



TUTORIAL Design an LED Widget

Content may change at any time. Please refer to the resource centre for latest documentation.

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Introduction

The Led widget is a simple widget that allows you to place a Led indicator on the screen in any colour which can be useful for indicating the status of an output.

	SELECT WIDGE	г	CLOSE
Static	Led		
Led	Simple LED Widget		
Gauges	Highly Configurable LED Widget		
Media	Media Color Led		
Digits	A simple RGB LED Widget		
Graphs	High Quality LED Widget		
Buttons	Led Digits		
Sliders	Led Spectrum		
Knobs	Multiple Led Bars forming a Spectrum Widget		
Special	Media Spectrum Multiple Fancy Led Bars forming a Spectrum Widget	CONFIRM	
	Dot Matrix A Simple Dot Matrix widget		
BROWSE TEM	PLATES		

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.

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	5
Тор	31	

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

If the width or height of the Led widget is set to the maximum size of the display top or left dragging will not function.



Width and Height

For the Led 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.



Bezel Colour

The Outer bezels appearance can be altered by changing both Bezel colour A and Bezel colour B. This can be achieved by simply clicking on the Bezel colour A or Bezel colour B property and the Colour selector will appear.



Bevel Radius

The Outer and Inner Radii can be altered to create different Led Shape designs from a square Led to fully Round. It is also possible to control the overall bevel width by altering the distance between Outer and Inner radius.

Bevel Outer Radius	30	
Bevel Inner Radius	25	5

You will notice from the image below that changing the Bevel Outer Radius to half of the width / height will create a circular Led if the width and height are the same dimension.



Led

Radius

The Led Radius property sets the size of the dynamic part (centre) of the Led widget.



By altering this property and the Bevel Inner Radius / Bevel Outer Radius it is possible to create the desired Led shape and style.



Colour On / Off

The Led colour property sets the appearance of the dynamic Led part when it is set to On or Off status. Usually, the Off colour will be a much darker shade than the On colour but they can be set to different colours if desired. You can set these properties by clicking on the value and using the colour selector in the same manner as the Bezel colour.



Shine

Enable Effect

The Enable Shine Effect Property allows you set if raised effect is shown or not. Setting this to No will draw a solid Led colour without the raised effect.

Enable Shine Effect	Yes	•
Shine Radius	Yes	
Shine Color	No	13

Radius

The overall shape of the shine effect can be altered by changing the value of this property. Changing the property value will change the size of the outer radii to set the desired effect.

Shine Radius 9	÷
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Colour

The Shine colour property will set the base colour of shine that will be blended with the Led colour. The colour can be selected by clicking on the property value and using the Colour selector.

Demonstration

For this demonstration we will using a Led widget to show the status of an output that could be signalled by an attached MCU to show if power is on or off. For instructions on how to add a widget, refer to this discussion.

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

	SELECT WIDGET	CLOSE
Static	Label	
Led	Simple Text Label Widget	
Gauges	Scale Numerical Scale Widget	
Media	Panel	
Digits	Simple Rectangular Panel Widget	
Graphs	Media Panel Highly Configurable Panel Widget	
Buttons	Symbol	
Sliders	A Simple Static Icon Widget	
Knobs	Custom Image Widget	
Special		
BROWSE TEN	APLATES	



Property	Value
Name	MediaPanel0
Left	5
Тор	5
Width	149
Height	71
Panel Color	= #333333 [0x3186]
Panel Style	Raised -
Panel Gradient Level	30
Bevel Color	#4F4F4F [0x4A69]
Bevel Style	Sunken •
Bevel Gradient Level	20
Bevel Thickness	3
Top Left Corner Radius	35
Top Right Corner Radius	12
Bottom Left Corner Radius	35
Bottom Right Corner Radius	12

Next, click on Add Widget from the Graphics menu and select the Label Widget then click on CONFIRM as shown.

	SELECT WIDGET	CLOSE
Static	Label	
Led	Simple Text Label Widget	
Gauges	Scale Numerical Scale Widget	
Media	Panel	
Digits	Simple Rectangular Panel Widget	Mates Studio
Graphs	Media Panel Highly Configurable Panel Widget	
Buttons	Symbol	
Sliders	A Simple Static Icon Widget	
Knobs	Custom Image Widget	
Special		CONFURM

and set the properties as shown.



Property	Value
Name	Label0
Left	70
Тор	30
Width	78
Height	20
Text	POWER
Font Style	Built-in FONT3 •
Font Size	2
Foreground Color	#A8A8A8 [0xAD55]
Background Type	Transparent •
Background Color	#000000 [0x0000]

Lastly, add a Led widget and set the properties as shown.



If the Genius environment is being used the demonstration can be tested by entering simple code in the code window.



Ensure that the Port is set to the correct port that the TIMI module is connected to.

File Edit Graphics Project	Tools	Help		
✓→ ≌±±	F	Port	Þ	Scan
	(Open Terminal Ctrl+Shift+M Get Module Info	0	COM16 COM15
	l	Load PmmC	0	COM7
	,	Activate License	0	COM5

and then click on the Upload Button to Upload the entire project to the display.



When the Upload has completed you should see the Led Flash on and off.



Or the page can be used in the Commander environment by saving the Page and clicking in the Object Selector to choose Page0.

1. L 🕯	MediaLed0 -		
Property	Page0		
Name	MediaLed0		
Left	MediaLed1		

Then Click on Save Configuration.

1. 📩 🖡	Page0 🗸
Property	Value
Name	Page0
Туре	Color •
Color	#000000 [0x0000]
Image	

A Save Dialogue Window will appear. Enter a filename (PowerIndicator) then click on Save

Save Page Configuratio	on						×
\leftrightarrow \rightarrow \checkmark \uparrow	> This	PC > Documents > Mates Studio Pages		~ č)	ates Studio Pages	
Organise 🔻 New	w folder						?
💻 This PC	^	Name	Status	Date modified	Туре	Size	^
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Desktop		[FIX] Media Player Red.matesPage	\oslash	3/03/2021 3:56 PM	MATESPAGE File	16 KB	
		[FIX] Output Led 1&2.matesPage	\oslash	19/02/2021 11:23 AM	MATESPAGE File	17 KB	
Develoads	÷.	📄 [FIX] Output Led 3&4.matesPage	\odot	19/02/2021 11:24 AM	MATESPAGE File	17 KB	
Downloads		📄 [FIX] Output Led 5&6.matesPage	\odot	19/02/2021 11:22 AM	MATESPAGE File	17 KB	
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You can find out further information about the Commander Environment in the Getting Started with the Commander Environment tutorial.