

# TUTORIAL

## Design a Panel Widget

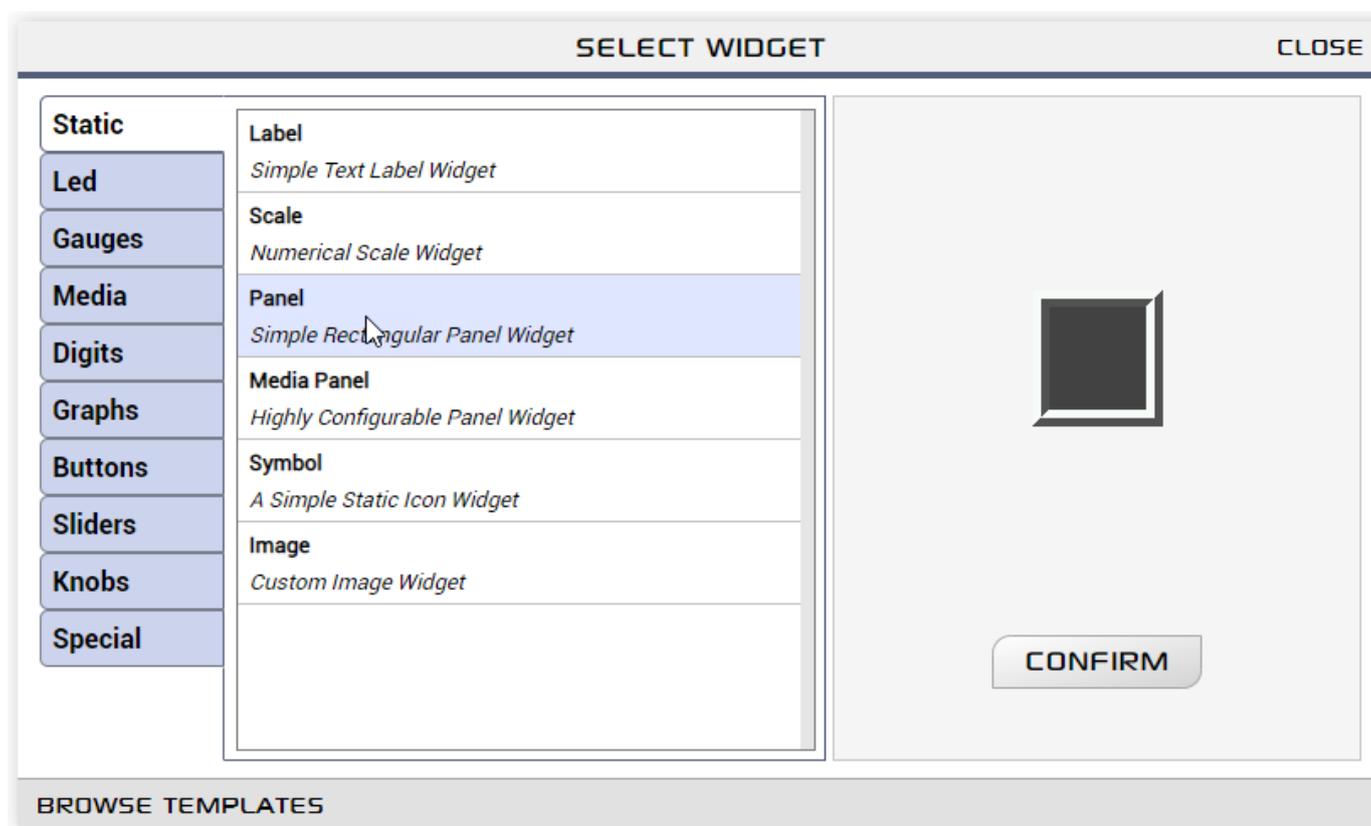
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# Introduction

The Panel widget can be used to create an attractive layout for other widgets.



The Panel widget is useful for creating groups of widgets or sectioning a widget with an added text widget grouping them together and separate from other widgets.

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 widget can be positioned by simply clicking and dragging into the desired position.

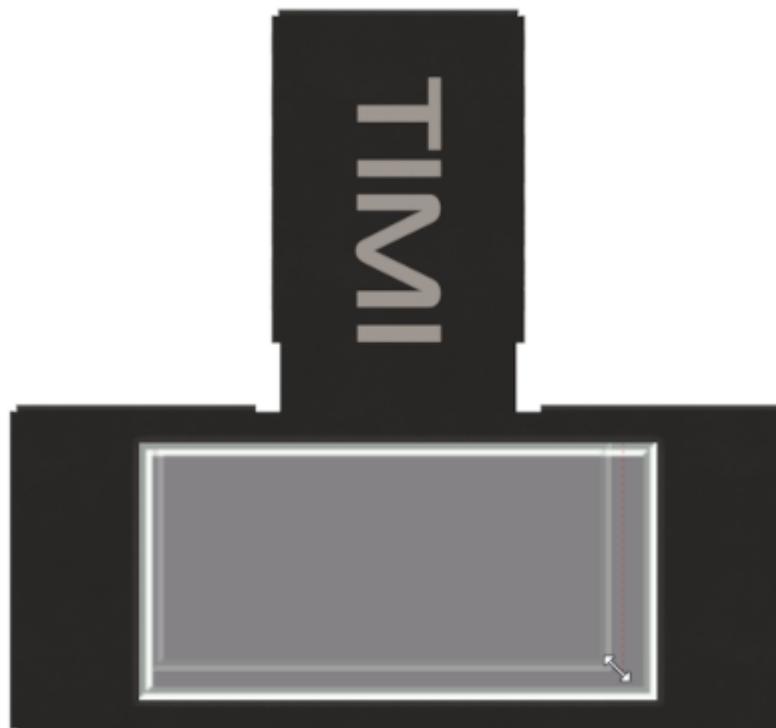
If the width or height of the Panel object is set to the maximum size of the display top or left dragging will not function. You will notice, that by default, the Panel width is the same as the screen width in pixels so dragging horizontally or vertically will have no effect until the panel is resized but entering a left value in the Left property or a top value in the Top property will move the Panel to the new position.

