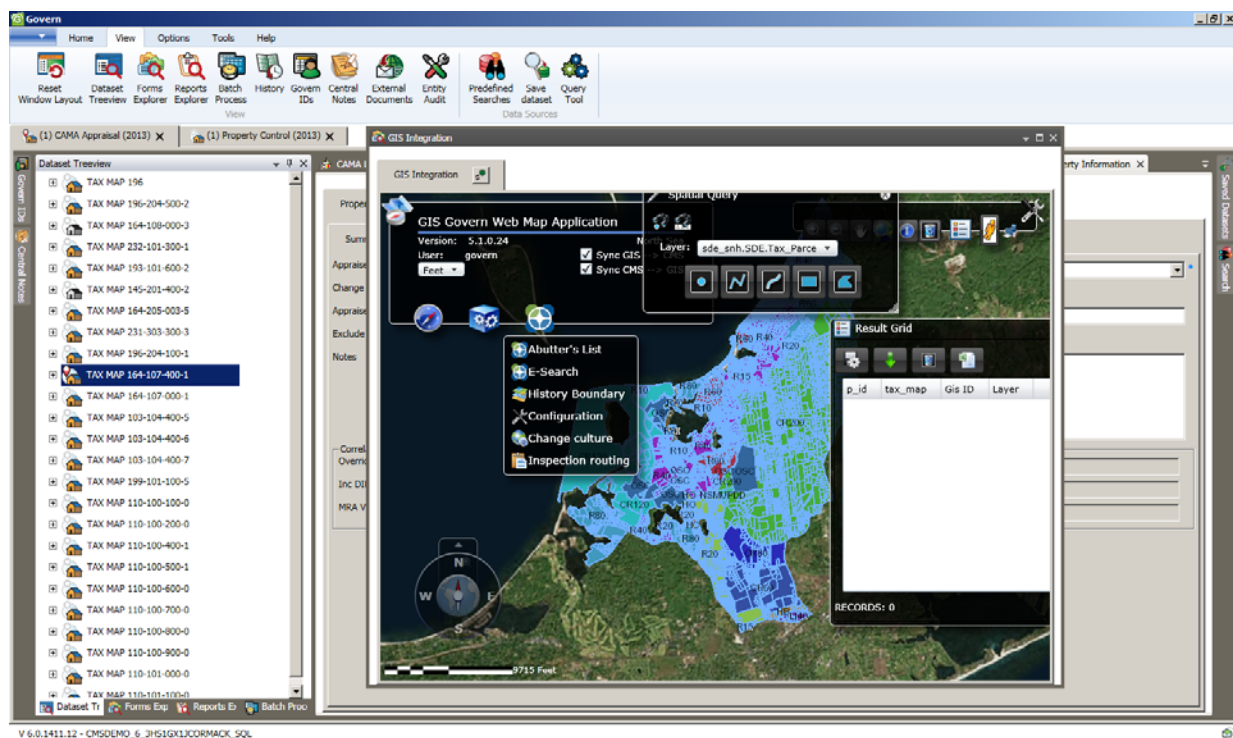# Adding Web Browser Integration

📖 Overview

Web Browser Integration (WBI) is used for adding an interactive website to Govern OpenForms. For example, you could use WBI to add a Geographic Information Services (GIS) web browser interface, such as the Govern GIS Explorer, to a Govern user form. This is illustrated in the following screen shot.

WBI is supported by most websites. It is fully integrated with Govern. It implements predefined commands to add the following functionalities:

- Loading all records from the Govern treeview to the website
- Loading the active records in Govern to the website
- Replacing all records in the Govern treeview with a list provided by the website
- Replacing the active record in Govern with a list provided by the website

WBI is configured through a custom control added to a form and entity in the Govern OpenForms Designer (OFD). The recommended setup and configuration procedures are described in the following sections:

Getting Started

📖 Overview

Before configuring Web Browser Integration, it is important to understand the following information and follow the procedures for the preliminary steps:

- Business Rules for Web Browser Integration on page 120
- Best Practice on page 121
- Creating a New Model and Form for Web Browser Integration on page 122

Business Rules for Web Browser Integration

The WBI Integration is available as a Custom Control in the OFD. Custom Controls contain specialized code that performs specific actions. They can be added anywhere on an entity. In this case, the custom control is added to a custom entity because an integrated web site needs the space of an entire entity.

A custom entity cannot stand alone. It needs to be added to an existing form and linked to another entity on the form. It is recommended to use the Root Entity. The form must be added to Profile, like all forms, in order to make it available in Govern. You can add the same form to multiple Profiles.

The configuration for the WBI control is performed in the Govern OpenForms Designer (OFD). Security permissions are also defined in the OFD.

