

# Adding Links to a Workflow



## Overview

This document describes how to add links using the Workflow Links Controller. This controller adds a central location for all links associated with a workflow. There are two categories for these links:

- Links to Names
- Links to Everything Else: This category includes other properties, departments, buildings, workflows, inspections, hearings, miscellaneous billing, self reported tax, and personal property.

This document describes the following topics:

- Configuring Links
  - Configuring links in the OpenForms Designer
  - Creating Link Types in GNA
- Using Links in Govern

# Configuring Entities for the Links in the OpenForms Designer (OFD)

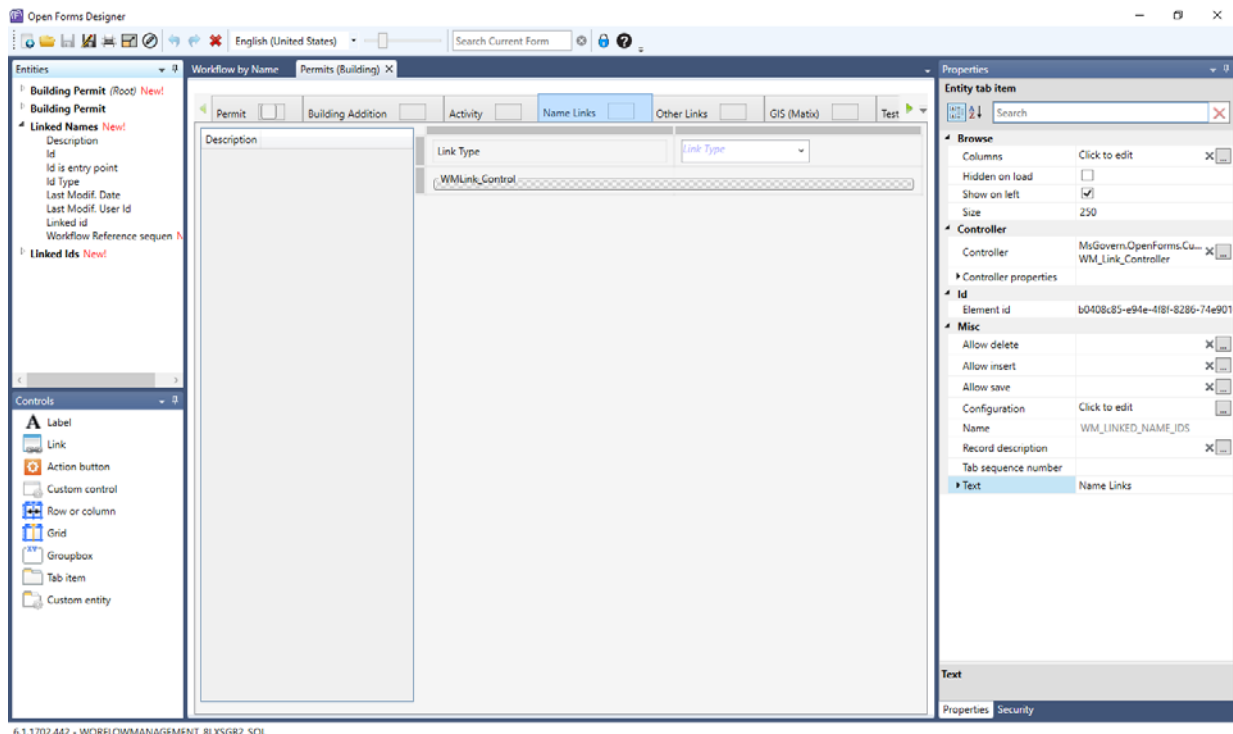
## Overview

Link Types are created in GNA. They are made available in Govern through the Workflow Links Controller. You must add and configure this controller to the following entities:

## Adding the Workflow Controller for Names

To add the Workflow Links Controller for Names:

1. Launch the OpenForms Designer (OFD).
2. Open the required workflow form.
3. Open the **Name Links** entity.



4. Select **Custom Control** in the **Controls** explorer.

5. Drag it to the required position on the entity.
6. Select the new custom control.
7. Complete the parameters as follows:
8. Click **Save**.

### Configuring the Layout Properties

To configure the Layout properties:

1. Expand **Layout** and modify the margins, and the horizontal and vertical alignment if required.
2. Click the ellipsis button beside the **Text style** parameter to modify the foreground style of the name control.

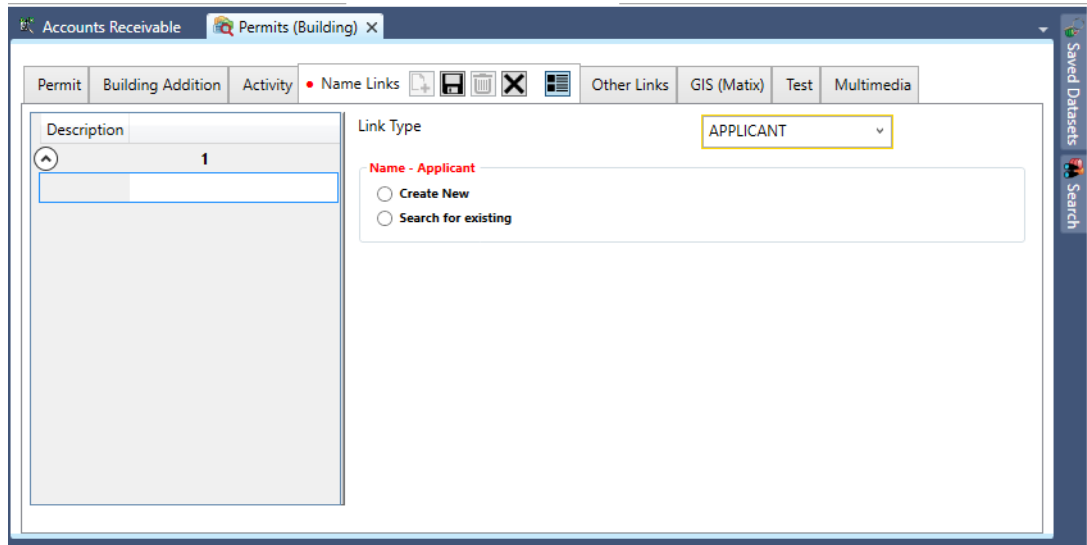
**Note:** The background color cannot be changed for the custom control.

