TIBCO® MDM Studio

UI Builder Tutorial

Software Release 4.0
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Two-Second Advantage®

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Preface

The *TIBCO MDM Studio* provides a graphical interface for designing MDM artifacts and processes. It is based on TIBCO Business Studio and acts as an 'add on' component to Business Studio.

TIBCO MDM Studio comprises four components: the *Rulebase Designer,* the *Process Designer,* the *Repository Designer*, and the *UI Builder.*

The Rulebase Designer provides a graphical user interface for designing rules. The Rulebase Designer can be used to define rules from scratch or to edit existing MDM rules.

The Repository Designer is based on TIBCO Business Studio and acts as an 'add on' component to Business Studio. The Repository Designer adds a visual element to designing repositories and makes the process quicker and more intuitive.

The MDM UI Builder is a new tool developed to have a cleaner, simpler, more flexible UI in MDM. MDM UI Builder allows you to quickly, easily, & uniformly develop custom UIs by using simple drag & drop methods.

Topics

- Changes from the Previous Release of this Guide, page vi
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- Typographical Conventions, page ix
- Connecting with TIBCO Resources, page xi

Changes from the Previous Release of this Guide

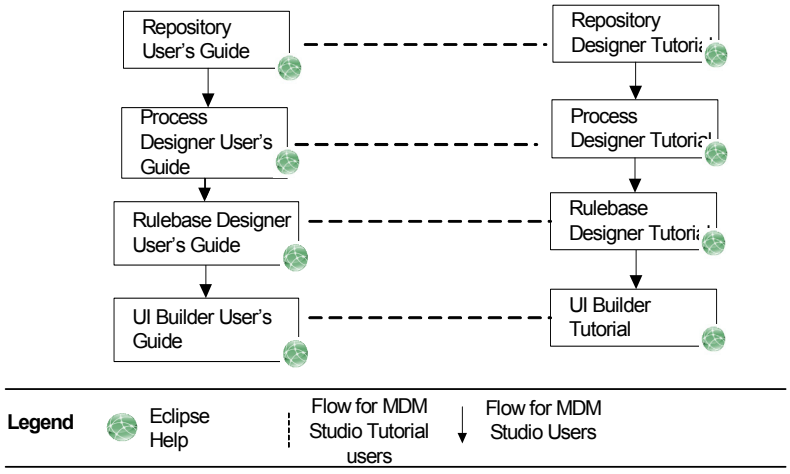
This is a new guide in this release.

Related Documentation

This section lists useful documentation resources.

TIBCO MDM Studio Documentation

The documentation road map shows the relationships between the books and online references in this product's documentation set.



TIBCO MDM Studio documentation set also contains an installation guide, release notes, and a readme file. The products mentioned in road map are available after you install the product.

The following documents form the TIBCO MDM Studio documentation set:

- *TIBCO MDM Studio Rulebase Designer User's Guide*
- *TIBCO MDM Studio Rulebase Designer Tutorial.*
- *TIBCO MDM Studio Repository Designer User's Guide.*
- *TIBCO MDM Studio Repository Designer Tutorial.*
- *TIBCO MDM Studio Process Designer User's Guide.*
- *TIBCO MDM Studio Process Designer Tutorial.*
- *TIBCO MDM Studio UI Builder User's Guide.*

- *TIBCO MDM Studio UI Builder Tutorial.*
- *TIBCO MDM Studio Release Notes.*

Other TIBCO Product Documentation

You may find it useful to read the documentation for the following TIBCO products:

- *TIBCO MDM User's Guide:* This manual explains features and benefits of TIBCO MDM from the business user's viewpoint.

Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

Convention	Use
TIBCO_HOME *ENV_HOME*	Many TIBCO products must be installed within the same home directory. This directory is referenced in documentation as *TIBCO_HOME*. The value of *TIBCO_HOME* depends on the operating system. For example, on Windows systems, the default value is `C:\tibco`. Other TIBCO products are installed into an installation environment. Incompatible products and multiple instances of the same product are installed into different installation environments. The directory into which such products are installed is referenced in documentation as *ENV_HOME*. The value of *ENV_HOME* depends on the operating system. For example, on Windows systems the default value is C:\tibco.
`code font`	Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example: Use `MyCommand` to start the foo process.
`bold code font`	Bold code font is used in the following ways: • In procedures, to indicate what a user types. For example: Type **`admin`**. • In large code samples, to indicate the parts of the sample that are of particular interest. • In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, `MyCommand` is enabled: MyCommand [**`enable`** | disable]
italic font	Italic font is used in the following ways: • To indicate a document title. For example: See *TIBCO BusinessWorks Concepts*. • To introduce new terms For example: A portal page may contain several portlets. *Portlets* are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: `MyCommand` *pathname*

Table 1 General Typographical Conventions (Cont'd)

Convention	Use
Key combinations	Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C. Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

Connecting with TIBCO Resources

How to Join TIBCOmmunity

TIBCOmmunity is an online destination for TIBCO customers, partners, and resident experts. It is a place to share and access the collective experience of the TIBCO community. TIBCOmmunity offers forums, blogs, and access to a variety of resources. To register, go to http://www.tibcommunity.com.

How to Access TIBCO Documentation

You can access TIBCO documentation here:

http://docs.tibco.com

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, contact TIBCO Support as follows:

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:

  http://www.tibco.com/services/support

- If you already have a valid maintenance or support contract, visit this site:

  https://support.tibco.com

  Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Chapter 1 UI Builder Tutorial

This chapter explains how to get started using the MDM UI Builder.

Topics

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- Task B - Define Repository Data, page 7
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Tutorial Overview

To get started with the UI Builder custom page, use this tutorial to create add and modify custom page and deploy it on MDM server. In this tutorial, we will do the following:

- Create a new Project to contain the Custom Pages.
- Create a repository model.
- Create a custom page for adding a new client details.
- Create a custom page for modifying the existing client details.
- Generate a wsdl
- Export the UI artifacts
- Deploy the custom pages along with the webservice and meta data on the MDM server.

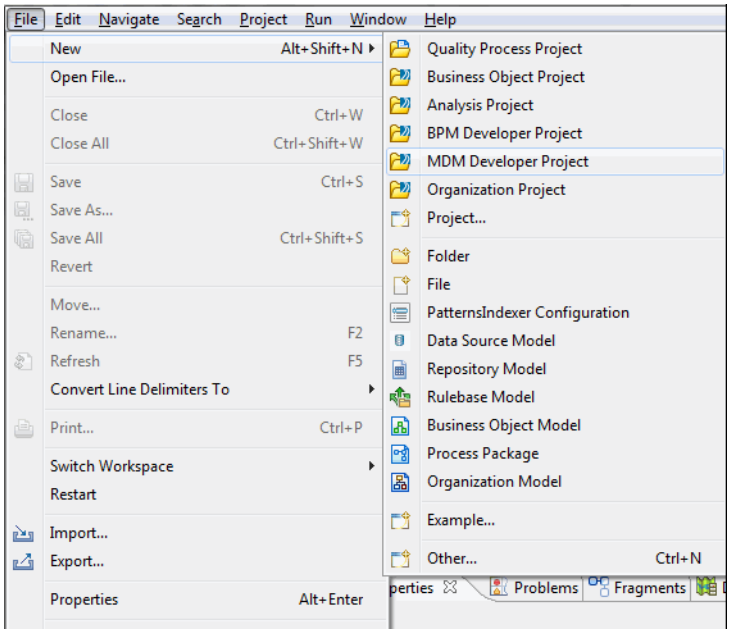
A **PersonAddressClient (PACModel)** repository model serves as the base data for creating the Custom Page. The Repository model contains the following:

- A **Client** repository (which contains Client data) on which the UI page will be built on. This Repository contains the following attributes - `Name`, `DepartmentName`, `BusinessType`, `ProjectName`, `StartDate`, `Duration`, `Enddate`, `ProjectDescription`.
- A **Person** repository (which contains Person data). This Repository contains the following attributes - `FirstName`, `MiddleName`, `LastName`, `DOB`.
- An **PersonalInformation** Attribute Group within the **Person** Repository containing `Religious, Gender, Height, Weight, Eyecolor,phone1, phone2` as attributes.
- An **SocialNetwork** Attribute Group within the **Person** Repository containing `Email, Twitterid, Yahooid, Facebookid, Linkedin` as attributes.
- A **Address** repository (which contains Address data). This Repository contains the following attributes - `Addresline1, Addressline2, City, State, Country, Zipcode.`
- A **Relationship** between **Client** and **Address** with `Type` (string) as Relationship Attributes.
- A **Relationship** between **Address** and **Person** with `Type` (string) as Relationship Attributes.
- A **Relationship** between **Person** and **Client** with `HourlyRate` (Amount) as Relationship Attributes.

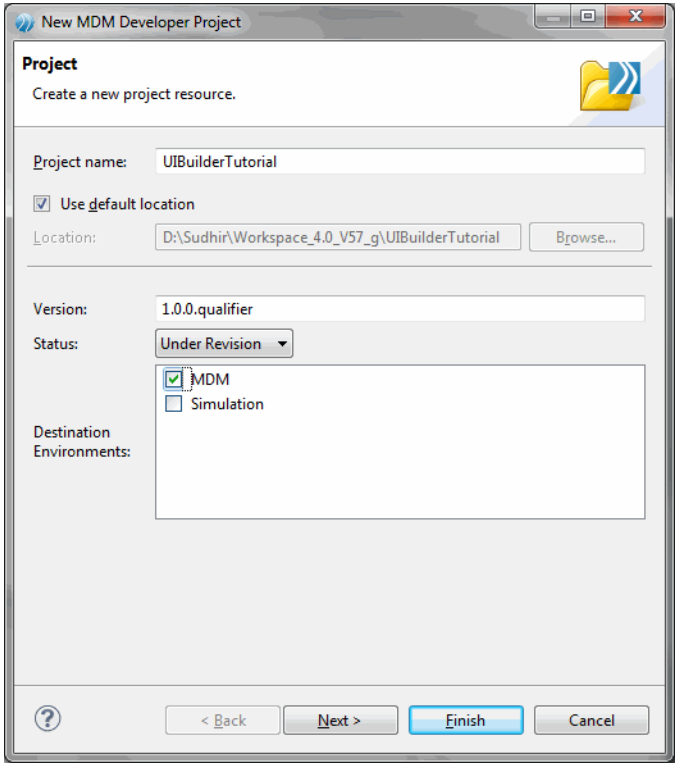
Task A - Create a Project

First, create a new Project to hold the Custom Page.

1. Go to **File->New-> MDM Developer Project**.

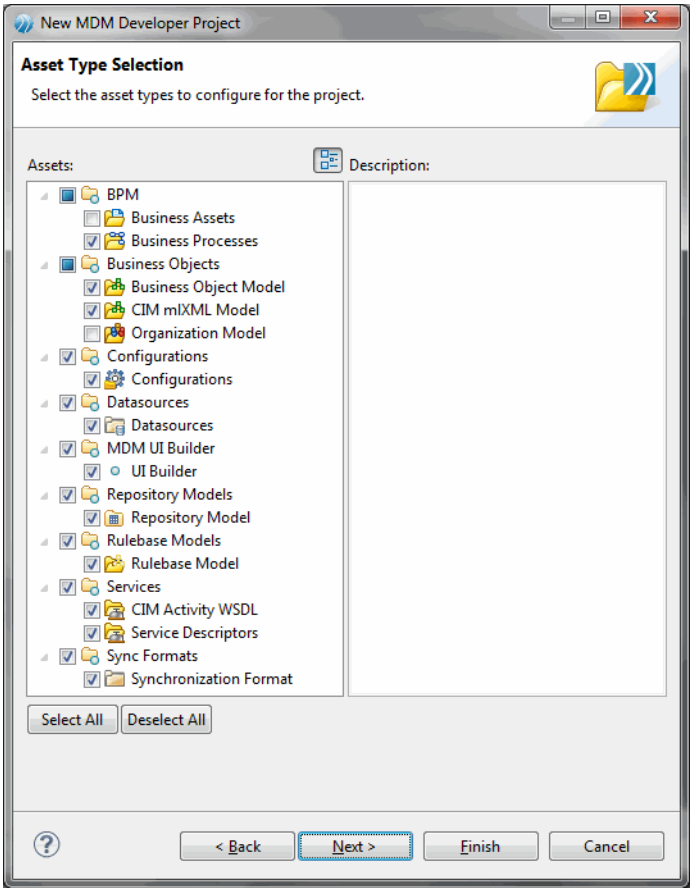


2. The Create a new project resource wizard is displayed.



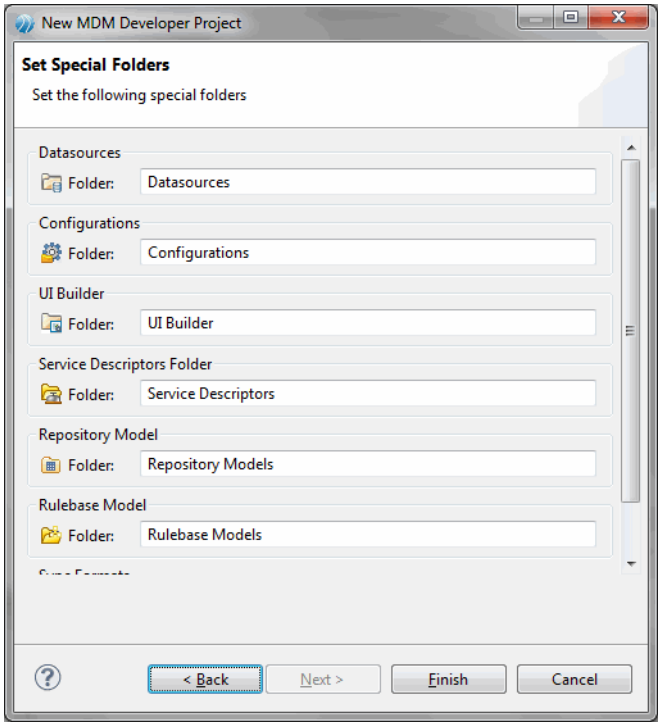
3. Provide a name for the Project: **UIBuilderTutorial**. Clear the **Use default location** checkbox if you want to provide a different location for the project (by default, the current workspace). Select Destination Environment as **MDM**. Click **Next**.

4. The Asset Type Selection dialog is displayed.



5. By default, all the asset type are selected. Click **Next**.
6. The **Business Object Model,** the **Business Processes**, the **Package Information**, the **Template Selection** wizards are displayed, select the relevant options and click **Next**.