### Width and Height

For the Panel widget, the size properties, *Width* and *Height*, can be changed by entering the value of a known width and Height in pixels.

Width	160	
Height	30	

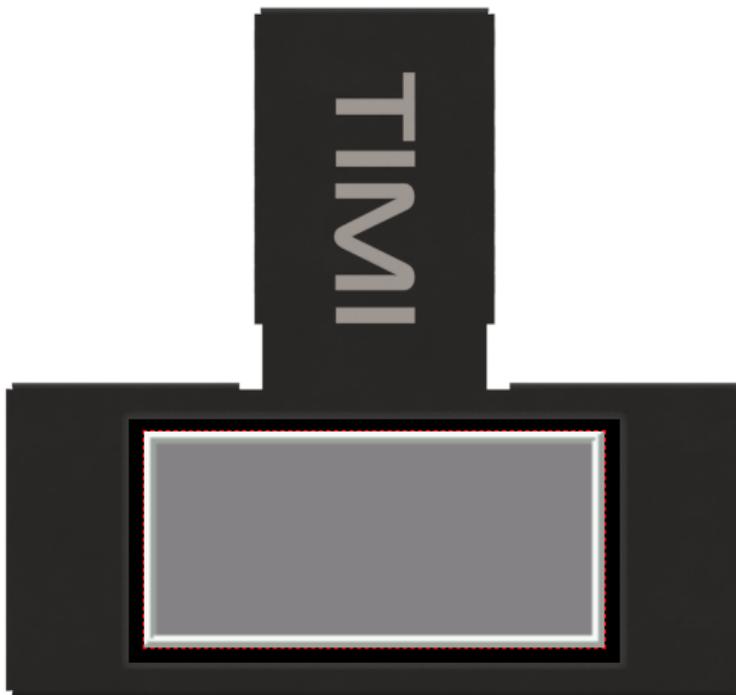
Or the width and height can be simply changed by dragging the red dotted widget outline to the required size.



## State

The State Property allows you to choose if the Panel has a Raised or Sunken look.

State	Sunken
Filled	Sunken
Fill Color	Raised



Property	Value
Name	Panel0
Left	5
Top	4
Width	150
Height	71
State	Raised
Filled	Yes
Fill Color	 #808080 [0x8410]
Line Color 1	 #FFFFFF [0xFFFF]
Line Color 2	 #A0A0A0 [0xA514]
Line Width 1	2
Line Width 2	2

### Tip

Experimenting with colours or placing a panel on top of a panel can further enhance the Sunken / Raised effect.

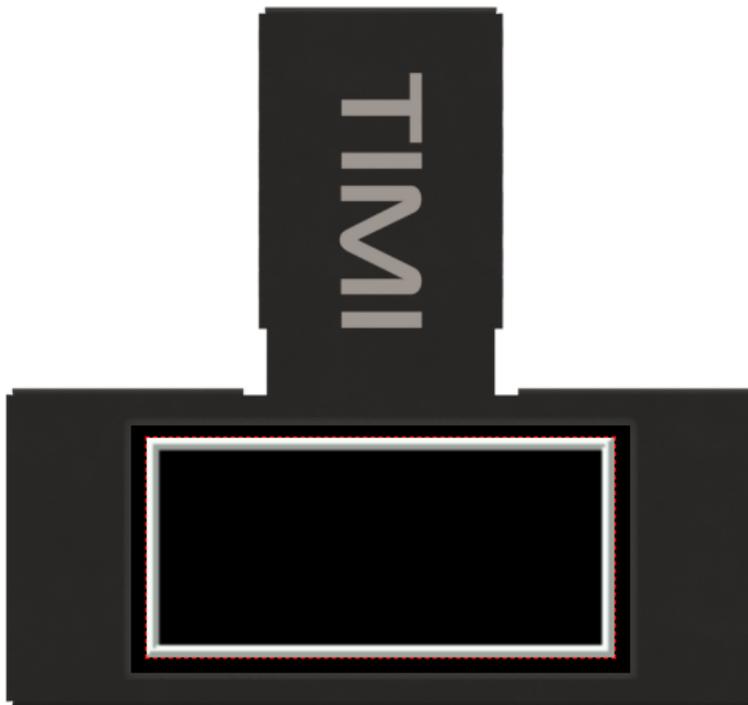
## Fill

### Filled

You can set the Filled property if the inner rectangle of the panel is drawn.