The foreground color is applied to the heading, but not the options  
Only the font size and bold and italic character styles are applied.

This opens the Expression Selector.

3. Open the name of the text style between single quotation marks and click **OK** on the Expression Selector.

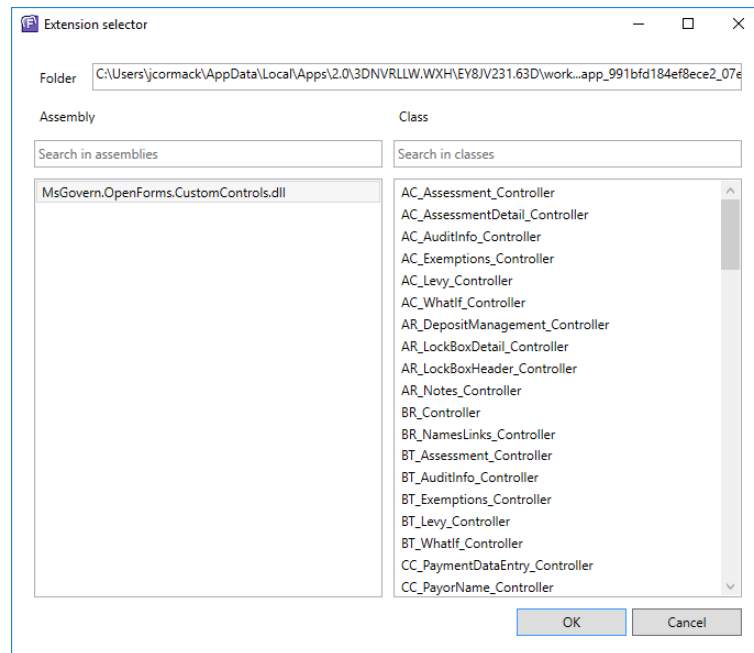
A text style is applied to the Workflow Control for Names in the following screen shot:



## Configuring the Controller Properties

To configure the Controller properties:

1. Expand **Misc > Action**.
2. Click the ellipsis button.  
This opens the Extension Selector.



3. Select **MsGovernOpenForms.CustomControls.dll** under **Assembly**.
4. Select **WM\_Link\_Control** under **Class**.
5. Click **OK** on the Extension Selector.

### Configuring Additional Properties

You can add expressions to enable the controller and / or to make it visible only under certain conditions. *Refer to the Expressions section of the OpenForms Designer documentation for details.*

## Configuring the Name Links Entity

To configure the Name Links entity, you need to set up the Browse window and add the configuration for the filters.

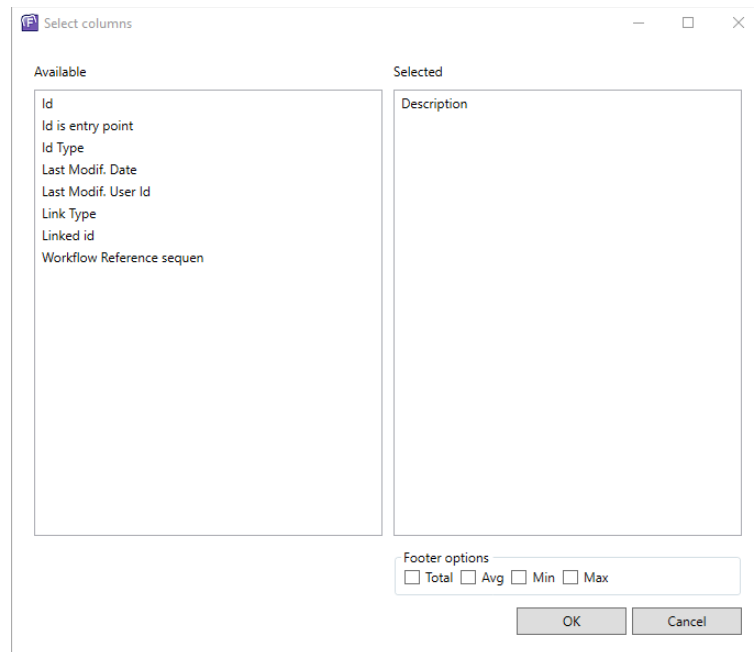
### Setting Up the Browse

To set up the Browse window:

1. Open the form in the OFD.
2. Select the tab for **Name Links** entity.

3. Click the ellipsis button in the **Columns** parameter.

This opens the Select Columns window.



All attributes are listed under **Available**.

4. Select the **Description** attribute and move it to the Selected column.
5. Click **OK**.

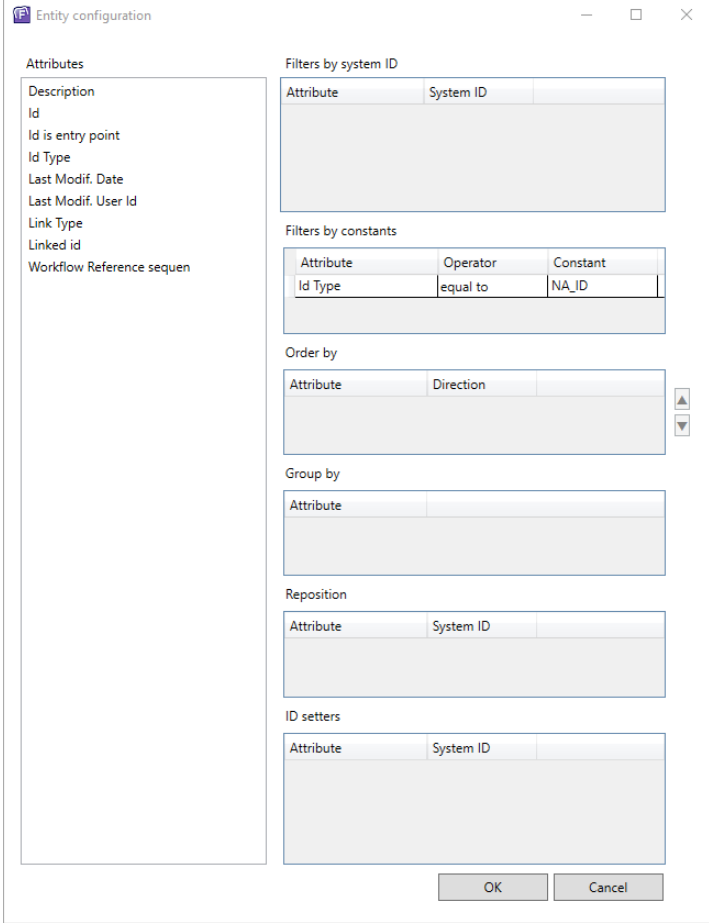
### Adding Filters to the Name Links Entity

You need to add the following configuration for the filters. The Name Links entity is defined to filter on the Name ID (NA\_ID) reference type.