7. The Set Special Folders wizard is displayed.

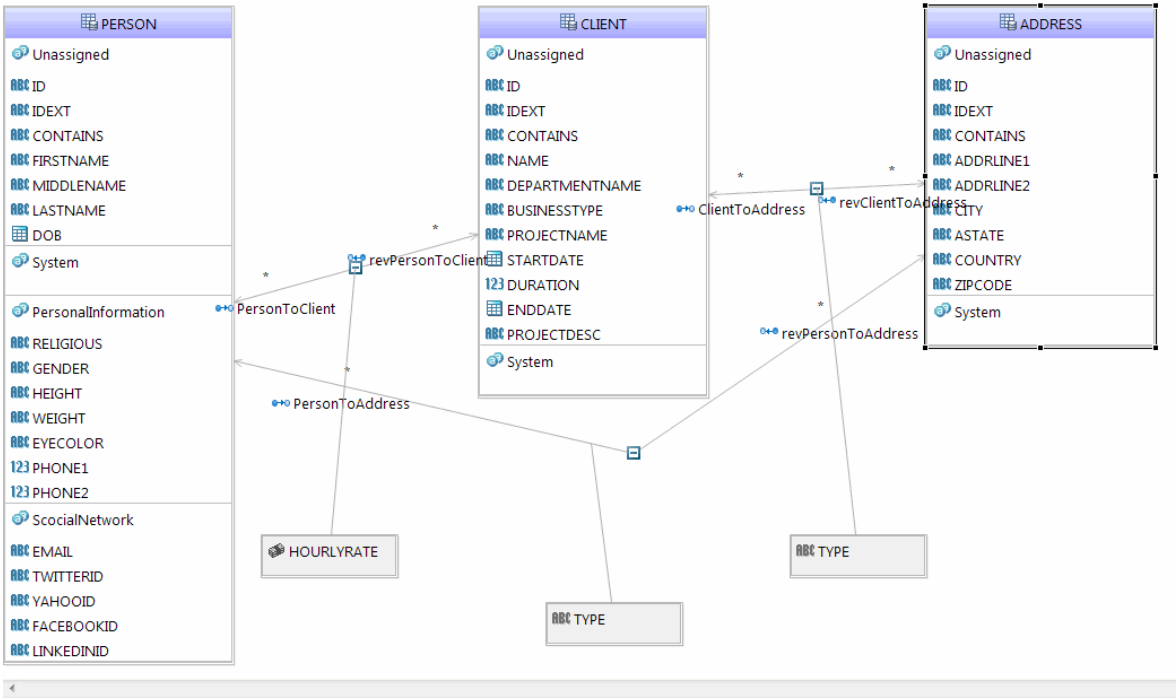


8. Click **Finish**.

Task B - Define Repository Data

In the Project Explorer, create a new repository model under the **Repository Models** folder (by right clicking the **Repository Models** folder, selecting **New > Repository Model**, and following the wizard). Call the file **PACModel.rep**.

Double click the newly created .**rep** file and create the following repository and relationship structure.

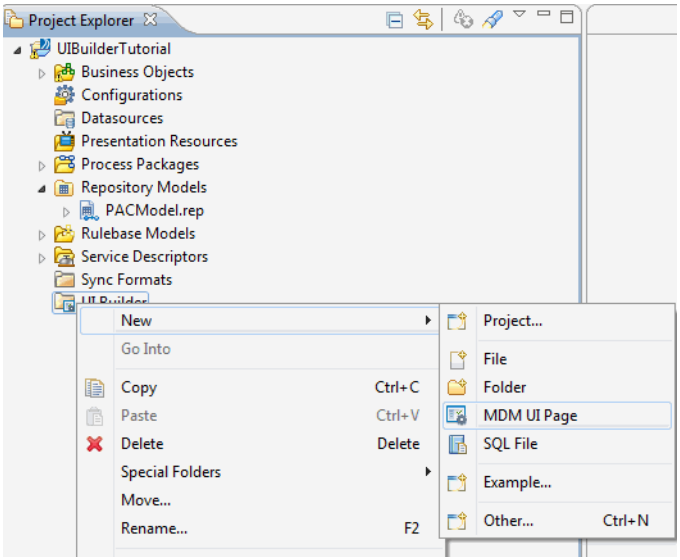


This will form the base data on which a UI page will be created.

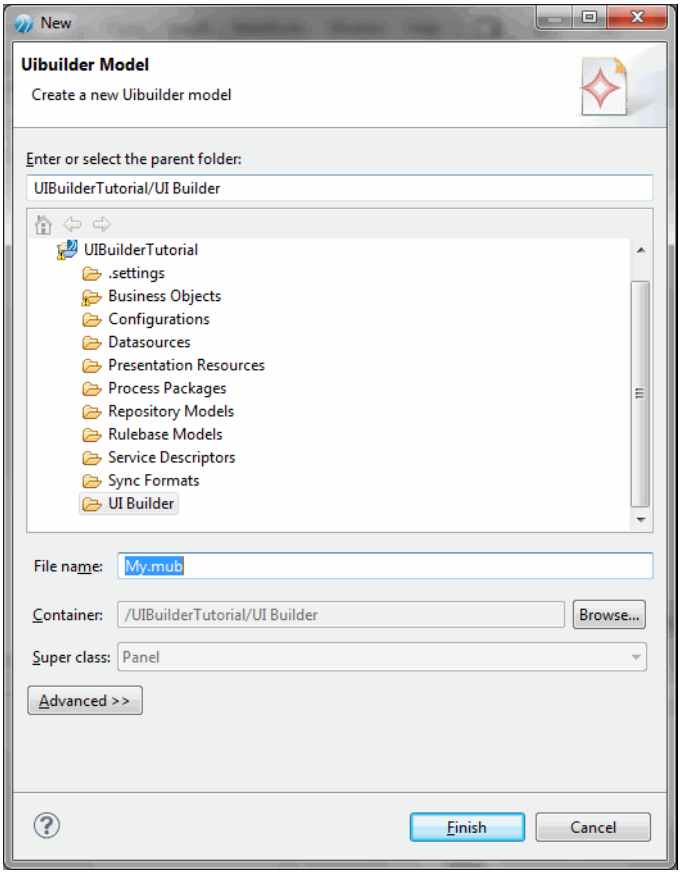
Task C - Create a new Custom Page - Add Client Details

Create a new page with the **Client** repository attributes and relationship.

1. Right click the **UIBuilder** folder in the Project Explorer and select **New > MDM UI Page.**

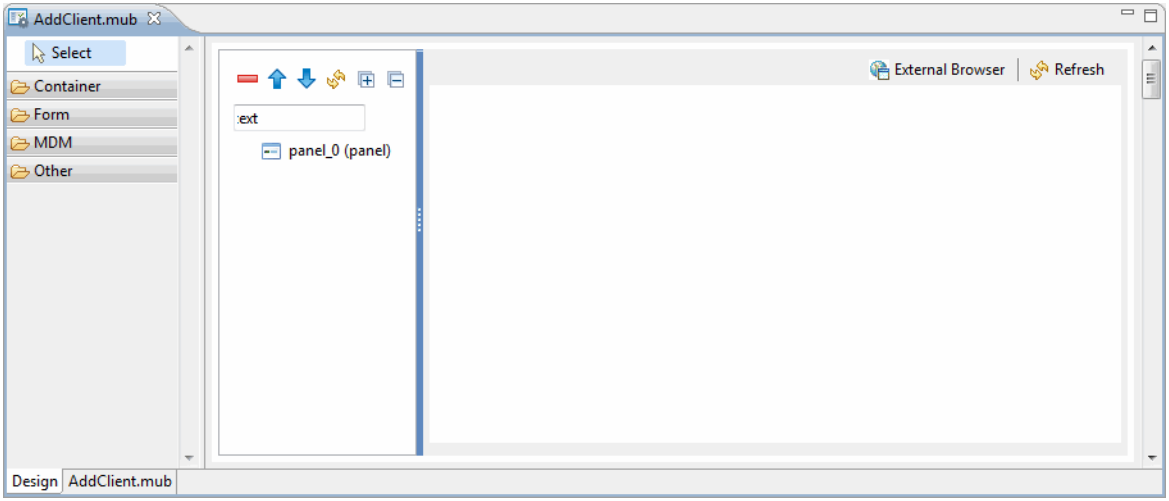


2. The **Uibuilder Model** wizard is displayed.



3. Enter the file name as **AddClient.mub** and click **Finish**.

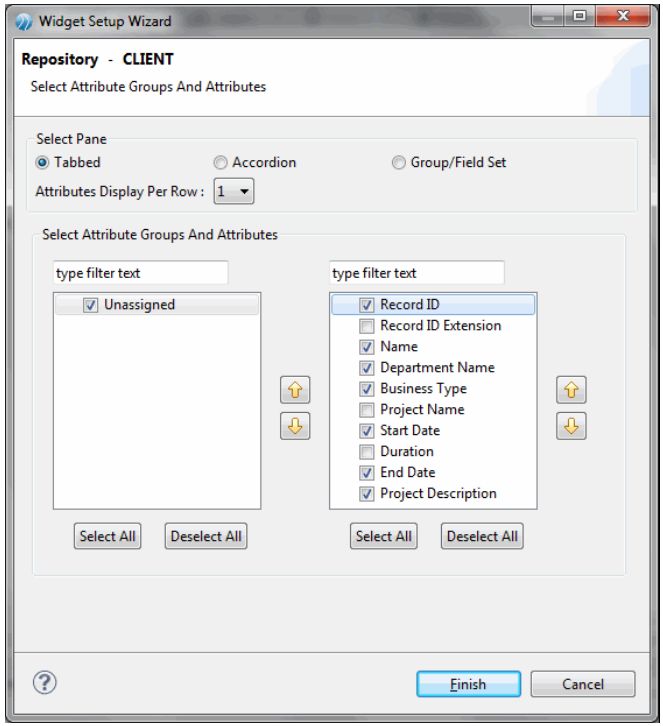
4. The Add Client page is displayed in the Canvas.



After creating the canvas add the Client Repository to the canvas. We will drag the Client Repository attributes and drop it on the panel.

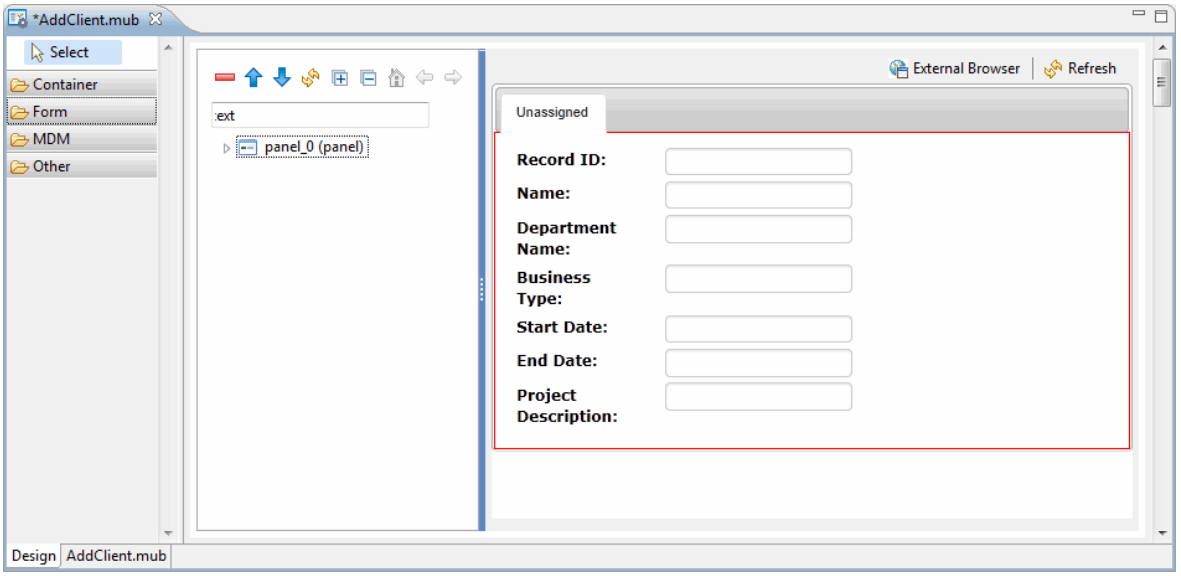
5. Expand the PAC repository model and select **Client** repository drag and drop it on the **panel_0(panel)**.

6. The **Select Attribute Groups and Attributes** wizard is displayed.



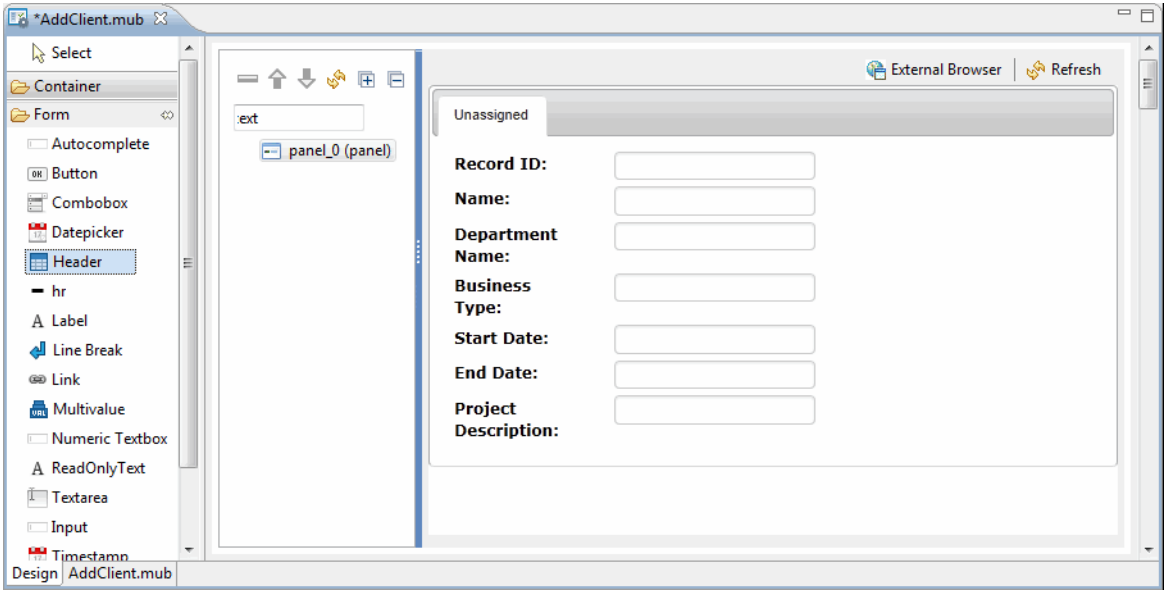
7. Select the **Tabbed** pane checkbox. Select the **Unassigned** checkbox, all the attributes in the Unassigned Group is displayed.
8. Select the checkbox corresponding to the repository attributes and click **Finish**.