The following rules apply:

- The WBI control must be added to a custom entity.
- The custom entity must be added to an OpenForms form.
- The form must be added to a Profile.
- The **Dataset Type Code** for the Profile must be set to **Parcel ID (P_ID)** or the **Name ID (NA_ID)**, and must correspond to the value set for the **SelectedKeyType**.
  The Dataset Type Code is shown in the following screen shot:
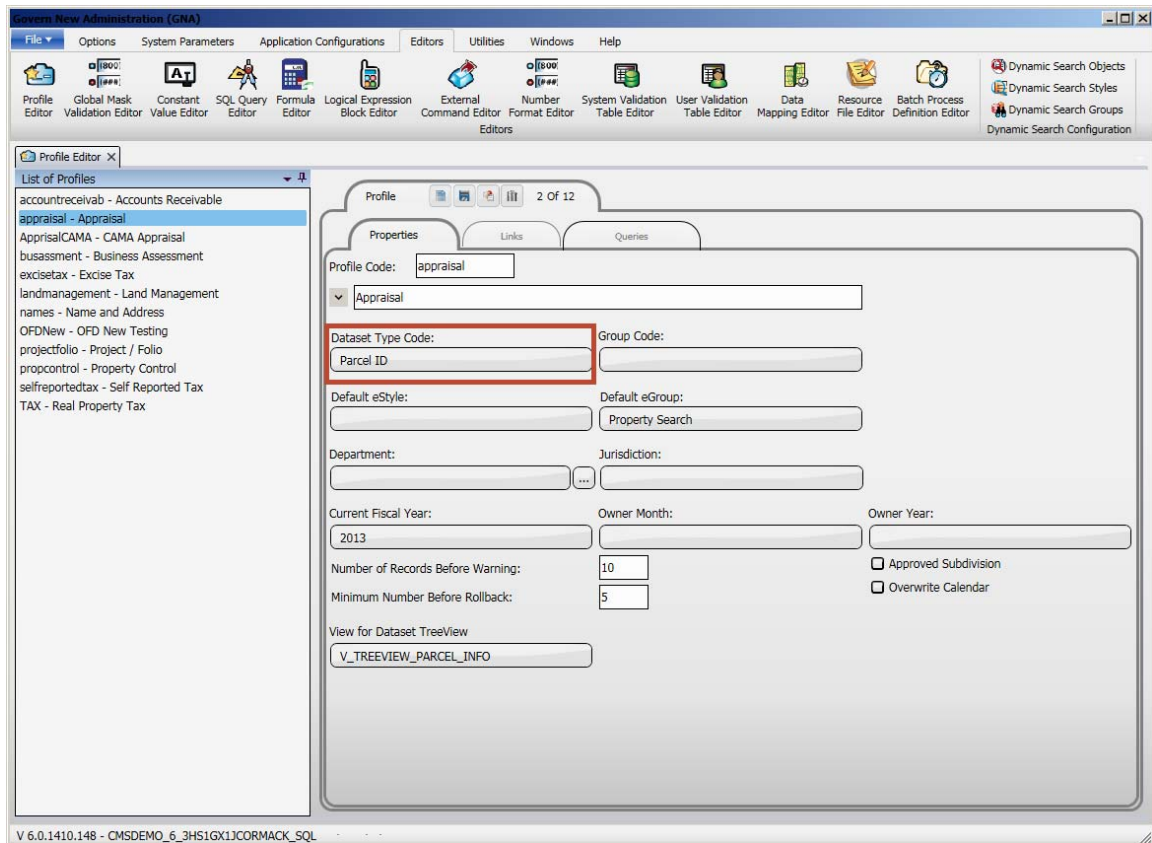
Refer to the documentation on the GNA Profile Editor for details on the Dataset Type Code.

- The form to which the WBI control is added is always floating.

Best Practice

Although you can add the WBI custom control to any form, it is recommended to create a new business model in the Govern Business Entity Designer (BED) and add the SY_Empty entity to the model, as the root entity. Then, add the custom entity to the new model in the OFD.

This has the following advantages:

- If you use an existing Govern model, your changes are overwritten when you import updated models.
  If you create a new model with a new name, it is not overwritten.

- A custom entity with the Web Browser Integration is always floating. If you add it to a form with multiple entities, it could be confusing.
- The SY_Empty entity does not have many associated attributes and has no associated calculations.

Creating a New Model and Form for Web Browser Integration

The following sections run through the procedures and best practices for creating a new business model and form for Web Browser Integration:

- Creating the Business Model in the Business Entity Designer (BED) on page 122
- Adding a Root Entity to the New Model on page 123
- Configuring the New Business Model in the OFD on page 125
- Adding the New Form to a Profile on page 126
- Defining Security for the New Form on page 127

Creating the Business Model in the Business Entity Designer (BED)

The first step is to create a new model for Web Browser Integration and assign a unique name to it. This ensures that the model will not be overwritten when you import updated OpenForms models to your deployment.

