

# The Package Multis

Installation

TMultiPanel

TMultiButton

TMultiButtonStyleManager

TMultiplexSlider

TMultiSeperator

TMultiLayer

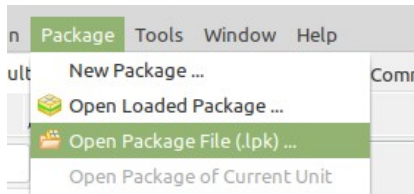
TMultiRadioGroup

**This text was translated with DeepL and my poor school English.**

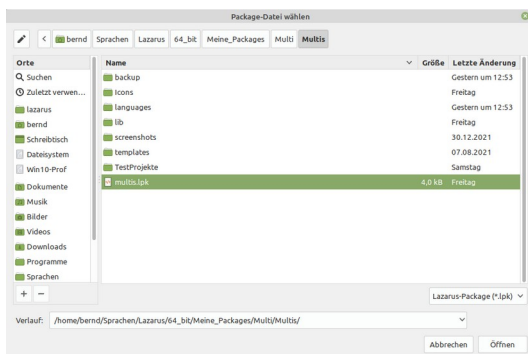


# Installation

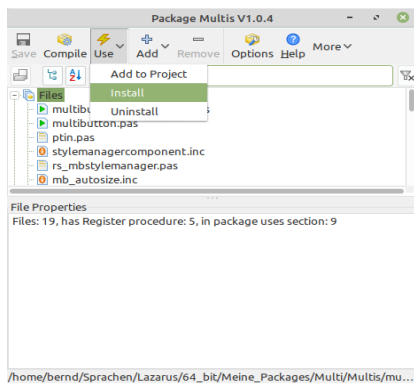
The package is located in the following Github account: <https://github.com/wennerer/Multis>  
After the package has been cloned or downloaded, it can be installed in Lazarus. To do this, open Lazarus and click on Open Package File (.lpk)... under Package.



Now navigate to the Multis folder and select the file multis.lpk.

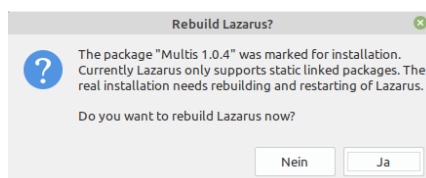


The following window will open:

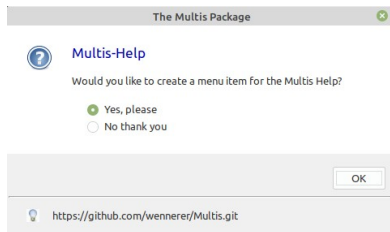


Click on Use and then Install.

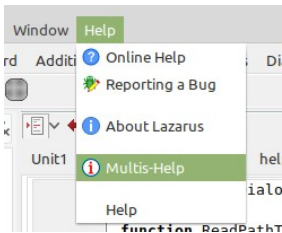
Confirm this dialogue with Yes:



In between, you will be asked if you want to create a menu entry for this help. If you want to do this, you should simply confirm with Yes.



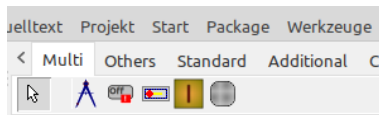
In the Help menu there is now a new entry Multis-Help.



If you want to call up the installation dialogue again for whatever reason, delete the file multis.xml in the Lazarus Config folder. The dialogue will then be displayed again.

Tip: If the help menu entry is available but the help file is not found, this may be because invalid package links have been entered. Please search for multis under Package, Package-Links and remove all invalid links.

After successful installation, there is a new Multi tab in the palette selection.