9. A Form is created with selected attributes and displayed on the canvas.

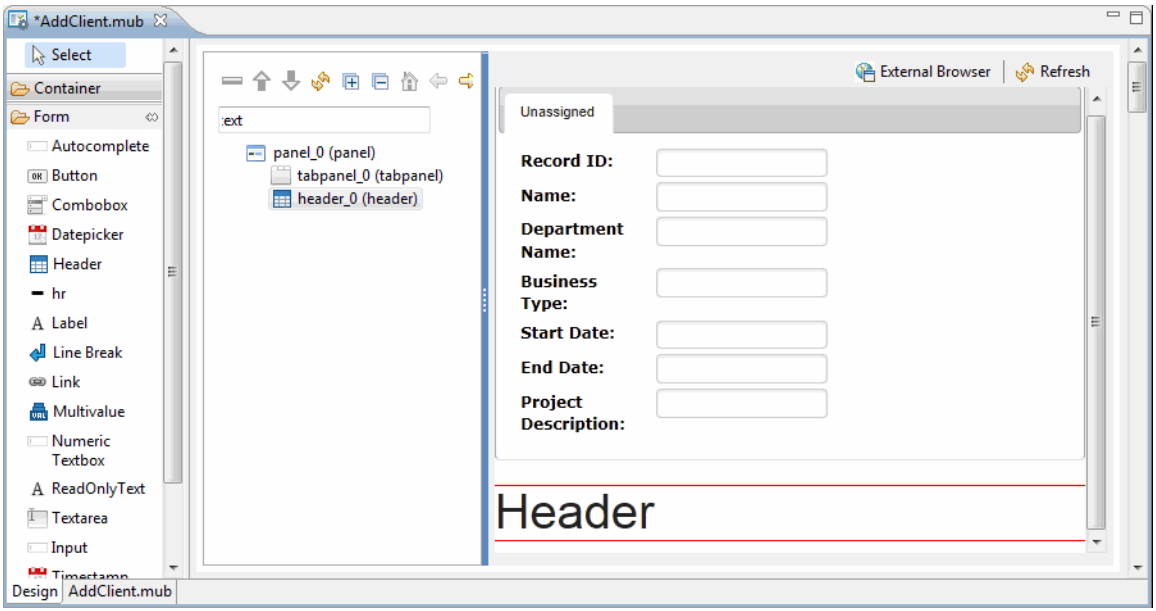


We will add a header to the form, the header widget is available in the Form container.

10. Expand the **Form** container and select the **Header** widget.

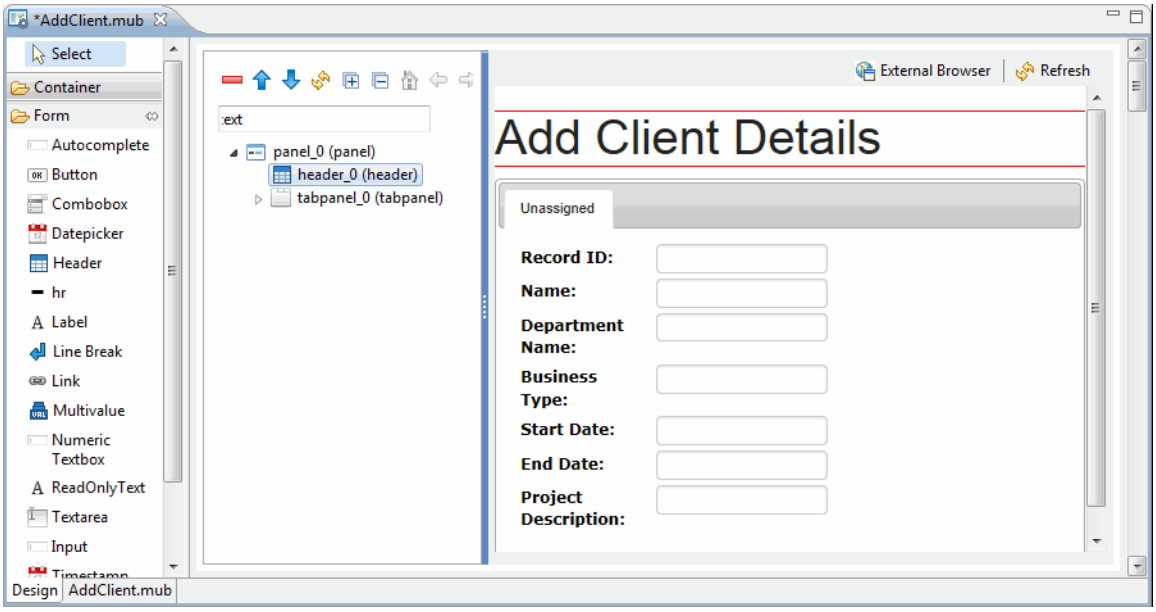


11. The header is displayed on the canvas.



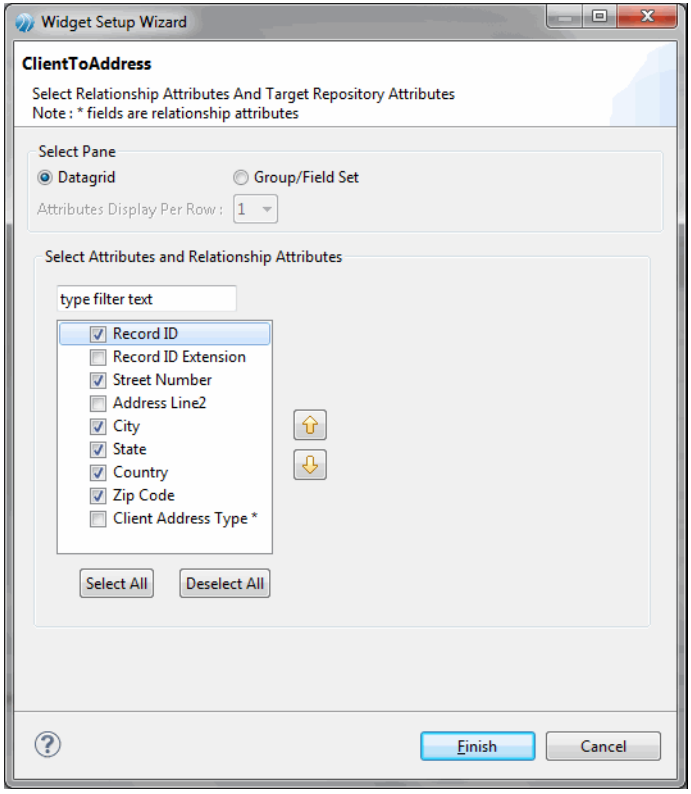
12. Modify the header text to **Add Client Details**. Re-order the header text to the top of the canvas by selecting the **header_o(header)** and click on the Tree

Outline toolbar and move it before **tabpanel_0(tabpanel)** and after **panel_0(panel)**.



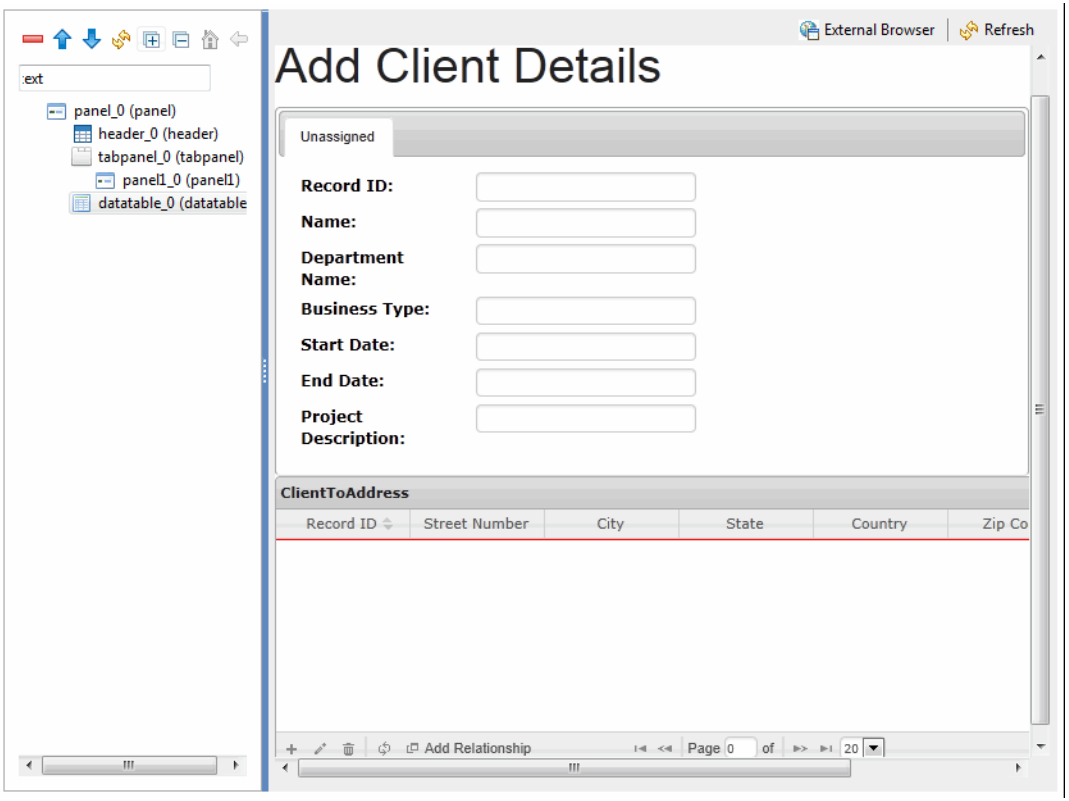
After adding the repository attributes, we will add the ClientToAddress relationship to the form by dragging it on the panel.

13. Select the **ClientToAddress** relationship and drag and drop on the **panel_0(panel)**. The Widget Setup Wizard is displayed to create ClientToAddress relationship.



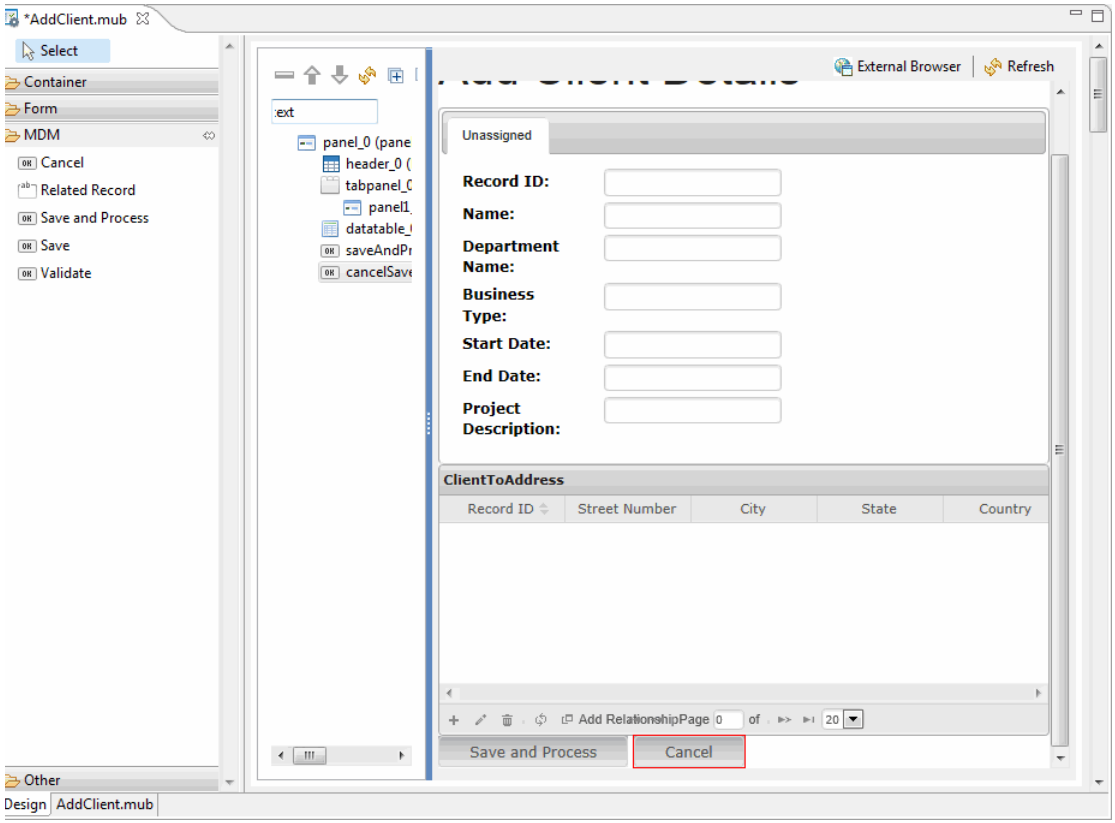
14. Select the **Datagrid** pane and select the checkbox corresponding to the attributes and click **Finish**.

15. The selected attributes are displayed in the canvas.



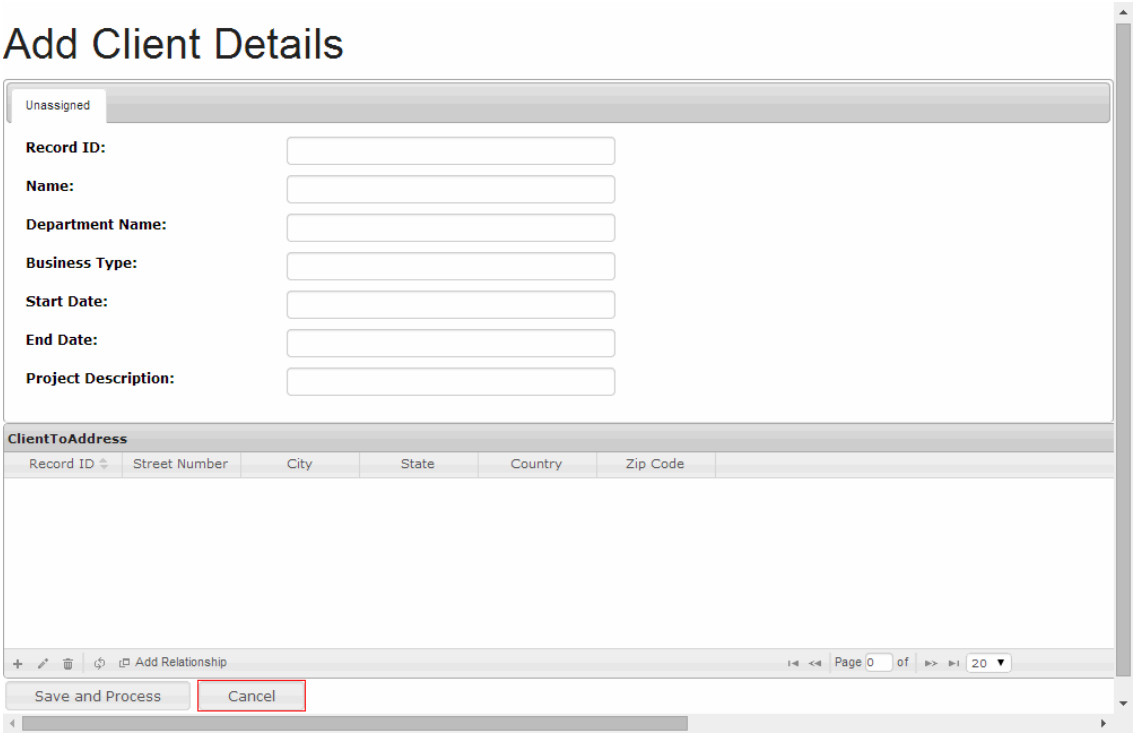
Add the **Save and Process**, **Cancel** button to the form. The buttons are available in the **MDM** widget.