Filled	Yes
Fill Color	Yes
Line Color 1	No

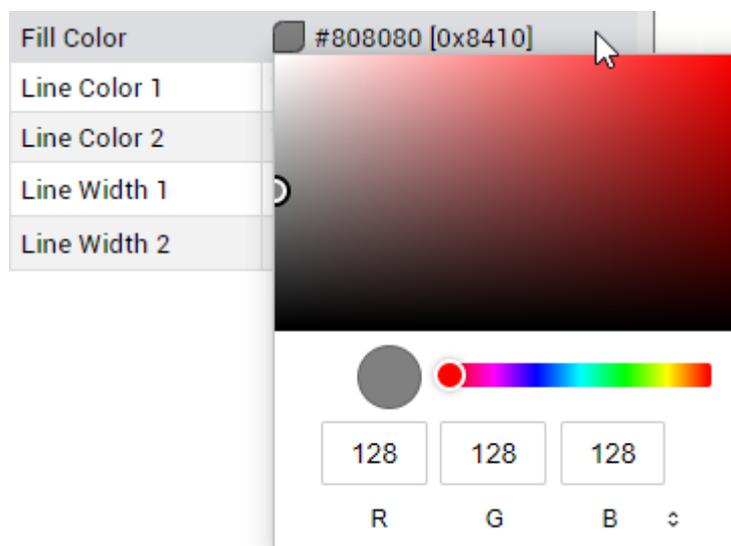
Setting the Filled property to No allows the border to be drawn only. This can be useful if a panel is needed on top of a widget.



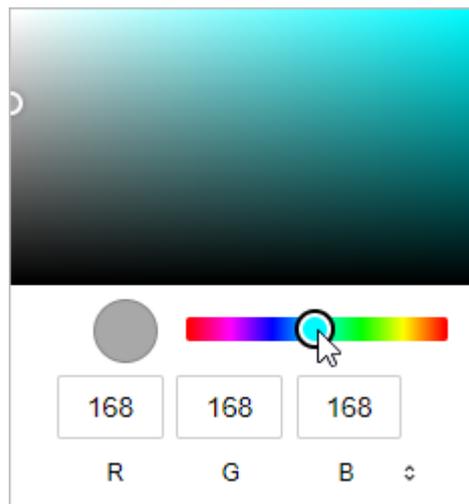
Property	Value
Name	Panel0
Left	5
Top	4
Width	150
Height	71
State	Raised
Filled	No
Fill Color	Yes
Line Color 1	No
Line Color 2	#A0A0A0 [0xA514]
Line Width 1	2
Line Width 2	2

### Colour

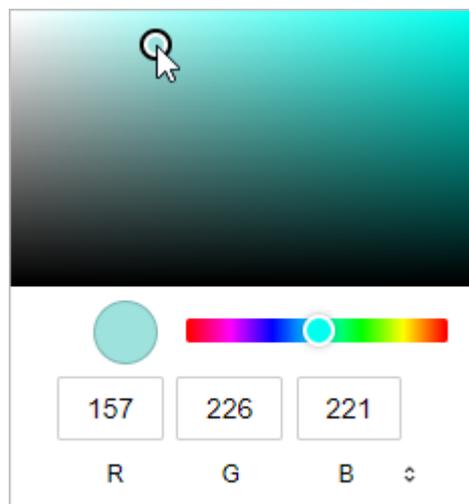
If the Filled property is set to Yes, the Panel inner will be filled with a rectangle in the chosen Fill Colour. This can be altered by simply clicking on the the Fill Colour Property value and the Colour selector will appear.



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



and the appropriate shade of that colour.



Alternatively, the colour value can be manually inputted in Hex or HSL format.

177	51%	79%
H	S	L

#AEE5E2
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HEX
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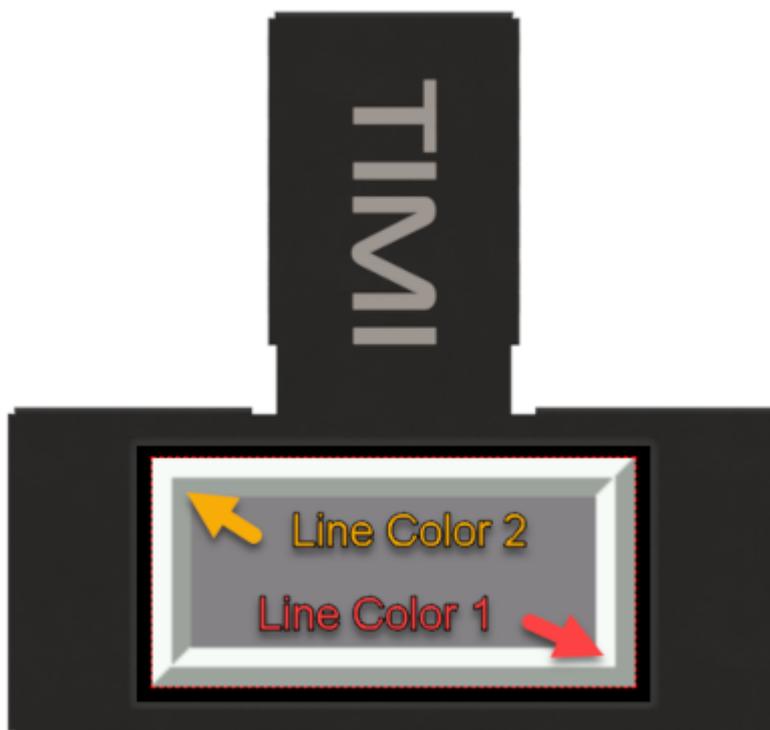
## Line

### Colour

You can adjust the Line color property to change the colours of the lines that make up the panel border. Selecting the colour is done in the same manner as the Fill color. If the Panel State property is set to Sunken then Line colour 1 and Line colour 2 are as shown below.



If the Panel State property is set to Raised then Line Colour 1 and Line Colour 2 are as shown below.