# TMultiPanel

## Properties

|                                |  |
|--------------------------------|--|
| Action                         | : The Action associated with the control   |
| Align                          | : Specifies the placement of the control inside its Parent.  |
| Anchors                        | : The set of anchor definitions for this control   |
| AnimationSpeed                 | : Speed for Appear bzw. Disappear (default 0,05) (only at runtime!)  |
| Autosize                       | : Allows automatic adjustment of the size for the control, according to its content                                    |
| Appear                         | : makes the panel appear (only at runtime!)  |
| BidiMode                       | : Customization (of text controls) in bidirectional reading environments   |
| BorderSettings                 | : The properties of the border   |
| BorderSettings.Between         | : The space between inner- and outerborder   |
| BorderSettings.InnerColor      | : The color of the innerborder   |
| BorderSettings.InnerWidth      | : The width of the innerborder   |
| BorderSettings.OuterColor      | : The color of the outerborder   |
| BorderSettings.OuterWidth      | : The width of the outerborder   |
| BorderSpacing                  | : Determines the inner and outer border spacing for this control   |
| Caption                        | : The text that the user writes in the panel   |
| CaptionAlignment               | : Alignment of the text in the caption (left, center, right)   |
| CaptionHorMargin               | : The horizontal distance of the text in the text rectangle (only effective with taLeftJustify)                        |
| CaptionLayout                  | : Alignment of the text in the caption (top, center, bottom)   |
| CaptionVerMargin               | : The vertical distance of the text in the text rectangle (only effective with tlTop)                                  |
| CaptionWordbreak               | : Allows a line break in the caption   |
| ColorEnd                       | : The end color of the panel ( for color gradient)   |
| ColorGradient                  | : The direction of the gradient  |
| ColorStart                     | : The start color of the panel ( for color gradient)   |
| Constraints                    | : The minimum and maximum Width and Height for the control   |
| Cursor                         | : The shape of the mouse pointer, when the mouse is over this control  |
| Disappear                      | : makes the panel disappear (only at runtime!)   |
| DoubleBuffered                 | : Allows to reduce flicker in the painting of the control  |
| DragCursor                     | : The cursor shape shown while the control is dragged  |
| DragKind                       | : The operation when the control is dragged - Drag or Dock   |
| DragMode                       | : Allows the user to drag the control  |
| DrawACustomPanel               | : Opens an editor where you can draw a panel   |
| DropDownMenu                   | : The properties of the dropdownmenu   |
| DropDownMenu.Active            | : Activates the dropdown function  |
| DropDownMenu.Compressed        | : Properties of the compressed panel   |
| DropDownMenu.Compressed.Active | : Makes the selection the starting value   |
| DropDownMenu.Compressed.Height | : The height of the compressed panel   |
| DropDownMenu.Compressed.Width  | : The width of the compressed panel  |
| DropDownMenu.Direction         | : The fold-out direction   |
| DropDownMenu.Hotspot           | : Defines the area in which a click is effective, only active with DropDownMenu.Active and trPinned (only at runtime!) |

|                               |   |
|-------------------------------|---|
| DropDownMenu.HotspotCursor    | : The shape of the mouse pointer, when the mouse is over the hotspot (only at runtime!) |
| DropDownMenu.Speed            | : The drawing speed (timer intervall)   |
| DropDownMenu.Step             | : The drawing steps (pixels)  |
| DropDownMenu.Stretched        | : Properties of the stretched Panel   |
| DropDownMenu.Stretched.Active | : Makes the selection the starting value  |
| DropDownMenu.Stretched.Height | : The height of the stretched panel   |
| DropDownMenu.Stretched.Width  | : The width of the stretched panel  |
| DropDownMenu.Trigger          | : Trigger   |
| Font                          | : The font to be used for text display in this panel                                    |
| Height                        | : The vertical size of the control  |
| HelpContext                   | : The ID for context-sensitive Help on this control                                     |
| HelpKeyword                   | : The keyword for context-sensitive Help on this control                                |
| HelpType                      | : Determines whether context-sensitive Help is selected by numeric ID or keyword        |
| Hint                          | : The text to show in the Hint window for the control                                   |
| ImageIndex                    | : The Index of a Image in a ImageList   |
| ImageLeft                     | : The coordinate of the left edge of a Image  |
| Images                        | : A list for including images   |
| ImageTop                      | : The coordinate of the top edge of a Image   |
| ImageWidth                    | : The unique width of all images in the list  |
| Left                          | : The client coordinate of the left edge of the control                                 |
| ParentAsBkgrd                 | : Background of the panel takes on the colour of the parent (only at runtime!)          |
| RndRctRadius                  | : Corner diameter if the geometric shape is RoundRect                                   |
| Style                         | : The geometric shape of the panel  |
| Top                           | : The client coordinate of the top edge of the control                                  |
| Visible                       | : Allows to show or hide the control, and all of its children                           |
| Width                         | : The horizontal extent of the control  |

