

# TUTORIAL

## Design a Label Widget

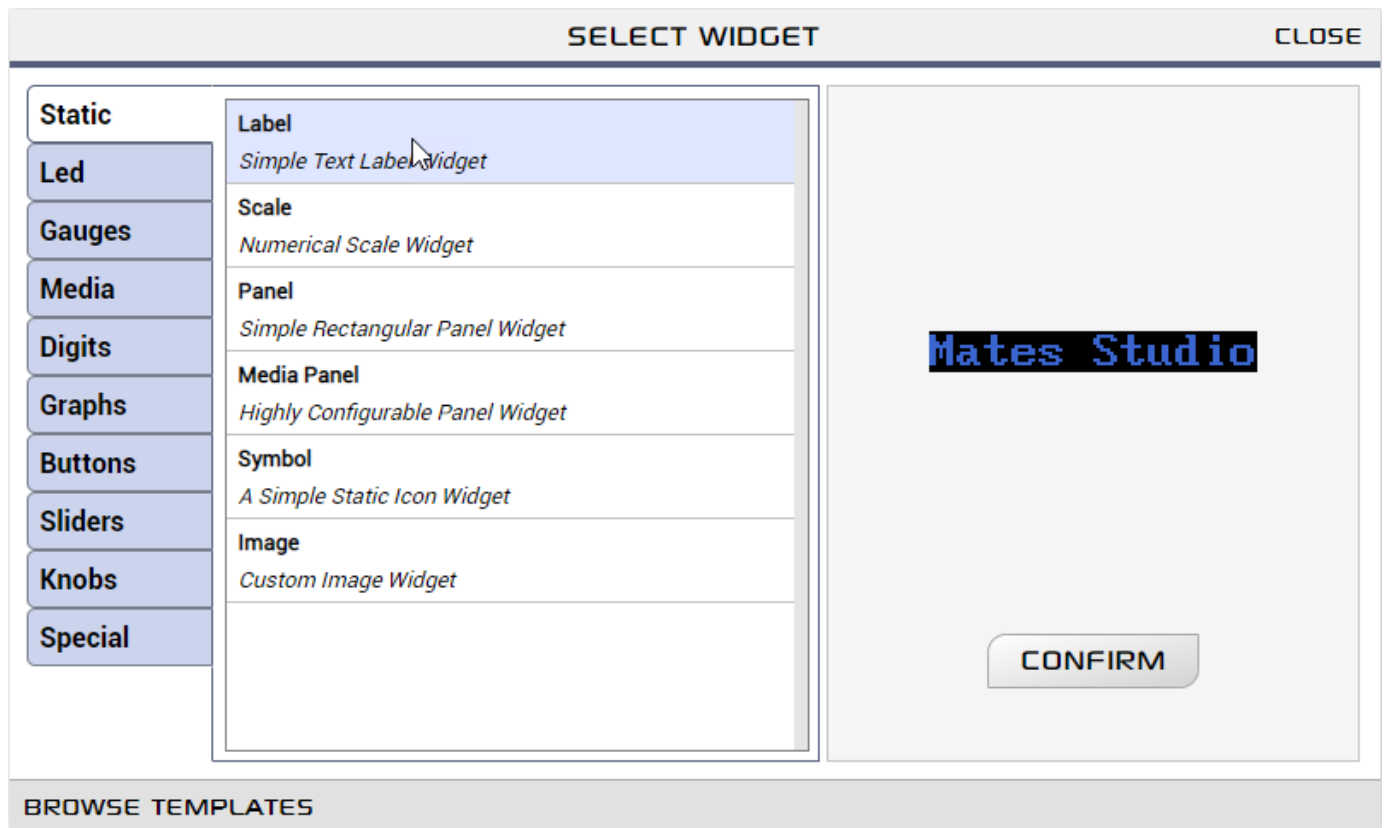
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# Introduction

The Label widget is a static widget that allows you to place a label anywhere on the screen in any color, any supported font and of varying sizes.



The Label widget is useful for adding a name to another widget or an indication (ex. unit) of the values the widget is displaying.