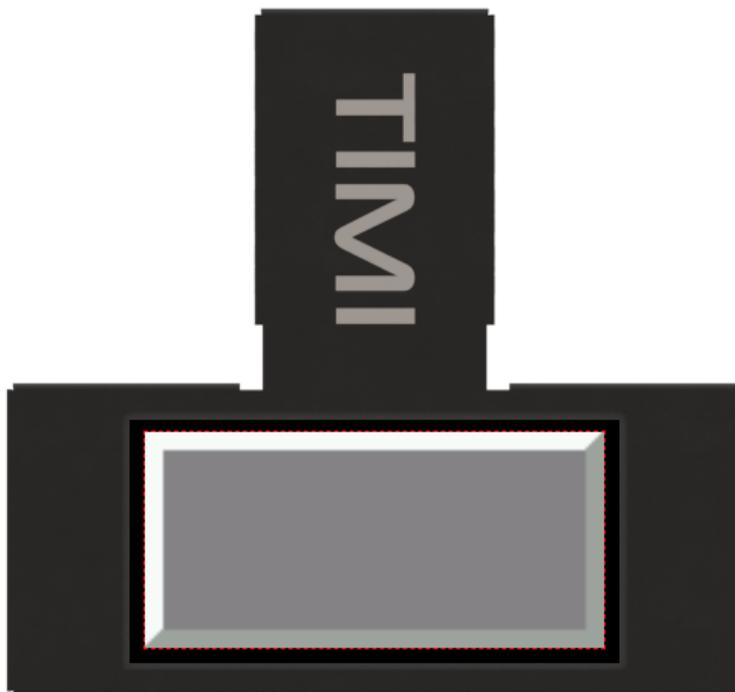


## Width

The Line Width Property can adjust the lines that make up the border from a value of 0 which will disable the drawing of the line to a maximum based on Width and height.

Line Width 1	6
Line Width 2	0

Both lines used in the border can be adjusted individually.

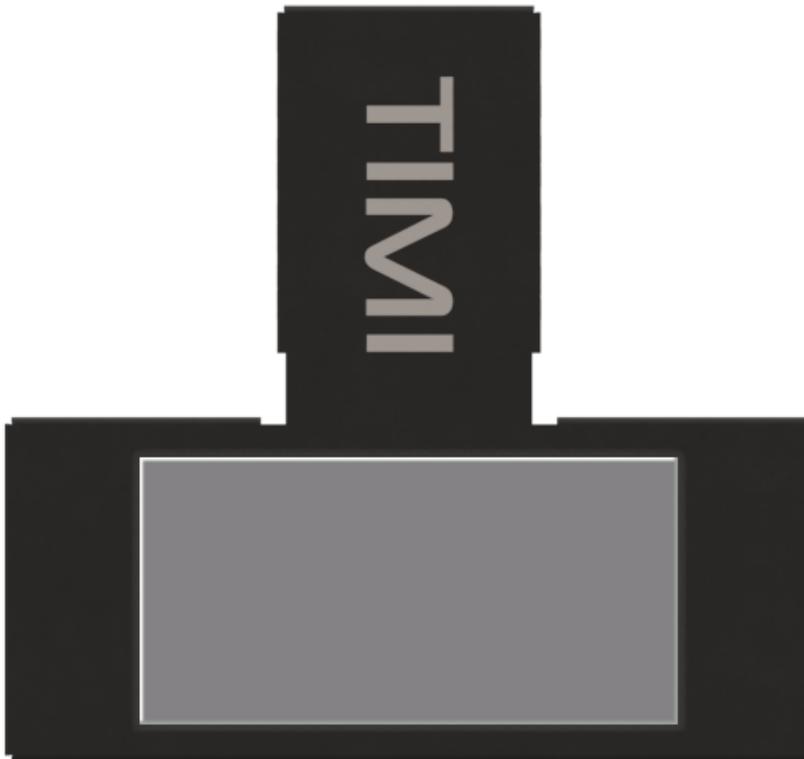


Property	Value
Name	Panel0
Left	5
Top	4
Width	150
Height	71
State	Raised
Filled	Yes
Fill Color	 #808080 [0x8410]
Line Color 1	 #FFFFFF [0xFFFF]
Line Color 2	 #A0A0A0 [0xA514]
Line Width 1	6
Line Width 2	0

## Demonstration

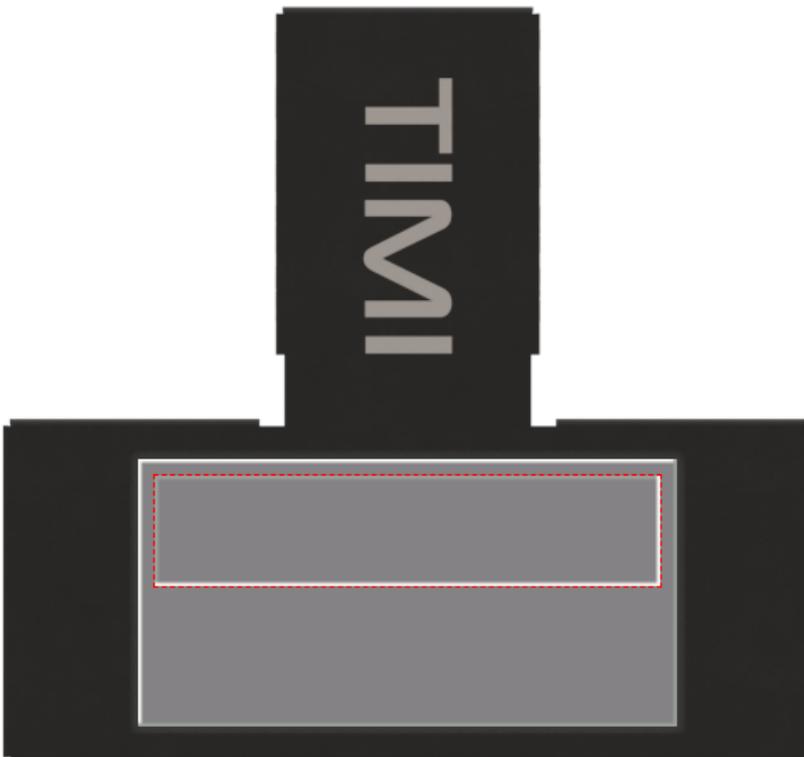
For this demonstration we will be adding several Panels to group widgets together. For instructions on how to add a widget, refer to this [discussion](#).