## Events

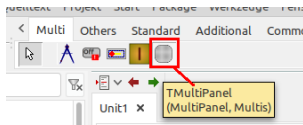
|                |  |
|----------------|--|
| OnChangeBounds | : Event handler for a change of the Bounds of the control  |
| OnClick        | : Notification handler for mouse clicks  |
| OnCompressed   | : Handler when the panel is compressed, only active when DropDownMenu.Active                       |
| OnDragDrop     | : This handler determines the action on an drop onto this control, in a drag-drop operation        |
| OnDragOver     | : Event handler for a control being dragged over this control                                      |
| OnEndDrag      | : Notification handler for the end of a dragging operation   |
| OnEnter        | : Handler for control receiving the focus  |
| OnExit         | : Handler for control loosing the focus; This is a good place for checking the finished user input |
| OnKeyDown      | : Handler for keyboard key pressed   |
| OnKeyPress     | : Handler for a character entered by the user  |
| OnKeyUp        | : Handler for keyboard key released  |
| OnMouseDown    | : Event handler for mouse button going down  |
| OnMouseEnter   | : Event handler for mouse entering the area of the control   |
| OnMouseLeave   | : Event handler for mouse leaving the area of the control  |
| OnMouseMove    | : Event handler for mouse movement within the control  |
| OnMouseUp      | : Event handler for mouse button going up  |
| OnStartDrag    | : Event handler for the start of a dragging operation  |
| OnStreched     | : Handler wenn das Panel ausgeklappt ist, nur aktive wenn DropDownMenu.Active                      |

## Public procedures

```
procedure MouseMove({%H-}Shift: TShiftState; X, Y: Integer);override;
procedure MouseDown({%H-}Button: TMouseButton;{%H-}Shift: TShiftState; X, Y: Integer);override;
procedure MouseUp({%H-}Button: TMouseButton; {%H-}Shift: TShiftState; {%H-}X, {%H-}Y: Integer);override;
procedure LoadFromFile(aFileName: string);
procedure InvalidateBackground;
procedure ParentInputHandler({%H-}Sender: TObject; Msg: Cardinal);
procedure Notification(AComponent: TComponent;Operation: TOperation); override;
constructor Create(AOwner: TComponent); override;
destructor Destroy; override;
procedure MouseEnter; override;
procedure MouseLeave; override;
procedure Paint; override;
```

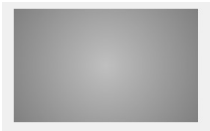
## Description

You will find the MultiPanel in the Multis tab.

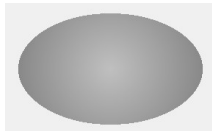


The shape of the MultiPanel can be influenced with the [Style](#) property.

mpsRect:



mpsEllipse:



mpsRoundRect:



The corner radius can be set with [RndRctRadius](#) . Default setting is 40

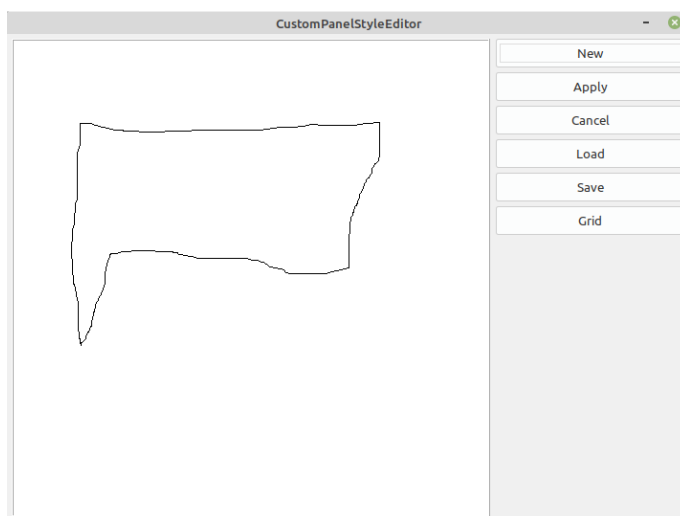
mpsCustom:



By default, mpsCustom has a triangle behind it. To draw a custom panel, click on the 3 dots behind [DrawACustomPanel](#) .



A property editor will open:



If you now click on New, you can simply draw the shape of the MultiPanel with the mouse. If you click on Use, the MultiPanel shape is adopted. With Discard the MultiPanel shape is not accepted and the editor is closed. With Save you can save a drawn shape and with Load you can get it again. Grid displays an auxiliary grid that may help you when drawing.

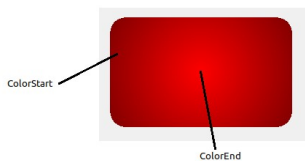
**Remember it must be set to mpsCustom!**

At runtime, MultiPanels saved in advance can also be loaded with [LoadFromFile](#).

