9_ItemRevision to auto-create a form

Activity: Add operation on C9_ItemRevision to auto-create a form

In this activity, you add an operation to the **C9_ItemRevision** to automatically create a **C9_ProductImpact** when the **C9_ItemRevision** is created. This is done by adding the **createObjects** extension rule as a **Post-Action** to the **IMAN_save** operation.

Launch the Add operation on C9_ItemRevision to auto-create a form activity.

Related information

For more information, review these topics in the online help:

- *Create a form business object*

Locate the IMAN_save operation

Step 1: In the **C9_ItemRevision** editor, click the **Operations** tab.

Step 2: Expand the **Operations** folder.

Step 3: Scroll down to locate the **Legacy Operations** folder.

You may need to scroll down both scroll bars.

Step 4: Expand the **Legacy Operations** folder.

Step 5: In the **Legacy Operations** folder, select the **IMAN_save** operation.

In a few seconds, the right side of the **Operations** view displays **Actions** and **Conditions**.

Note

You may need to scroll down to see **Extension Attachments**.

Add the createObjects extension rule

Step 1: To the right of the **Post-Action**, click **Add**.

The **Add Extension Rule** dialog box appears.

Step 2: To the right of **Extension** box, click **Browse**.

Step 3: Select **createObjects**.

Step 4: Click **OK**.

Add the Arguments to the createObjects extension rule

Step 1: To the right of the **Arguments**, click **Add**.

The **New Arguments** dialog box appears.

Step 2: To the right of the **objectType**, click **Browse**.

Step 3: Clear **COTS** and select **C9_ProductImpact**.

Step 4: Click **OK**.

Step 5: In the **New Arguments** dialog, to the right of the **relationType**, click **Browse**.

Step 6: In the filter string box, begin typing **IMAN_specification** until you can see it in the list.

Step 7: Select **IMAN_specification** and click **OK**.

	Argument	Value
1	**objectType**	**C9_ProductImpact**
2	**relationType**	**IMAN_specification**

Step 8: In the **New Argument** dialog box, click **Finish**.

Step 9: In the **Add Extension Rule** dialog box, click **Finish**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Configure automatic assign to project

Activity: Configure automatic assign to project

In this activity, you configure automatic assign to project for the **C9_Item** business object.

> **Note**
>
> The **CCC High Performance** project must exist from an earlier lesson, or create a My Teamcenter project to use in this activity.

Launch the Configure automatic assign to project activity.

Related information

For more information, review these topics in the online help:

- *Configuring projects and programs*

Prepare to configure automatic project assignment on C9_Item

Step 1: If necessary, start the Business Modeler IDE with the **CCC_Corporate** project open.

Step 2: Set the active extension file to **item_rules.xml**..

a. Choose **BMIDE→Organize Extensions→Set active extension file**.

b. Select **item_rules.xml**.

c. Click **OK**.

Step 3: Locate the **C9_Item** business object.

a. Click the bookmarks down arrow.

b. Choose **CCC_Corporate→Item**

c. Expand **Item**, if necessary, to see **C9_Item** in the **Business Objects** view.

Step 4: In the **Business Objects** view, double-click **C9_Item**.

A view containing information about the Item business object opens.

Add autoAssignToProject to the IMAN_save operation

Step 1: Start from the **C9_Item** editor.

Step 2: In the **C9_Item** editor view, click the **Operations** tab.

Step 3: Expand the **Operations** folder.

Step 4: Scroll down and expand the **Legacy Operations** folder.

Step 5: In the **Legacy Operations** folder, locate and select **IMAN_save** operation.

Step 6: On the right side, click ˅ **Operation Definition**.

The **Operation Definition** collapses and **Pre-Condition** is visible.

Step 7: To the right of the **Post-Action**, click **Add**.

The **Add Extension Rule** dialog box displays.

Note

If **Add** is unavailable, make sure **IMAN_save** is selected on the left.

Step 8: The **autoAssignToProject** is already in the **Extension** box.

If it is not, do the following:

a. Click **Browse**.

b. Select **autoAssignToProject**.

c. Click **OK**.

Step 9: Click **Finish**.

Save the data model

Step 1: Click the button on the toolbar (or choose **BMIDE→Save Data Model**).

Step 2: In the **Save Data Model** dialog box, verify that **CCC_Corporate** is selected.

Step 3: Click **OK**.

Deploy the data model

Activity: Deploy the data model

In this activity, you deploy the changes to the data model and check the deploy log files.

Launch the Deploy the data model activity.

Related information

For more information, review these topics in the online help:

- *Deploying templates*

Deploy the template

Step 1: Click the **Deploy Template** button on the toolbar.

Step 2: Verify the **Server Profile** is set to ***Teamcenter Training***.

Step 3: Verify the **User ID** box is ***jgordon***.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Connect** (for connection to the server).

Step 6: Click **Finish** (to deploy to the server).

The **Deployment to Teamcenter Server** dialog box displays status, and you may open the **TAO ImR** dialog box to view the incremental deployment steps.

Warning

Do not exit the **TAO ImR** dialog box.

Step 7: When the **Deployment Results** dialog appears, click **OK**.

Verify the deploy

Step 1: In the **Console** view, click **deploy.log** link to display the file.

Step 2: Verify all **Deploy Summary** steps have a status of **Success**.

Step 3: Scroll past the **Deploy Summary** section to note of the changes.

Step 4: Verify all steps have a status of **Success**.

Example

```
Deploy Step 1 of 9: Success
Deploy Step 2 of 9: Success
Deploy Step 3 of 9: Success
Deploy Step 4 of 9: Success
Deploy Step 5 of 9: Success
Deploy Step 6 of 9: Success
Deploy Step 7 of 9: Success
Deploy Step 8 of 9: Success
Deploy Step 9 of 9: Success
```

Step 5: Click **X** on the **deploy.log** view.

Stop the TAO ImR

Step 1: If **TAO ImR** is not already open, click the **TAO ImR** icon in your taskbar.

Step 2: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify operation on CCC_ItemRevision to auto-create a form

Activity: Verify operation on CCC_ItemRevision to auto-create a form

In this activity, you verify an operation for **CCC_ItemRevision** to automatically create a **CCC_ProductImpact** when the **CCC_ItemRevision** is created.

Launch the Verify operation on CCC_ItemRevision to auto-create a form activity.

Related information

For more information, review these topics in the online help:

- *Create a form business object*

Stop the TAO ImR and log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Choose **Start→All Programs→Teamcenter 10→Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type *jgordon*.

Step 5: Click **Login**.

The Teamcenter application is started.

Verify that a form is automatically created with an item

Step 1: In the rich client, select **My Teamcenter**.

Step 2: Select the **Home** folder.

Step 3: Choose **File→New→Item**.

Step 4: Select **CCC_Item** and click **Next**.

Step 5: To the right of **ID**, click **Assign**.

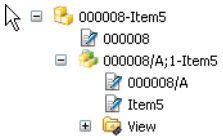
Step 6: In the **Name** box, type **Item5**.

Step 7: Click **Finish**.

Step 8: Click **Close**.

Step 9: Expand your new **CCC_Item** to see the **CCC_ItemRevision**.

Step 10: Expand the **CCC_ItemRevision** to see the **CCC_ProductImpact**.



Step 11: Ensure the **Details** view is selected.

Step 12: Select the **CCC_ItemRevision** to confirm the **CCC_ProductImpact** form and the **Specifications** relation.

Exit the rich client and stop the TAO ImR

Step 1: In the rich client, choose **File**→**Exit** (or click).

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Verify automatic project assignment

Activity: Verify automatic project assignment

In this activity, you create a new **CCC_Item** item and verify that the **CCC High Performance** project is automatically assigned.

> **Note**
>
> The **CCC High Performance** project must exist from an earlier lesson, or create a My Teamcenter project to use in this activity.

Launch the Verify automatic project assignment activity.

Related information

For more information, review these topics in the online help:

- *Configuring projects and programs*

Set the CCC High Performance project as the default project for jgordon

Step 1: If needed, select the **My Teamcenter** perspective.

Step 2: In My Teamcenter, choose **Edit→User Setting**, or click your current logon information.

The **User Settings** dialog box appears.

Step 3: From the **Session** tab, change **Group** to **standards**.

Step 4: Change **Role** to **Standards Engineer**.

Step 5: Click the **Project** box drop-down selector and choose **CCC100–CCC High Performance**.

Step 6: Click **OK**.

In My Teamcenter, your current logon information changes and includes the **CCC100–CCC High Performance** project.

Create a CCC_Item

Step 1: Select the **Home** folder.

Step 2: Choose **File**→**New**→**Item**.

Step 3: Select **CCC_Item** and click **Next**.

Step 4: To the right of **ID**, click **Assign**.

Step 5: In the **Name** box, type **TestProject**.

Step 6: Click **Finish**.

Step 7: Click **Cancel**.

Validate the project field was automatically populated

Step 1: Select the **TestProject** item in the **Home** folder.

Step 2: Change the view to **Viewer**.

Step 3: Click **Project** tab found at the top of the pane.

CCC100 appears in the **Project IDs** box. This is because the Business Modeler IDE was used to configure the **autoAssignToProject** extension to automatically assign a project to **CCC_Item** objects upon creation.

Step 4: Change the view back to **Summary**.

Log off of the rich client

Step 1: Choose **File→Exit**.

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Stop the **TAO ImR** (if it is in your taskbar).

Section 24: Additional Query Builder definitions

Create a query to find Home folders

Activity: Create a query to find Home folders

In this activity, you create a query that finds the **Home** folders of users in a Teamcenter site.

Launch the Create a query to find Home folders activity.

Related information

For more information, review these topics in the online help:

- *Create queries*

Define a query name and description

Step 1: Log on to Teamcenter as *jgordon* and click **Query Builder** in the navigation pane.

Step 2: Click **Clear**.

Step 3: Type **CCC Find Home Folders** in the **Name** box.

Step 4: In the **Modifiable Query Types** box, select **Local Query**.

Choose the query search class

Step 1: Click the **Search Class** button .

The **Class/Attribute Selection Popup** appears.

Step 2: Type **Folder** in the **Class/Attribute Selection Popup** dialog box.

Step 3: Click the **Press to find input name** button.

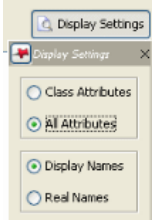
Step 4: Locate and select the **Folder** class.

After selecting **Folder**, the **Search Class** value *immediately* updates.

Step 5: In the **Class/Attribute Selection Popup**, click the small **Close** button.

Step 6: Click **Display Settings**.

Step 7: Select **All Attributes** to display the inherited attributes.



Step 8: Click the small **Close** button to close **Display Settings**.

Build the attribute criteria for the query

Step 1: In the **Attribute Selection** box, locate and double-click **Name**.

A new row is added to the **Search Criteria** table.