Click on Add Widget from the Graphics menu and select the Panel Widget then click on CONFIRM as shown.



Property	Value
Name	Panel0
Left	0
Top	0
Width	160
Height	80
State	Raised ▾
Filled	Yes ▾
Fill Color	<input checked="" type="checkbox"/> #808080 [0x8410]
Line Color 1	<input type="checkbox"/> #FFFFFF [0xFFFF]
Line Color 2	<input checked="" type="checkbox"/> #A0A0A0 [0xA514]
Line Width 1	1   ▾
Line Width 2	0

Next, add another Panel widget and set the properties as shown.

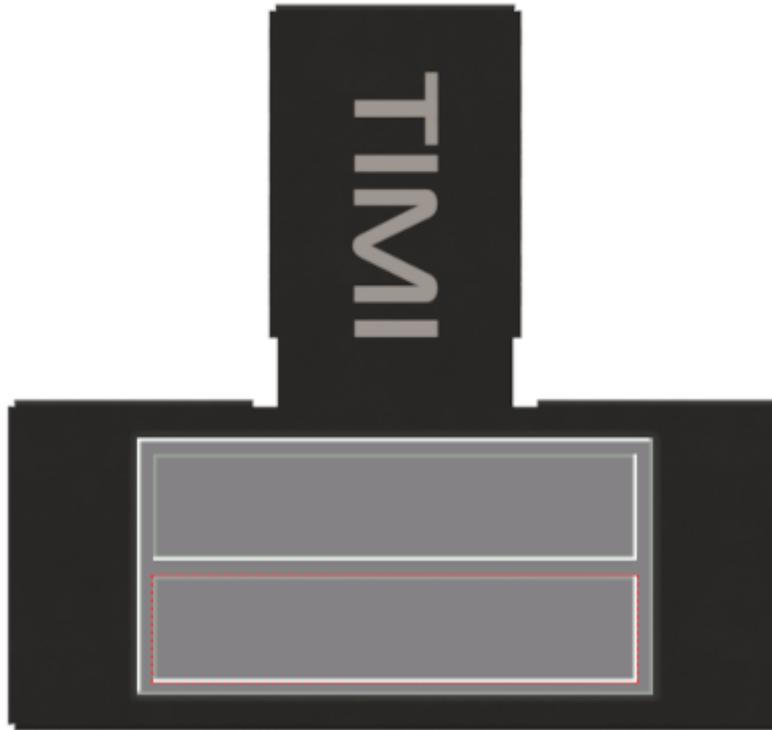


Property	Value
Name	Panel1
Left	5
Top	5
Width	150
Height	33   ▾
State	Sunken ▾
Filled	Yes ▾
Fill Color	<input checked="" type="checkbox"/> #808080 [0x8410]
Line Color 1	<input type="checkbox"/> #FFFFFF [0xFFFF]
Line Color 2	<input checked="" type="checkbox"/> #A0A0A0 [0xA514]
Line Width 1	1
Line Width 2	0