To create a new business model:

1. Launch the BED.

2. Open the Model Explorer.
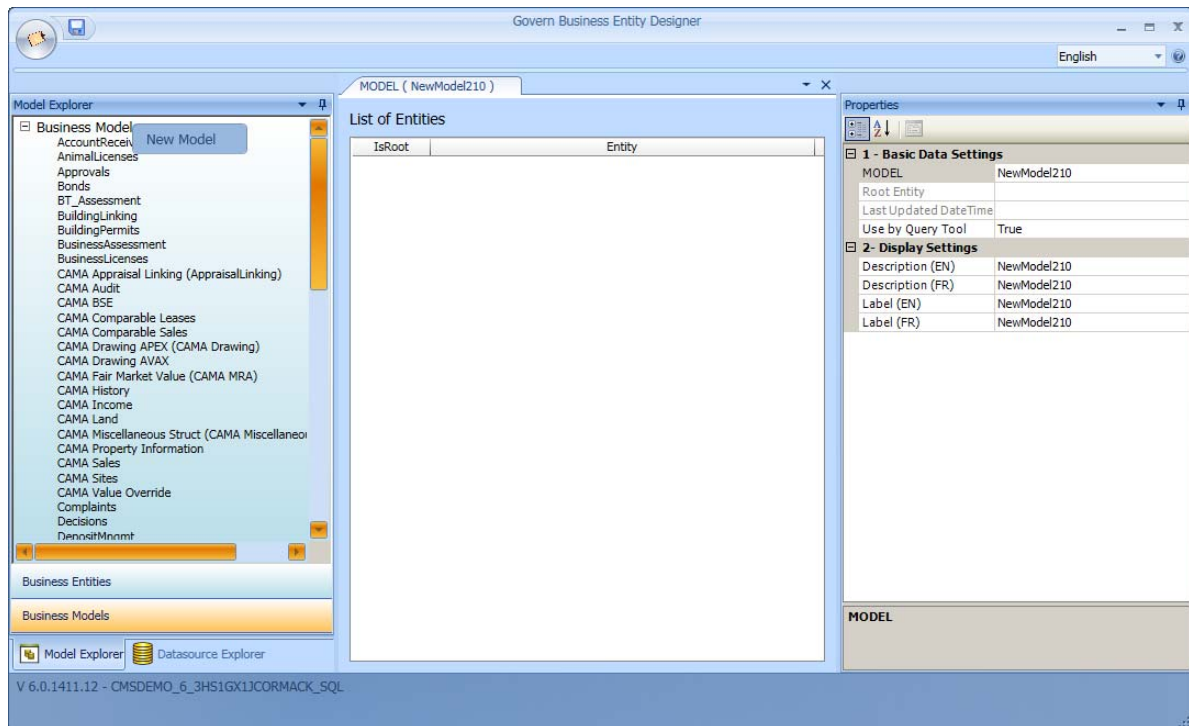
3. Right-click on the heading **Business Models** at the top of Model Explorer.

4. Select **New Model**.

5. Enter a name for model in the **Model** text box.

6. By default, all business models are available for use in the **QueryTool**. Select **False** in field if you do not want to run queries on the model in the QueryTool.

7. Enter **English** and **French Descriptions** in order to identify the model in the Business Entity Designer.

8. Enter **English** and **French Labels** in order to identify the model in the OpenForms Designer (BED)

9. Click **Save**.

Adding a Root Entity to the New Model

The WBI Controller is added to a Custom Entity. A root entity is required. If you are adding a Web site that uses name information for the integration with Govern, select an entity that includes the Name ID (NA_ID). Otherwise if the

integration is based on Parcel Information, select an entity that includes the Parcel ID (P_ID).

To add a Root Entity:

1. Open the business model in the BED.

2. Right click anywhere inside the BED Editor and select **Add Entity**.
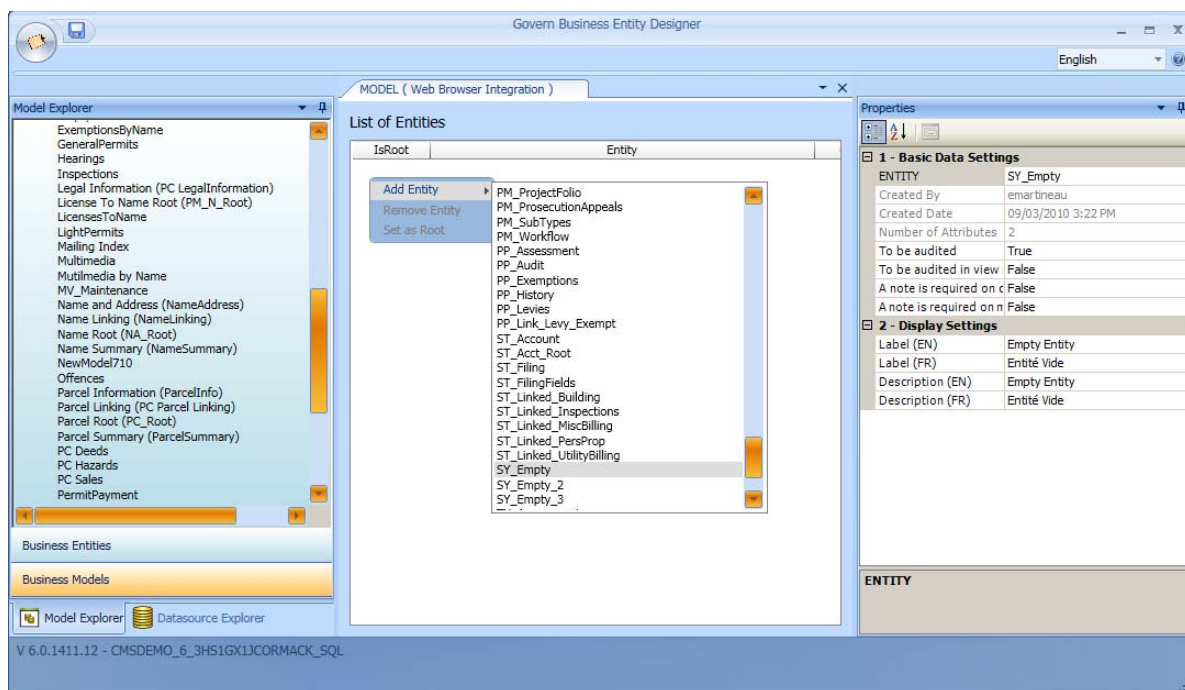
Tip: You can use SY_Empty for the Web Integration, in order to facilitate the process. It does not have many attributes associated with it and has no associated calculations.