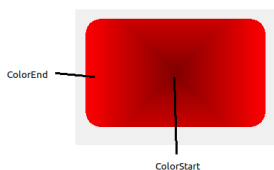


To change the colour of the MultiPanel you need the properties [ColorStart](#), [ColorEnd](#) and [ColorGradient](#). To get a single-coloured MultiPanel, ColorStart and ColorEnd must be the same. Otherwise, the composition of the three properties determines the appearance.

gcSpread:



gcRadiant:

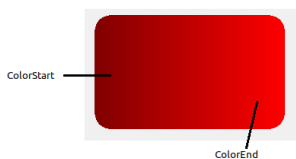


gcAlternate:

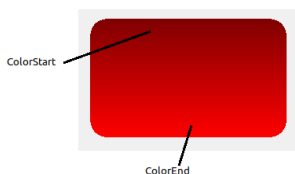


Alternately sets one pixel each to Start- and End-Color.

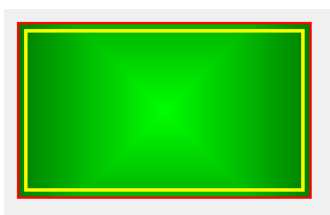
gcHorizontal:



gcVertical:



If you want to highlight the border, you can use the properties of the [BorderSettings](#).



| BorderSettings |        | (TBorder) |
|----------------|--------|-----------|
| Between        | 7      |           |
| InnerColor     | Yellow | clYellow  |
| InnerWidth     | 3      |           |
| OuterColor     | Red    | clRed     |
| OuterWidth     | 3      |           |

To create a border, simply select a colour. If you do not want a border, use clNone.

[BorderSettings.Between](#)

: The space between inner- and outerborder

[BorderSettings.InnerColor](#)

: The color of the innerborder

[BorderSettings.InnerWidth](#)

: The width of the innerborder

[BorderSettings.OuterColor](#)

: The color of the outerborder

[BorderSettings.OuterWidth](#)

: The width of the outerborder

The [Appear](#), [Disappear](#) and [AnimationSpeed](#) properties can only be set at runtime!

To make an invisible MultiPanel appear, use the property [Appear](#).

Example code:

```
procedure TForm1.MultiButton1Click(Sender: TObject);
begin
    MultiPanel1.Appear:= true;
end;
```

To make a visible MultiPanel disappear, use the property [Disappear](#).

Example code:

```
procedure TForm1.MultiButton2Click(Sender: TObject);
begin
    MultiPanel1.Disappear:= true;
end;
```

With the property [AnimationSpeed](#) the speed of appearance or disappearance can be influenced.

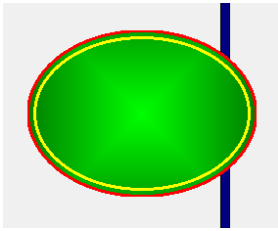
The default value is 0.05. The smaller the value, the slower the animation. With a value of 0.001 it is already very slow.

Example code:

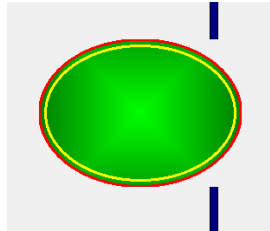
```
MultiPanel1.AnimationSpeed:= 0.001;
```

If you select something other than `mpsRect` as the geometric shape (Style property), a part of the background of the `MultiPanel` becomes visible. These visible corners take on the colour set in the parent. If there are self-drawn lines in the parent, for example, these are also shown. This happens because the property `ParentAsBkgrd` is set to true by default.

`ParentAsBkgrd := true`



`ParentAsBkgrd := false`

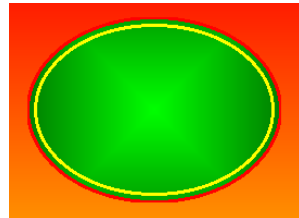


This setting makes sense especially when the parent changes its size. Because then, for example, the drawn line is not scaled correctly here.

If the parent has a colour gradient, it is possible to compensate for the scaling problem by calling the procedure `InvalidateBackground`.