16. Expand the MDM widget and select the **Save and Process** button and click on the **panel_0(panel)**. Similarly select the **Cancel** button and click on the **panel_0(panel)**.



The Add Client page is ready, save the page and view it in the system default browser.

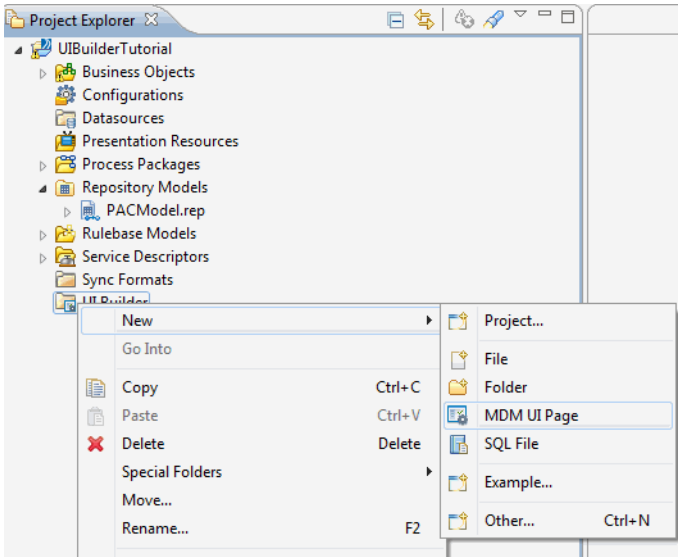
17. Click on the **External Browser** on the top of the canvas. The Add Client Page is displayed in the browser.



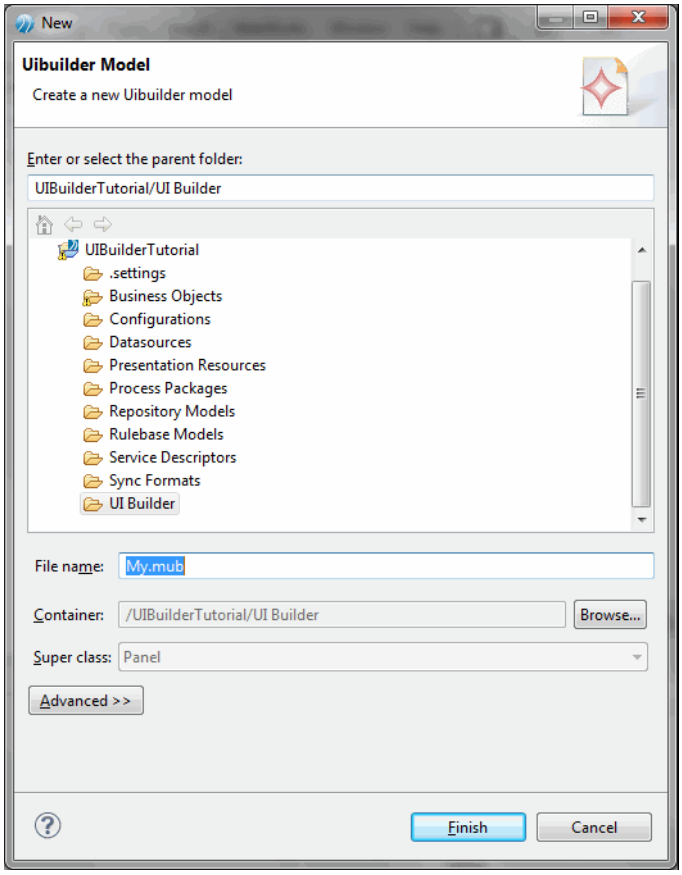
Task D- Create a new Custom Page - Modify Client Details

Create a new page with the **Client** repository attributes and relationship.

1. Right click the **UIBuilder** folder in the Project Explorer and select **New > MDM UI Page.**

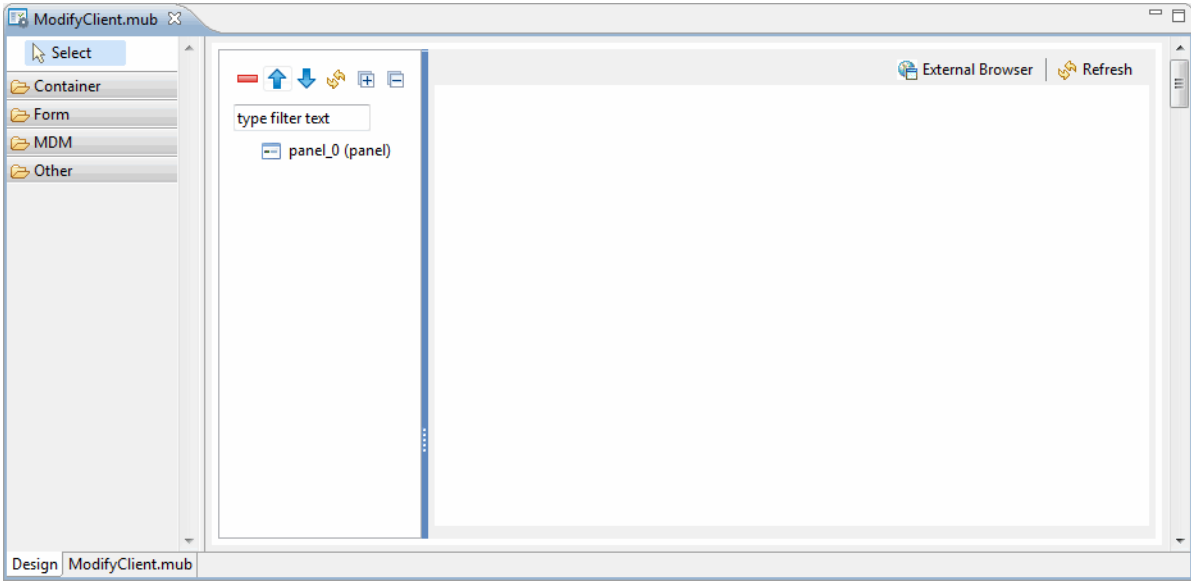


2. The **Uibuilder Model** wizard is displayed.



3. Enter the file name as **ModifyClient.mub** and click **Finish**.

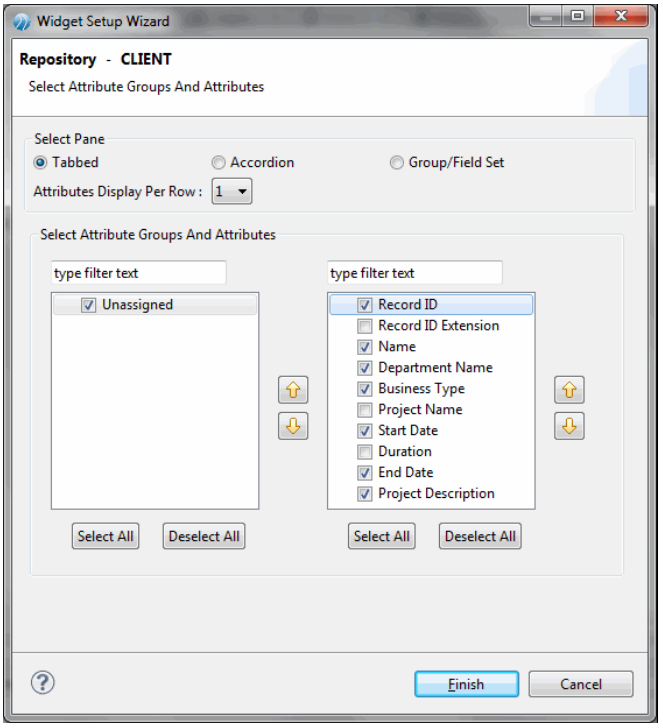
4. The Modify Client page is displayed in the Canvas.



After creating the canvas add the Client Repository to the canvas. We will drag the Client Repository attributes and drop it on the panel.

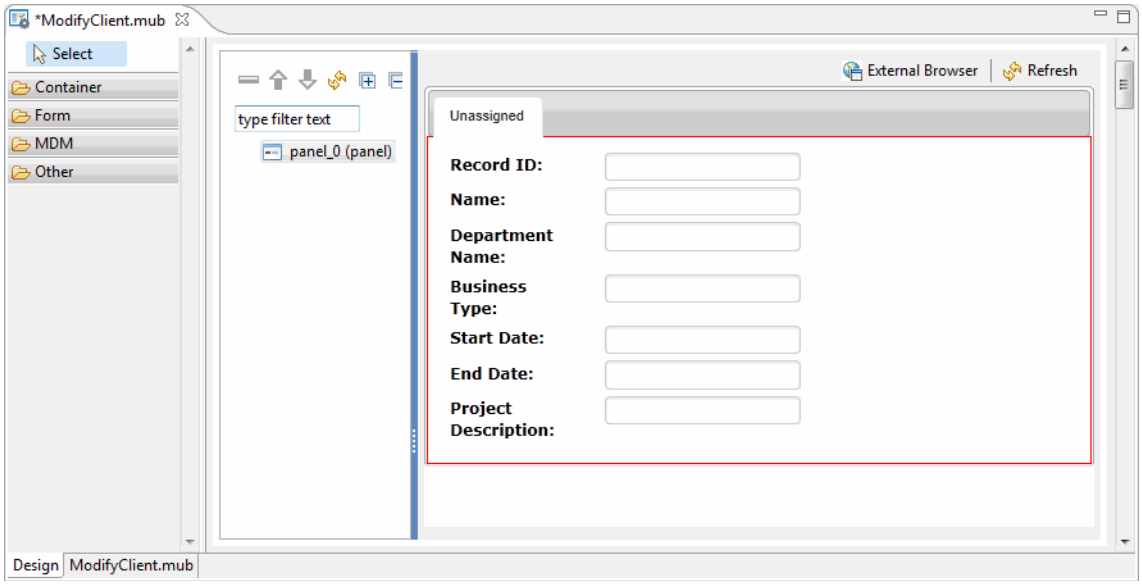
5. Expand the PAC repository model and select **Client** repository drag and drop it on the **panel_0(panel)**.

6. The **Select Attribute Groups and Attributes** wizard is displayed.



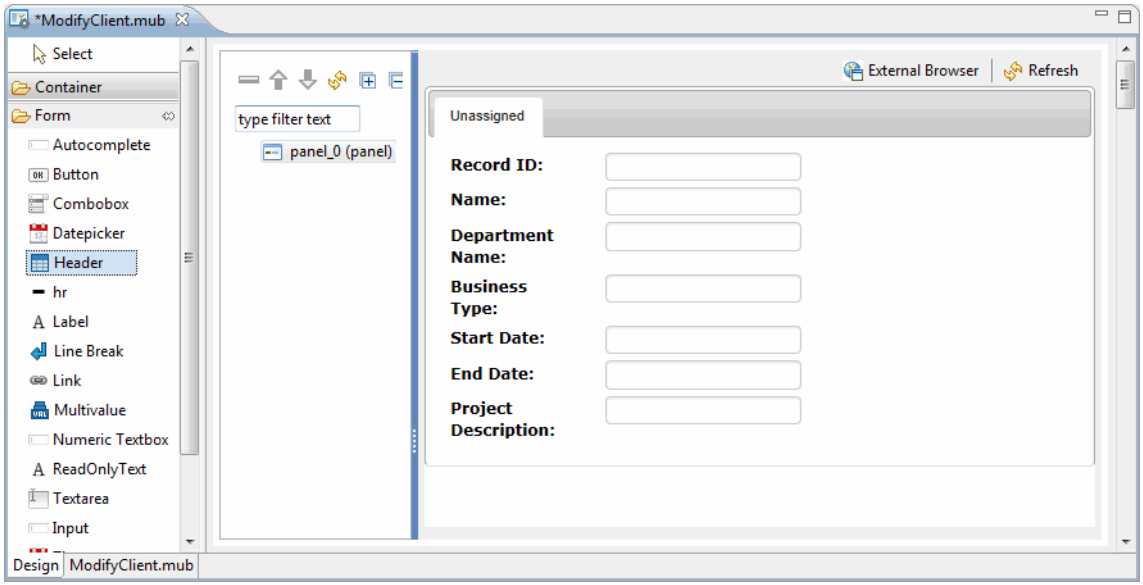
7. Select the **Tabbed** pane checkbox. Select the **Unassigned** checkbox, all the attributes in the Unassigned Group is displayed.
8. Select the checkbox corresponding to the repository attributes and click **Finish**.

9. A Form is created with selected attributes and displayed on the canvas.

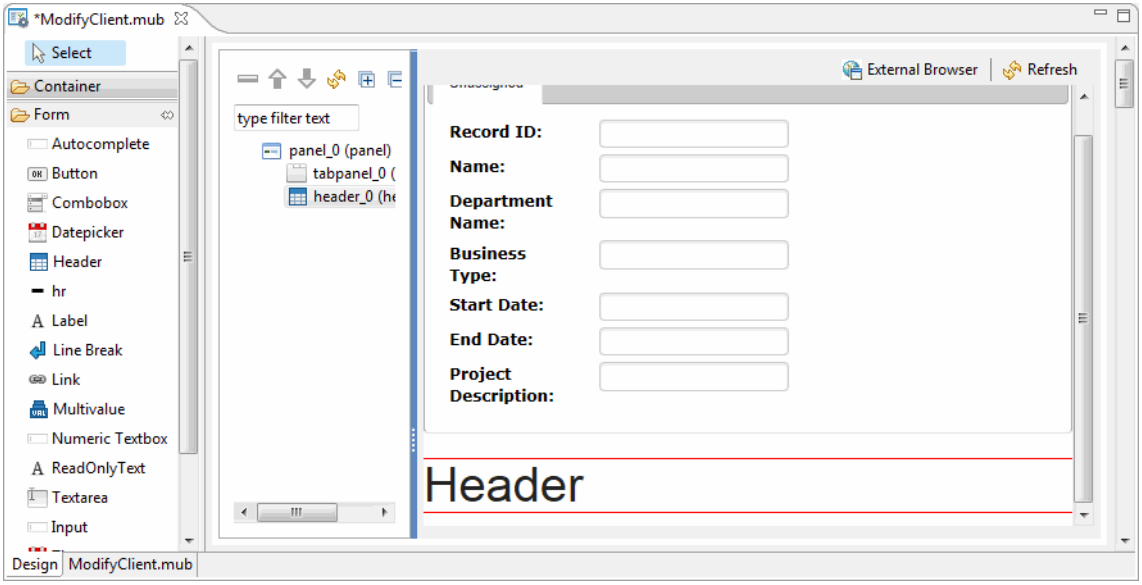


We will add a header to the form, the header widget is available in the Form container.