This tutorial requires basic knowledge about using the graphics editor. This includes adding widgets and modifying widget properties during design time. For more information regarding this, refer to the [Graphics Editor](#) manual.

## Note


Static widgets can only be modified during design time

# Widget Properties

## Size and Position

Left and Top

Position of a widgets can be changed by entering values for the *Left* and *Top* properties.

Left	60	
Top	31	

Alternatively, the widgets can be positioned by simply clicking and dragging into the desired position.



### Width and Height

For the label widget, the size properties, *Width* and *Height*, are read-only and only shown for reference. These are updated when the [Text](#) or [Font](#) is changed.

## Text

The display text can be changed by setting the value of the *Text* property.

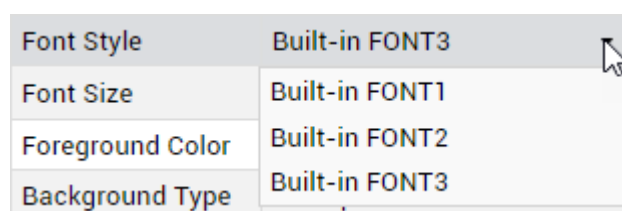


Clicking outside of the Text Property will finalize the changes.

## Font

### Style

The font style used by the label can be changed by setting this property.

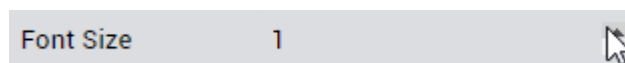


Here's an example of multiple labels using different fonts.



### Size

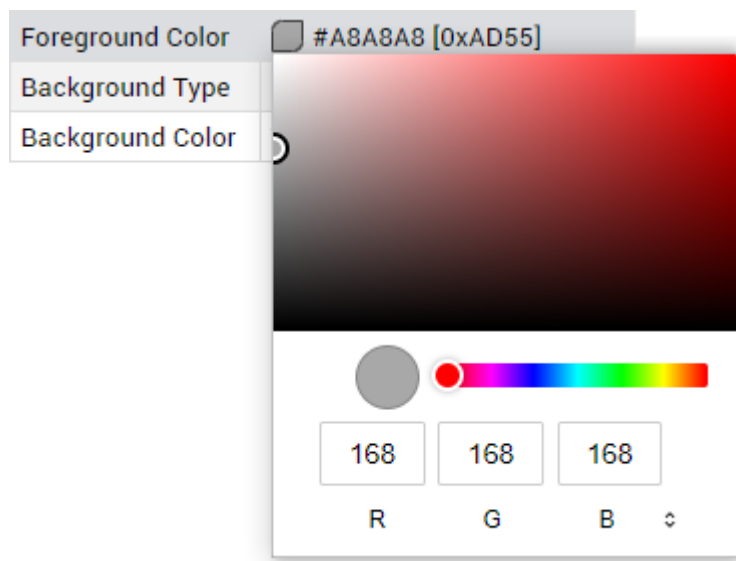
The size of the printed text can be changed by setting the Font Size property.



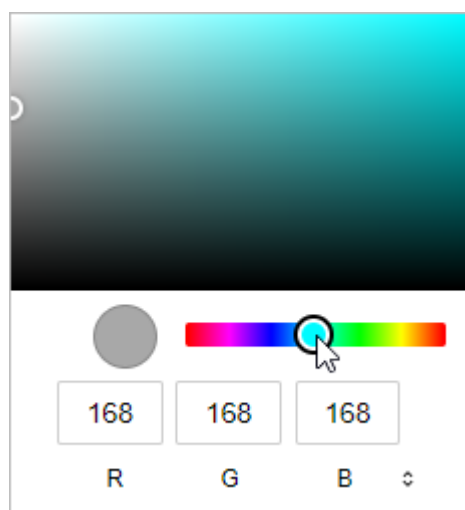
## Colors

The Label widget has a *Foreground Color* and *Background Color* properties.