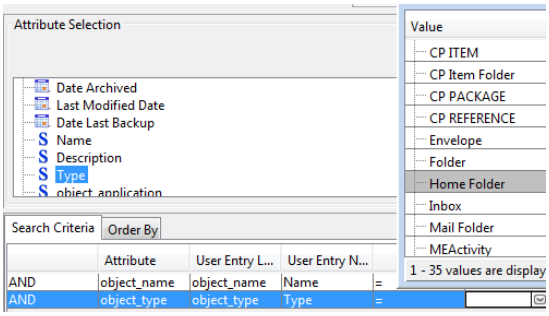
Step 2: Type **Home** in the **Default Value** box of the new row.

Step 3: Press Enter.

Step 4: In the **Attribute Selection** box, locate and double-click **Type**.

A new row is added to the **Search Criteria** table.

Step 5: Select **Home Folder** in the **Type** row for **Default Value**.



Step 6: To save the query definition, click **Create** .

Add Owner COTS attribute to the query

Step 1: In the **Attribute Selection** box, locate and double-click **Owner [User]**.

The **Owner [User]** expands to show the **User** properties.

Step 2: Below **Owner [User]**, locate and double-click **Id**.

A new row is added to the **Search Criteria** table.

Step 3: Change **User Entry L10N Key** from **user_id** to **Owning User**.

Add Group COTS attribute to query

Step 1: Locate and double-click **Group ID [Group]**.

The **Class Selection Dialog** appears.

Step 2: Double-click **Group**.

The **Class Selection Dialog** collapses and **Group ID [Group]** expands to show the **Group** properties.

Step 3: Below **Group ID [Group]**, locate and double-click **Name**.

A new row is added to the **Search Criteria** table.

Step 4: Change **User Entry L10N Key** from **name** to **Owning Group**.

Step 5: To save the changes, click **Modify** .

Step 6: Close the **Query Builder** application with the button.

Test the CCC Find Home Folders query

Step 1: Open the **My Teamcenter** window.

Step 2: Click **Search** to load the **Search** criteria pane.

Step 3: Click the **Select a Search** button .

The **Change Search** dialog box appears.

Step 4: Locate and select **CCC Find Home Folders**.

Step 5: Click **OK**.

The **CCC Find Home Folders** query definition loads in the **Search** view.

Step 6: Verify the attributes in the search form.

Step 7: Do not add any additional values in the search form.

Name defaults to **Home** from the query definition.

Step 8: Click **Execute the search** .

The results appear in the **Search Results** view.

Details of the **Search Results** view can be viewed by performing the following:

- In the **Search Results** view, select the top object.
- Select the **Details** view for a tabular display of properties.

Step 9: Perform another search.

- Click **More** to see **Owning User**.
- Set **Owning User** to be **White, Tom (twhite)**.

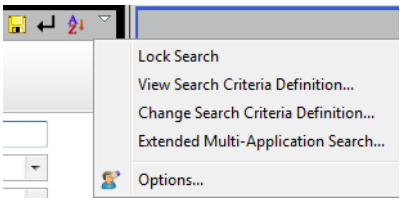
Step 10: Click **Execute the search** .

The results appear in the **Search Results** view.

Step 11: Click the button to close the **Search Results** view.

Add the queries to your favorites

Step 1: Click the **View Menu** button in the **Search** view and choose **Options**.



The **Options** dialog box appears.

Step 2: From the **Options** pane, scroll down to locate the **Search** folder and select **Favorites**.

Step 3: Scroll through the list of Queries in the pane on the right, and select the box for **CCC Find Home Folders**.

Step 4: Select the **Favorite** check box for **CCC_Item**.

Step 5: Click **OK**.

Step 6: Click the **Select a Search** button .

Step 7: Verify that the **CCC Find Home Folders** and **CCC_Item** queries appear in the list.

Create a query at the Form class

Activity: Create a query at the Form class

In this activity, you create a query that uses form properties.

Launch the Create a query at the Form class activity.

Related information

For more information, review these topics in the online help:

- *Create queries*

Open the Query Builder and define the first query information

Step 1: Click **Query Builder** in the navigation pane.

Step 2: Click **Clear**.

Step 3: Type **CCC_ERPDataForm search** in the **Name** box.

Step 4: Type **Search with CCC_ERPDataForm attributes** in the **Description** box.

Step 5: Select **Local Query** in the **Modifiable Query Types** list.

Step 6: Click the **Search Class** button.

Step 7: Type **Form** in the **Class/Attribute Selection Popup** dialog box.

Step 8: Click **Press to find input name** to locate and select the **Form** class.

Step 9: Click **Close**.

Add inherited COTS attributes to the criteria for the query

Step 1: Verify that you are displaying **All Attributes**.

Tip

Go to the next item, but if you need help, use these steps:

a. Click **Display Settings** .

b. Select the **All Attributes** option.

c. Click **Close** to close the **Display Settings**.

Step 2: Locate and double-click these attributes. The order will be set later.

Display Name	Real Name
Name	**object_name**
Description	**object_desc**
Type	**object_type**

For each attribute, a new row is added to the **Search Criteria** table.

Step 3: Set **Default Value** of **Type** to **CCC_ERPDataForm**.

CCC_ERPDataForm changes to **C9_ERPDataForm**.

Step 4: Click **Create** .

Step 5: Select the **object_type** attribute and clear the **User Entry L10N Key** value.

Leaving **User Entry L10N Key** blank hides the **Type** clause from the user.

Step 6: Click **Modify** .

Build the new attribute criteria for the query

Step 1: In the **Attribute Selection** box, locate and double-click **Attributes**.

The **Class Selection Dialog** appears.

Step 2: Type **C9_ERPDataFormStorage** in the **Class Selection Dialog** dialog box.

Step 3: Click **Press to find input name** to locate and select the **C9_ERPDataFormStorage** class.

Step 4: Click **OK**.

The **Attributes [C9_ERPDataFormStorage]** expands.

Step 5: Locate and double-click these attributes. The order is set later.

Display Name	Real Name
CCC_ERPTagNumber	c9_ERPTagNumber
CCC_Nomenclature	c9_Nomenclature
CCC_LongLead	c9_LongLead
CCC_PrototypeDate	c9_PrototypeDate

For each attribute, a new row is added to the **Search Criteria** table.

Step 6: Change each **User Entry L10N Key** value to match the **Display Name**.

Step 7: Click **Modify** .

Set default values and logical operators

Step 1: Change the operator of **CCC_PrototypeDate** to **<=**.

The search results must be earlier than **CCC_PrototypeDate** (less than or equal to).

Step 2: Type **$TODAY** in the **Default Value** box of **CCC_PrototypeDate** and press Enter.

Step 3: Set **CCC_LongLead != TRUE**.

- Type **TRUE** in the **Default Value** box of **CCC_LongLead**.
- Press Enter.
- Change the operator from **=** (equal) to **!=** (not equal) for **CCC_LongLead**.

Step 4: Click **Modify** .

Set the attribute order and save the query

Step 1: Arrange the order by using the up ▲ and down ▼ arrows.

Display Name	Real Name
Name	**object_name**
Description	**object_desc**
Type	**object_type**
CCC_ERPTagNumber	**c9_ERPTagNumber**
CCC_Nomenclature	**c9_Nomenclature**
CCC_LongLead	**c9_LongLead**
CCC_PrototypeDate	**c9_PrototypeDate**

Step 2: Click **Modify** 🔑.

If **Modify** is not available, confirm that **AND** is in the left column for all rows.

Step 3: Close the **Query Builder** application with the ☒ button.

Test the query

Step 1: Open the **My Teamcenter** window and **Search** criteria pane if necessary.

Step 2: Click the **Select a Search** button .

The **Change Search** dialog box appears.

Step 3: Select **CCC_ERPDataForm search** and click **OK**.

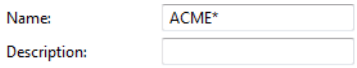
Step 4: Verify the new attributes in the search form.

Step 5: Click the to clear the criteria fields.

Step 6: In the **Name** box, type **ACME** (asterisk).

Note

Be sure to use the asterisk.



Step 7: Click **Execute the search** .

The results appear in the **Search Results** view.

Step 8: Click the button to close the **Search Results** view.

Section 25: Additional Teamcenter security

Set up ADA and Access Manager rules for ITAR

Activity: Set up ADA and Access Manager rules for ITAR

In this activity, you configure your system for the authorized data access. Additionally, you set preferences for ADA and Access Manager rules for ITAR.

Launch the Set up ADA and Access Manager rules for ITAR activity.

Related information

For more information, review these topics in the online help:

- *Configuring authorized data access (ADA)*

Verify authorized data access (ADA) is enabled

Step 1: Log onto the rich client as *jgordon*.

Step 2: To locate preferences, choose **Edit→Options**.

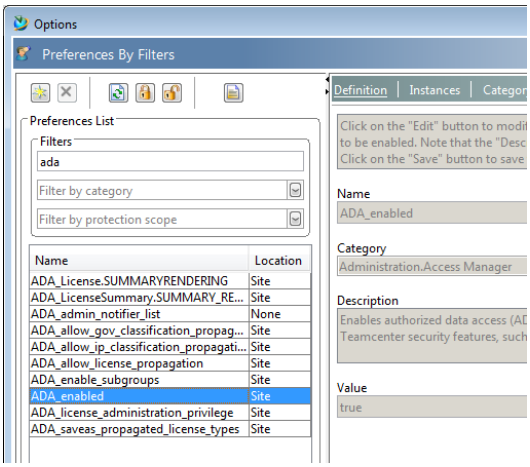
Step 3: Click the **Filters** link at the bottom of the **Options** dialog box.

Step 4: In the **Search by preference name** box, type **ada**.

The system displays the possible values in the **Preferences List**.

Step 5: Select the **ADA_enabled** preference.

Step 6: In the **Value** box, confirm that it is set to **true**.



Step 7: Do not close the **Options** dialog box.

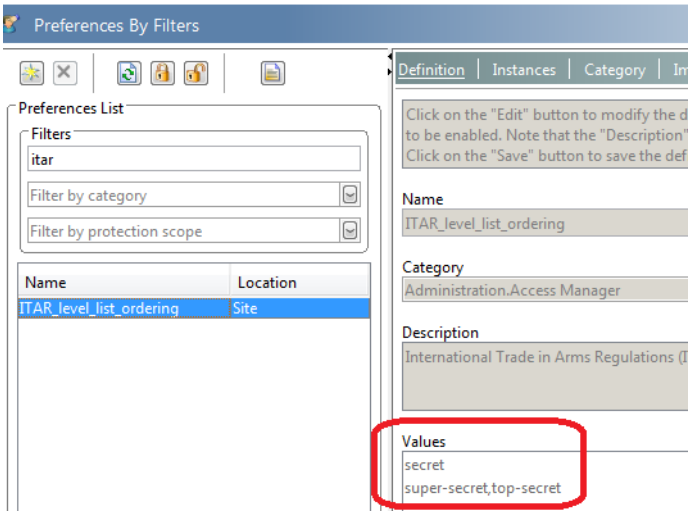
Verify the ITAR clearance and classification levels

Step 1: In the **Search by preference name** box, type **ITAR**.

The system displays the **ITAR_level_list_ordering** preference in the **Preferences List**.

Step 2: Select the **ITAR_level_list_ordering** preference.