To add the configuration for the filters:

1. Open the form in the OFD.
2. Select the tab for **Name Links** entity.
3. Expand **Misc** in the Properties explorer.
4. Click the ellipsis button in the Configuration parameter.

This opens the Entity Configuration window.



The dialog box is titled "Entity configuration". It contains several sections for configuring entity filters and settings.

- Attributes:** A list of attributes including Description, Id, Id is entry point, Id Type, Last Modif. Date, Last Modif. User Id, Link Type, Linked id, and Workflow Reference sequen.
- Filters by system ID:** A table with columns Attribute and System ID.
- Filters by constants:** A table with columns Attribute, Operator, and Constant. The first row shows "Id Type" under Attribute, "equal to" under Operator, and "NA\_ID" under Constant.
- Order by:** A table with columns Attribute and Direction.
- Group by:** A table with columns Attribute.
- Reposition:** A table with columns Attribute and System ID.
- ID setters:** A table with columns Attribute and System ID.

At the bottom right, there are "OK" and "Cancel" buttons.

5. Add the **ID Type** under Filter by Constants.
6. Select equal to under **Operator**.
7. Select **NA\_ID** under **Constant**.
8. Click **OK**.

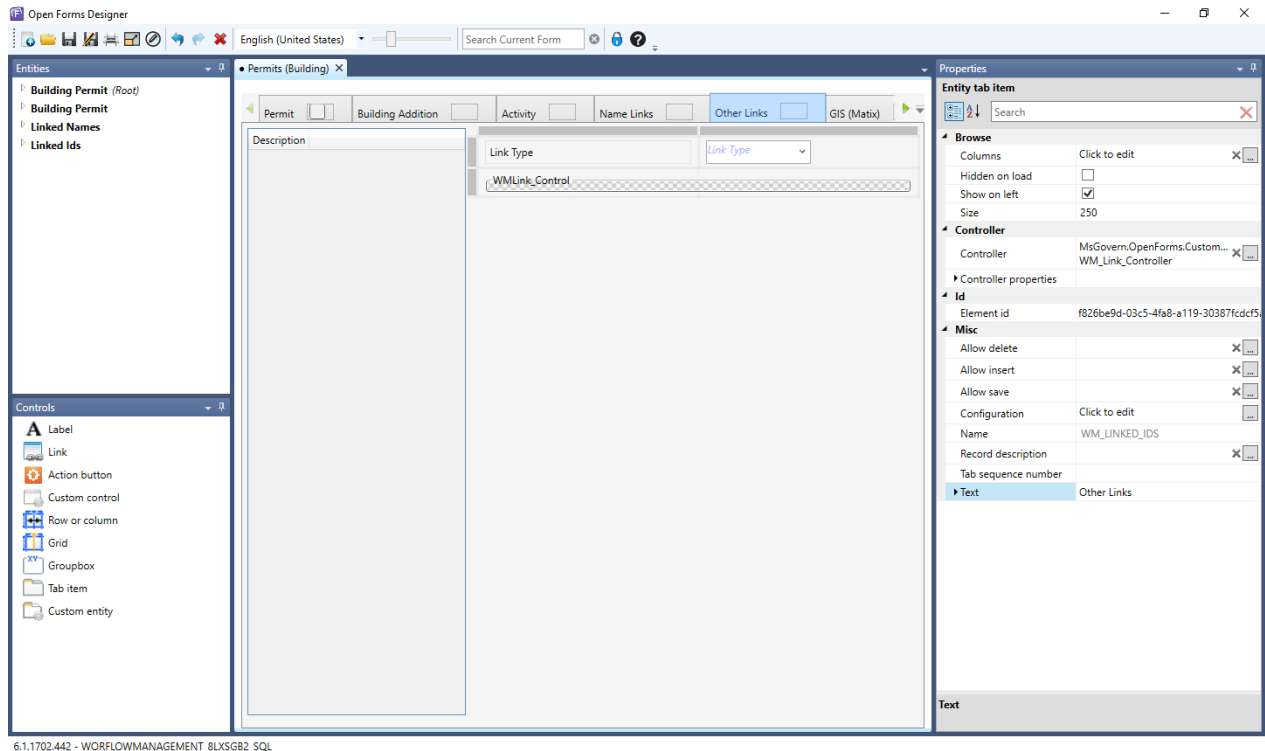
## Adding the Workflow Controller for Other Links

Other Links refers to all links other than names. These include parcels, buildings.

To add the Workflow Links Controller for Other Links:

1. Launch the OpenForms Designer (OFD).

2. Open the required workflow form.
3. Open the **Other Links** entity.



4. Follow the remaining steps under Configuring the Name Links Entity on page 179.

## Configuring the Other Links Entity

To configure the Name Links entity, you need to set up the Browse window and add the configuration for the filters.

### Setting Up the Browse for Other Links

To set up the Browse, follow the procedure Setting Up the Browse on page 179.