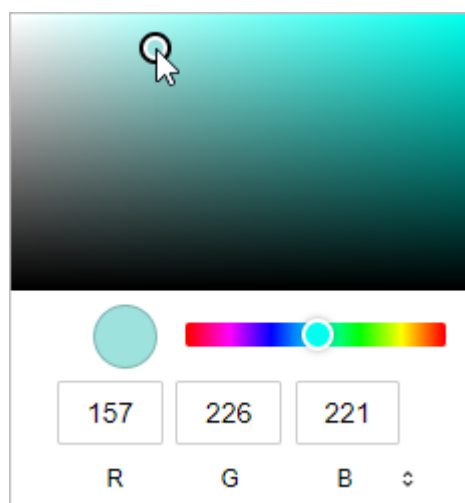
Foreground refers to the text itself while the background is the pixels not covered by the text.



When editing color properties, a color picker tool is provided. The tool can be used to select a base color



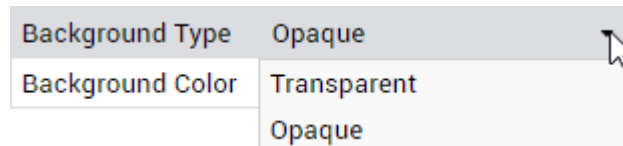
and the appropriate shade of that color.



Alternatively, the color value can be manually inputted in Hex or RGB form.

## Background Type

Background Type allows you to choose if the background color for the individual characters of the text is drawn.



By setting this to **Opaque**, the [background color](#) can be used to highlight the whole text area making it distinguishable.



Setting the property to **Transparent** will prevent the background color from being drawn.

## Demonstration

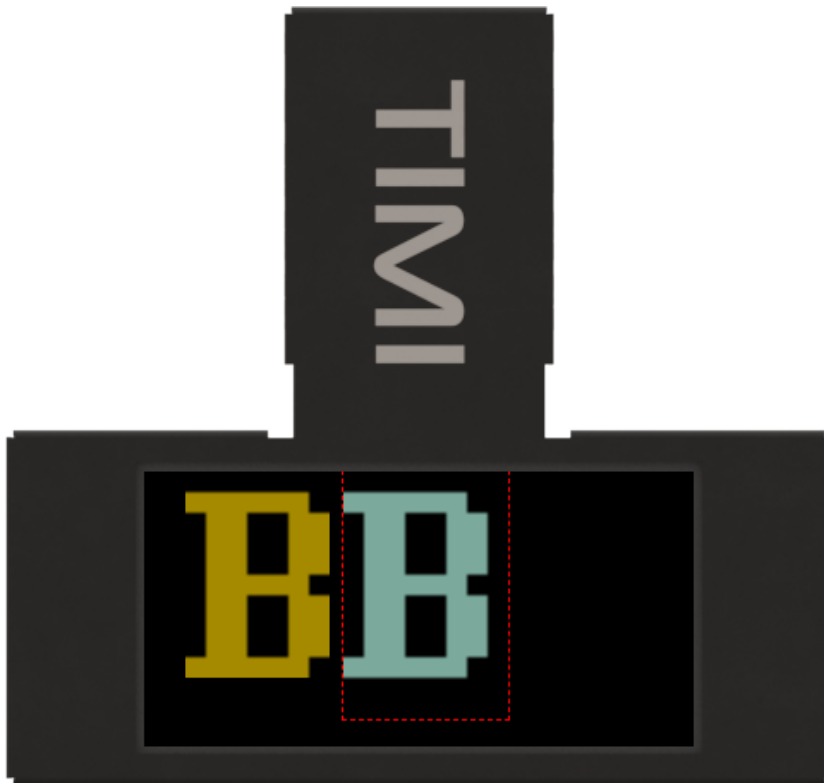
For this demonstration, we will be adding 4 labels to a page. For instructions on how to add a widget, refer to this [discussion](#).



Add a Label widget to the project and set its properties as shown.