You could also create a new entity.

3. Select the entity from the drop-down list.

By default, the first entity added to a model is the Root Entity.

4. Click **Save**.

> **Note:** If the entity is added to multiple business models, any changes that you make to the entity in one business model apply to the entity in all business models.
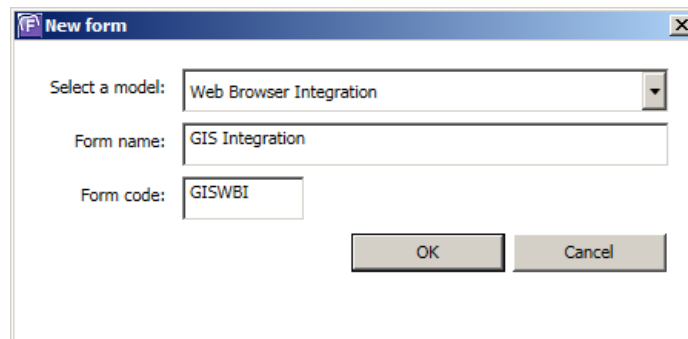>
> For example, if you add the SY_Empty entity to your model and change the **To be audited**. **Label**, or **Description** parameters, these changes apply to all models that contain SY_Empty.

Configuring the New Business Model in the OFD

The next step is to configure the new business model to the OpenForms Designer (OFD).

To configure the new business model:

1. Launch the OFD.

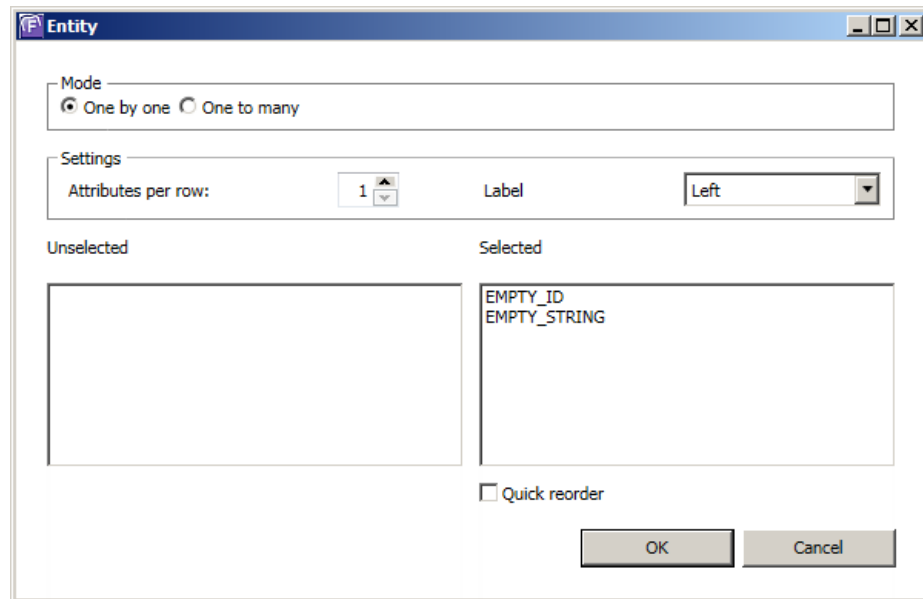2. Click the **New Form** icon . This open the New Form dialog box.

3. **Select the model** you created in the BED.
4. Enter a **Form name**. to identify the form in the OFD. You can change the name at any time.
5. Enter a code in the Form Code to identify the model in the database.
6. Click **Save**. This new form opens in the OFD.