The system displays the default values in **Values** for the **ITAR_level_list_ordering** preference.



Step 3: Click **Close** to close the **Options** dialog box.

Import a rule tree in Access Manager rules for ITAR

Step 1: Open the Access Manager application.

Step 2: Choose **File→Import**.

The import dialog box appears.

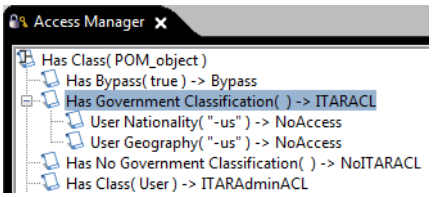
Step 3: Browse to your *STUDENT_HOME***import_security** directory and locate the **Tc_Security_ACL_tree.xml** file.

Step 4: Click **Import**.

A confirmation dialog box appears indicating the import was successful.

Step 5: Click **OK**.

Step 6: In the rule tree pane, confirm that your rule tree matches the following:



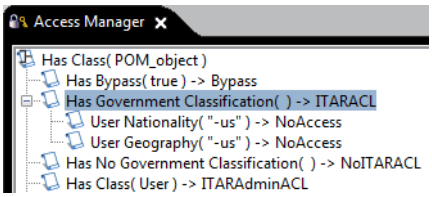
If needed, expand the **Has Government Classification( )→ITARACL** rule.

Step 7: Do not close the Access Manager application.

Confirm the new ITARACL access control list (ACL)

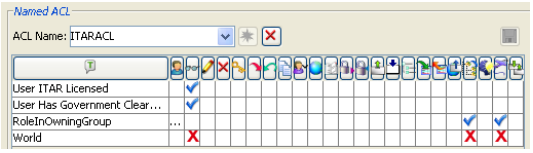
Step 1: In the rule tree pane, select this branch:

Has Government Classification( )→ITARACL



The **Named ACL** table on the right displays the **ACL name** (**ITARACL**) and the **accessor** entries.

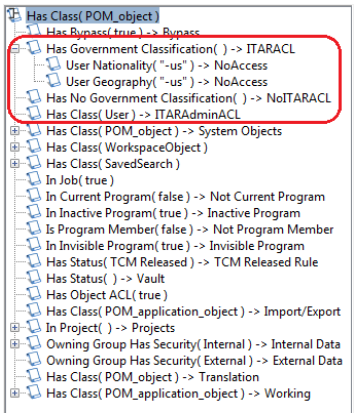
Step 2: Confirm that your **ITARACL** matches the following:



Step 3: Do not close the Access Manager application.

Confirm the remaining access control lists (ACLs

Step 1: Repeat the procedure to view the remaining access control lists (ACLs).



Step 2: Select these branches to confirm the **NoAccess** named ACL for both:

User Nationality(“-us”) –> NoAccess

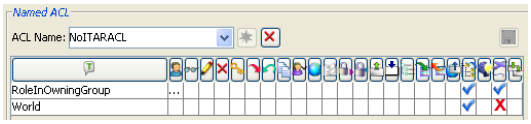
User Geography(“-us”) –> NoAccess

Confirm the **NoAccess** named ACL matches the following:

Step 3: Select this branch to confirm the **NoITARACL** named ACL:

Has No Government Classification( ) –> NoITARACL

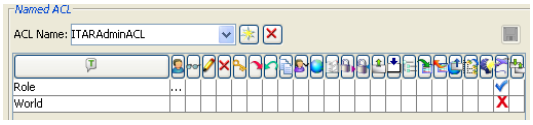
Confirm the **NoITARACL** named ACL matches the following:



Step 4: Select this branch to confirm the **ITARAdminACL** named ACL:

Has Class(User) –> ITARAdminACL

Confirm the **ITARAdminACL** named ACL matches the following:



Step 5: Close the Access Manager application.

Create new user accounts and add ADA attributes

Activity: Create new user accounts and add ADA attributes

In this activity, you:

- Use the **make_user** utility to add new users to your organization.
- Modify the geography and nationality for the selected user accounts.
- Create ITAR licenses.
- Choose a licensed user.

Launch the Create new user accounts and add ADA attributes activity.

Related information

For more information, review these topics in the online help:

- *Configuring authorized data access (ADA)*

Create user accounts using the make_user utility

Step 1: Choose **Start**→**All Programs**→**Teamcenter 10**→*tc_TC101svr* **Command Prompt**.

tc_TC101svr is the node ID and depends on the installation.

Step 2: In the *tc_TC101svr* **Command Prompt**, change the directory to the *STUDENT_HOME***import_security** directory.

Step 3: Type **mu_security.bat** and press Enter.

Wait until the script completes before continuing to the next task.

Step 4: When the script completes, check the results in the *tc_TC101svr* **Command Prompt**.

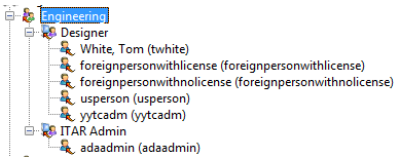
Step 5: Type **exit** to close the *tc_TC101svr* **Command Prompt**.

View the organization

Step 1: Open the Organization application.

Step 2: In the **Organization** tree, expand the **Engineering** group and roles.

Step 3: Verify the newly created users as displayed below.



Step 4: Do not close the Organization application.

Change the Role setting to the ITAR Admin

Step 1: Change your role to **ITAR Admin** by first choosing **Edit→User Setting**.

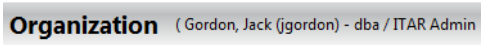
The **ITAR Admin** role is needed modify ADA and ITAR user attributes.

The **User Settings** dialog box appears.

Step 2: From the **Session** tab, select **ITAR Admin** from the **Role** list.

Step 3: Click **OK**.

Your current user group setting appears in the **Organization** window.



Step 4: Do not close the Organization application.

Assign ITAR attributes geography and nationality

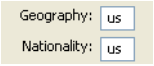
Step 1: Double-click **Users** in the lower left **Organization List** tree.

Step 2: Select the *jgordon* user account.

> **Note**
>
> In the next few steps, ensure that you type *lowercase* **us**.

Step 3: Type **us** in the **Geography** box.

Step 4: Type **us** in the **Nationality** box.



Step 5: Click **Modify**.

Step 6: Do not close the Organization application.

Assign ITAR attributes to the new users

Step 1: Continue to work from the lower left list of **Users**.

Step 2: Repeat the procedure to assign ITAR attributes on these **User ID** accounts.

User ID	Gov't Clearance	Geography	Nationality
foreignpersonwithnolicense	*blank*	**ru**	**ru**
foreignpersonwithlicense	*blank*	**ru**	**ru**
usperson	**secret**	**us**	**us**

Step 3: Locate the **User ID** user account.

Step 4: Select the **User ID** user account.

Step 5: Enter the values from the table for these ITAR attributes.

Note

Type *lowercase* for the values **ru**, **secret**, and **us**.

The *blank* implies do *not* enter a value.

Step 6: Click **Modify**.

Step 7: After you finish, verify each user's settings by again clicking **User ID**.

- **foreignpersonwithnolicense**
- **foreignpersonwithlicense**
- **usperson**
- *jgordon*

User ID	Gov't Clearance	Geography	Nationality
foreignpersonwithnolicense	*blank*	**ru**	**ru**
foreignpersonwithlicense	*blank*	**ru**	**ru**
usperson	**secret**	**us**	**us**

Step 8: Do not close the Organization application.

Set your Teamcenter sites to be a us site

Step 1: In the Organization application, double-click **Sites** in the bottom left **Organization List** tree.

Step 2: Select the current site.

Step 3: Type **us** in the **Geography** box.

Note

Make sure that you type *lowercase* **us**.

Step 4: Click **Modify**.

Step 5: Before the next task, log off the Teamcenter rich client.

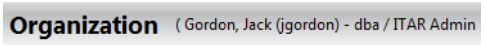
- Choose **File→Exit**.
- In the **Exit** dialog box, click **Yes**.

Create ITAR licenses and choose a licensed user

Step 1: Log on to Teamcenter using the *jgordon* account (password *jgordon*).

Step 2: Change your group and role to **dba** and **ITAR Admin**.

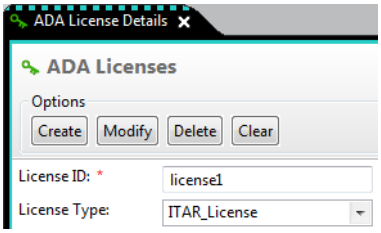
- Choose **Edit→User Setting** or click your current session settings.
- From the **Session** tab, select **dba** group and **ITAR Admin** role.
- Click **OK**.



Step 3: Click **ADA Licenses** in the navigation pane.

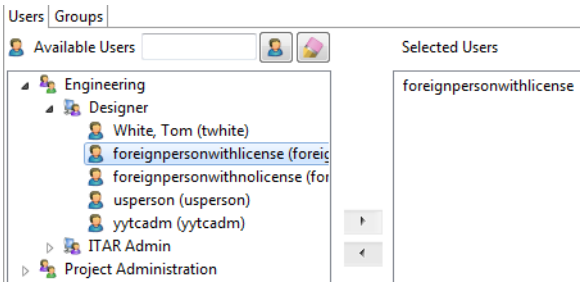
Step 4: Type **license1** in the **License ID** box.

Step 5: Select **ITAR_License** for **License Type**.



Step 6: Expand the **Engineering** group and then the **Designer** role in the **Organization** tree list and locate **foreignpersonwithlicense**.

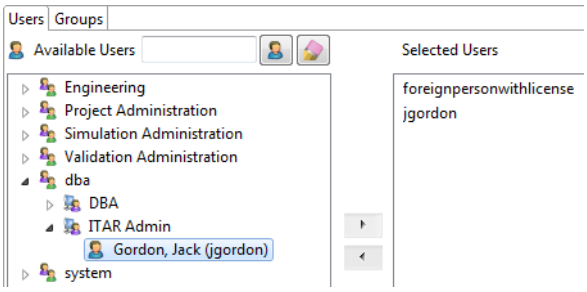
Step 7: Select **foreignpersonwithlicense** as the user, and click the right arrow to move **foreignpersonwithlicense** to **Selected Users**.



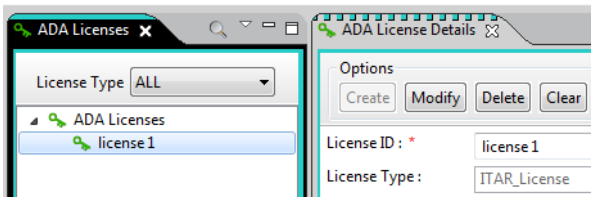
Step 8: Expand the **dba** group and then the **ITAR Admin** role in the **Organization** tree list and locate ***Gordon, Jack* (*jgordon*)**.

If you select the user on the left, the matching user ID shows on the right.

Step 9: Select ***Gordon, Jack* (*jgordon*)** as the user, and click the right arrow to move ***jgordon*** to **Selected Users**.



Step 10: Click **Create**.



Assign classification values and associate a license

Activity: Assign classification values and associate a license

In this activity, you:

- Create three items.
- Assign government classification values to the items.
- Associate a license to the items.