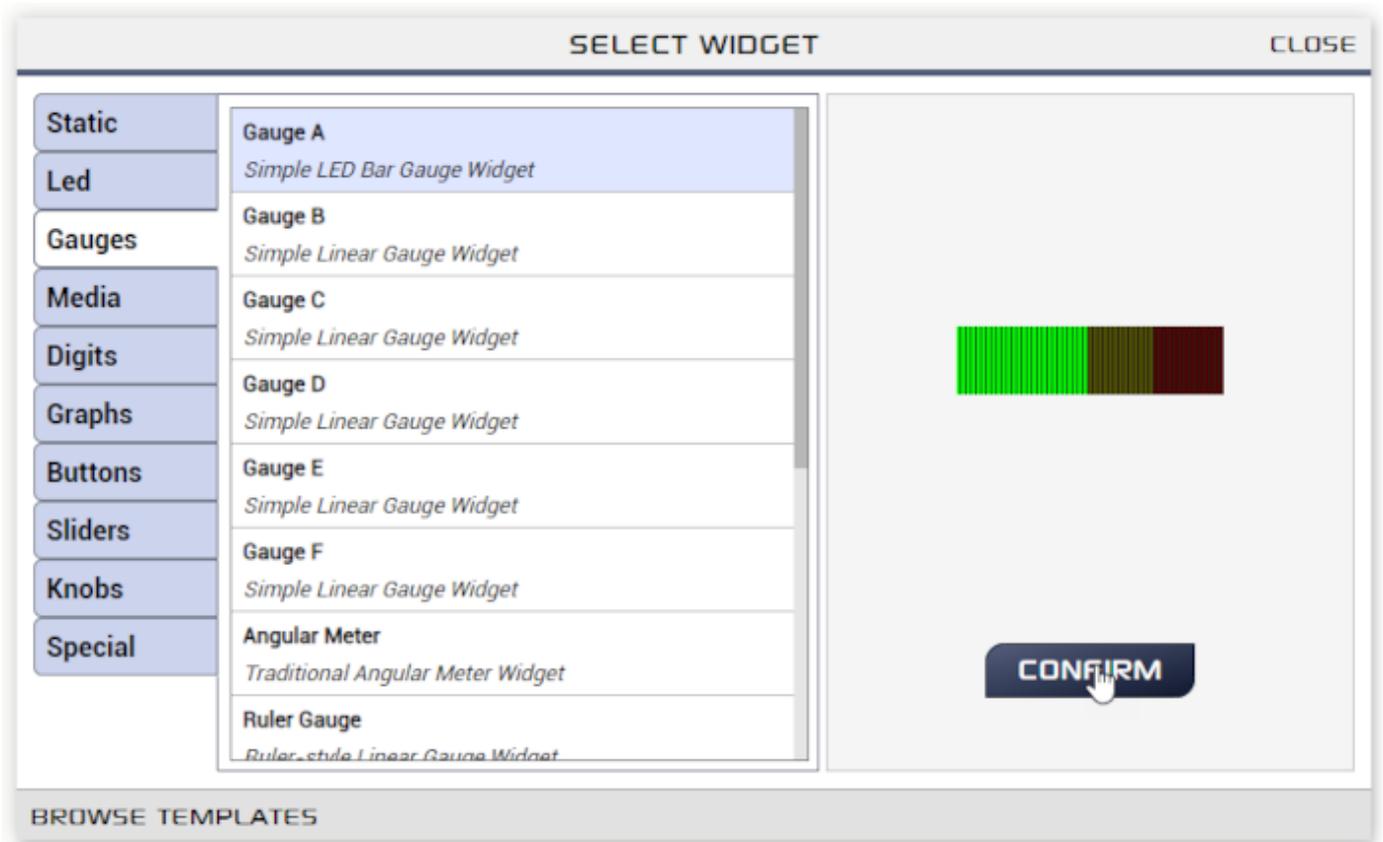
Since both panels will be the same, you can simply copy the first Panel by selecting Panel1 and pressing these key combinations, ALT + C followed by ALT + V. Panel 2 will now be placed on top of Panel1 so all that is needed is the Top Property to be changed to 43.

Left	5
Top	43
Width	150

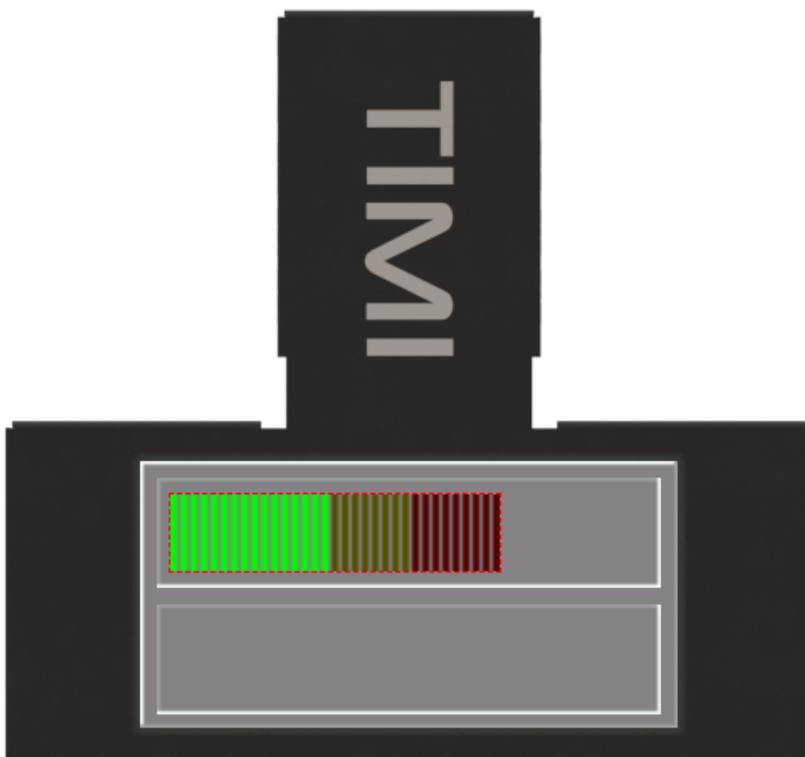
There will now be 2 Sunken Panels on a large Raised Panel.



Next, click on Add Widget from the Graphics menu and select the Gauge Widget then click on CONFIRM



Set the properties for the Gauge Widget as shown.