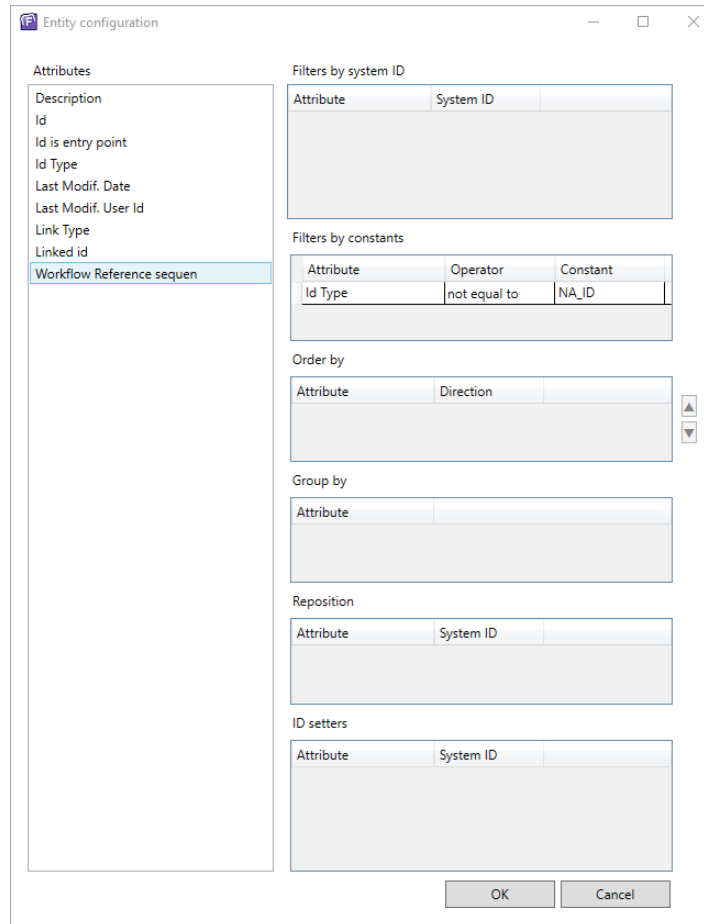
### Adding Filters to the Other Links Entity

The procedure is almost the same as Adding Filters to the Name Links Entity on page 180. The difference is in the operator that you select for the Reference ID under constants. For the Other Links select **Not equal to**.

To add the configuration for the filters:

1. Open the form in the OFD.
2. Select the tab for **Other Links** entity.
3. Expand **Misc** in the Properties explorer.
4. Click the ellipsis button in the Configuration parameter.

This opens the Entity Configuration window.



The screenshot shows the 'Entity configuration' window with the following sections:

- Attributes:** A list of attributes including Description, Id, Id is entry point, Id Type, Last Modif. Date, Last Modif. User Id, Link Type, Linked id, and Workflow Reference sequen (highlighted).
- Filters by system ID:** A table with columns Attribute and System ID.
- Filters by constants:** A table with columns Attribute, Operator, and Constant. The current entry is Id Type, not equal to, NA\_ID.
- Order by:** A table with columns Attribute and Direction.
- Group by:** A table with columns Attribute.
- Reposition:** A table with columns Attribute and System ID.
- ID setters:** A table with columns Attribute and System ID.

At the bottom are OK and Cancel buttons.

5. Add the **ID Type** under Filter by Constants.

- 
6. Select equal to under **Operator**.
  7. Select **NA\_ID** under **Constant**.
  8. Click **OK**.

# Managing Link Types in GNA

## Overview

Link Types facilitate the management of all the links added to a workflow. This section describes how to view the existing link types and how to create new ones.

## Viewing Link Types

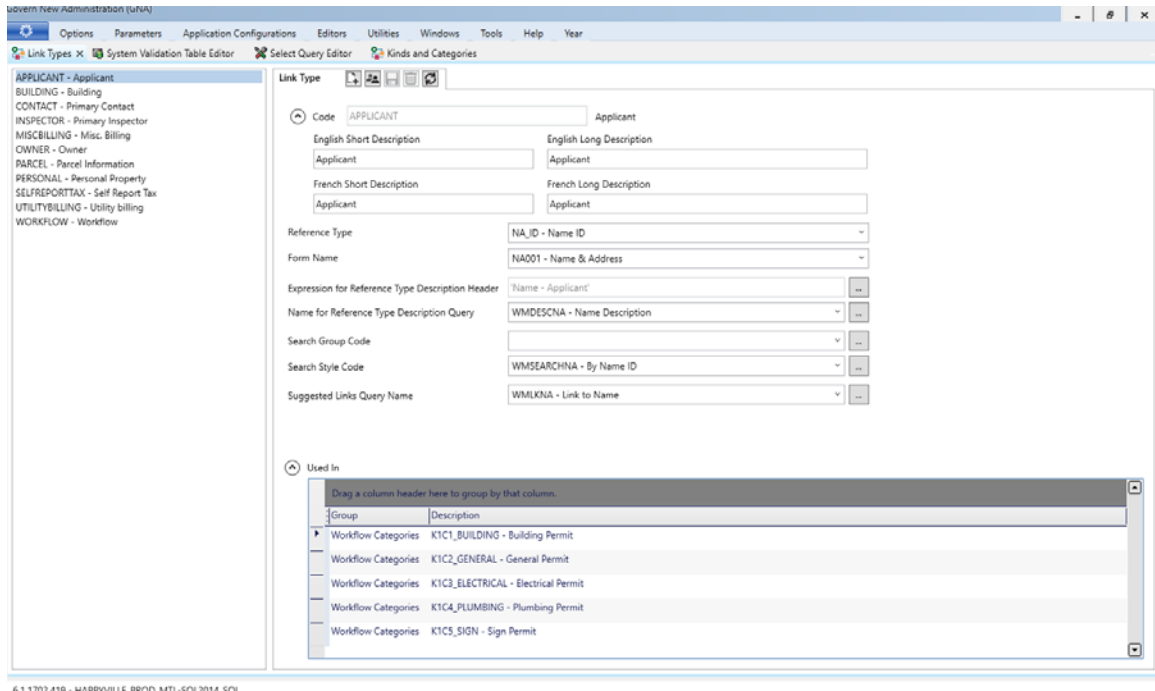
By default, Link Types are provided for the following:

- Names:
  - Applicant
  - Primary Contact
  - Contractor
  - Owner
  - Primary Inspector
- Other:
  - Building
  - Miscellaneous Billing
  - Parcel Information
  - Self Reported Tax
  - Utility Billing
  - Workflow

You can create all the additional Workflow Link Types that you require.

