



# Widgets I

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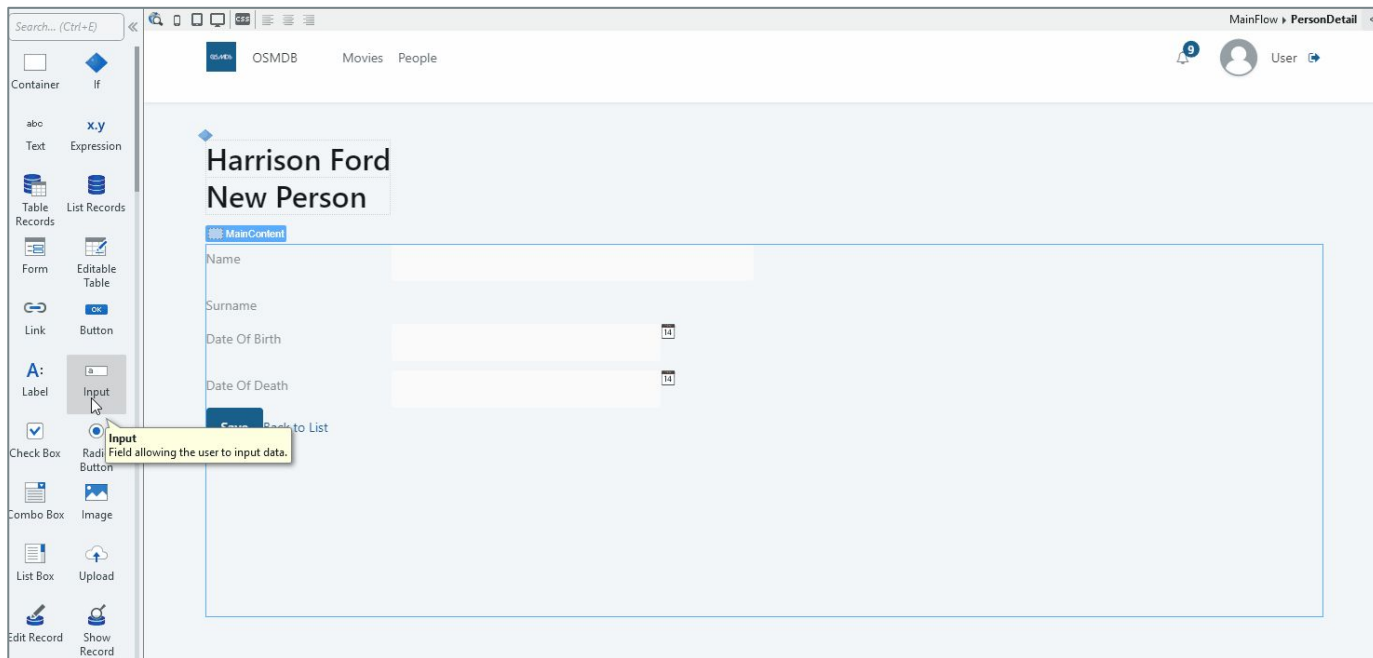


# Topics

- Widgets and their properties
- Simple Widgets
  - Text and Expression
  - Image
- Multiple Record Widgets
  - Table Records
  - List Records
- Input Widgets
  - Label and Input
- Form Widget

# Widgets: Basic Building Blocks of Screens

Widgets are visual elements that make up Screens; just drag and drop one on the Screen

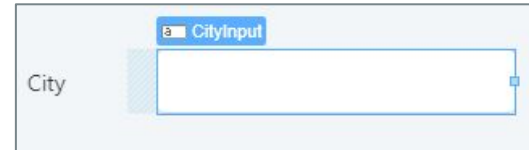


# Widgets Properties

Every widget has a set of properties which can be defined, when applicable:

- Source data
- Behavior
- Styles

The properties should be set properly after dragging the widget to the Screen

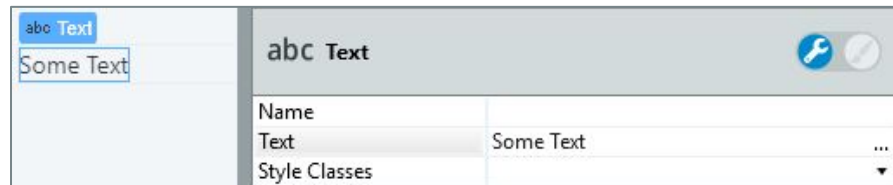


CityInput	
Name	CityInput
Variable	City
Validation Parent	
Mandatory	False
Null Value	...
Max. Length	50
Text Lines	1
Style Classes	input
Visible	True
Enabled	True
Type	Text
Prompt	
Width, Margin...	In Styles Editor
On Change	
Destination	
Extended Properties	
Property	
= Value	...