The root entity is displayed. The idea is to hide the root entity; therefore, no specific setup is required on this form.
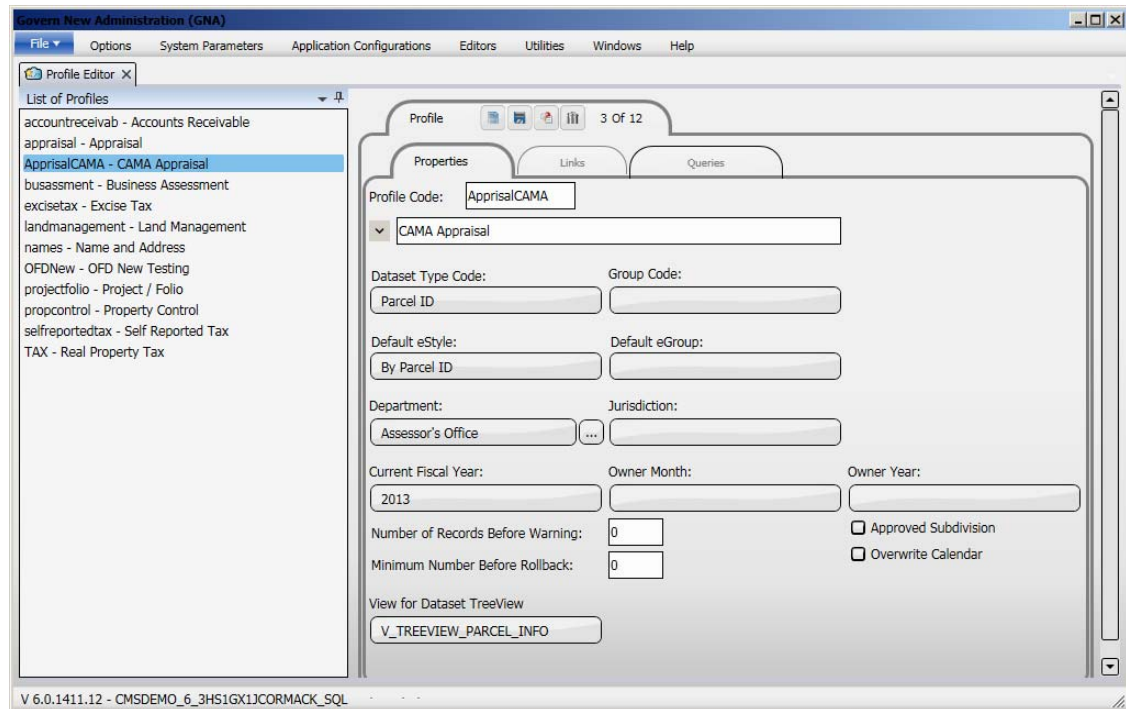
7. Click **OK**.

Adding the New Form to a Profile

The next step is to add the form that you just created to a Profile. This makes it available in Govern.

To add the new form to a Profile:

1. Launch Govern New Administration (GNA).

2. Open the Profile to which you want to add the new form.

- The **Dataset Type Code** must correspond to the value that you set for the **SelectedKeyType**. *See SelectedKeyType on page 130.*

3. Click the **Links** button on the Profile editor and select your new form.

4. Click **OK**.

5. Click **Save** on the Profile editor.

Refer to the documentation on GNA for further details.

Defining Security for the New Form

The initial access to view the form is defined in the Govern Security Manager (GSM).

To verify or set the security rights on executing the form:

1. Launch the GSM.

2. Expand your datasource connection key.

3. Select **Applications** > **Govern** > **Profiles** > the Profile you are using for the Web Browser Integration.

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4. Select **OpenForms** > the form you are using for Web Browser Integration.

5. Select **Edit** or **Exclusions** and define the rights to execute the form.

6. Click **Save**.

# Configuring the Custom Entity in the OFD

📖 Overview

Perform the following steps to add an integrated website to a Govern form.

