**CLEAN\_Address Oracle® Forms Integration Guide (V1.0.1)**

The sample forms modules referenced in this document can be found under the “fmb” folder, the most current versions can be sourced from the following location:

[***http://ftp.runnertech.com/ftpcln/patches/clnaddrForOracleForms.zip***](http://ftp.runnertech.com/ftpcln/patches/clnaddrForOracleForms.zip) (895.7 KB)

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| --- | --- | --- |
|  | *In order to utilize the selectable suggestion list feature, the following parameters in the clnaddrd.ini must be set as follows ( VerboseSuggestList = 1, and IncludeSuggestHeader = 1)* | |
|  |  | |
| **SUPPORT** | | | |
| If you run into problems, or have questions regarding the installation or integration, please contact Runner Technologies Support using any of the methods below: | | | |
| **Phone:** | | 877-784-0003 9am-6pm EST or 561-395-9322 | |
| **Fax:** | | 561-395-9301 | |
| **Email** | | support@RunnerTechnologies.com | |
| **Website** | | http://www.RunnerTechnologies.com - click on Support Link from home page | |

Clean\_Address\_Demo.fmb utilizes procedures found in the base clnaddr schema and does not require installation of additional software. The CLEAN\_Address functionality is implemented via program units CHECK\_EMAIL, CLEAR-RESULTS, PARSE\_NAME, VERIFY\_ADDRESS, VERIFY\_TELEPHONE, and WHEN-VALIDATE-ITEM triggers on the ADDR data block items.

Clean\_Address\_App.fmb demonstrates implementation of the selectable suggestion list functionality, and requires installation of additional PL/SQL components. Instructions on how to install the additional Pl/SQL components can be found in the **install\_OracleForms.txt** document. The relevant form objects, form item descriptions are documented below, along with a sample integration guide to assist with your specific implementation.

**FORM OBJECTS:**

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| --- | --- | --- | --- | --- |
| Object Type | Name | Description | Items | Trigger |
| Data Blocks | CLNADDR\_TREE\_CONTROL | Used to store request specific values required by trigger items. | CLNADDR\_PUSH\_BUTTON (Button)  DPV\_ERROR\_CODE(Text Item)  SUGGESTION\_LIST\_ITEM(Text Item)  DISPLAY\_CONSOLE (Text Item)  TARGET\_TRIGGER\_BLOCK(Text Item)  TARGET\_ITEM\_PREFIX(Text Item)  TARGET\_ITEM\_QUALIFIER(Text Item) |  |
|  | CLNADDR\_TREE\_DATA |  | CLNADDR\_TREE(Hierarchical Tree) | WHEN-TREE-NODE-ACTIVATED  WHEN-MOUSE-DOUBLECLICK |
| Canvases | CLNADDR\_STACKED\_CANVAS | Stacked canvas to enable suggestion list be programmatically shown, hidden, or relocated relative to the main canvas. |  |  |
| Program Units | CLNADDR\_VERIFY\_ADDRESS | Main address verification routine triggered by address items on main address entry screen.   1. Makes call to PL/SQL verify\_address procedure. 2. Generate suggestion list items to populate DISPLAY\_CONSOLE, DPV\_ERROR\_CODE, and SUGGESTION\_LIST\_ITEM in the CLNADDR\_TREE\_CONTROL data block; 3. Generates record group used to populate the hierarchical tree; 4. Makes the stacked canvas visible. |  |  |

**FORM ITEM DESCRIPTIONS:**

|  |  |  |
| --- | --- | --- |
| Item Name | Description | Sample Data |
| CLNADDR\_PUSH\_BUTTON | Form button used to close the suggestion list |  |
| DPV\_ERROR\_CODE | Hidden field used to store the DPV error code returned from call to CLEAN\_Address\_Banner.Verify |  |
| SUGGESTION\_LIST\_ITEM | Hidden field used to store the colon, and semicolon delimited suggestion list string returned from call to CLEAN\_Address\_Banner.Verify |  |
| DISPLAY\_CONSOLE | Visible field used to display the user friendly error code and error string returned from call to CLEAN\_Address\_Banner.Verify |  |
| TARGET\_TRIGGER\_BLOCK | Hidden field used to store name of the block that initially triggered the address verification request. This is used to enable indirect referencing of the form canvas items. |  |
| TARGET\_ITEM\_PREFIX | Hidden field used to store the canvas item prefix. Used to support indirect referencing of form canvas items. |  |
| TARGET\_ITEM\_QUALIFIER | Hidden field used to store the target canvas item name qualifier. Used to support indirect referencing of form canvas items where a canvas may have multiple address fields using a naming convention of <prefix><qualifier><item\_name> |  |
| CLNADDR\_TREE | Hierarchical tree used to store display suggestion list items, and trigger logic used to populate address form upon user selection. |  |

**INTEGRATION GUIDE**

**STEP 1 – OPEN BASE FORM**

Open the *CLEAN\_ADDRESS\_APP.fmb* “base” form in Oracle™ Form Builder

save and compile module.

**STEP 2 – OPEN TARGET FORM**

Open the target form – the Oracle form to be integrated – in Form Builder

Save and compile module.

**STEP 3 – ADD CANVAS:**

Copy canvas *CLNADDR\_STACKED\_CANVAS* from base form

Paste copied form into in *canvas* area of target form.

Change the “window” property in the property pallet to match the window of your target form’s window.

Save - do not compile – the target module.

**STEP 4 – ADD DATA BLOCKS**

Copy Data Blocks *CLNADDR\_TREE\_CONTROL*, and *CLNADDR\_TREE\_DATA* from base form

Paste copied data blocks into *Data Block’s* section of target form.

Save - do not compile – target module.

**STEP 5 – ADD PROGRAM UNIT**

Copy *Program Unit* *CLNADDR\_VERIFY\_ADDRESS* from the base form

Paste copied program unit into the Program Units section of the target form

Save and compile the target module.

**STEP 6 – ADD ITEM TRIGGERS**

Expand the data block containing the address items.

For each address item add or update the *WHEN-VALIDATE-ITEM* trigger to include a call to the *CLNADDR\_VERIFY\_ADDRESS* procedure.

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| /\* BEGIN: CLEAN\_Address - Call CLEAN\_Address Verify local Forms procedure \*/  Clnaddr\_Verify\_Address;  /\* END: CLEAN\_Address - Call CLEAN\_Address Verify local Forms procedure \*/ |

**STEP 7 – ADD WHEN-NEW-RECORD-INSTANCE DATA BLOCK TRIGER FOR EACH ADDRESS DATA BLOCK**

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| /\* BEGIN: CLEAN\_Address – Hide suggestion list stacked canvas \*/  SET\_VIEW\_PROPERTY('CLNADDR\_STACKED\_CANVAS', width, 0);  SET\_VIEW\_PROPERTY('CLNADDR\_STACKED\_CANVAS', height, 0);  /\* END: CLEAN\_Address - Hide suggestion list stacked canvas \*/ |

**STEP 8 – ADD ADDITIONAL REQUIRED ITEM**

*CLNADDR\_VERIFY\_ADDRESS* requires the following additional CHECKBOX form field/item *OVERRIDE\_ADDRESS\_VERIFICATION*

Add the additional checkbox field/item to the appropriate canvas.

Compile and test.

**COMPILE and TEST**