Launch the Assign classification values and associate a license activity.

Related information

For more information, review these topics in the online help:

- *Configuring authorized data access (ADA)*

Create three new items

Step 1: Open the My Teamcenter application.

Step 2: Return to your **Home** folder.

Click the **Home** button below **Quick Links** in the navigation pane.

Step 3: Select your **Home** folder in the **Folders** tree pane.

Step 4: Choose **File→New→Item**.

Step 5: Use the following steps to create new items with these **Name** values.

	Name
1	**ITAR-controlled**
2	**NOT ITAR-controlled**
3	**ITAR-controlled WITH license**

a. From the **New Item** dialog box, select **CCC_Item**.

b. Click **Next**.

c. Click **Assign**.

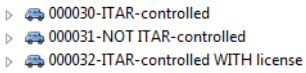
d. Type the name from the above table in the **Name** box.

e. Click **Finish**.

f. Repeat for the remaining items with a **Name** in the table.

Step 6: Click **Cancel** to close the **New Item** dialog box.

Step 7: Verify that you have these three items in your **Home** folder.



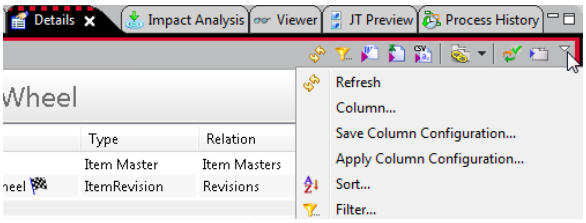
Add Details tab columns for ITAR properties

The **Gov Classification** and **License List** columns are added.

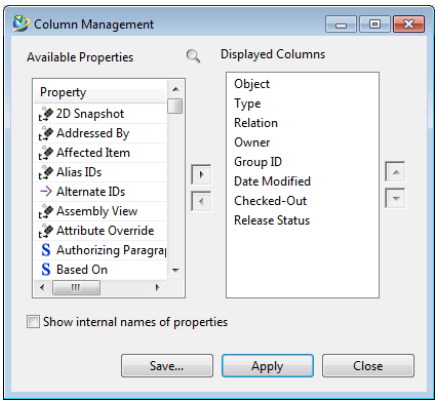
Object	Type	Gov Classification	License List
000030-ITAR-controlled	CCC_Item		
000031-NOT ITAR-controlled	CCC_Item		
000032-ITAR-controlled WITH license	CCC_Item		

Step 1: Click the **Details** tab.

Step 2: In the **Details** view, click the **Menu** button and choose **Column...**.



Step 3: The **Column Management** dialog box appears with the **Displayed Columns** settings.



Step 4: Scroll down the **Available Properties** list to locate **Gov Classification**.

Step 5: Select **Gov Classification** and click **Add to Displayed Columns** .

Step 6: Scroll down the **Available Properties** list to locate **License List**.

Step 7: Select **License List** and click **Add to Displayed Columns** .

Step 8: In the **Displayed Columns** column, move **Gov Classification** and **License List** up to immediately after **Type**.

- Select **Gov Classification** and click the **Move Up** button .
- Select **License List** and click the **Move Up** button .

Step 9: Click **Apply** to add the property columns to the current view.

Step 10: Click **Close** to close the **Column Management** dialog box.

Step 11: Verify that **Gov Classification** and **License List** property columns are added.

Object	Type	Gov Classification	License List
000030-ITAR-controlled	CCC_Item		
000031-NOT ITAR-controlled	CCC_Item		
000032-ITAR-controlled WITH license	CCC_Item		

Update the Gov Classification property for the ITAR-controlled item

Step 1: Right-click the **ITAR-controlled** item and choose **Edit Properties**.

Step 2: Click **Yes**.

The **Edit Properties** dialog box appears (initially with general properties).

Step 3: In the **Edit Properties** dialog box, click **All**.

Step 4: At the bottom of the **Edit Properties** dialog box, click **Show empty properties**.

Step 5: Scroll down to locate the **Gov Classification** property.

Step 6: Type **secret** in the **Gov Classification** box.

Note

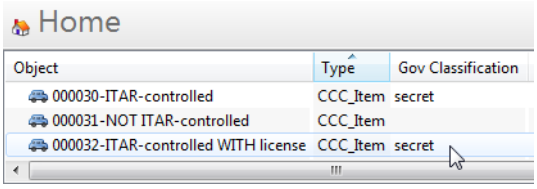
Use *lowercase* **secret**. The **Gov Classification** property must match the values specified in the **ITAR_level_list_ordering** preference.

Step 7: Click **Save and Check-In**.

Step 8: Click **Yes**.

Add secret Gov Classification to the ITAR-controlled WITH license item

Step 1: In the same way as the previous task, set the **secret** value on **Gov Classification** to the **ITAR-controlled WITH license** item by first right-clicking the **ITAR-controlled WITH license** item and choosing **Edit Properties**.



Note

Do *not* set a **secret Gov Classification** on the **NOT ITAR-controlled** item.

Tip

Go to the next item, but if you need help, use these steps:

a. Click **Yes** to check out the item.

b. In the **Edit Properties** dialog box, click **All**.

c. At the bottom of the **Edit Properties** dialog box, click **Show empty properties**.

d. Scroll down to locate the **Gov Classification** property and type **secret** in the **Gov Classification** box.

e. Click **Save and Check-In**.

f. Click **Yes**.

Associate a license with the ITAR-controlled WITH license item

Step 1: Right-click the **ITAR-controlled WITH license** item in the **Home** folder.

Step 2: Choose **License→Attach**.

Step 3: Select **license 1**.

Step 4: Click the right arrow to attach the license to the selected item.

Step 5: Click **OK**.

Attach license 1 to the master forms of ITAR-controlled WITH license

Attach **license1** to the **Item Master** and **Item Revision Master** forms that belong to the **ITAR-controlled WITH license** item.

Step 1: Expand the **ITAR-controlled WITH license** item to locate the **Item Master** form.

Step 2: Right-click the **Item Master** form and choose **License→Attach**.

Step 3: Select **license1** and click the right arrow to attach the license.

Step 4: Click **OK**.

Step 5: Expand the **ITAR-controlled WITH license** *revision* to locate its **Item Revision Master** form.

Step 6: Right-click the **Item Revision Master** form and choose **License→Attach**.

Step 7: Select **license1** and click the right arrow to attach the license.

Step 8: Click **OK**.

Prepare to test user access to data objects

Activity: Prepare to test user access to data objects

In this activity, you provide each user with a copy of the **ITAR-controlled**, **NOT ITAR-controlled** and **ITAR-controlled WITH license** items in their **Home** folder to prepare for the test of their access to data objects.

Launch the Prepare to test user access to data objects activity.

Related information

For more information, review these topics in the online help:

- *Configuring authorized data access (ADA)*

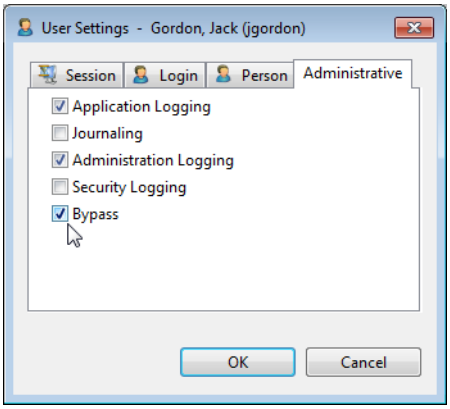
Turn on the administrative Bypass option

To have permissions to paste data into the users' home folders, you must turn on the **Bypass** option.

Step 1: Click your current user group setting that appears in the **My Teamcenter** window.

The **User Settings** dialog box appears.

Step 2: From the **Administrative** tab, select the **Bypass** box.



Step 3: Click **OK**.

Copy references of the new ITAR items

Step 1: Identify the three new ITAR items from your **Home** folder of *jgordon*.

- 000030-ITAR-controlled
- 000031-NOT ITAR-controlled
- 000032-ITAR-controlled WITH license

Step 2: Select all three ITAR items. They should all be highlighted.

Hold down the Ctrl keyboard key and select each item.

Step 3: Choose **Edit**→**Copy**.

Step 4: Verify that the clipboard count (lower right corner) shows **3**.

Paste the clipboard references into the new users' Home folders

Find the new users' **Home** folders and then paste the clipboard references.

Step 1: Click the **Search** button on the toolbar.

Step 2: In the **Search** tab, click the **Select a search** button .

Step 3: Select **General...** from the list and click **OK**.

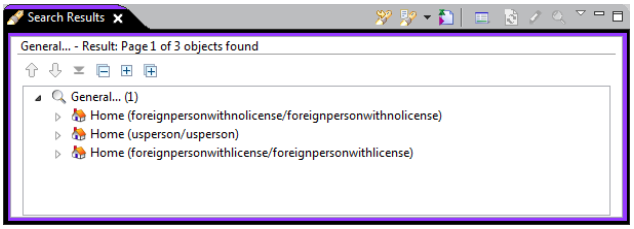
Step 4: Click **Clear all search fields** .

Step 5: Type ***person*** in the **Owning User** box.

Step 6: Type **Home** in the **Name** box.

Step 7: Click **Execute this query** to start the search.

The search is executed and the results are displayed in the **Search Results** pane.



Step 8: In the **Search Results** pane, select all three users' **Home** folders.

Tip

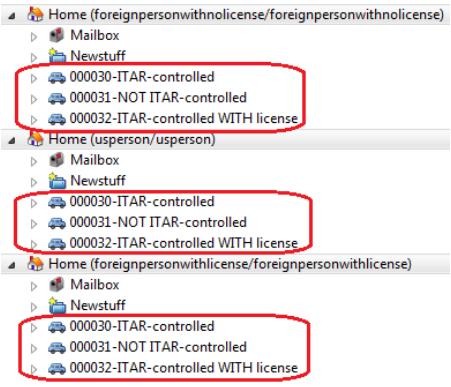
Hold down the Ctrl keyboard key and select each users' **Home** folder.

Step 9: Click the **Paste** button on the toolbar.

All clipboard items are pasted into the three users' **Home** folders.

Step 10: Verify the results by expanding all three users' **Home** folders from the **Search Results** pane.

Upon completion, each user has a copy of the **ITAR-controlled**, **NOT ITAR-controlled** and **ITAR-controlled WITH license** items in their **Home** folder.



Step 11: Log off the Teamcenter rich client.

Test user access to data objects

Activity: Test user access to data objects

In this activity, you test user access to the **ITAR-controlled**, **NOT ITAR-controlled**, and **ITAR-controlled WITH license** items.

Launch the Test user access to data objects activity.

Related information

For more information, review these topics in the online help:

- *Configuring authorized data access (ADA)*

Test usperson access to data objects

Each user has a copy of the **ITAR-controlled**, **NOT ITAR-controlled** and **ITAR-controlled WITH license** items in their **Home** folder.

However, the same data appears differently for different users depending on the security rules in place and their access allowed for these objects. Users are restricted to view data based on their nationality, clearance level, and granted licenses.