1. Launch the Govern OpenForms Designer (OFD).

2. Open the form to which you want to add the website.

3. Select the **Custom Entity** control in the **Controls Explorer** and drag it to the top of the OFD Editor, beside the other entities.
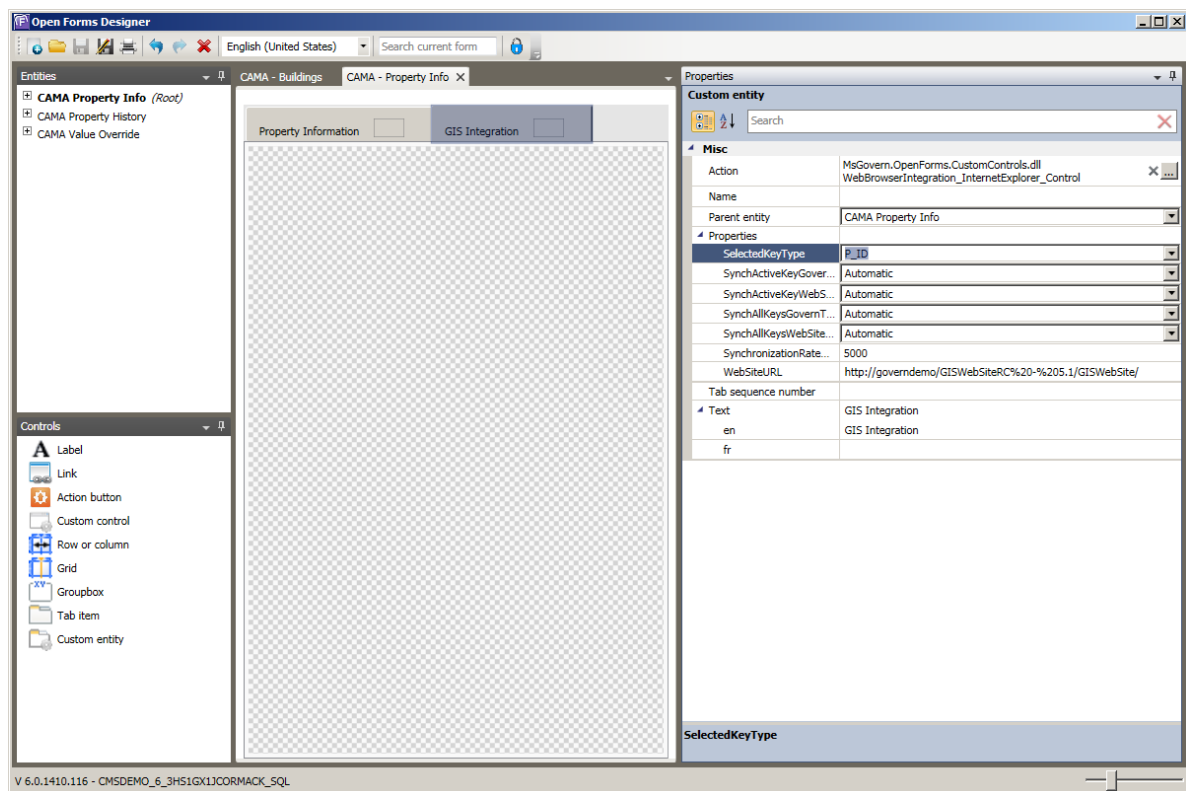
4. Define the following properties in the Property Explorer:

Action: Click the ellipsis button 🔲 in the **Action** text box to open the *Extension Selector*.
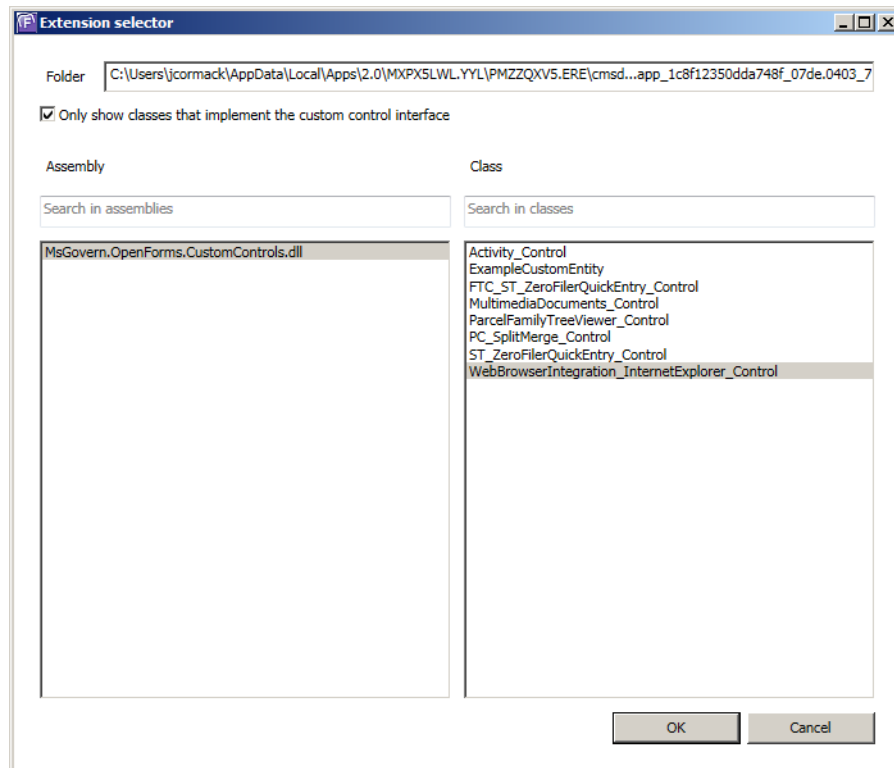
- Select **Only show classes that implement the custom control interface**.
- Select **MsGovern.OpenForms.CustomControls.dll** under **Assembly**.
- Select **WebBrowserIntegration_InternetExplorer_Control** under **Class**.
- Click **OK**.

Name: This is used to identify the entity for the Help files. Enter a name if you are adding a custom help file for the entity.

Parent Entity: Select the root entity in the form as the Parent Entity.

SelectedKeyType: Select one of the following:

- **None**: If you select this option, there is no interaction between Govern and the website.
- **P_ID**: Select this option if you are using the P_ID as the link between Govern and the website.

> **Note:** The **Dataset Type Code** in the **Profile Editor** must be set to **Parcel ID (P ID)**, as well.

- **Tax_Map_Unformat**: Select this option to use the unformatted tax map number as the link between Govern and the website.

> **Note:** In this case, Govern uses the P_ID internally and the **Dataset Type Code** in the **Profile Editor** must be set to **Parcel ID (P ID)**.

- **NA_ID**: Select this option to use the Name ID (NA_ID) to establish the link between Govern and the website.