To view the predefined Link Types:

1. Launch GNA.
2. Select **Applications Configurations > Workflow Management > Link Types**.



The screenshot shows the 'Link Type' configuration window in the GUNA application. The left pane lists various link types, with 'APPLICANT' selected. The right pane shows the configuration for 'APPLICANT' with the following fields:

- Code:** APPLICANT
- English Short Description:** Applicant
- English Long Description:** Applicant
- French Short Description:** Applicant
- French Long Description:** Applicant
- Reference Type:** NA\_ID - Name ID
- Form Name:** NAD01 - Name & Address
- Expression for Reference Type Description Header:** 'Name - Applicant'
- Name for Reference Type Description Query:** WMDESCNA - Name Description
- Search Group Code:** (empty)
- Search Style Code:** WMSEARCHNA - By Name ID
- Suggested Links Query Name:** WMLKNA - Link to Name

Below these fields is a 'Used In' section with a table showing the link type is used in various workflow categories:

Group	Description
Workflow Categories	K1C1_BUILDING - Building Permit
Workflow Categories	K1C2_GENERAL - General Permit
Workflow Categories	K1C3_ELECTRICAL - Electrical Permit
Workflow Categories	K1C4_PLUMBING - Plumbing Permit
Workflow Categories	K1C5_SIGN - Sign Permit

By default, link types are listed by code and short description.

3. Select the link type that you want to view in the tree view.
4. Click the arrow beside **Code** to view the **Short** and **Long Descriptions**.

Parameters are defined as follows:

## Reference Type

The **Reference Type** drop-down list contains the Govern System IDs (System Validation Table: BRULE - Business Rules). They are selected as follows:

- **Applicant:** NA\_ID - Name ID
- **Building:** BLDG ID - Building ID
- **Primary Contact:** NA\_ID - Name ID
- **Primary Inspector:** NA\_ID - Name ID
- **Miscellaneous Billing:** MB\_ID - Misc. Billing ID
- **Owner:** NA\_ID - Name ID
- **Parcel Information:** P\_ID - Parcel ID
- **Personal Property:** PP\_ID - Personal Property ID
- **Self Reported Tax:** ST\_ACCT\_ID - Self Reported Tax ID
- **Utility Billing:** UB\_ID - Utility Billing ID

- **Workflow:** WM\_ID - Workflow ID

### Form Name

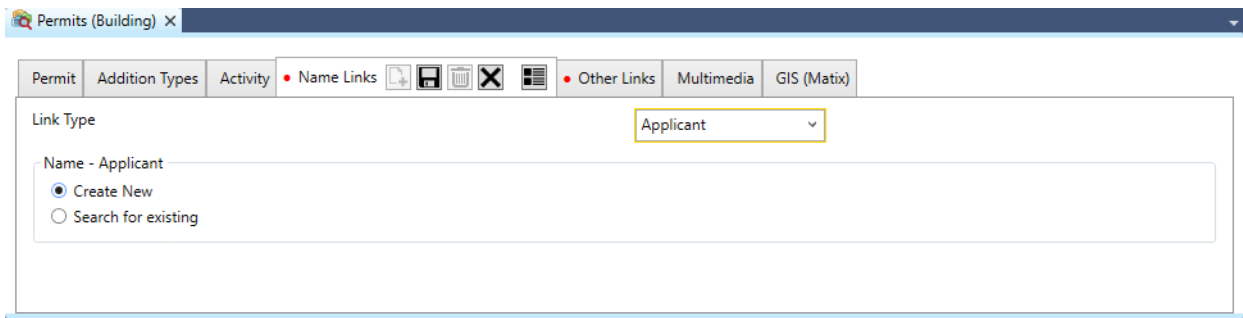
The **Form Name** drop-down list contains all the Govern user form created in the OpenForms Designer (OFD). They are selected as follows:

- **Applicant:** NA 01 - Name & Address
- **Building:** MA026 - CAMA Buildings
- **Primary Contact:** NA 01 - Name & Address
- **Primary Inspector:** NA 01 - Name & Address
- **Miscellaneous Billing:** MB01 - Miscellaneous Billing
- **Owner:** NA 01 - Name & Address
- **Parcel Information:** PC01 - Property Information
- **Personal Property:** PP01- Personal Property Information
- **Self Reported Tax:** ST007 - Self Reported Tax
- **Utility Billing:**
- **Workflow:**

### Expression for Reference Type Description Header

Click the ellipsis button in this parameter to open the Expression Selector. The header is entered between single quotation marks. This appears above the Search parameter on the Govern user form.

The following screen shot show the parameter for the applicant.



Permits (Building) ×

Permit Addition Types Activity **Name Links** Other Links Multimedia GIS (Matix)

Link Type Applicant

Name - Applicant

☒ Create New

☐ Search for existing

- **Applicant:** Name - Applicant
- **Building:** Building
- **Primary Contact:** Name - Contact
- **Primary Inspector:** Name - Inspector
- **Miscellaneous Billing:** Misc Billing

- **Owner:** Name - Owner
- **Parcel Information:** Property Information
- **Personal Property:** Personal Property
- **Self Reported Tax:** Self Reported Tax
- **Utility Billing:** Utility Billing
- **Workflow:** Workflow

### Name for Reference Type Description Query

The queries must have a column named ID and a column named Description. For the Building, there must be a query name Sequence, as well. The entry point is either the Parcel ID for the workflow record or a linked ID.

All IDs already linked to the workflow are excluded.

- **Applicant:** WMDESCNA - Name Description  
For the Name query, the same Name ID (NA\_ID) can be displayed multiple times in the same list. For example, the same name could be displayed for the Owner and Applicant. This is not true for any other system IDs.  
For the names, the query returns all names
- **Building:** WMDESCBLDG - Building Description  
For the building, the query returns all buildings (PC\_LK\_PARCEL\_BLDG.BLDG\_ID) linked to the record.
- **Primary Contact:** WMDESCNA - Name Description  
For the contact, the name query is used.
- **Primary Inspector:** WMDESCNA - Name Description  
For the inspector, the name query is used.
- **Miscellaneous Billing:** WMDESCMB - Misc. Billing Description  
For Miscellaneous Billing, the query returns all Miscellaneous Billing records (MB\_MASTER.MB\_ID) linked to the parcel.
- **Owner:** WMDESCNA - Name Description  
For the owner, the name query is used.
- **Parcel Information:** WMDESCPA - Property Description  
For the parcel, the query returns all other active (Parcels PC\_PARCEL.P\_ID) linked to the parcel on which the workflow is based.
- **Personal Property:** WMDESCPP - Personal Property Desc.  
For Personal Property, the query returns all Personal Property records (PP\_ASSESSMENT.PP\_ID) for the Year ID and Frozen ID linked to the parcel.
- **Self Reported Tax:** WMDESCST - SRT Description

For Self Reported Tax, the query returns all Self Reported Tax accounts (ST\_MASTER.ST\_ACCT\_ID) linked to the parcel.