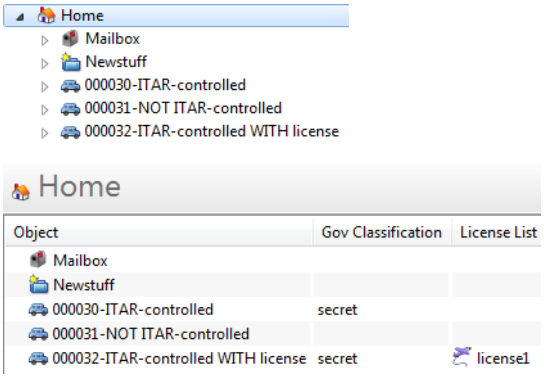
Step 1: Log on to Teamcenter as the **usperson** user and observe the resulting view in the **Home** folder.

> **Note**
>
> To log on, type **usperson** in the **User ID** and **Password** boxes.

Step 2: If necessary, return to your **Home** folder by clicking the **Home** button on the toolbar.

As **usperson**, you can view all three objects because **usperson** is a licensed user with a required clearance level. However, **usperson** does not have privileges to attach licenses to data objects. The **ITAR Admin** privilege is required to attach licenses.

Step 3: Confirm that your **usperson Home** folder appears as follows:



Step 4: Log off the Teamcenter rich client.

Test foreignpersonwithlicense access to data objects

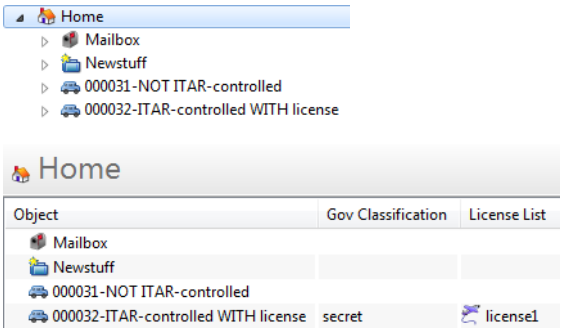
Step 1: Log on to Teamcenter as the **foreignpersonwithlicense** user and observe the resulting view in the **Home** folder.

> **Note**
>
> To log on, type **foreignpersonwithlicense** in the **User ID** and **Password** boxes.

Step 2: As **foreignpersonwithlicense**, you can view only **NOT ITAR-controlled** and **ITAR-controlled WITH license** items.

Access is blocked to the **ITAR-controlled** item because **foreignpersonwithlicense** does not have the required clearance level.

Step 3: Confirm that your **foreignpersonwithlicense Home** folder appears as follows:



Step 4: Log off the Teamcenter rich client.

Test foreignpersonwithnolicense access to data objects

Step 1: Log on to Teamcenter as the **foreignpersonwithnolicense** user and observe the resulting view in the **Home** folder.

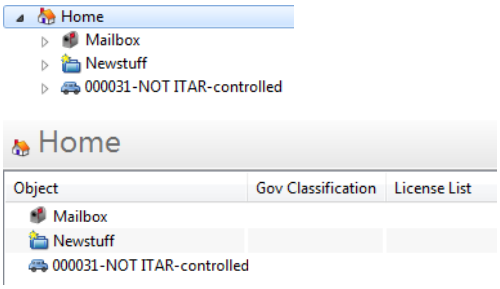
Note

To login, type **foreignpersonwithnolicense** in the **User ID** and **Password** boxes.

Step 2: As **foreignpersonwithnolicense**, you can only view the **NOT ITAR-controlled** item.

Access is blocked to the **ITAR-controlled** and **ITAR-controlled WITH license** items because **foreignpersonwithnolicense** is not a licensed user and does not have the required clearance level.

Step 3: Confirm that your **foreignpersonwithnolicense Home** folder appears as follows:



Step 4: Log off the Teamcenter rich client.

Section 26: Structure Manager revision rules

Create revision rules for Structure Manager

Activity: Create revision rules for Structure Manager

In this activity, you create a revision rule in Structure Manager.

Launch the Create revision rules for Structure Manager activity.

Related information

For more information, review these topics in the online help:

- *Creating a revision rule*

Log on to Teamcenter

Step 1: Stop **TAO ImR** (if it is in the taskbar).

a. Click the **TAO ImR** icon in your taskbar.

b. Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Step 2: Start a Teamcenter rich client session by double-clicking the **Teamcenter** icon on the desktop.

Or choose **Start**→**All Programs**→**Teamcenter 10**→**Teamcenter 10**.

Step 3: Verify the **User ID** box is *jgordon*.

Step 4: In the **Password** box, type ***jgordon***.

Step 5: Click **Login**.

The Teamcenter application is started.

Create a Released revision rule

Step 1: Click **Structure Manager** to start the Structure Manager application.

As needed, use the **Configure Applications** » at the bottom of the navigation pane for **Structure Manager**.

Step 2: Choose **Tools**→**Revision Rule**→**Create/Edit**.

The **Revision Rules** dialog box is shown with the default revision rule selected.

Step 3: Click **Create**.

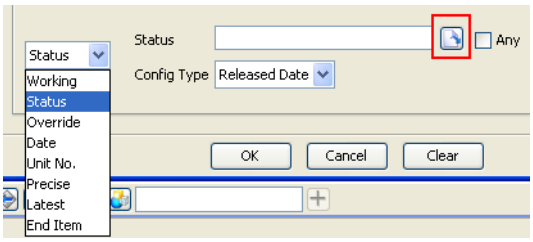
The **Create New Revision Rule** dialog box appears.

Step 4: Click **Clear**.

Step 5: Type **Released** in the **Name** box.

Add the Status entry for Released status

Step 1: Select **Status** from the drop-down selector.



The **Status** and **Config Type** boxes display.

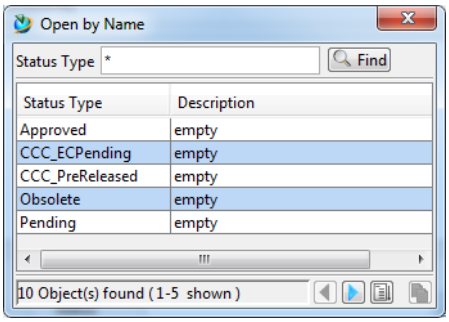
Step 2: To the right of the **Status** box, click the **Open by Name** button (inside the red box).

The **Open by Name** dialog appears.

Step 3: In the **Status Type** box, type ***** (asterisk).

Step 4: To the right of the **Status Type** box, click the Find button.

The status results are displayed, *but only 1–5 are shown*.



Step 5: Double-click the **Released** status.

If **Released** is not visible, to the right number of objects found, click the load button to load the table with all status values.

Step 6: Verify **Config Type** is **Released Date**.

Step 7: To add the entry, choose **Append**.

Add the Status entry for PreReleased status

Step 1: Click **Open by Name** again.

Step 2: Double-click the **CCC_PreReleased** status.

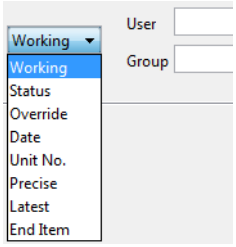
If **CCC_PreReleased** is not visible, to the right number of objects found, click the load button to load the table with all status values.

Step 3: Verify **Config Type** is **Released Date**.

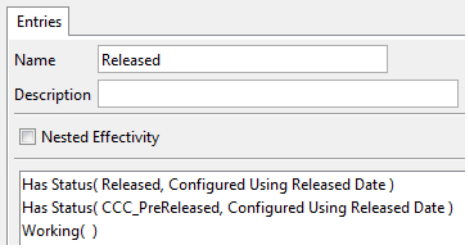
Step 4: To add the entry, click **Append**.

Add the Working entry

Step 1: Select **Working** from the drop-down selector.



Step 2: To add the entry, click **Append**.



Save the new revision rule

Step 1: Click **OK** to save the **Released** rule.

The new rule should now be viewable from the **Revision Rules** dialog box.

Step 2: Click **Close** to dismiss the **Revision Rules** window.

Next verify Revision Rule preference settings

Step 1: Choose **Edit→Options**.

Step 2: Click the **Filters** link at the bottom of the **Options** dialog box.

Step 3: In the **Search by preference name** box, type **TC_config**.

The system displays the possible values in the **Preferences List**.

Step 4: Select the **TC_config_rule_name** site preference.

This shows the default Revision Rule value.

Step 5: Notice the following key information in the **Definition** pane.

- The **Location** is set to **Site** on the right indicates that this is a site preference.
- The preference value in the **Value** list.

Step 6: In the **Search by preference name** box, type **TC_BOM**.

The system displays the possible values in the **Preferences List**.

Step 7: Select the **TC_BOM_Precision_Preference** site preference.

This setting defaults all newly-created BOMs to either Precise or Imprecise (the default).

Step 8: Notice the following key information in the **Definition** pane.

- The **Location** is set to **Site** on the right indicates that this is a site preference.
- The preference value in the **Value** list.

Step 9: Click **Close** to close the **Preferences** dialog.

Import revision rules for Structure Manager

Activity: Import revision rules for Structure Manager

In this activity, you import revisions rules for Structure Manager.

Launch the Import revision rules for Structure Manager activity.

Related information

For more information, review these topics in the online help:

- *upgrade_rev_rules*

View the local file revrule_definitions.xml

Step 1: Using Windows Explorer, navigate to the *STUDENT_HOME***import_revrules** folder.

Step 2: Right-click the **revrule_definitions.xml** file and choose **Open With**→**WordPad**.

Note

If the **Open With** menu is not configured to open **WordPad**, use any available text editor to open the xml file.

Step 3: Take note of **WorkingRuleEntry** and **StatusRuleEntry** in the following definitions:

- **CCC Latest ECPending**
- **CCC Latest Released**
- **CCC Latest Working**
- **CCC Released; Config by Date**

Step 4: Exit **WordPad**, but do not save any changes to the file.

Run classroom import_revrules.bat

Step 1: Locate your *tc_TC101svr* **Command Prompt** window.

If you do not have an *tc_TC101svr* **Command Prompt** window, choose **Start**→**All Programs**→**Teamcenter 10**→*tc_TC101svr* **Command Prompt**

Step 2: In the *tc_TC101svr* **Command Prompt**, change the directory to *STUDENT_HOME***import_revrules**.

Step 3: Type **import_revrules.bat** and press Enter.

The import.log file is placed in the current directory.

Step 4: When the script completes, check the results in the import.log file.

- Use Windows Explorer to navigate to *STUDENT_HOME***import_revrules**.
- Double-click the local file **import.log** to open it in a text editor.

Step 5: Exit the text editor, but do not save any changes to the file.

Step 6: In the *tc_TC101svr* **Command Prompt**, type **exit** and then press Enter.

Verify the imported revision rules

Step 1: Return to the Teamcenter rich client.

Step 2: In the Structure Manager application, choose **Tools**→**Revision Rule**→**Create/Edit**.

The **Revision Rules** dialog box is shown with imported revision rules.

Step 3: Click each of the following and take note of their entries:

- **CCC Latest ECPending**
- **CCC Latest Released**
- **CCC Latest Working**
- **CCC Released; Config by Date**

Step 4: Click **Close** to dismiss the **Revision Rules** dialog box.