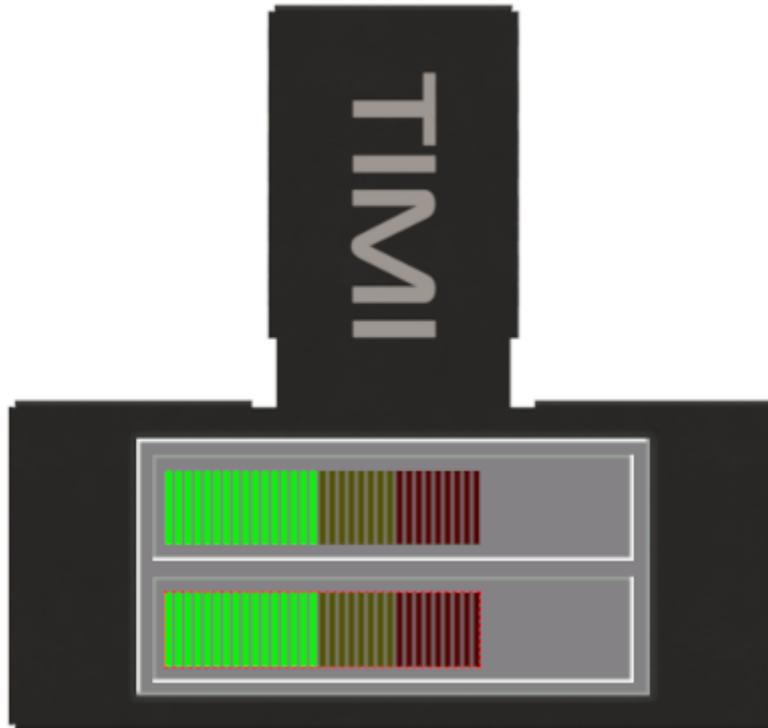


Property	Value
Name	GaugeA0
Left	9
Top	10
Width	98
Height	23
Minimum Value	0
Maximum Value	100
Bar Spacing	1
Bar Thickness	2
Base Color	#808080 [0x8410]
Partition 1 Percentage	50
Partition 1 Inactive Color	#005000 [0x0280]
Partition 1 Active Color	#00FC00 [0x07E0]
Partition 2 Percentage	75
Partition 2 Inactive Color	#505000 [0x5280]
Partition 2 Active Color	#F8FC00 [0xFFE0]
Partition 3 Inactive Color	#500000 [0x5000]
Partition 3 Active Color	#FF0000 [0xF800]
Fill Start Location	Bottom/Left

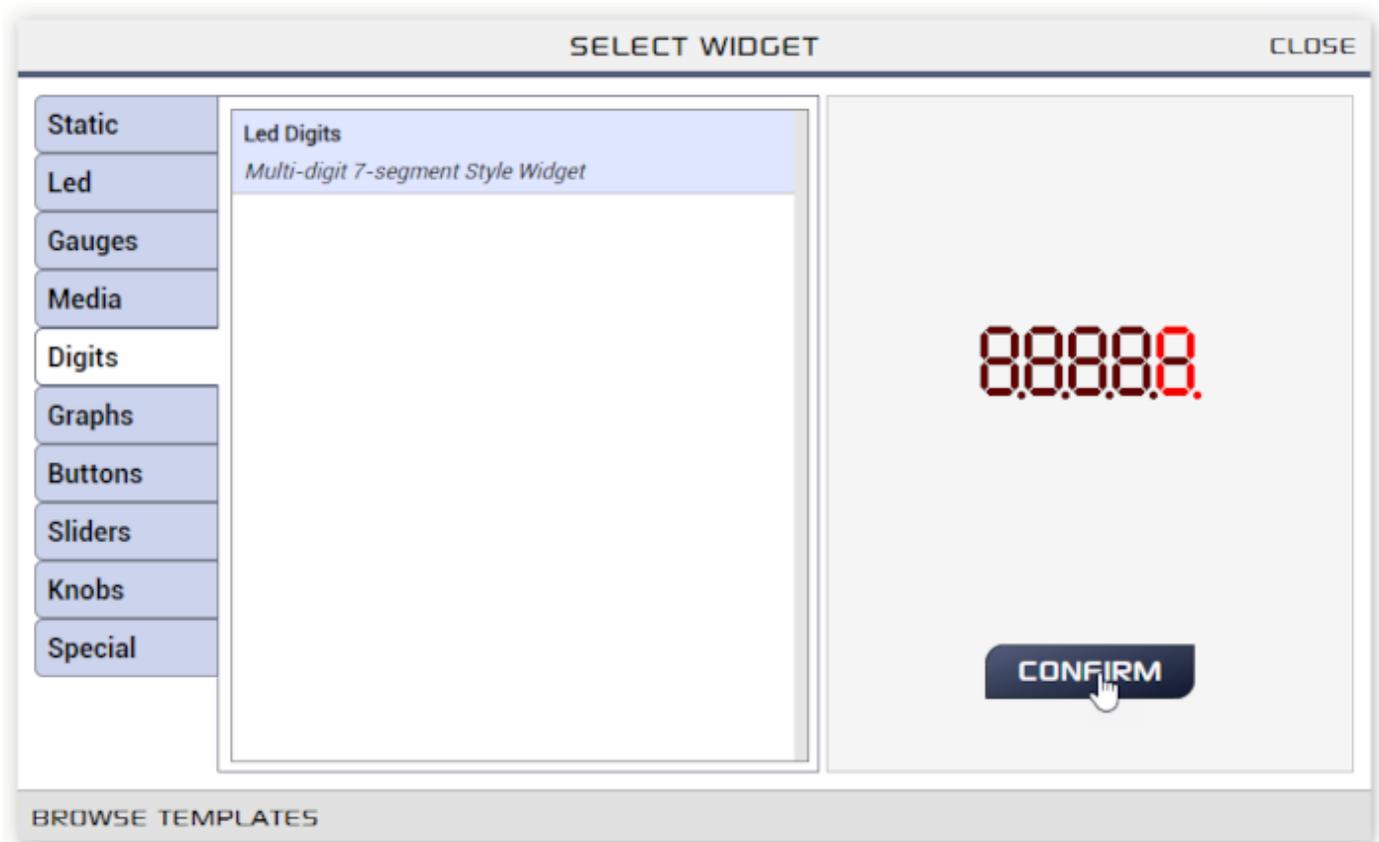
You can add another Gauge using the same method of selecting Gauge0 and pressing these key combinations, ALT + C then ALT + V to copy and paste another gauge. The Top Property of Gauge1 must be changed to 48.