# Displaying Text

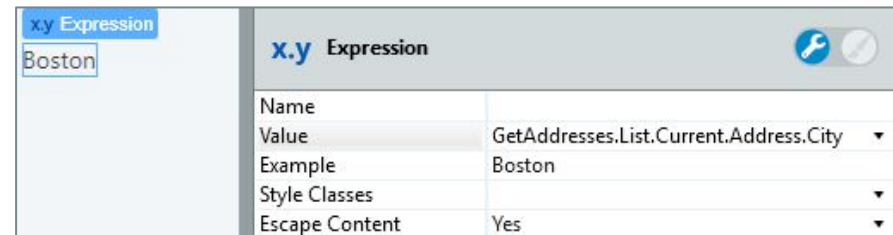
## abc **Text** Widget

- Displays static text
- Text property defines what appears on the Screen



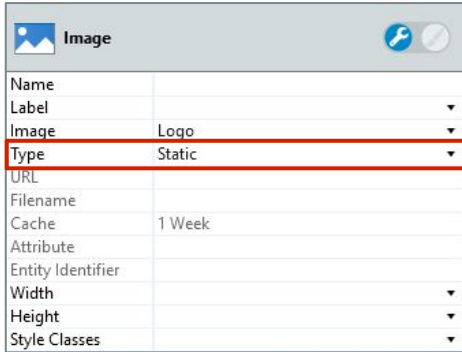
## x.y **Expression** Widget

- Displays “calculated” values
- *Value* property is evaluated at runtime and the result is displayed
- *Example* property is displayed for preview purposes



# Image Widget

Displays an Image on a Screen; the source of the image is defined in the *Type* property

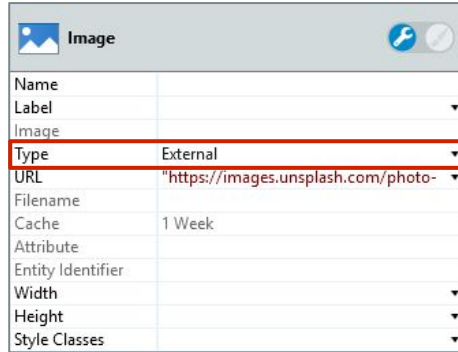


The configuration panel for the Image widget with the 'Type' property set to 'Static'. The 'Type' row is highlighted with a red border. The 'Image' property is set to 'Logo'.

Image	
Name	
Label	
Image	Logo
Type	Static
URL	
Filename	
Cache	1 Week
Attribute	
Entity Identifier	
Width	
Height	
Style Classes	

Static image

Image must be included in the module as a resource

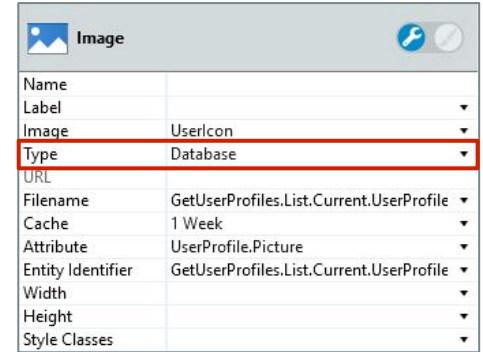


The configuration panel for the Image widget with the 'Type' property set to 'External'. The 'Type' row is highlighted with a red border. The 'URL' property is set to 'https://images.unsplash.com/photo-'.

Image	
Name	
Label	
Image	
Type	External
URL	https://images.unsplash.com/photo-
Filename	
Cache	1 Week
Attribute	
Entity Identifier	
Width	
Height	
Style Classes	

External

Accessible through an URL



The configuration panel for the Image widget with the 'Type' property set to 'Database'. The 'Type' row is highlighted with a red border. The 'Image' property is set to 'UserIcon'.