Step 5: Click **My Teamcenter**.

Section 27: Administering workflow processes

Create a quick-release process

Activity: Create a quick-release process

In this activity, you define a process for releasing data without a signoff.

Launch the Create a quick-release process activity.

Related information

For more information, review these topics in the online help:

- *Create templates*

Create a new process template

Step 1: Click **Workflow Designer** in the navigation pane.

Step 2: Choose **File→New Root Template**.

The **New Root Template Dialog** appears.

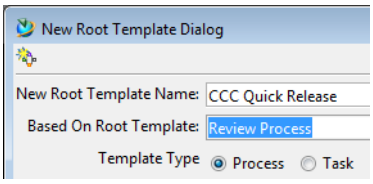
Step 3: Verify that the **Process** option is selected in **Template Type**.

Caution

A process template should be based on another process template and not on a task template.

Step 4: Enter **CCC Quick Release** in the **New Root Template Name** box.

Step 5: Select **Review Process** in the **Based on Root Template** list.



Step 6: Click **OK**.

Select the process status

Step 1: Click the **Display the Task Attributes Panel** button at the bottom of the pane.

The **Attributes** dialog box appears.

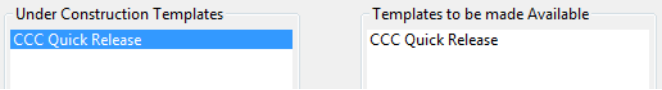
Step 2: To the right of **Release Status** box, click the drop-down button and select **Released**.

Step 3: Close the **Attributes** dialog box.

Step 4: Choose **File→Close**.

Step 5: Select the **CCC Quick Release** process in the **Under Construction Templates** list.

Step 6: Click the right arrow to copy it to the **Templates to be made Available** list.



Step 7: Click **OK**.

Test the quick-release process

Activity: Test the quick-release process

In this activity, you test the new quick-release process by releasing a dataset.

Launch the Test the quick-release process activity.

Related information

For more information, review these topics in the online help:

- *Initiate a workflow process*

Create a dataset

Step 1: In My Teamcenter, select your **Home** folder.

Step 2: Choose **File→New→Dataset**.

The **New Dataset** dialog box appears.

Step 3: Select **Text** in the **Type** list.

If necessary, click **More** and use the scroll bar to locate the **Text** dataset type.

The **Type** selected is **Text** and the **Tool Used** becomes **TextEditor**.

Step 4: Type **QR document** in the **Name** box.

Step 5: Click **OK**.

Release the QR document dataset

Step 1: Select the **QR document**.

Step 2: Choose **File→New→Workflow Process**.

The **New Process Dialog** appears.

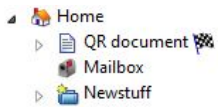
Tip

The Ctrl + P key combination opens the **New Process Dialog** dialog box.

Step 3: Select **CCC Quick Release** in the **Process Template** list.

Step 4: Click **OK**.

The status flag appears.



Assign a default process template

Activity: Assign a default process template

In this activity, you use Workflow Designer to assign default templates to certain objects.

Launch the Assign a default process template activity.

Related information

For more information, review these topics in the online help:

- *Basic concepts for using Workflow Designer*

Assign default templates

Step 1: Open the Workflow Designer application.

Step 2: Choose **Edit→Template Filter**.

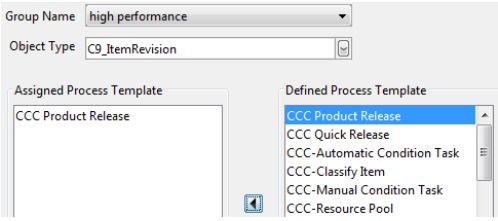
The **Process Template Filter Dialog** appears.

Step 3: Select **high performance** in the **Group Name** list.

Step 4: Select **C9_ItemRevision** in the **Object Type** list.

Step 5: From the **Defined Process Template** list, select **CCC Product Release**.

Step 6: Click the left arrow to copy the templates to the **Assigned Process Template** list.



Step 7: Click **OK**.

Set the preferences to show only the assigned templates to the high performance group

Step 1: Choose **Edit→Options**.

The **Options** dialog box appears.

Step 2: Click **Filters** at the bottom of the dialog box.

Step 3: Type **CR** in the **Search by preference name** box.

Step 4: Select **CR_allow_alternate_procedures**, which is now visible in the **Preferences List**.

Step 5: Click **Edit** at the bottom of the **Definition** pane.

Step 6: Type **none** in the **Value** box.

Step 7: Click **Save**.

Step 8: Click **Close** to close the **Options** dialog box.

Verify the user settings

Step 1: In My Teamcenter, choose **Edit→User Setting**.

Step 2: Set the session settings to the **high performance** group and the **DBA** role.

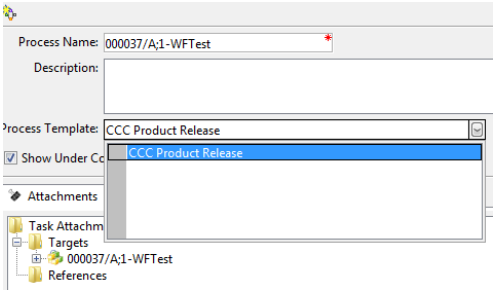
Step 3: Click **OK**.

Step 4: Select the **Home** folder and create a new **CCC_Item**.

Step 5: Expand the new item and select **CCC_ItemRevision**.

Step 6: Choose **File→New→Workflow Process**.

Step 7: Click the **Process Template** list to verify that only the **CCC Product Release** process template is available for the **high performance** group.



Step 8: Click **Cancel** to close the **New Process** dialog box.

Add release status using the release_man utility

Activity: Add release status using the release_man utility

In this activity, you release data in batch mode using the **release_man** utility.

Launch the Add release status using the release_man utility activity.

Related information

For more information, review these topics in the online help:

- *release_man*

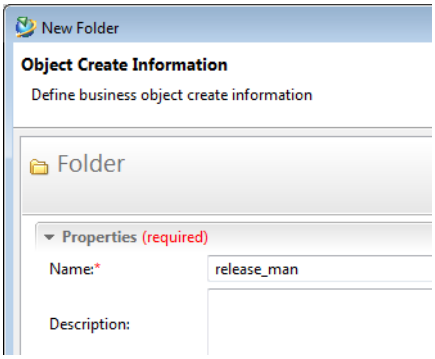
Create a release folder

Step 1: Select the My Teamcenter **Home** folder.

Step 2: Choose **File→New→Folder**.

Step 3: Select **Folder** and click **Next**.

Step 4: Type **release_man** in the name box.



Step 5: Click **Finish**.

The **release_man** folder is added to the My Teamcenter **Home** folder.

Step 6: Click **Cancel** to close the **New Folder** dialog box.

Create two new Text datasets

Step 1: In the Teamcenter rich client, select the **release_man** folder.

Step 2: Choose **File→New→Dataset**.

The **New Dataset** dialog box appears.

Step 3: Select **Text** in the **Type** list.

If necessary, click **More** and use the scroll bar to locate the **Text** dataset type.

Step 4: In the **Name** box, type **Plastic Specs**.

Step 5: Click the **Select an import file** button next to the **Import** box.

The **Upload File** dialog box appears.

Step 6: Navigate to the *STUDENT_HOME***\import_file** folder.

Step 7: Select the **plastic_specs.txt** file.

Step 8: Click **Upload**.

Step 9: Click **Apply**.

Step 10: In the **Name** box, type **Rubber Specs**.

Step 11: Click the **Select an import file** button next to the **Import** box.

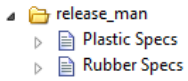
Step 12: As needed, navigate to the *STUDENT_HOME***\import_file** folder.

Step 13: Select the **rubber_specs.txt** file.

Step 14: Click **Upload**.

Step 15: Click **OK**.

Step 16: Confirm the **Plastic Specs** and **Rubber Specs** datasets are in the **release_man** folder.



Execute the release_man utility

Step 1: Open a Teamcenter command window.

Choose **Start→All Programs→Teamcenter 10→***tc_TC101svr* **Command Prompt**.

tc_TC101svr is the node ID and depends on the installation.

Step 2: In the command window, type the following command and press Enter.

```
release_man.exe -u=jgordon -p=jgordon -g=dba -status=C9_Released
-folder=release_man
```

Wait until **release_man.exe** completes before continuing to the next task.

Step 3: When the script completes, check the results in the *tc_TC101svr* **Command Prompt**.

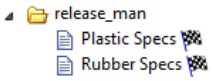
Step 4: Type **exit** to close the *tc_TC101svr* **Command Prompt**.

Review the release status

Step 1: Return to the Teamcenter rich client.

Step 2: In My Teamcenter, select the datasets and choose **View→Refresh**.

The status flags are visible.



Section 28: Rich client interface configuration

Organize the CCC_Item properties

Activity: Organize the CCC_Item properties

In this activity, you organize the **CCC** properties for your new business objects on a new tab of the properties dialog box.

Launch the Organize the CCC_Item properties activity.

Related information

For more information, review these topics in the online help:

- *Viewing object properties*

Search for XMLRenderingStylesheets

Step 1: Log on to Teamcenter using *jgordon* (password *jgordon*).

Step 2: If needed, open the **My Teamcenter** perspective by clicking the **My Teamcenter** button in the navigation pane.

Step 3: Set your session information to the **dba** group and the **DBA** role.

a. Click the current logon information link.

The **User Settings** dialog box appears.

The **Session** tab is selected.

b. From the **Group** list, select **dba**.

c. From the **Role** list, select **DBA**.

d. Click **OK**.

Step 4: Click **Search** to load the **Search** criteria view.

Step 5: Click the **Select a Search** button .

The **Change Search** dialog box appears.

Step 6: Change the search to **General...**.

Step 7: Click **Clear** to clear the values in the search criteria boxes.

Step 8: In the **Name** box, type **Item***.

Step 9: Change **Type** to **XMLRenderingStylesheet**.

Tip

Start typing **XML** into the **Search** box and double-click **XMLRenderingStylesheet** from the list that appears.

Step 10: Click **Execute the search** .

Step 11: **XMLRenderingStylesheet** datasets are placed in the **Search Results** view.

Create two new XMLRenderingStylesheet datasets

Step 1: In the **Search Results** view, select **Item**.

Step 2: Choose **File→Save As**.

Step 3: In the **Name** box, type **CCC_Item**.

Step 4: In the **Description** box, remove **OOTB**.

Step 5: Click **Finish**.

The **CCC_Item** dataset is referenced in your **Newstuff** folder.

Step 6: Repeat the previous steps to save the **CCC_ItemRevision** dataset as a new dataset.

a. In the **Search Results** view, select **ItemRevision**.

b. Choose **File→Save As**.

c. In the **Name** box, type **CCC_ItemRevision**.

d. In the **Description** box, remove **OOTB**.

e. Click **Finish**.

The **CCC_ItemRevision** dataset is referenced in your **Newstuff** folder.

Step 7: Click your **Home** icon.