Left	9
Top	48
Width	98

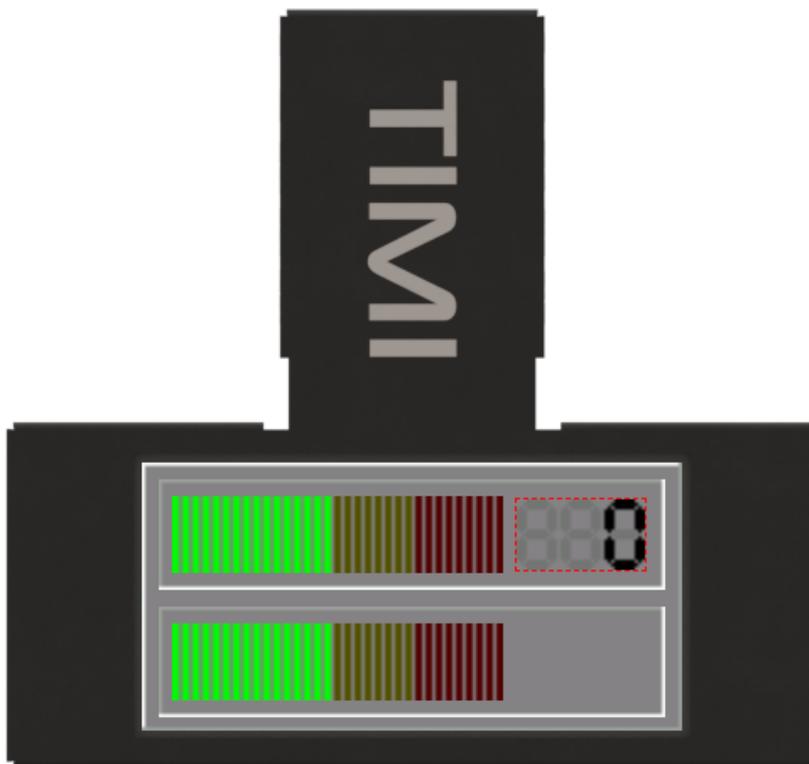
Which will show the gauge in the new position.



Next, click on Add Widget from the Graphics menu and select the LED Widget then click on CONFIRM



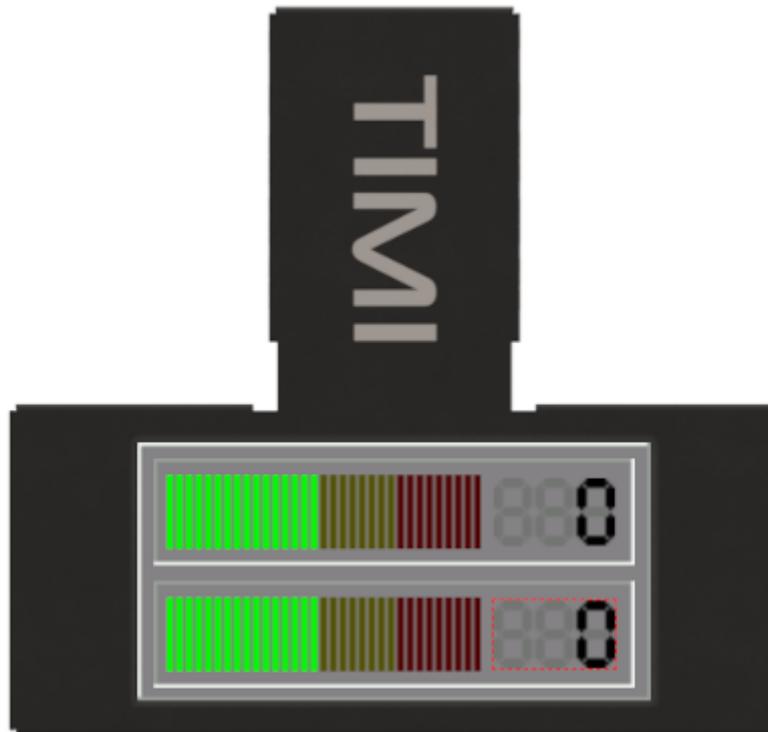
Set the properties for the LED Widget as shown.



Property	Value
Name	LedDigits0
Left	111
Top	11
Width	38
Height	21
Digits	3
Decimal Place	1
Digit Spacing	0
Digit Size	1
Segment Color On	 #000000 [0x0000]
Segment Color Off	 #767676 [0x73AE]
Data Type	Int16 ▾
Float Format	Fixed ▾
Separator Style	None ▾
Enable Leading Zeros	No ▾
Enable Sign	No ▾

Again, using the copy & paste method make a copy of LedDigits0 and then change the Top Property to 49.

Left	111
Top	49
Width	38



## Tips & Tricks

The Panel widget can be used to make simple shapes from a coloured rectangle to a horizontal or vertical line. By setting the Line Width 1 and Line Width 2 to 0 and setting the desired Width and Height it is possible to add lines or solid background colour into a page to create separation lines between widgets.