10. Expand the **Form** container and select the **Header** widget.

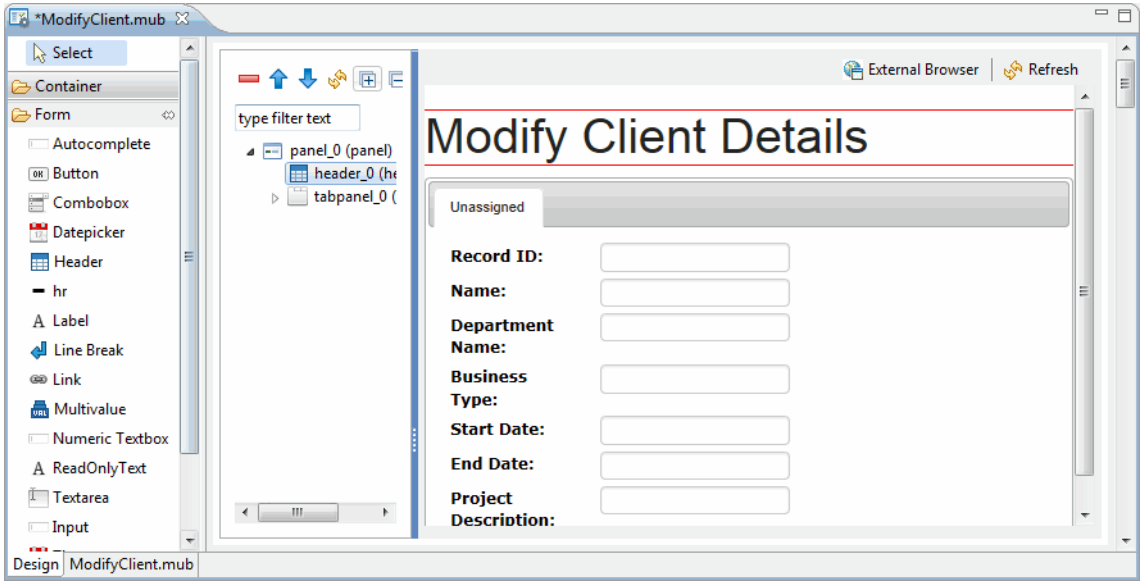


11. The header is displayed on the canvas.



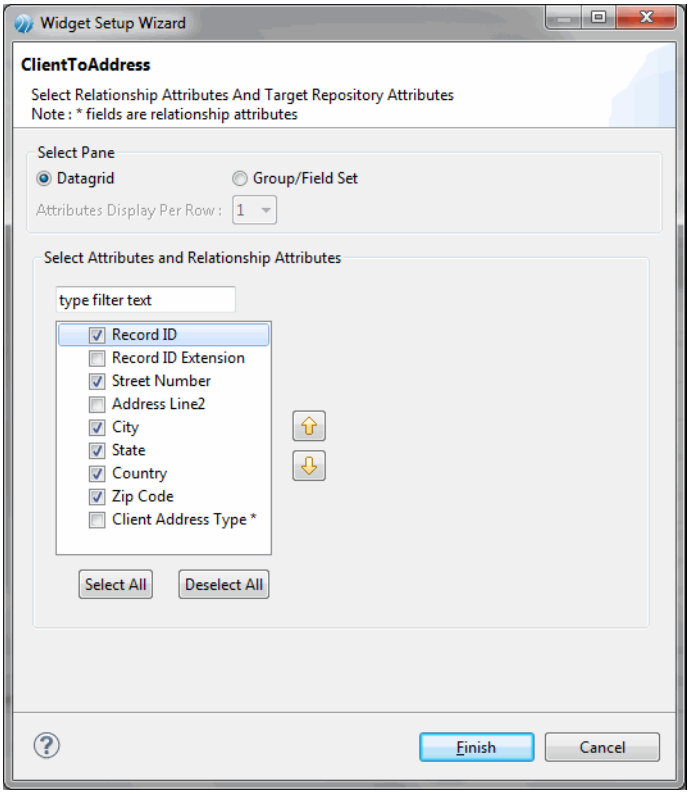
12. Modify the header text to **Modify Client Details**. Re-order the header text to the top of the canvas by selecting the **header_o(header)** and click on the

Tree Outline toolbar and move it before **tabpanel_0(tabpanel)** and after **panel_0(panel)**.



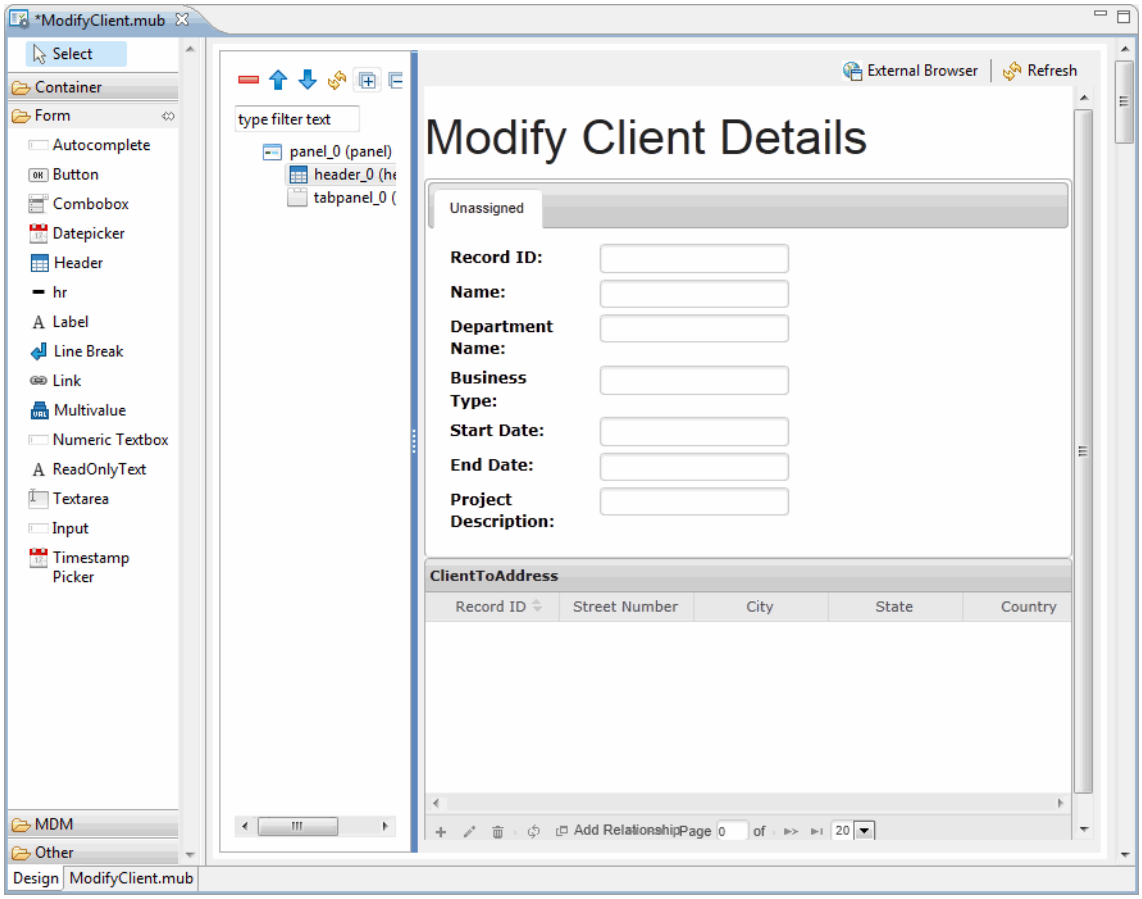
After adding the repository attributes, we will add the ClientToAddress relationship to the form by dragging it on the panel.

13. Select the **ClientToAddress** relationship and drag and drop on the **panel_0(panel)**. The ClientToAddress wizard is displayed.



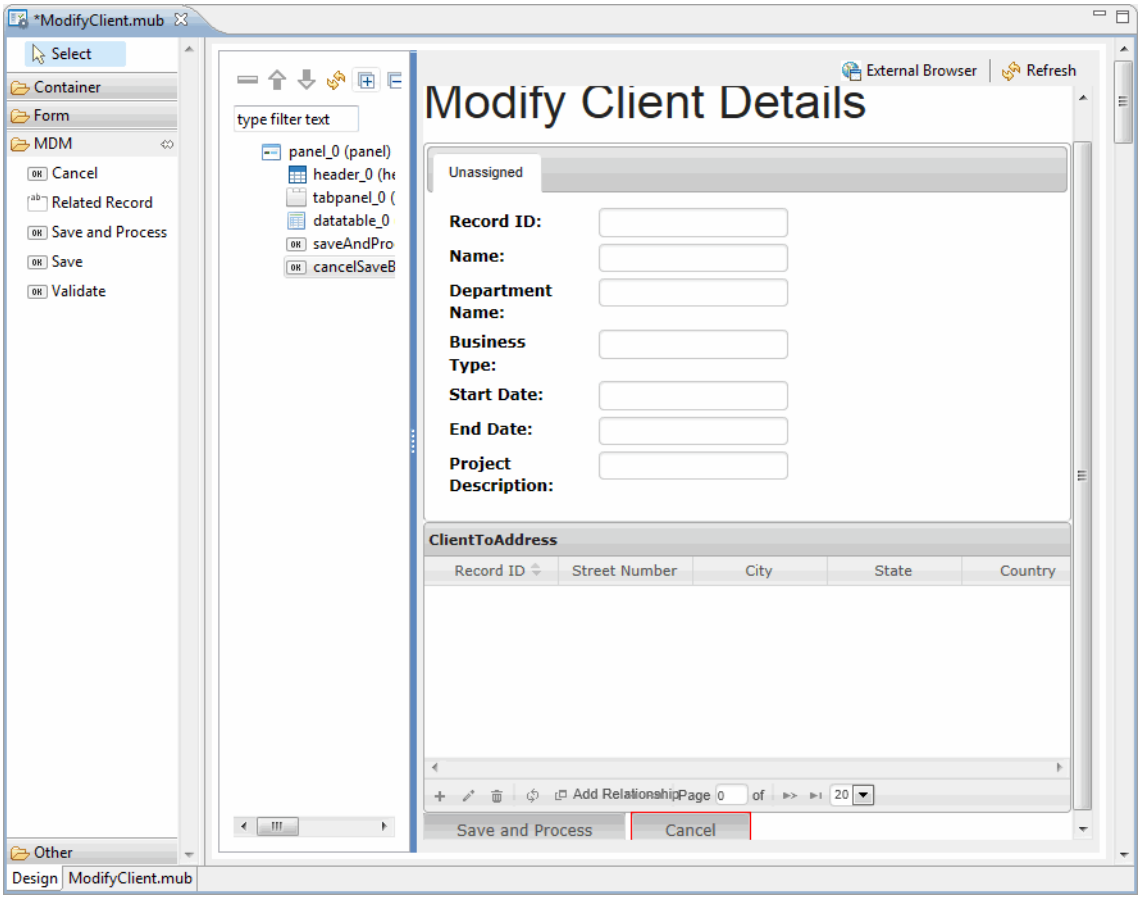
14. Select the **Datagrid** pane and select the checkbox corresponding to the attributes and click **Finish**.

15. The selected attributes are displayed in the canvas.



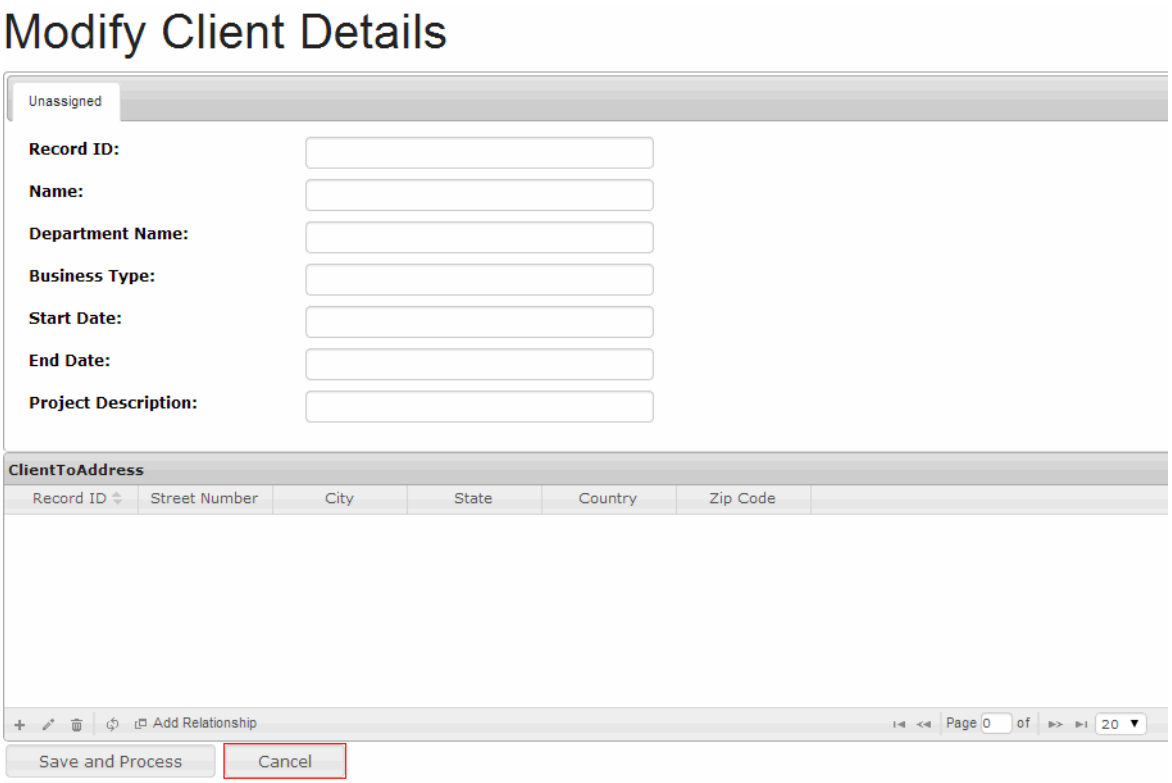
Add the **Save and Process**, **Cancel** button to the form. The buttons are available in the **MDM** widget.