Step 8: Expand **Newstuff** to view the two new datasets.

Step 9: Click the ✖ button to close the **Search Results** view.

Update the CCC_Item XMLRenderingStylesheet dataset

Step 1: Select the **CCC_ItemXMLRenderingStylesheet** dataset.

Step 2: Click the **Viewer** tab.

Double-click the **Viewer** tab to widen the **Viewer**.

The XML for the **CCC_Item XMLRenderingStylesheet** dataset appears.

Step 3: Near the bottom, locate this line:

```
<page title="All" titleKey="tc_xrt_All">
```

Step 4: Above that line of XML code, enter the following new section:

```
<page title="CCC_Props" titleKey="CCC_Props">
<property name="c9_CarType" />
<property name="c9_Category" />
<property name="c9_Customer" />
<property name="c9_Shipped" />
</page>
```

Step 5: Near the top right of the **Viewer**, confirm **Stylesheet Type** is **Property**.

Step 6: In the **Registered Type** box, type **CCC_Item**.

Step 7: Click **Apply**.

If necessary, double-click the **Viewer** tab to return the **Viewer** to the previous size.

Step 8: Click the **Summary** tab.

Update the CCC_ItemRevision XMLRenderingStylesheet

Step 1: Select the **CCC_ItemRevision XMLRenderingStylesheet** dataset.

Step 2: Click the **Viewer** tab.

Double-click the **Viewer** tab to widen the **Viewer**.

The XML for the **CCC_ItemRevision XMLRenderingStylesheet** dataset appears.

Step 3: Near the bottom, locate this line:

```
<page title="All" titleKey="tc_xrt_All">
```

Step 4: Above that line of XML code, enter the following new section:

```
<page title="CCC_Props" titleKey="CCC_Props">
<property name="c9_Contact" />
<property name="c9_DateWeighed" />
<property name="c9_Vendor" />
<property name="c9_Weight" />
</page>
```

Step 5: Near the top right of the **Viewer**, confirm **Stylesheet Type** is **Property**.

Step 6: In the **Registered Type** box, type **CCC_ItemRevision**.

Step 7: Click **Apply**.

If necessary, double-click the **Viewer** tab to return the **Viewer** to the previous size.

Confirm four preferences that register the style sheets

Step 1: Choose **Edit→Options**.

Step 2: Click **Search** in the lower left corner.

Step 3: Type **CCC_Item** in the **Search by keyword(s)** box.

Note the following preferences, where each preference is listed as follows:

Preference name	Preference value
C9_Item.RENDERING	**CCC_Item**
C9_ItemRevision.RENDERING	**CCC_ItemRevision**
CCC_Item.REGISTEREDTO	**C9_Item**
CCC_ItemRevision.REGISTEREDTO	**C9_ItemRevision**

Step 4: Close the **Options** dialog box.

Verify the property style sheets

Activity: Verify the property style sheets

In this activity, you verify the following style sheet display for the following business objects:

- **CCC_Item**
- **CCC_ItemRevision**

Launch the Verify the property style sheets activity.

Related information

For more information, review these topics in the online help:

- *Viewing and modifying object properties*

Verify that CCC_Item properties are updated

Step 1: To locate an existing **CCC_Item** object, first click the menu icon ▼ at the top of the navigation pane and select **Item Name**.

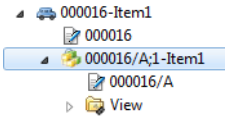
Step 2: Type **Item1** into the quick **Search** input box and click **Perform Search**.

Step 3: Right-click the **Item1** object and choose **View Properties**.

Step 4: Click **CCC_Props** to view the extended properties.

Step 5: Click **Cancel**.

Step 6: Expand your **CCC_Item** object to show the **CCC_ItemRevision** object.



Step 7: Right-click your **CCC_ItemRevision** and choose **View Properties**.

Step 8: Click **CCC_Props** to view the extended properties.

Step 9: Click **Cancel**.

Log off the rich client and stop the TAO ImR

Step 1: Choose **File→Exit**.

Step 2: In the **Exit** dialog box, click **Yes**.

Step 3: Click the **TAO ImR** icon in your taskbar.

Step 4: Click **X** in the **TAO ImR** window to exit **TAO ImR**.

Section 29: Navigating the Business Modeler IDE

Navigate the Business Modeler IDE

Activity: Navigate the Business Modeler IDE

In this activity, you navigate the Business Modeler IDE so you that can configure your perspectives the way you want. Finally you reset the Business Modeler IDE views.

> **Note**
>
> This activity requires a Business Modeler IDE template project already created, preferably named **CCC_Corporate** (but any name will work to navigate the Business Modeler IDE).

Launch the Navigate the Business Modeler IDE activity.

Related information

For more information, review these topics in the online help:

- *Business Modeler IDE perspectives, views, and editors*

Resize views in the Business Modeler IDE perspective

Step 1: Choose **Help→Welcome**.

Step 2: On the right, notice three choices in the **Welcome** dialog box.

Overview provides an overview of features.	**Overview**
Tutorials provides tutorials.	**Tutorials**
Workbench opens the **Workbench** dialog box. Once opened, this is the initial dialog box to be displayed.	**Workbench**

Step 3: Click **Overview**.

The new **Overview** dialog box displays with links to information for **Process overview**, **Purpose**, **User Interface**, **Setup** and **Basic Tasks**.

> **Note**
>
> If you click any of these links another dialog box opens. Close the dialog box by clicking the ☒.

Step 4: Click the **Home** button in the upper right toolbar.

You are to returned to the **Welcome** dialog box.

Step 5: Click **Workbench**.

Step 6: Click the **Standard** perspective.

Step 7: Place the cursor over the vertical divider bar. The cursor changes to a horizontal, two-headed arrow.

Step 8: With the cursor on the divider bar, click and drag the bar to resize views.

Step 9: Click the **Advanced** perspective.

Step 10: Above the **Extensions** tab, click and drag the horizontal divider bar to resize views.

Use the Business Modeler IDE bookmarks to navigate Business Objects

Step 1: Select the **Business Objects** view.

Step 2: Click the down arrow to the right of bookmarks icon.

Step 3: Choose **CCC_Corporate→Item**.

Step 4: In the left pane, expand **Item** by clicking the small arrow symbol .

Shown are other item primary business objects below the **Item** business object.

Step 5: Double-click **Item** to open the editor pane.

The **Main** tab shows which **Parent** contains related business object links.

Step 6: Click the **Properties** tab to show properties of **Item**.

Step 7: Double-click the **Item** tab to maximize the view.

Step 8: Again double-click the **Item** tab.

The pane returns to its original size.

Step 9: Click the **Main** tab.

Step 10: Click the **ItemRevision** link.

The **ItemRevision** definition opens into another editor pane.

Use the Business Modeler IDE bookmarks to navigate the Form business object

Step 1: Click the down arrow to the right of bookmarks icon.

Step 2: Choose **CCC_Corporate→Form**.

Step 3: In the left pane, expand **Form** by clicking the small arrow symbol .

Step 4: Double-click **Form** to open the editor pane.

Step 5: In the **Business Objects** view, click the **Find Business Object** button.

Step 6: In the filter string box, type **Arcweld**.

Step 7: From the **Find Business Object** dialog box, double-click **ArcWeld Attribute Form**.

Step 8: Double-click **ArcWeld Attribute Form** to open the editor pane.

Step 9: Remove some editor panes that are not in use.

a. Click **X** on the **ArcWeld Attribute Form** editor tab to close.

b. Right-click the **Item** editor tab and choose **Close Others**.

Navigate within the Extensions view

Step 1: In the **Extensions** view, expand the **CCC_Corporate** folder by clicking the arrow symbol ▷.

Step 2: Expand the **LOV** folder.

Step 3: Expand the **Classic LOV** folder.

Shown are COTS LOVs, many for general use (e.g. **BillCodes**, **Make Buy**).

Step 4: Double-click **BillCodes** to show its values in the editor.

Close some views then return them to their original positions

Step 1: Right-click the **Item** editor and choose **Close All**.

Step 2: Close the following tabs.

a. Click **X** on the **Business Objects** tab.

b. Click **X** on the **Extensions** tab.

Step 3: Choose **Window→Reset Perspective**.

Step 4: In the **Reset Perspective** dialog box, click **OK**.

The views return to their original positions.
Remember this to use later if needed!

Step 5: Close these views.

a. Click **X** on the **BMIDE Assistant** view.

b. Click **X** on the **Help** view.

Step 6: Do not exit the Business Modeler IDE.

Verify that the new project files are created

Step 1: From the **Navigator** view, expand the **CCC_Corporate** project.

Step 2: Expand the **extensions** folder.

The following folders and files should be visible.

- **CCC_Corporate**
  - **extensions**
    - **lang**
    - **default.xml**
    - **dependency.xml**
    - **master.xml**
  - **icons**
  - **install**
  - **output**
  - **.project**
  - **client_ccccorporate.properties**
  - **ProjectInfo.xml**

Step 3: Do not exit the Business Modeler IDE.

Step 4: Using Windows Explorer, navigate to the Business Modeler IDE project folders and files at the location *STUDENT_HOME*\bmide_projects\CCC_Corporate

Warning

Do *not* modify the Business Modeler IDE project files with an editor.

Step 5: Close the Windows Explorer dialog box.

Using Business Modeler IDE Find

Activity: Using Business Modeler IDE Find

In this activity, you find and open business objects, classes, and extensions. You learn how to filter your search criteria to narrow the search.

Note

This activity requires a Business Modeler IDE template project already created, preferably named **CCC_Corporate** (but any name works to navigate the Business Modeler IDE).

Launch the Using Business Modeler IDE Find activity.

Related information

For more information, review these topics in the online help:

- *Finding objects*

Find and open the Item business object

Step 1: Click the **Business Objects** view.

Step 2: Click the **Find Business Object** button.

Step 3: In the **Project** box, select the **CCC_Corporate** project.

Step 4: Leave **COTS** selected so that commercial off-the-shelf business objects are listed.

Step 5: Clear **Custom** so that the custom business objects you created are not listed.

Step 6: In the filter string box, type **I** and then **t**.

Business objects that begin with **it** are listed. Note that the filter is case-insensitive.

Step 7: In the filtered list, double-click **Item**.

Note that **Item** is selected in the **Business Objects** view.

Step 8: In the **Business Objects** view, double-click **Item**.

A view containing information about the Item business object opens.

Find and open the Item class

Step 1: Click the **Classes** tab to open the **Classes** view.

Step 2: In the **Classes** view, click the **Find Class** button.

Step 3: In the **Project** box, select the **CCC_Corporate** project.

Step 4: Clear **Custom** so that the custom business objects you created are not listed.

Step 5: In the filter string box, type **item**.

Step 6: In the filtered list, double-click **Item**.

Step 7: In the **Classes** view, double-click **Item**.

A view containing information about the **Item** class opens.

Tip

Click the **Item** business object view (the existing tab that you opened earlier), and to the right of **Storage Class** click the **Item** class link. This also opens the **Item** class view, and is much quicker.

Find and open an Extension object

Step 1: Click the **Extensions** tab.