> **Note:** The **Dataset Type Code** in the **Profile Editor** must be set to **Name ID (NA ID)**, as well.

The following **Synchronization** parameters are used for loading records from Govern to the website and from the website to Govern. You need to set each parameter to automatic or manual synchronization.

- **Automatic**: Select **Automatic** to load the record, or records, automatically, without any user action. Records are refreshed according to the synchronization rate defined in the **Synchronization Rate (Milliseconds)** parameter.
- **Manual**: Select **Manual** to load all records when the user clicks an action button.

  The action buttons are included in the control, and appear at the top of the entity in Govern, when Manual is selected.

SynchActiveKeyGovernToWebSite: This parameter is used for loading the record that is currently open in Govern to the website. Select Automatic or Manual synchronization.

SynchAllKeysGovernToWebSite: This parameter is used for loading all the records that are currently in the Govern treeview to the website.Select Automatic or Manual synchronization.

SynchActiveKeyWebSiteToGovern: This parameter is used for loading the record that is open in the website to Govern. Select Automatic or Manual synchronization.

SynchAllKeysWebSiteToGovern: This parameter is used for loading all records from the website to Govern. It replaces the records that are currently in the Govern treeview. Select Automatic or Manual synchronization.

SynchronizationRateMilliSeconds: This setting is applicable to automatic synchronization only. It is used for setting the frequency at which

the website is polled for new information. It is recommended to set it to 1,000 milliseconds (one second) or less.

WebSiteURL: Enter the URL of the website that you are integrating.

Tab Sequence Number: The tab sequence number is reserved for future use.

**Save:** Click the **Save** icon ▣ in the OFD to save your configuration settings.

Hiding the Root Entity and Adding Security

You can set permissions and restrictions for viewing the custom entity that contains the integrated Web browser. The add, edit, delete, and browser rights are not applicable. You need to define security by type: Normal or Alternative, Profile, Role, and user. *For more information about security, see Security in the OpenForms Designer on page 160.*

To hide the root entity:

1. Launch the OFD.

2. Open the form you are using for Web Browser Integration.

3. Select the root entity.

4. Select the **Security** icon 🔒.

   This opens the Security Settings page.
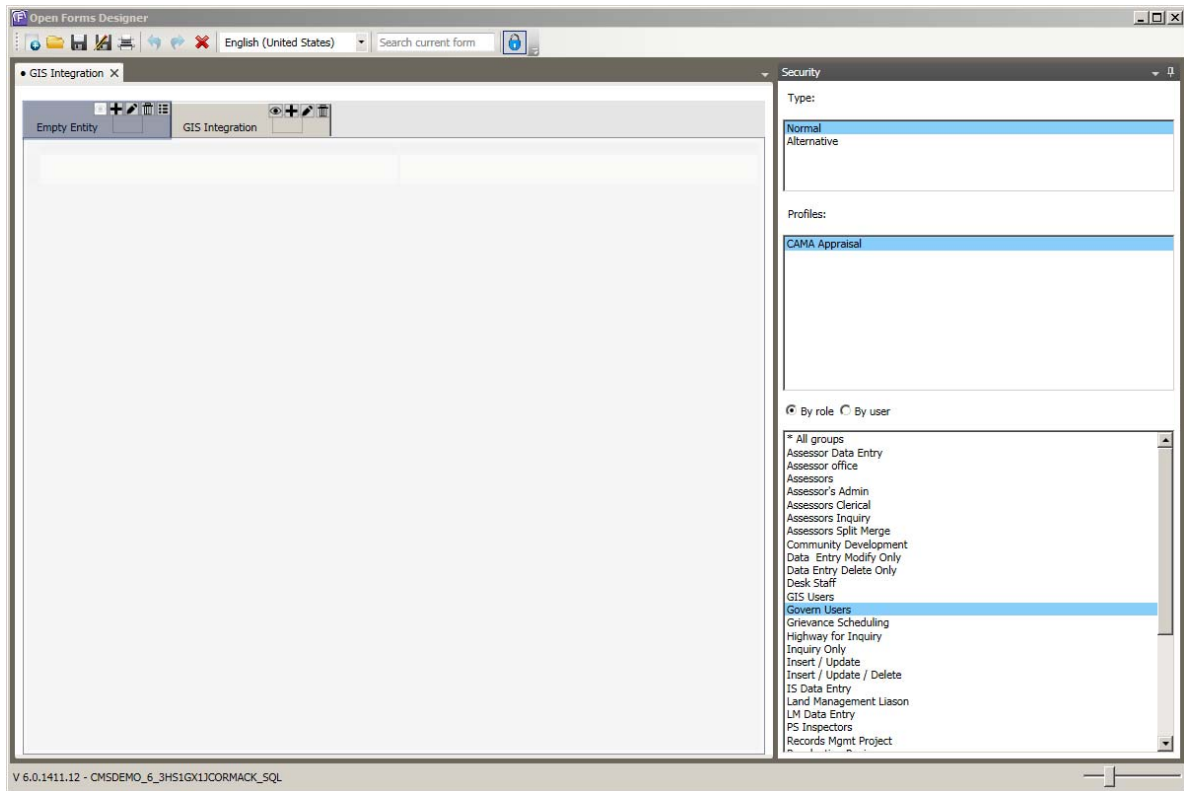
5. Select **Normal** under **Type**.