16. Expand the MDM widget and select the **Save and Process** button and click on the **panel_0(panel)**. Similarly select the **Cancel** button and click on the **panel_0(panel)**.



The Modify Client page is ready, save the page and view it in the system default browser.

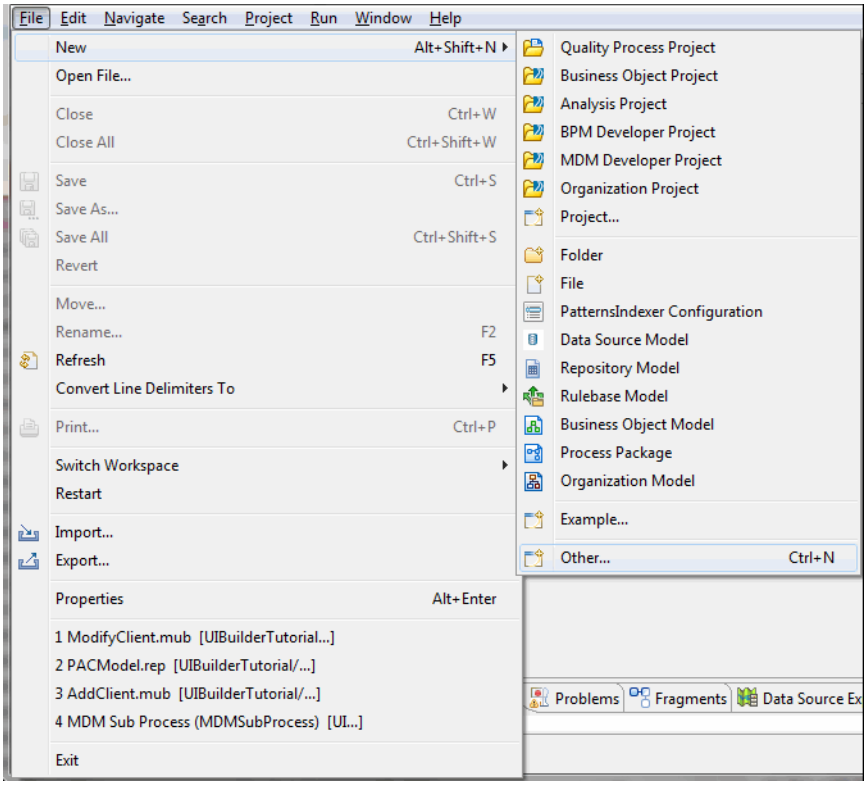
17. Click on the **External Browser** on the top of the canvas. The Modify Client Page is displayed in the browser.


Modify Client Details
Unassigned
Record ID:
Name:
Department Name:
Business Type:
Start Date:
End Date:
Project Description:
ClientToAddress
Record ID
Street Number
City
State
Country
Zip Code
Add Relationship
Page 0 of
20
Save and Process
Cancel

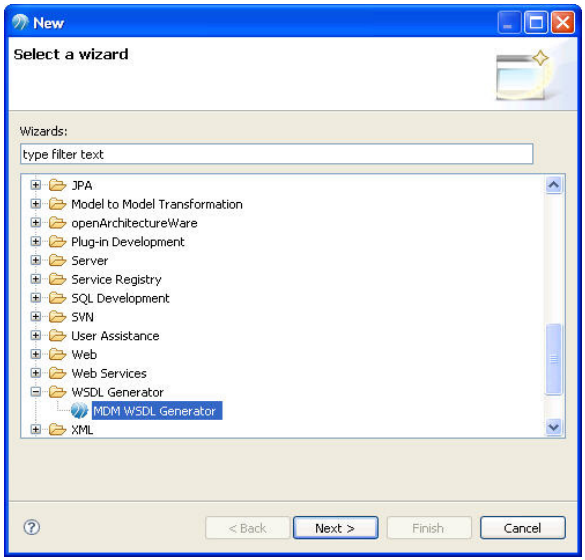
Task E - Generate WSDL

You can now Generate WSDL for Client repository.

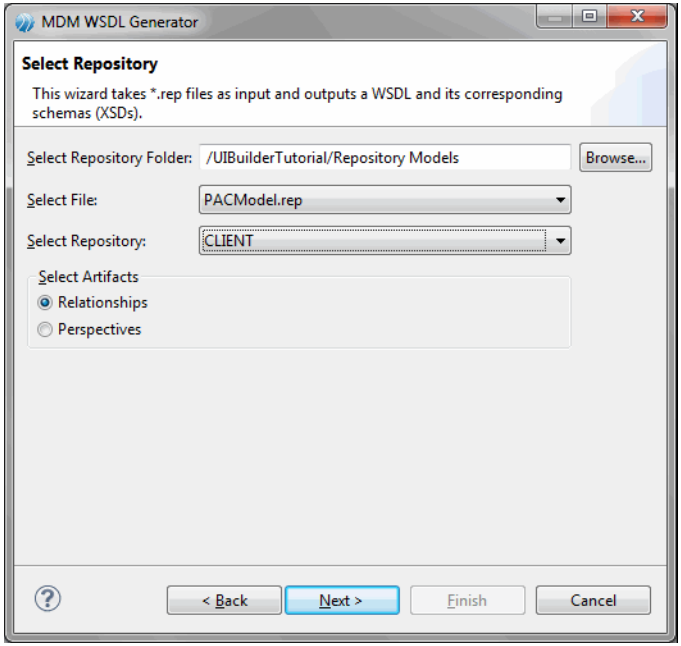
1. Using the WSDL Generator Wizard, generate wsdl for Client repository. Follow the wizard to complete the webservice project creation.
2. Go to **File -> New ->** and click **Other**.



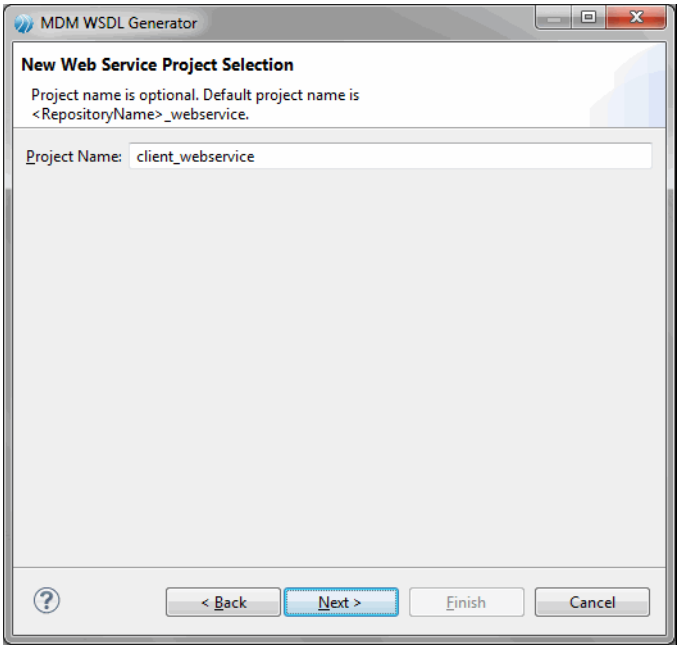
3. The Go to **File -> New ->** and click **Other**.



4. Select **WSDL Generator** from the **WSDL Generator** tree node and click **Next**.
5. The wizard to select the repository is displayed.

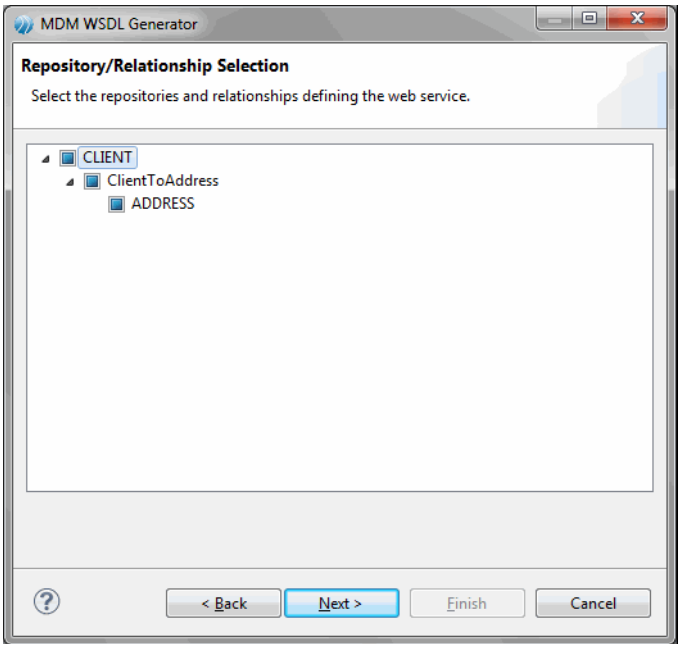


6. Browse to the repository folder in the project. From the **Select File** field select the **PACModel.rep**. Similarly from **Select Repository** field select the **Client** repository.
7. Select **Relationship** option from the **Select Artifacts** section and click **Next**.
8. The **New Web Service Project Selection** screen is displayed.

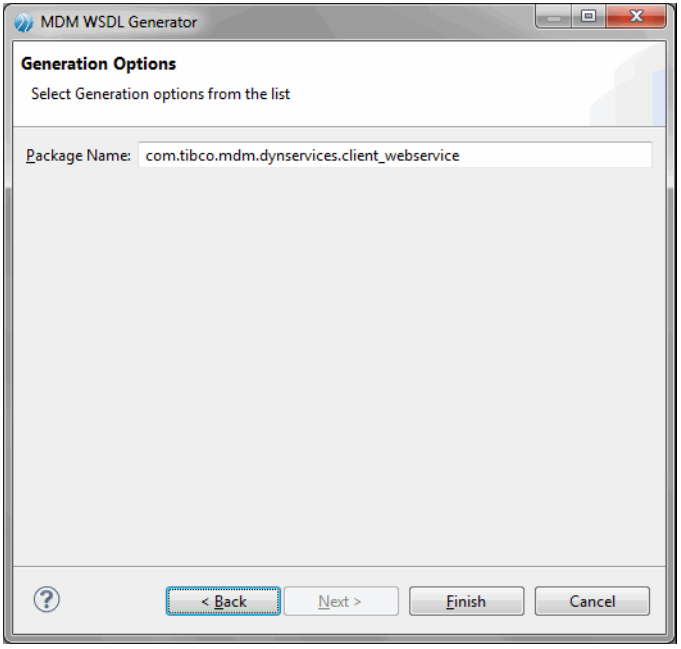


9. Enter the appropriate project name in the **Project Name** field. By default, the project name is <repository name>_webservice.

10. Click **Next**. The **Repository/Relationship Selection** screen is displayed.



11. Select the relationship depth, UI builder supports only 3 level of relationship.
12. Click **Next**. The **Generation Options** screen is displayed.



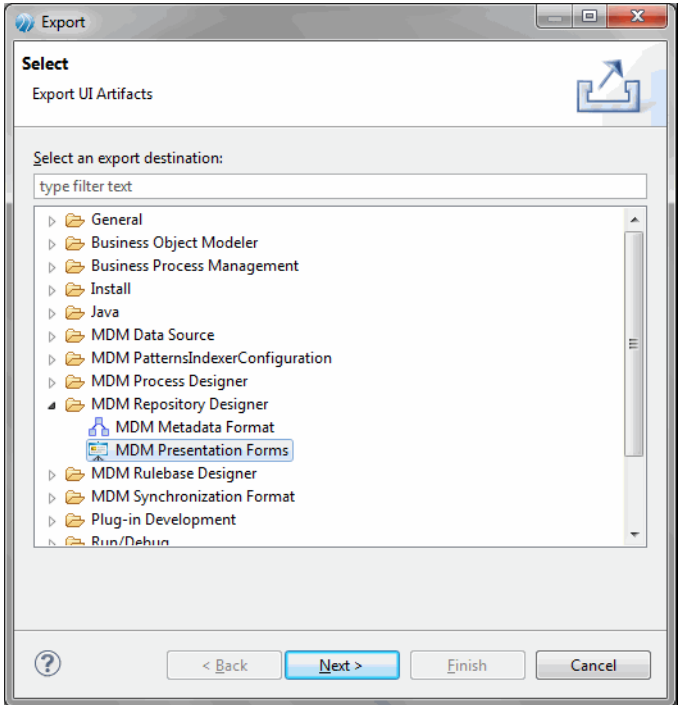
13. Enter the appropriate package name in **Package Name** field. By default, a package name is provided. The package name convention is `com.tibco.mdm.dynservices.webservice.<repository name>_webservice`.You can modify the package name.
14. Click **Finish**.

Task F - Export the Custom Page

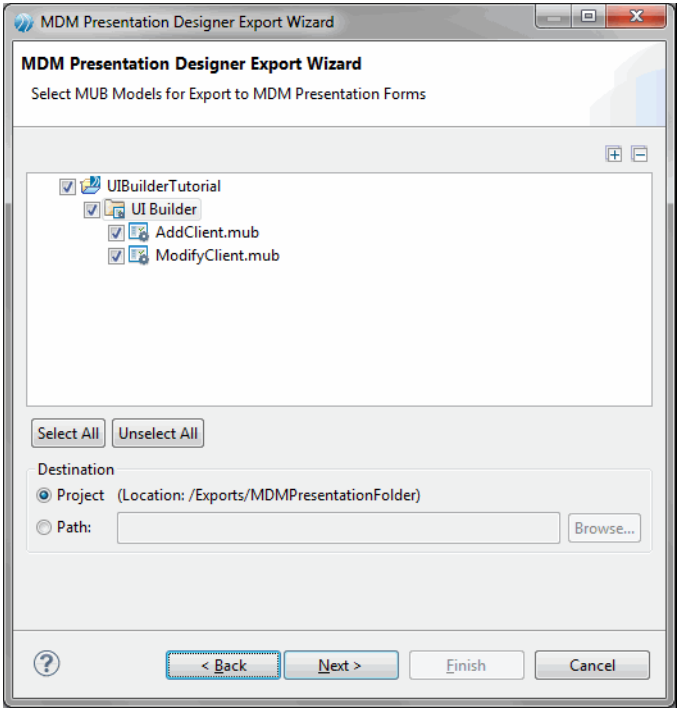
Next, export your UI artifacts.

The Export Wizard is used to export the custom page to MDM presentation forms.