Image	
Name	
Label	
Image	UserIcon
Type	Database
URL	
Filename	GetUserProfiles.List.Current.UserProfile
Cache	1 Week
Attribute	UserProfile.Picture
Entity Identifier	GetUserProfiles.List.Current.UserProfile
Width	
Height	
Style Classes	

Database

Binary Data Entity attribute



# Table Records Widget

Displays multiple records in a tabular layout

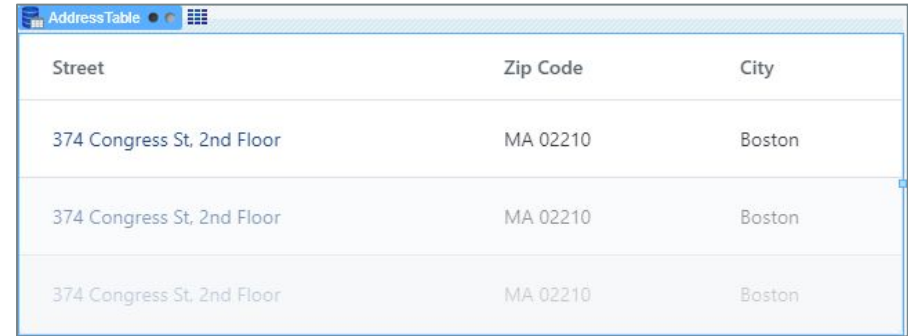
- One record per row
- Each cell holds other widgets
- Cell dimensions depend on the size of the returned value of the expression element

Bound to a *Source Record List*

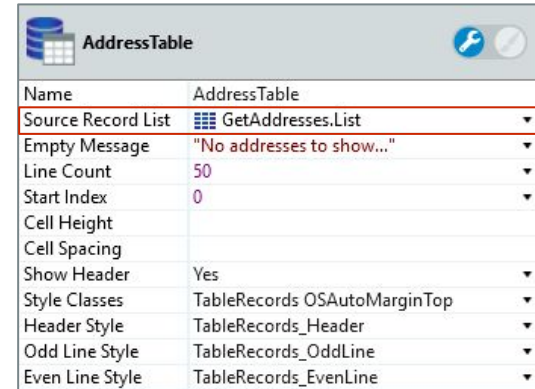
- Source of data to be displayed

Holds a copy of the Source Record List

- The copy is iterated to display the data on the Screen



Street	Zip Code	City
374 Congress St, 2nd Floor	MA 02210	Boston
374 Congress St, 2nd Floor	MA 02210	Boston
374 Congress St, 2nd Floor	MA 02210	Boston



AddressTable	
Name	AddressTable
Source Record List	GetAddresses.List
Empty Message	"No addresses to show..."
Line Count	50
Start Index	0
Cell Height	
Cell Spacing	
Show Header	Yes
Style Classes	TableRecords_OSAutoMarginTop
Header Style	TableRecords_Header
Odd Line Style	TableRecords_OddLine
Even Line Style	TableRecords_EvenLine



# Table Records Widget Layout

Accelerators create one column per attribute of the Entity

- Initial columns created can be changed!

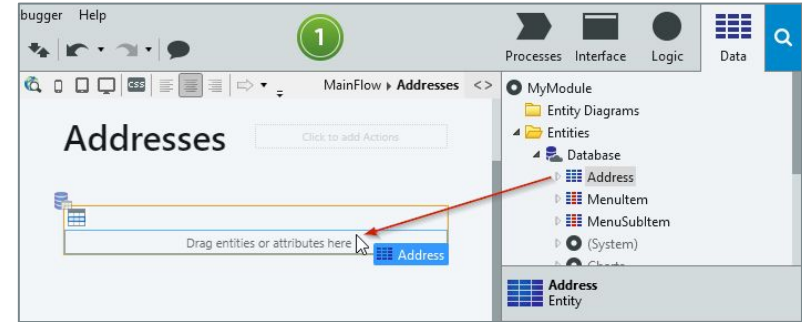
Table toolbar allows editing the Table

- Add new column
- Delete columns
- Move columns



Widgets can be dragged and dropped between columns

- Styles can also be adjusted



Street <sup>2</sup> ↓	Zip Code <sup>2</sup> ↓	City <sup>2</sup> ↓
374 Congress St, 2nd Floor	MA 02210	Boston
374 Congress St, 2nd Floor	MA 02210	Boston
374 Congress St, 2nd Floor	MA 02210	Boston



# List Records Widget

Displays multiple records in a free-form layout

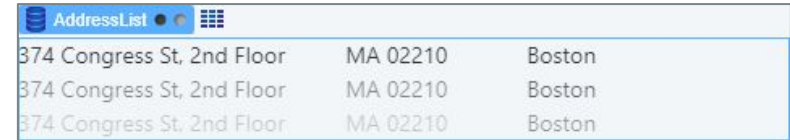
- Records separated by the *Line Separator*