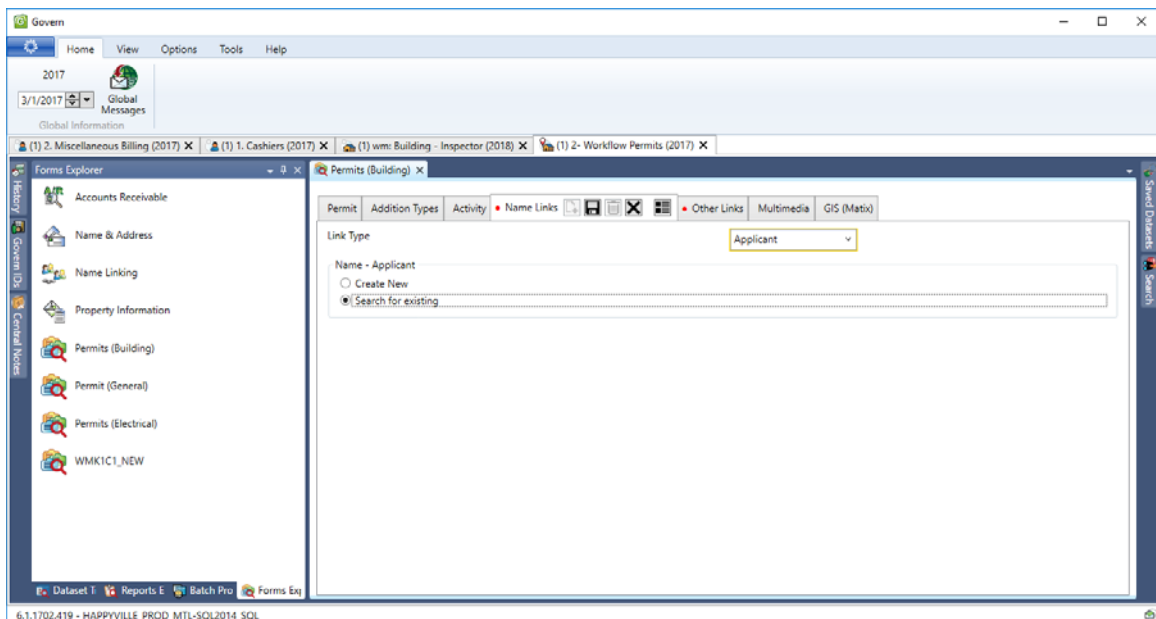
- **Utility Billing:** WMDESCUB - Utility Billing Desc.  
For Utility Billing, the query returns all Utility Billing records (UB\_MASTER.U\_ID) linked to the parcel.
- **Workflow:** WMDESCWM - Workflow Description  
For the workflow, the query returns all workflows with the same P\_ID linked to the parcel.

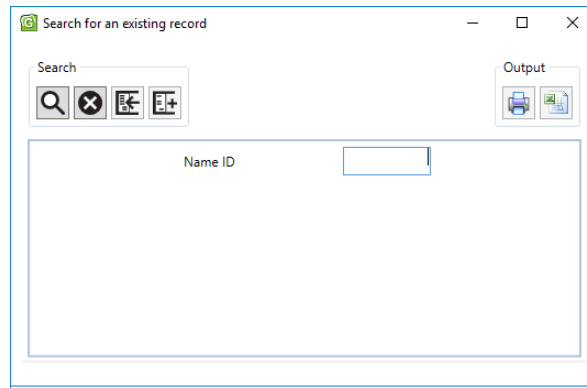
### Search Group Code

For the defaults, no search group is selected.

### Search Style Code

- **Applicant:** WMSEARCHNA - By Name ID  
For the Names, the user can search for a name in the database (Search for existing) or create a new name.  
If the user selects **Search for existing**, the Name Search is displayed. A Name ID can be entered.  
This is illustrated with the following screen shots:





- **Building:** WMSEARCHBLDG - By Building ID  
For the building, the user can search for any building by Building ID.
- **Primary Contact:** WMSEARCHNA - By Name ID  
For the contact, the name search is used. The user can search by Name ID.
- **Primary Inspector:** WMSEARCHNA - By Name ID  
For the inspector, the name search is used. The user can search by Name ID.
- **Miscellaneous Billing:** WMDESCMB - Misc. Billing Description  
For Miscellaneous Billing,.
- **Owner:** WMSEARCHNA - By Name ID  
For the owner, the name search is used. The user can search by Name ID.
- **Parcel Information:** WMDESCPA - Property Description  
For the parcel, the query returns all other active (Parcels PC\_PARCEL.P\_ID) linked to the parcel on which the workflow is based.
- **Personal Property:** WMDESCPP - Personal Property Desc.  
For Personal Property, the query returns all Personal Property records (PP\_ASSESSMENT.PP\_ID) for the Year ID and Frozen ID linked to the parcel.
- **Self Reported Tax:** WMDESCST - SRT Description  
For Self Reported Tax, the query returns all Self Reported Tax accounts (ST\_MASTER.ST\_ACCT\_ID) linked to the parcel.
- **Utility Billing:** WMDESCUB - Utility Billing Desc.  
For Utility Billing, the query returns all Utility Billing records (UB\_MASTER.U\_ID) linked to the parcel.
- **Workflow:** WMDESCWM - Workflow Description  
For the workflow, the query returns all workflows with the same P\_ID linked to the parcel.



## Used In

The Used In list box of the bottom of the form displays the Workflow Categories that use the current Link Type.