Property	Value
Name	Label0
Left	12
Top	0
Width	42
Height	60
Text	B
Font Style	Built-in FONT3 ▾
Font Size	6
Foreground Color	 #AB8807 [0xAC40]
Background Type	Opaque ▾
Background Color	 #000000 [0x0000]

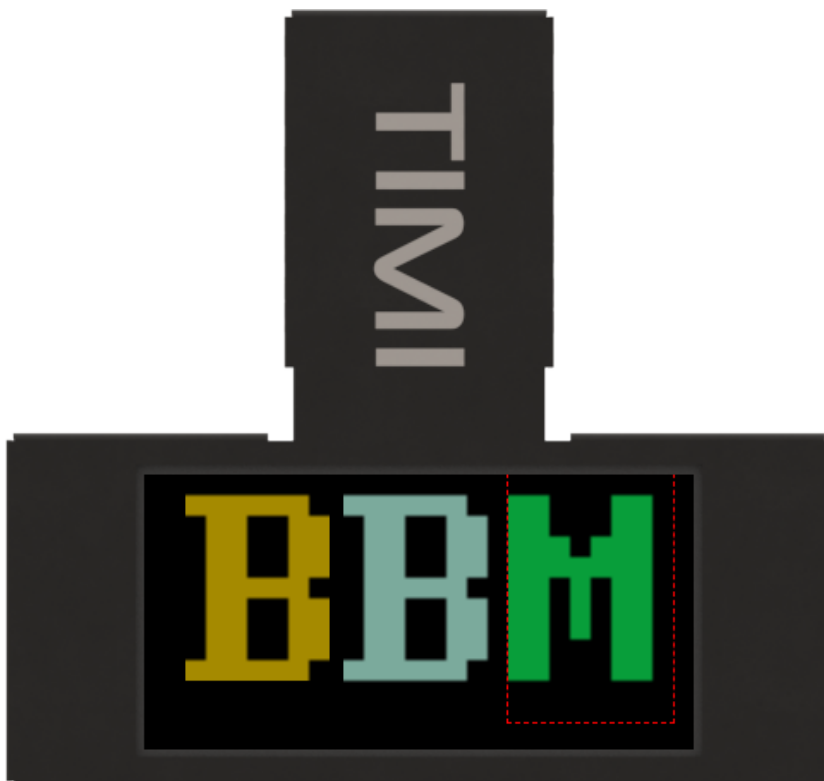
Add a second label and set its properties as shown.





Property	Value
Name	Label1
Left	58
Top	0
Width	48
Height	72
Text	B
Font Style	Built-in FONT3 ▾
Font Size	6
Foreground Color	 #7DAAA7 [0x7D54]
Background Type	Opaque ▾
Background Color	 #000000 [0x0000]

You can also copy and paste a widget by selecting the widget and clicking Copy Widget and Paste Widget from graphics tool bar. You will notice that the *Name* property automatically changes for each additional label added.

Set the third label's properties as shown.





Property	Value
Name	Label2
Left	106
Top	0
Width	48
Height	72
Text	M
Font Style	Built-in FONT3 ▾
Font Size	6
Foreground Color	 #099F3E [0x0CE7]
Background Type	Opaque ▾
Background Color	 #000000 [0x0000]

Add the last Label widget and set the properties as shown.





Property	Value
Name	Label3
Left	16
Top	65
Width	128
Height	12
Text	BBM Mates Studio
Font Style	Built-in FONT3 ▾
Font Size	1
Foreground Color	 #A8A8A8 [0xAD55]
Background Type	Opaque ▾
Background Color	 #000000 [0x0000]

### Tip

Hover above the graphics tool bar buttons to learn what the button is for and to see the linked shortcut key


## Tips & Tricks

By setting [background type](#) to *transparent*, we can draw labels on top of other widgets. This is useful when adding additional identification to the values being displayed by widgets or adding text rendering effects.

To extend the demonstration, *transparent* versions of the Label widgets can be added on top of the existing Labels and offsetting the position by a few pixels. This provides a simple raised effect.



Property	Value
Name	Label5
Left	60
Top	2
Width	42
Height	60
Text	B
Font Style	Built-in FONT3 ▾
Font Size	6
Foreground Color	<input type="color" value="#AEE5E2"/> #AEE5E2 [0xAF3C]
Background Type	Transparent ▾
Background Color	<input type="color" value="#000000"/> #000000 [0x0000]

 **Note**

When adding labels on top of other widgets, ensure that it is not covering the moving part of the widgets below. Otherwise, some parts of the label may be erased when widget value updates.