Bound to a *Source Record List*

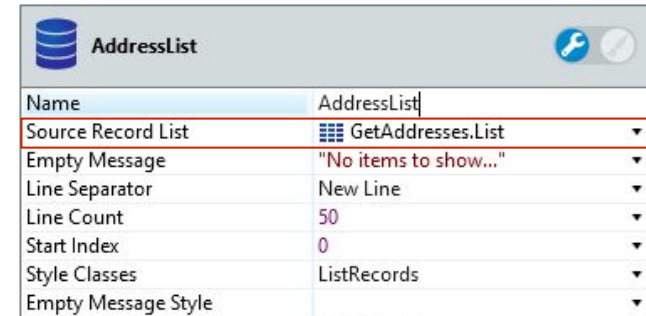
- Source of data to be displayed

Holds a copy of the Source Record List

- The copy is iterated to display the data on the Screen



374 Congress St, 2nd Floor	MA 02210	Boston
374 Congress St, 2nd Floor	MA 02210	Boston
374 Congress St, 2nd Floor	MA 02210	Boston

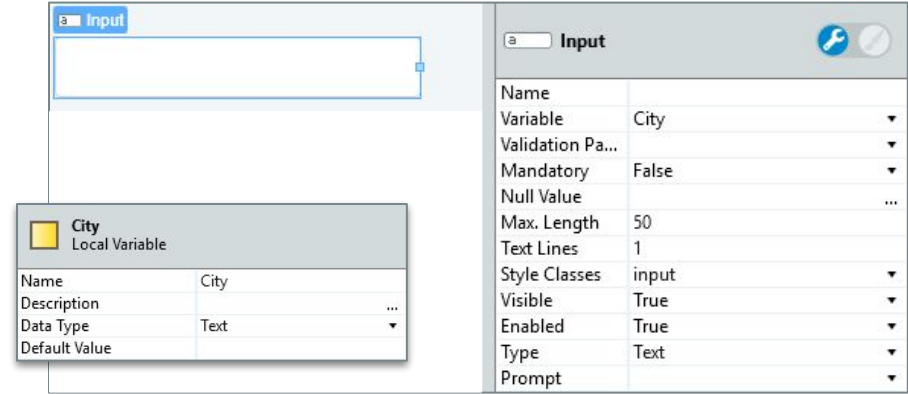


AddressList	
Name	AddressList
Source Record List	GetAddresses.List
Empty Message	"No items to show..."
Line Separator	New Line
Line Count	50
Start Index	0
Style Classes	ListRecords
Empty Message Style	

# Input Widgets

## Input Widget

- Allows an end-user to submit data by entering information in it
- Bound to a variable that will hold the data entered by the user
- Can be set to mandatory



The screenshot shows the configuration for an 'Input' widget. On the left, a preview of the widget is shown with a text input field. Below the preview is a 'Local Variable' table for the variable 'City'.

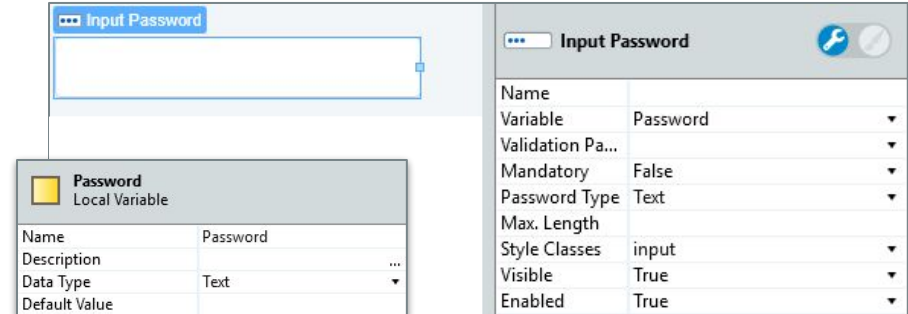
City Local Variable	
Name	City
Description	...
Data Type	Text
Default Value	

On the right, the 'Input' widget properties are listed in a table:

Input	
Name	
Variable	City
Validation Pa...	
Mandatory	False
Null Value	...
Max. Length	50
Text Lines	1
Style Classes	input
Visible	True
Enabled	True
Type	Text
Prompt	

## Input Password Widget

- Similar to the Input widget, but with the content entered in the widget is **masked**
- Can have text or numeric values



The screenshot shows the configuration for an 'Input Password' widget. On the left, a preview of the widget is shown with a masked password input field. Below the preview is a 'Local Variable' table for the variable 'Password'.