## Creating New Link Types

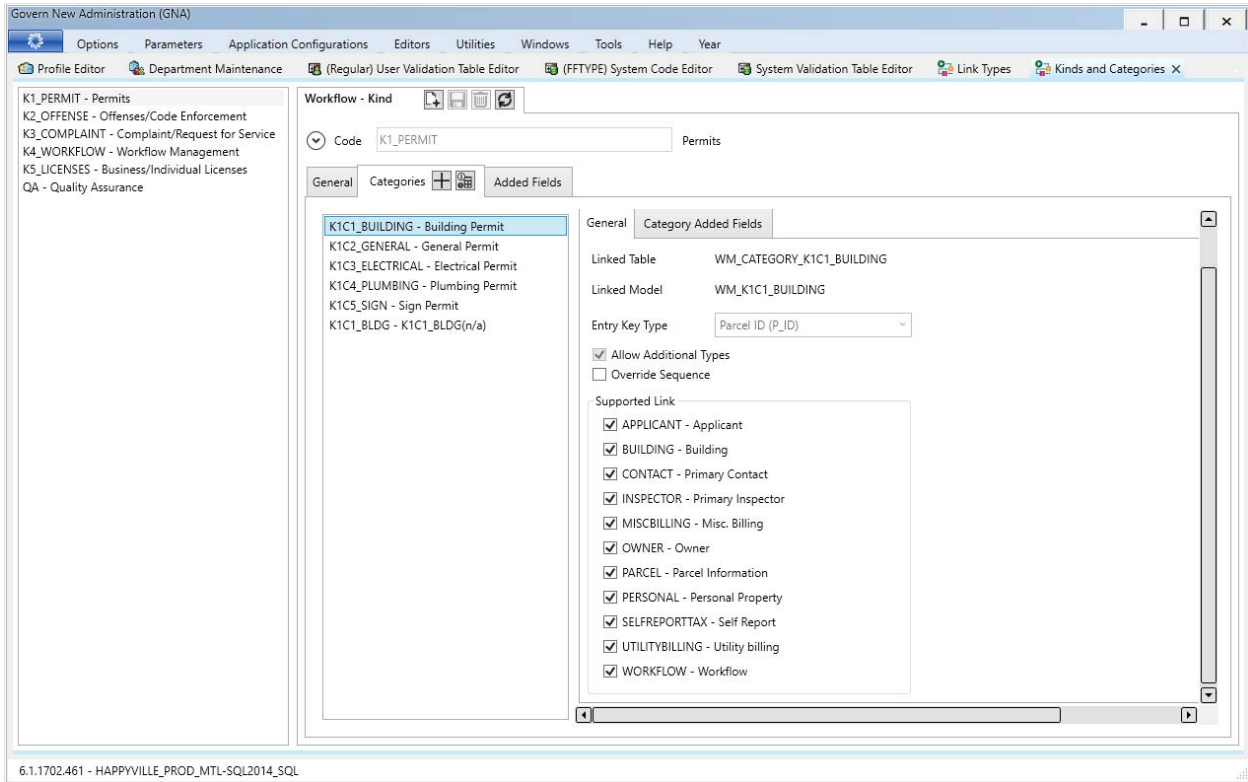
To create a Workflow Link Type:

1. Launch GNA.
2. Select **Application Configurations > Workflow Management > Link Types**.
3. Do one of the following:
  - Click **Copy** to create a new link type from an existing one. You must change the Code and make any modification on the form.
  - Click **New** to create a new link type.
4. Modify the parameters as required.
5. Click **Save**.

## Adding Link Types to Workflow Kinds and Categories

To add a Link Type to a Workflow Kind and Category:

1. Launch Govern.
2. Select **Workflow Management > Kinds and Categories**.
3. Select the required Workflow Kind, such as Permits, in the tree view.
4. Select the **Categories** tab.
5. Select the **General** tab under Categories.
6. Select the required category in the tree view.



Govern New Administration (GNA)

Options Parameters Application Configurations Editors Utilities Windows Tools Help Year

Profile Editor Department Maintenance (Regular) User Validation Table Editor (FFTYPE) System Code Editor System Validation Table Editor Link Types Kinds and Categories X

K1\_PERMIT - Permits  
K2\_OFFENSE - Offenses/Code Enforcement  
K3\_COMPLAINT - Complaint/Request for Service  
K4\_WORKFLOW - Workflow Management  
K5\_LICENSES - Business/Individual Licenses  
QA - Quality Assurance

Workflow - Kind

Code K1\_PERMIT Permits

General Categories Added Fields

K1C1\_BUILDING - Building Permit  
K1C2\_GENERAL - General Permit  
K1C3\_ELECTRICAL - Electrical Permit  
K1C4\_PLUMBING - Plumbing Permit  
K1C5\_SIGN - Sign Permit  
K1C1\_BLDG - K1C1\_BLDG(n/a)

General Category Added Fields

Linked Table WM\_CATEGORY\_K1C1\_BUILDING  
Linked Model WM\_K1C1\_BUILDING  
Entry Key Type Parcel ID (P\_ID)

☒ Allow Additional Types  
☐ Override Sequence

Supported Link

☒ APPLICANT - Applicant  
☒ BUILDING - Building  
☒ CONTACT - Primary Contact  
☒ INSPECTOR - Primary Inspector  
☒ MISCIBILLING - Misc. Billing  
☒ OWNER - Owner  
☒ PARCEL - Parcel Information  
☒ PERSONAL - Personal Property  
☒ SELFREPORTTAX - Self Report  
☒ UTILITYBILLING - Utility billing  
☒ WORKFLOW - Workflow

6.1.1702.461 - HAPPYVILLE\_PROD\_MTL-SQL2014\_SQL

The Link Types that you created are displayed under **Supported Link**.

7. Select the link types that are applicable to the category.
8. Deselect the link types that are not applicable.
9. Click **Save**.