1. Select the **UIBuilder** folder in the Project Explorer and click **File->Export** or right click the project and select **Export**.
2. Select **MDM Presentation Forms** under **MDM Repository Designer**. Click **Next**.

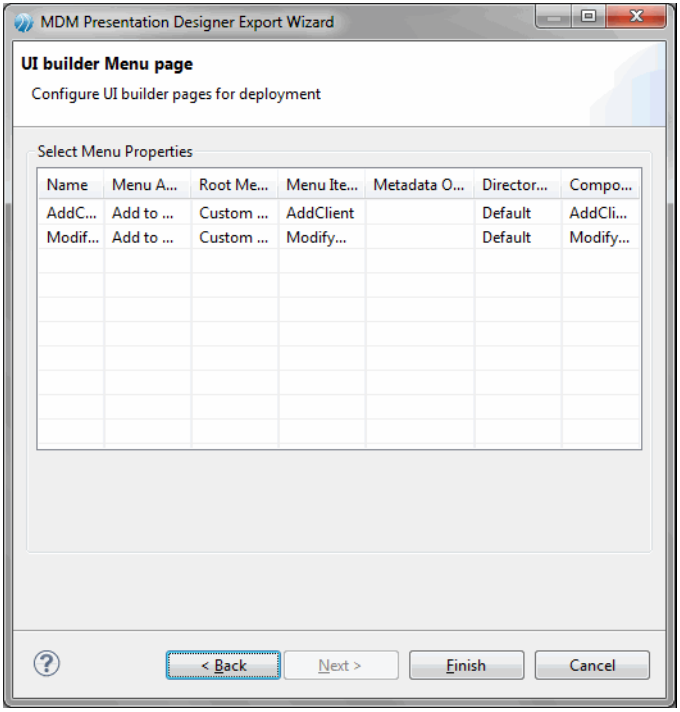


3. The **MDM Presentation Designer Export Wizard** screen is displayed.



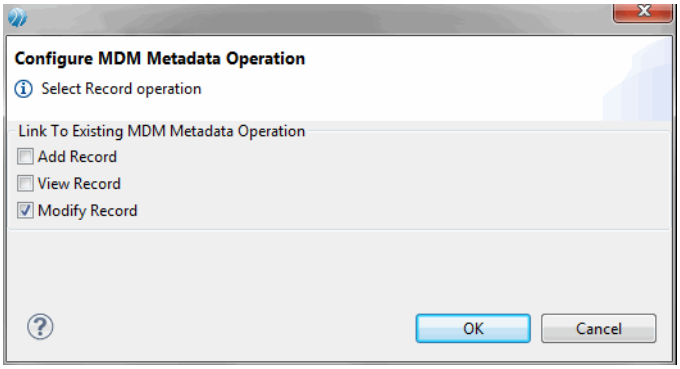
4. Select the MUB models for export by selecting the checkbox. The default location to which the file will get exported is displayed in the **Destination** section under Project (`/Exports/MDMPresentationFolder`). You can change the path if required.
5. Click **Next**.

6. The **UI builder Menu Page** screen is displayed.



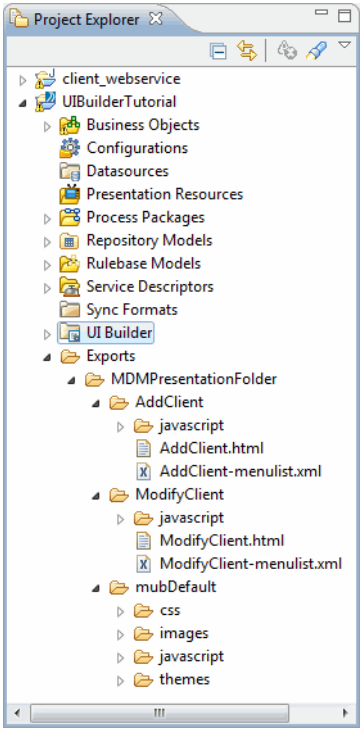
7. Configure the UI builder pages, For the Add Client page, select **Add to Menu** from the **Menu Action** column. Retain the default values in all the other columns. Similarly for Modify Client page, select **Link to Metadata Operation** from the Menu Action column. On selecting the **Link to metadata Operation** option the **Metadata Operation** column is enabled.

   — Click the **Metadata Operation** column. The **Configure MDM Metadata Operation** screen is displayed. Select **Modify Record** options to link the Modify page to the existing modify metadata operation and click **OK**.



8. Click **Finish**

In the Project Explorer, you will see a new folder **Exports** created which contains the mub, xml, Javascript, html files generated.



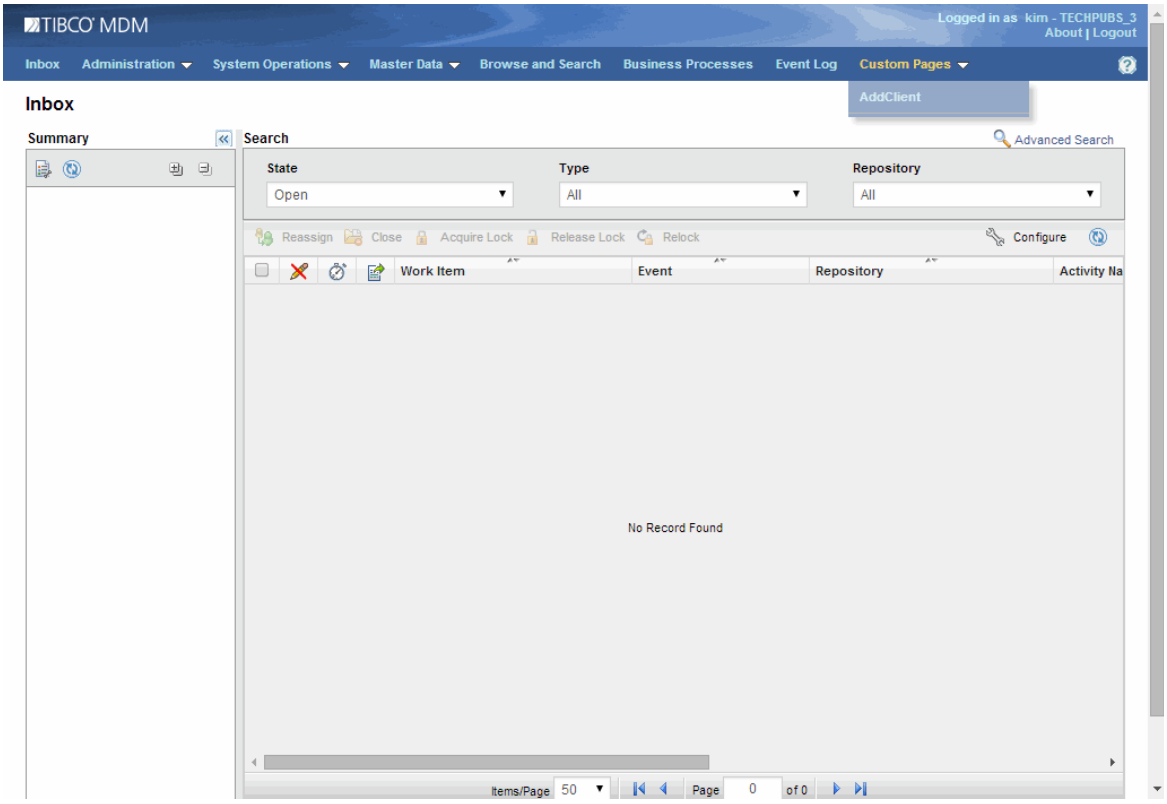
Task G - Deploy the Custom Page

The created Custom Page can be directly deployed to MDM. For deployment steps, refer section **Deploying the MDM UI page** in the *TIBCO MDM Studio UI Builder User's Guide.*

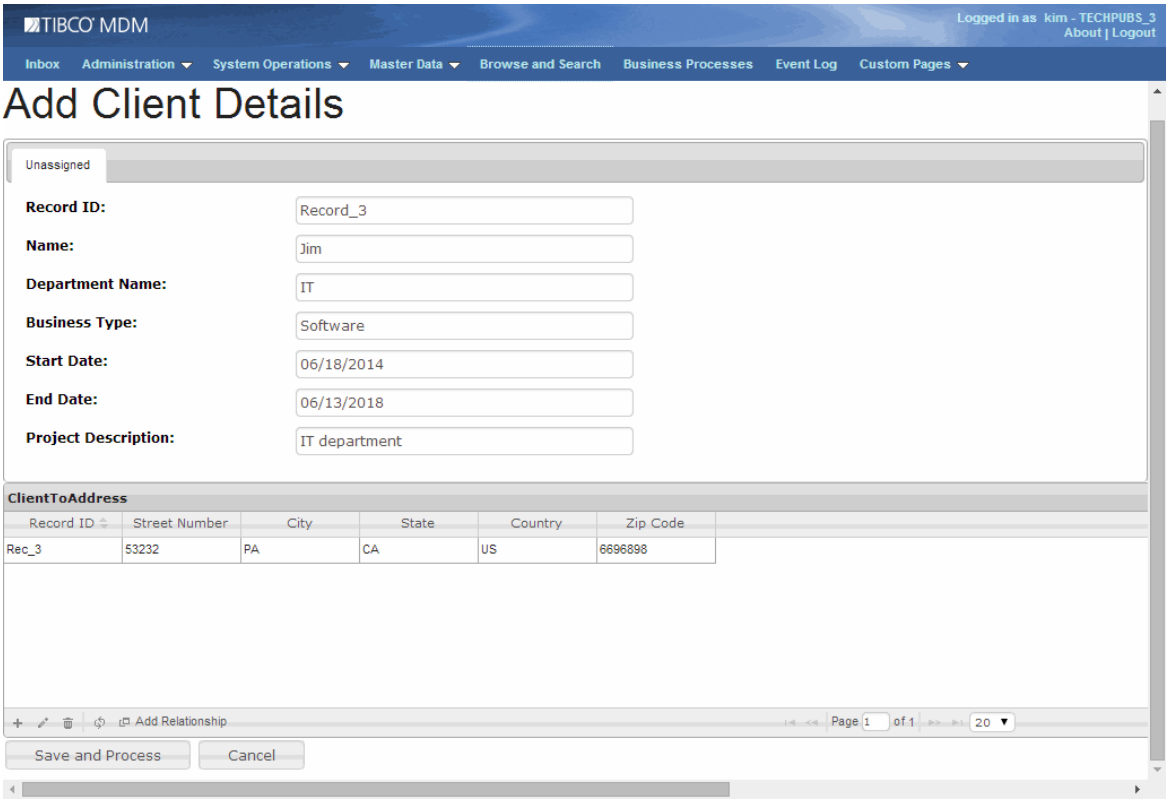
Task H - Access the Custom Page from MDM Server

Next, login to MDM server and access the custom pages.

1. On the web broswer type URL `http://<localhost:Port no/eml/Login` and login using the MDM server credentials.
2. The MDM server login page is displayed.