6. Select the **Profile** for the security rights you are configuring.

7. Select the **Role**.

8. Click the **View** icon 👁.

9. Click **Save**.

10. Repeat the procedure in order to set the security rights for Alternative security and the other Profiles, Roles, and Users using GIS Integration.

Tip: The default Alternative security is the same as Normal security. It is recommended to set up security on the Roles. Then define the exclusions by user.
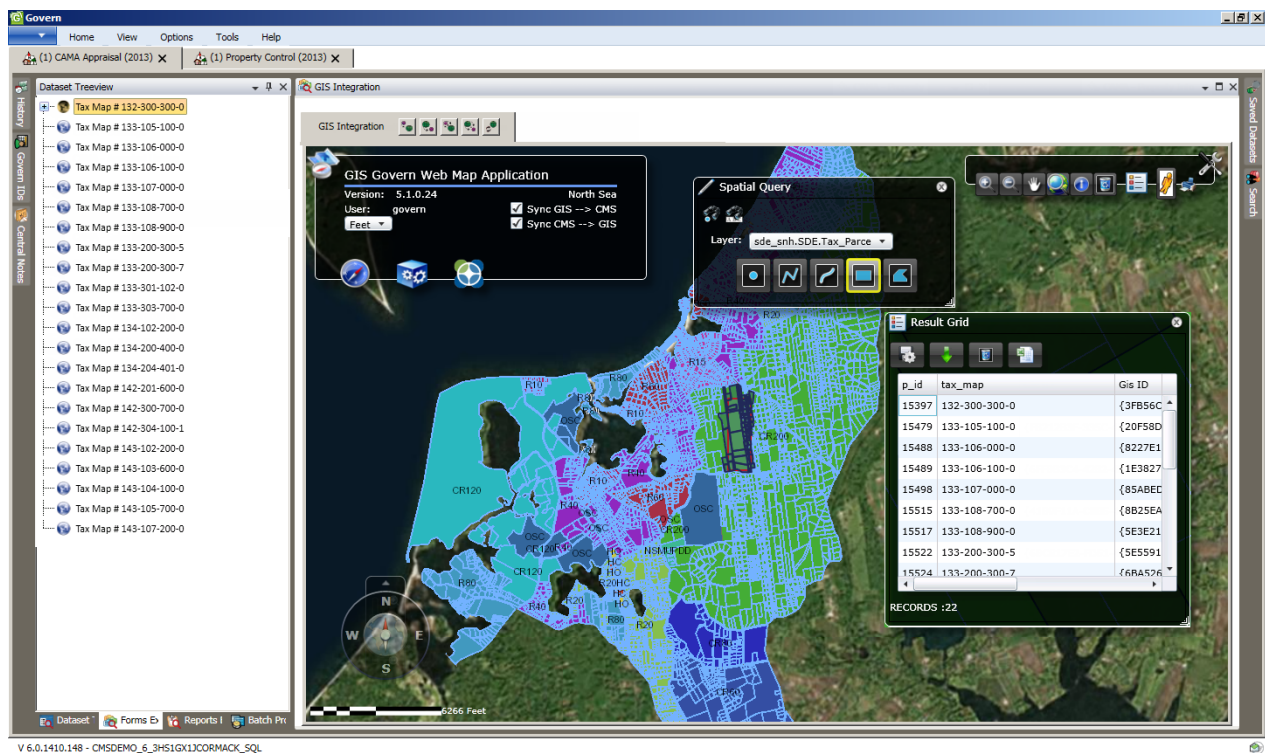
Viewing the Integrated Web Browser in Govern

📖 Overview

Once the configuration is complete, you can view the integrated web browser in Govern.

The following screen shot displays the Govern GIS Explorer integrated into the Govern CAMA Property Information form via WBI.

In the screen shot, all parameters are set to Manual Therefore, all action buttons appear at the top of the entity.

- **Load the Active Record from Govern to the Website**: Click this icon to load the record that is currently active in Govern to the website. For example, if you have an integrated GIS browser, you could open a parcel in the Property Information form in Govern and view it on the GIS map.

- **Load the Active Record from the Website to Govern**: Click this icon to load the active record from the website to Govern. For example, you could select a parcel on the GIS map and load it to the Govern treeview.

- **Load All Active Records from Govern to the Website**: Click this icon to load all records from the Govern treeview to the website. For example, you could view all the property records that are currently in the Govern treeview on the GIS map.

- **Load All Active Records from the Website to Govern**: Click this icon to load all active records from the website to Govern. This replaces all the records that are currently in the Govern treeview with a list of records from the website. For example, you could select a number of parcels on the GIS map and view them in the Govern treeview.

- **Reload the website**: Click this icon to refresh or reload the website. The login page appears if applicable.

Note: For the synchronization parameters that are set to automatic, there are no action buttons.