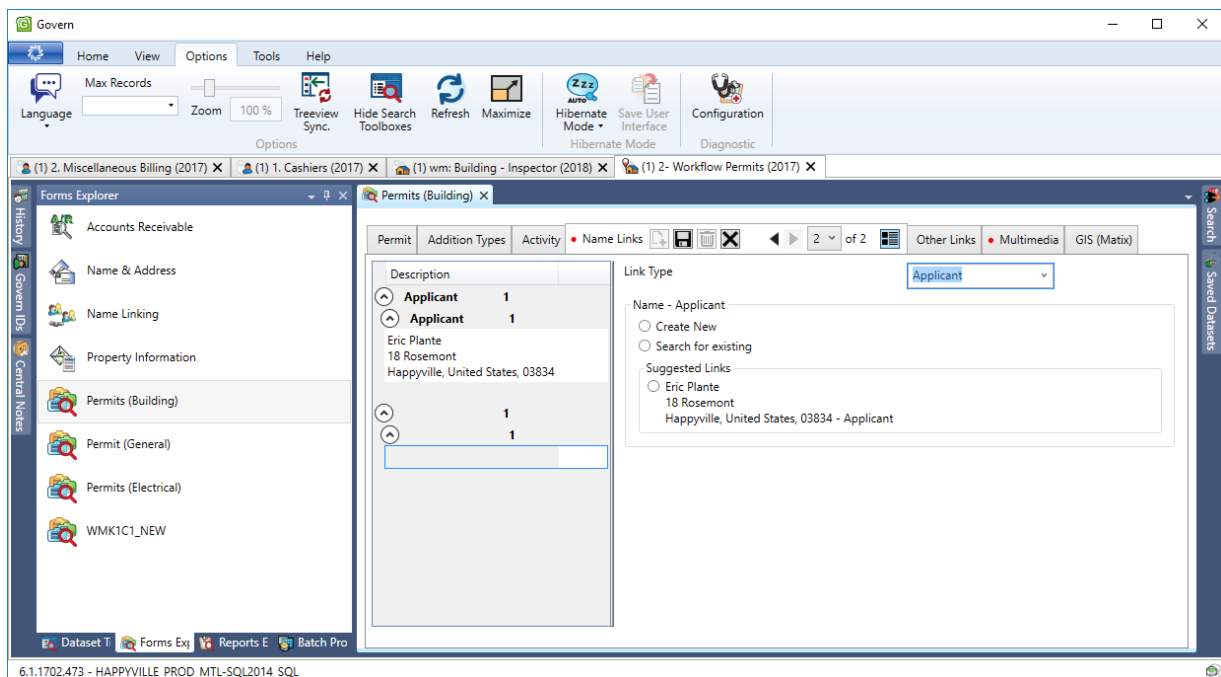
# Using Link Types in Govern

## Overview

By default, Link Types are added to two separate entities on the Workflow form in Govern.

To add a Name Link Type:

1. Launch Govern.
2. Open a Profile that contains the Workflow form.
3. Open the Workflow form.
4. Select the **Name Links** entity.



5. Click **New** to add a new linked name.
6. Select the type from the **Link Type** drop-down list.

All the link types, set up by NA\_ID, that you have selected for the Workflow Kind and Category are displayed.

7. Select a link type from the drop-down list.

The **Create New** and **Search for existing** parameters are displayed.

In addition, the **Suggested Links** parameter is displayed if a name was already added to the form. The same NA\_ID can be added multiple times to a form.

8. Follow one of the procedures in the following section:

The name and address are added to the **Description** list.

9. Click **Save**.

### Adding a New Name and Address Account

You can create a new name and address account for the record. In order to update the record from a direct link, the Name and Address form must be added to the same Profile as the Workflow form.

To create a new Name and Address record:

1. Follow the procedure for adding a new Name Link up to step 8.
2. Click **Create New**.  
A new NA\_ID is added to the form.
3. Click **Save**.
4. Click the new name link to open the Name and Address form.
5. Enter the information for the new name account on the Name and Address form.
6. Click **Save** on the Name and Address form.

The Name and Address for the new account are displayed in the

### Adding an Existing Name and Address Account

You can link a name from a name and address that is in the Govern database.

To add an existing name and address record:

1. Follow the procedure for adding a new Name Link up to step 8.
2. Click **Search for existing** to add an existing name to the form.

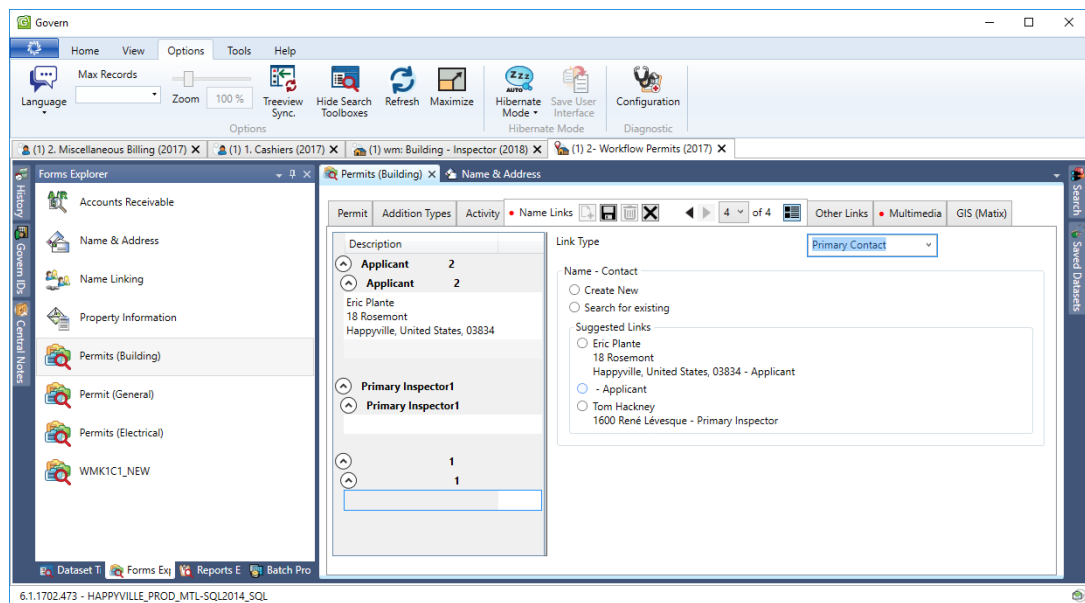
The Name and Address search screen opens.

3. Enter your search criteria.
4. Select a name and address account from the list.

The name and address are displayed on the form.

### Adding a Name From the Suggested Links

If name accounts are already linked to the Workflow record, they are displayed under Suggested Links. This is shown in the following screen shot:



To add a name from the Suggested Links list:

1. Follow the procedure for adding a new Name Link up to step 8.
2. Select a name from the Suggested Links list to add the name and address to the form.

The name and address are added to the **Description** tree view on the left. They are displayed by link type.

3. Click **Save**.