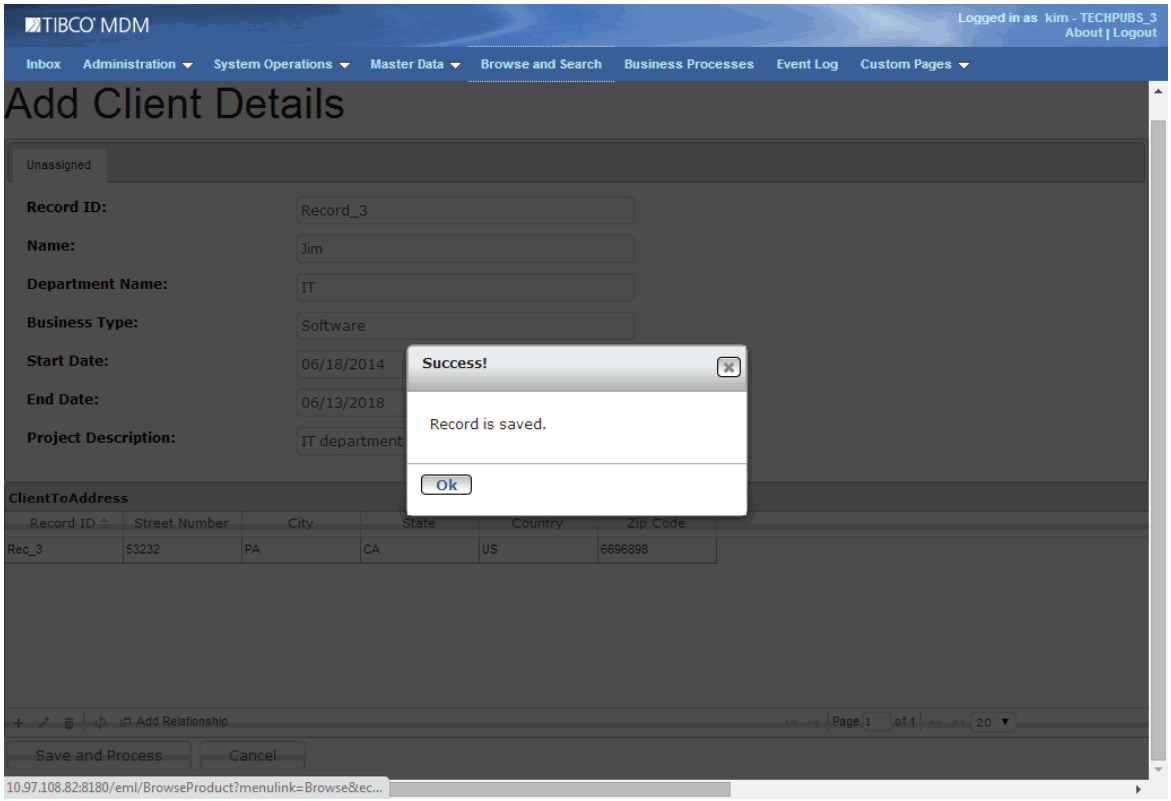


3. Click **Customs Pages** > **AddClient**. The Add Client Details page is displayed.



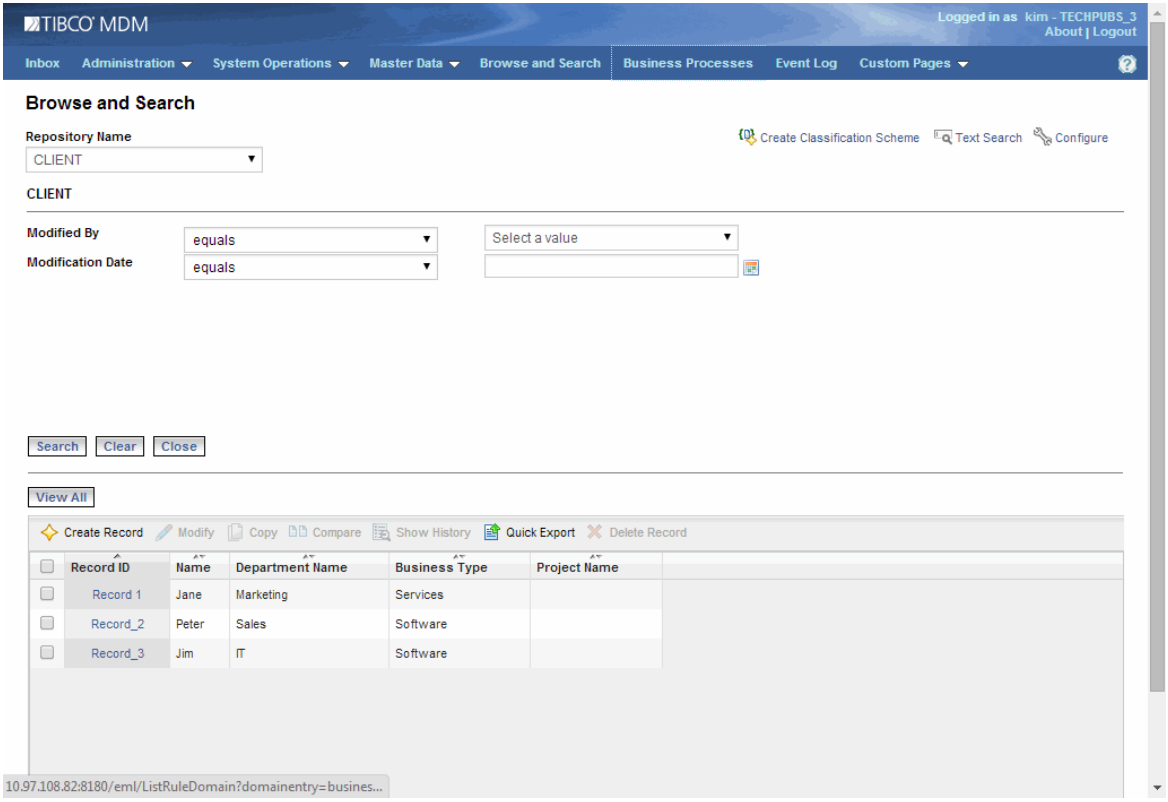
4. Enter the new client details and the relationship details.
5. Click **Save and Process.**

6. The record is saved successfully.



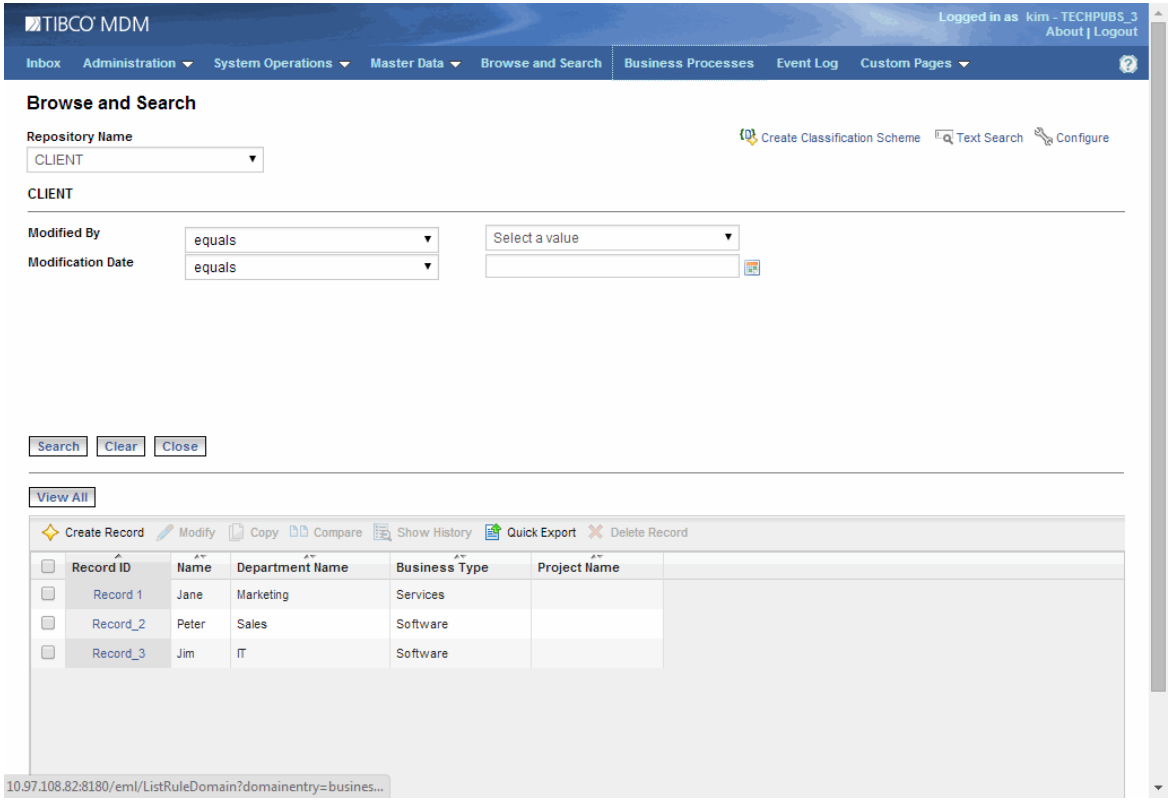
7. Click OK.

8. Click **Browse and Search**. The Select **Client** repository and click **View All**. The newly added record is displayed.

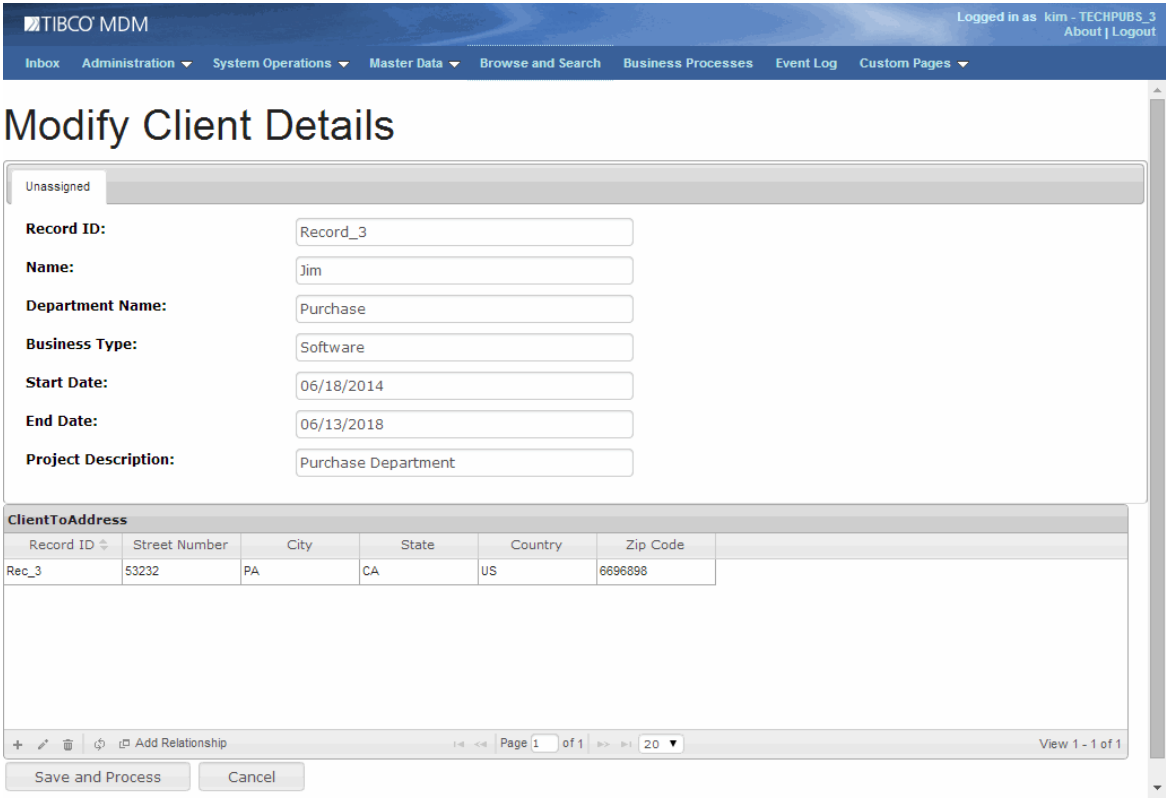


Next, modify the an existing record.

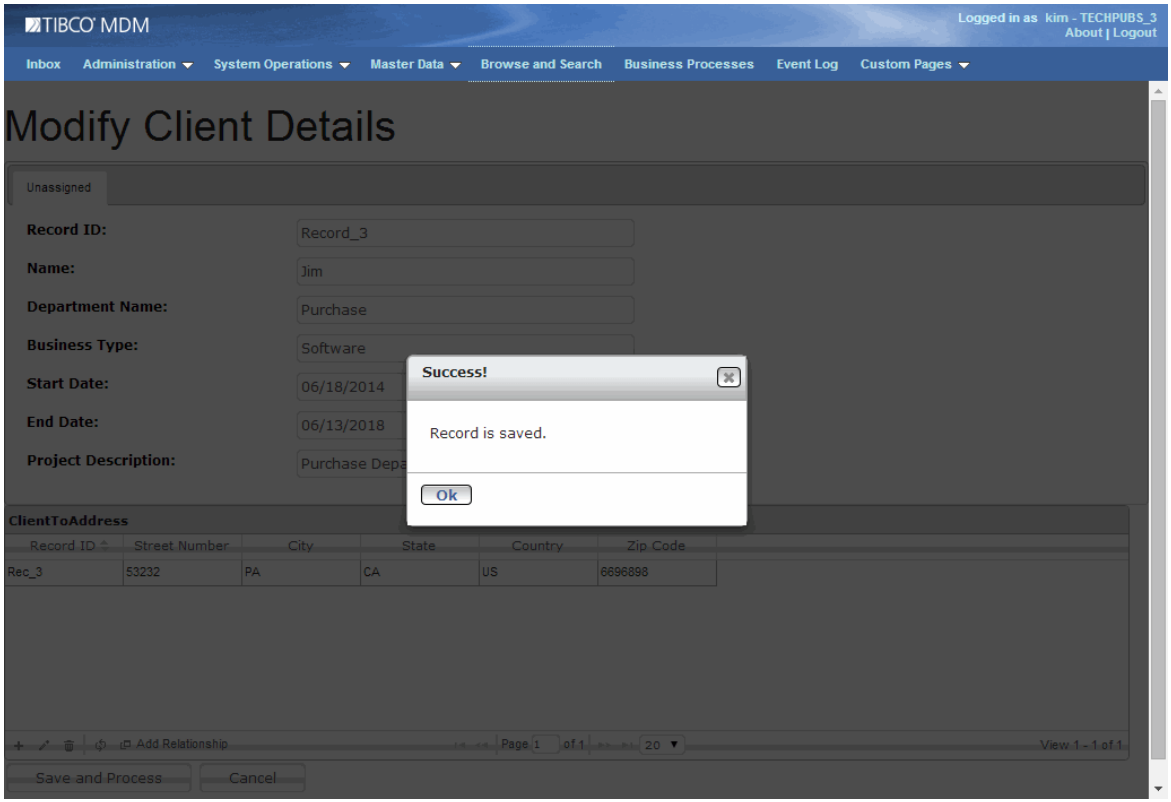
9. Click **Browse and Search**. The Select **Client** repository and click **View All**. The list of all the available records is displayed.

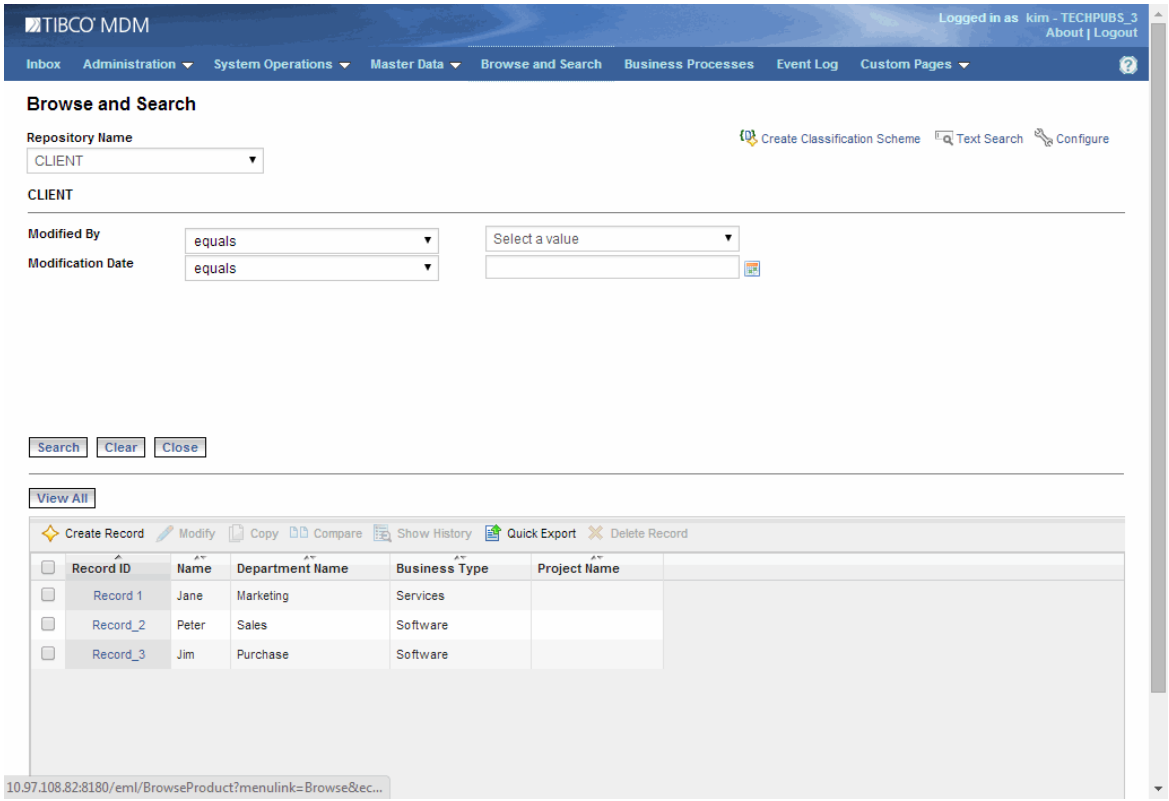


10. Select the checkbox corresponding to **Record_3** and click **Modify**. The **Modify Client Details** page is displayed.



11. Modify the record and click **Save and Process**.



12. Click **Ok**.

13. The modify record is displayed.