Password Local Variable	
Name	Password
Description	...
Data Type	Text
Default Value	

On the right, the 'Input Password' widget properties are listed in a table:

Input Password	
Name	
Variable	Password
Validation Pa...	
Mandatory	False
Password Type	Text
Max. Length	
Style Classes	input
Visible	True
Enabled	True

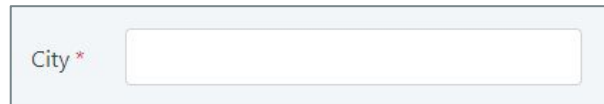
## A: Label Widget

A label to be displayed next to an Input Widget

Evaluates the *Value* property and displays the result

Can be bound to an *Input Widget*

- Mandatory Inputs generate a visual cue on the Label at runtime



# Form Widget

Presents a single record for display or editing

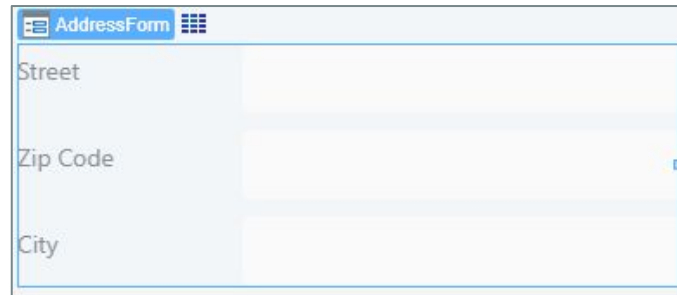
- No layout constraints

Bound to a Source Record

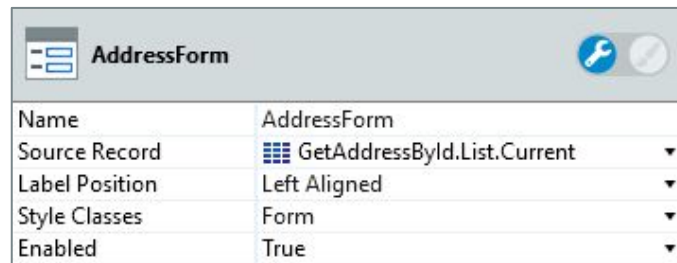
- Source of data to be displayed or edited

Holds a copy of the Source Record


- Displays the copy if it has data
- Otherwise appears empty



The image shows a design-time view of the AddressForm widget. It has a title bar with the text 'AddressForm' and a small icon. The main area contains three text input fields with labels 'Street', 'Zip Code', and 'City' on the left. The fields are empty and have a light blue border.



The image shows the properties view of the AddressForm widget. It has a title bar with the text 'AddressForm' and a small icon. Below the title bar is a table with properties and their values.

Name	AddressForm
Source Record	 GetAddressByld.List.Current
Label Position	Left Aligned
Style Classes	Form
Enabled	True

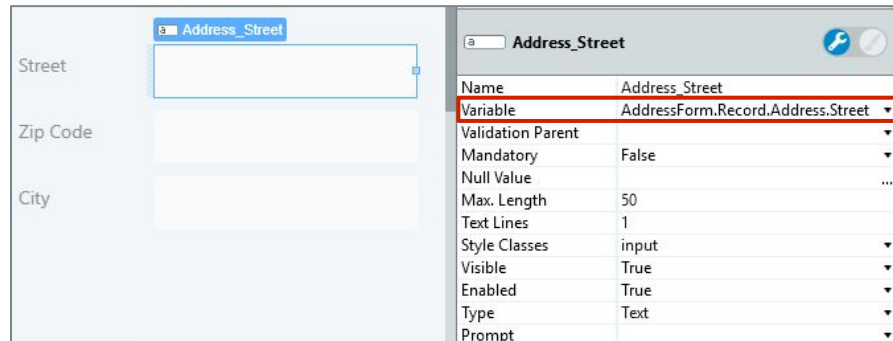
# Form Widget

Accelerators create a row which will contain a Label and an Input Widget by default

- e.g. Drag and drop an Entity attribute
- The Input's *Variable* references the Form's copy of the Source Record

Important to note:

The Form can contain other widgets!



Name	Address_Street
Variable	AddressForm.Record.Address.Street
Validation Parent	
Mandatory	False
Null Value	...
Max. Length	50
Text Lines	1
Style Classes	input
Visible	True
Enabled	True
Type	Text
Prompt	

# Summary

- Widgets and their properties
- Simple Widgets
  - Text and Expression
  - Image
- Multiple Record Widgets
  - Table Records
  - List Records
- Input Widgets
  - Label and Input
- Form Widget

A low-angle, long-exposure photograph of a city skyline at night. The image features several tall skyscrapers with illuminated windows. In the foreground, there are bright, horizontal light trails from traffic, suggesting a busy street. The sky is dark, and the overall scene conveys a sense of urban energy and modern technology.

**Widgets I**  
**Thank You!**