Step 2: If necessary, in the **Extensions** view expand the **CCC_Corporate** folder by clicking the arrow symbol ▹.

Step 3: In the **Extensions** view, click the **Find Extension Object** button.

All the extensions are listed.

Step 4: In the **Project** box, select the **CCC_Corporate** project.

Step 5: Clear **Custom** so that the custom extension objects you created are not listed.

Step 6: In the filter string box, type **ms**.

Step 7: In the filtered list, double-click **MSWord**.

Step 8: In the **Extensions** view, double-click **MSWord**.

A view containing information about the **MSWord** tool opens.

Step 9: In the **Extensions** view, right-click **MSWord** and choose **Navigate→Go To→Parent**.

Note that the **Tool** folder is selected in the **Extensions** view.

Navigate the data model hierarchy

Activity: Navigate the data model hierarchy

In this activity, you navigate the Business Modeler IDE **CCC_Corporate** project to learn the key areas of the Teamcenter data model.

Launch the Navigate the data model hierarchy activity.

Related information

For more information, review these topics in the online help:

- *Creating data model objects to represent objects in Teamcenter*

Open WorkspaceObject (business object) in the UML editor

Step 1: Select the **Business Objects** view.

Step 2: Click the down arrow to the right of bookmarks icon.

Step 3: Choose **CCC_Corporate→WorkspaceObject**.

WorkspaceObject is selected in the list of **Business Objects**.

Step 4: Right-click **WorkspaceObject** and choose **Open In UML Editor**.

The **WorkspaceObject** properties are shown in the UML editor.

Step 5: In the **Business Objects** view, expand **WorkspaceObject** by clicking the arrow symbol .

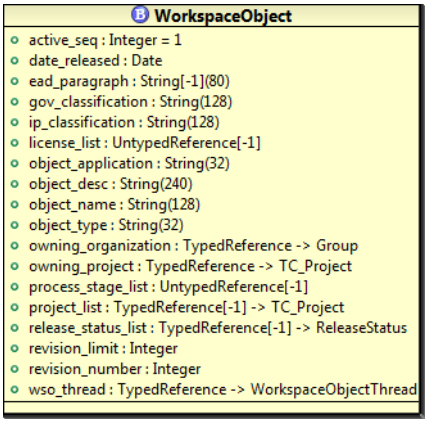
Step 6: Scroll down to locate **Dataset**, **Folder**, **Form**, **Item** and **ItemRevision**.

These inherit the properties of **WorkspaceObject**.

Navigate more of the Teamcenter data model in the Business Modeler IDE

Step 1: In the editor, the boxes can be rearranged by clicking the title and dragging to a new location.

Step 2: In the UML diagram, click the title of the **WorkspaceObject** box and drag it to the left or right.



Note that a * appears in the name of the ***WorkspaceObject1.tmd** tab. The * means the UML diagram was modified in some way (not the data model).

Step 3: Right-click the title of **WorkspaceObject** and choose **Show→Inheritance to Root**.

Several linked boxes appear to **POM_object** (or to **BusinessObject**).You will arrange the boxes in the next steps.

Step 4: Select the **Outline** view tab (bottom left by the **Extensions** view tab).

Step 5: Drag the shaded box (in the **Outline** view) to pan the boxes in the UML diagram.

Step 6: Arrange the UML diagram from **WorkspaceObject** to **POM_object**. Use the **Outline** view shaded box for assistance if necessary.

Step 7: Note the location of important attributes:

- **object_name**
- **owning_user**
- **owning_site**

Save the .tmd file and close the UML diagram

Step 1: Choose **File→Save**.

Caution

This **File→Save** saves the **WorkspaceObject1.tmd** file.

The **File→Save Data Model** is used to save changes to the data model.

The **File→Save** will save the UML diagram for later use. The ***** is removed from **WorkspaceObject1.tmd**. The file can be seen in the **Navigator** view, under the **UML Diagrams** folder.

Step 2: Right-click **WorkspaceObject1.tmd** and choose **Close All** to close all editors.

Step 3: Do not exit the Business Modeler IDE.

Explore the Item/Revision business object

Activity: Explore the Item/Revision business object

In this activity, you explore the **Item** and **ItemRevision** business objects for the following:

- Location in the Teamcenter data model relative to **WorkspaceObject**.
- Other primary item business objects below the **Item** and **ItemRevision**.
- Additional properties for **Item** and **ItemRevision**.
- Extension points available with the Business Modeler IDE.

Launch the Explore the Item/Revision business object activity.

Related information

For more information, review these topics in the online help:

- *Create an Item business object*

Open the Item business object in the UML editor

Step 1: Ensure the **CCC_Corporate** project is showing the **Business Objects** view.

Step 2: Click the down arrow to the right of bookmarks icon.

Step 3: Choose **CCC_Corporate→Item**.

Item is selected in the list of **Business Objects**.

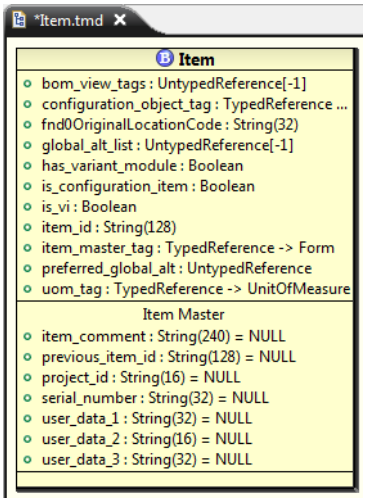
Step 4: In the **Business Objects** view, expand **Item** by clicking the arrow symbol .

Step 5: Scroll down to locate **ChangeItem**, **Document**, **Part** and others.

Navigate more of the Teamcenter data model in the Business Modeler IDE

Step 1: Right-click **Item** and choose **Open In UML Editor**.

The **Item** properties are shown in the UML editor.



The top properties are directly on the **Item** business object. The lower properties are **Runtime (from Storage Class)** on the **Item Master** form.

Step 2: In the UML diagram, right-click and choose **Select Filters**.

Step 3: Select the check box ☑ **Property: Runtime (from Storage Class)**.

The UML diagram *excludes from view* the properties with a check in the check box ☑.

Step 4: Click **OK**.

The **Item Master** form properties are excluded.

Step 5: In the UML diagram, right-click the title of **Item** and choose **Show→Parent**.

The **WorkspaceObject** properties display.

Step 6: Select the **Outline** view tab (bottom left by the **Extensions** view tab).

Step 7: Drag the shaded box (in the **Outline** view) to pan the boxes in the UML diagram.

Step 8: Arrange the UML diagram so the **Item** and **WorkspaceObject** do not overlap.

Use the **Outline** view shaded box if necessary.

Step 9: Note the location of following properties:

- **Item**: **item_id**
- **WorkspaceObject**: **object_name**

The Business Modeler IDE **object_name** (displayed in the rich client and thin client as **Item Name**) is inherited from **WorkspaceObject**.

Step 10: Close the ***Item.tmd** UML diagram by clicking the **X** in the tab.

Do not save the UML diagram.

Explore the Item business object with the editor views

Step 1: In the **Business Objects** view, double-click **Item** to open its editor.

Step 2: In the **Main** tab, notice the following:

Parent	**WorkspaceObject**
Item Revision	**ItemRevision**
Form	**Item Master**
Storage Class	**Item**

Step 3: Click the **Properties** tab.

Step 4: Double-click the **Item** tab to maximize the view.

Step 5: Note the **Properties**. Scroll down the **Properties** scroll bar.

Step 6: Select any property, and notice the **Property Constants** values.

Step 7: Lower in the **Item** editor, notice **Naming Rule Attaches**, **LOV Attaches** and **Localization** tabs.

Step 8: In the **Item** editor, click the other tabs for the **Item** business object.

Operations

Used to add functions (operations) to happen when the **Item** is created or copied (saveAs).

Display Rules

Used to control access to creating the **Item**.

Alternate ID Rules

Used for Alternate ID configuration for the **Item**.

GRM Rules

Used to configure relations to the **Item**.

Operation Descriptor

Used to put new properties on the **Item** create wizard.

Step 9: Double-click the **Item** tab to return the view to original size.

Step 10: Click the **Main** tab.

Open the ItemRevision business object in the UML editor

Step 1: Click the down arrow to the right of bookmarks icon.

Step 2: Choose **CCC_Corporate→ItemRevision**.

ItemRevision is selected in the list of **Business Objects**.

Step 3: In the **Business Objects** view, expand **ItemRevision** by clicking the arrow symbol .

Step 4: Scroll down to locate **DocumentRevision**, **PartRevision** and others.

Step 5: Right-click **ItemRevision** and choose **Open In UML Editor**.

The **ItemRevision** properties are shown in the UML editor.

The top properties are directly on the **ItemRevision** business object. The lower properties are **Runtime (from Storage Class)** on the **ItemRevision Master** form.

Step 6: In the UML diagram, right-click and choose **Select Filters**.

Step 7: Select the check box ☑ **Property: Runtime (from Storage Class)**.

Step 8: Click **OK**.

The **ItemRevision Master** form properties are excluded.

Step 9: In the UML diagram, right-click the title of **ItemRevision** and choose **Show→Parent**.

The **WorkspaceObject** properties display.

Step 10: Arrange the UML diagram so the **ItemRevision** and **WorkspaceObject** do not overlap.

Use the **Outline** view shaded box if necessary.

Step 11: Note the location of following properties:

- **ItemRevision**: **item_revision_id**
- **WorkspaceObject**: **object_name**

The Business Modeler IDE **object_name** (displayed in the rich client and thin client as **Item Name**) is inherited from **WorkspaceObject**.

Step 12: Close the ***ItemRevision1.tmd** UML diagram by clicking the **X** in the tab.

Do not save the UML diagram.

Explore the ItemRevision business object with the editor views

Step 1: In the **Business Objects** view, double-click **ItemRevision** to open its editor.

Step 2: In the **Main** tab, notice the following:

Parent	**WorkspaceObject**
Item	**Item**
Form	**ItemRevision Master**
Storage Class	**ItemRevision**

Step 3: Click the **Properties** tab.

Step 4: Double-click the **ItemRevision** tab to maximize the view.

Step 5: Note the **Properties** and **Property Constants** tables.

Step 6: Lower in the **ItemRevision** editor, notice **Naming Rule Attaches**, **LOV Attaches** and **Localization** lower in the editor.

Step 7: In the **ItemRevision** editor, click the other tabs for the **ItemRevision** business object.

Operations

Used to add functions (operations) to happen when the **ItemRevision** is created or copied (save-as).

Deep Copy Rules

Used for copy settings with the **ItemRevision** save-as or revise.

GRM Rules

Used to configure relations to the **ItemRevision**.

Operation Descriptor

Used to put new properties on the **ItemRevision** create wizard.

Step 8: Double-click the **ItemRevision** tab to return the view to original size.

Step 9: Click the **Main** tab.

Step 10: Right-click the **ItemRevision** tab and choose **Close All** to close all editors.

Step 11: If asked to save changes, click **No**.

Step 12: Do not exit the Business Modeler IDE.

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