Example code:

```
procedure TForm1.FormChangeBounds(Sender: TObject);
begin
    MultiPanel1.InvalidateBackground;
end;
```



To create a [DropDown](#) menu (hamburger menu), first set the property [DropDownMenu.Active](#) to true.

|                  |  |
|------------------|--|
| DrawACustomPanel | <a href="#">TCustomPanelStyle</a>                          |
| DropDownMenu     | <a href="#">(TDDMenu)</a>                                  |
| Active           | <input checked="" type="checkbox"/> <a href="#">(True)</a> |
| Compressed       | <a href="#">(TComp)</a>                                    |
| Direction        | LeftTop_RightBottom  |
| Speed            | 3  |
| Step             | 2  |
| Stretched        | <a href="#">(TStre)</a>                                    |
| Trigger          | trHover  |

The MultiPanel now shows the compressed state. The positioning can be done with the mouse or the properties [Left](#) or [Top](#) (of course anchors can also be set). The size can simply be dragged with the mouse or assigned with the properties [DropDownMenu.Compressed.Height](#) or [DropDownMenu.Compressed.Width](#). If the size fits, switch to the expanded state with the properties [DropDownMenu.Stretched.Active](#) or [DropDownMenu.Compressed.Active](#). Now the desired size can also be set by dragging with the mouse or with the properties [DropDownMenu.Stretched.Height](#) or [DropDownMenu.Stretched.Width](#). It is recommended to place the desired child controls (buttons etc.) in this state. The direction in which the MultiPanel unfolds is determined by the property [DropDow-](#)

[nMenu.Direction](#). The following options are available:

[TDirection](#) = ([LeftTop\\_RightBottom](#),[RightTop\\_LeftBottom](#),[LeftBottom\\_RightTop](#),[RightBottom\\_LeftTop](#))

The speed of the unfolding can be influenced by the properties [DropDownMenu.Speed](#) and [DropDownMenu.Step](#). The timer interval with which the unfolding is called is hidden behind Speed. To slow down, increase this value to the desired speed. With Step you can set the number of additional pixels that are drawn per interval. If you want to unfold faster, increase the value for Step.

With [DropDownMenu.Trigger](#) you determine the trigger for the unfolding.

The following possibilities are available:

[TTrigger](#) = ([trClick](#),[trHover](#),[trPinned](#))

With trClick you have to click in the panel, with trHover it is enough to move the mouse over it. With trPinned, the mouse must be clicked in a definable hotspot ([DropDownMenu.Hotspot](#)). If the mouse is over this hotspot, the mouse cursor can be adjusted with [DropDownMenu.HotspotCursor](#). By default, it changes to cr-HandPoint.

# TMultiButton

## Properties

|                     |   |
|---------------------|---|
| Action              | : The Action associated with the control  |
| Align               | : Specifies the placement of the control inside its Parent                                      |
| AllowsUp            | : Allows a pressed button to be set to not pressed  |
| Anchors             | : The set of anchor definitions for this control  |
| AutoSize            | : Allows automatic adjustment of the size for the control, according to its content             |
| BidiMode            | : Customization (of text controls) in bidirectional reading environments                        |
| BorderColor         | : The color of the border   |
| BorderSpacing       | : Determines the inner and outer border spacing for this control                                |
| BorderWidth         | : The whidth of the border  |
| Caption             | : The text that the user writes in the button   |
| CaptionAlignment    | : Alignment of the text in the caption (left, center, right)                                    |
| CaptionHorMargin    | : The horizontal distance of the text in the text rectangle (only effective with taLeftJustify) |
| CaptionLayout       | : Alignment of the text in the caption (top, center, bottom)                                    |
| CaptionVerMargin    | : The vertical distance of the text in the text rectangle (only effective with tlTop)           |
| CaptionWordbreak    | : Allows a line break in the caption  |
| ColorEnd            | : The end color of the button ( for color gradient)   |
| ColorGradient       | : The direction of the gradient   |
| ColorStart          | : The start color of the button ( for color gradient)   |
| Constraints         | : The minimum and maximum Width and Height for the control                                      |
| DisabledAlphaBValue | : The blendvalue at Enable:=false, only at runtime!   |
| DisabledColor       | : The colour at Enable:=false, only at runtime!   |
| Down                | : The Button has been set in the Down state   |
| DragCursor          | : The cursor shape shown while the control is dragged   |
| DragKind            | : The operation when the control is dragged - Drag or Dock                                      |
| DragMode            | : Allows the user to drag the control   |
| Enable              | : Determines whether the control reacts on mouse or keyboard input                              |
| FocusAlphaBValue    | : How translucent the focusframe is (0=transparent, 255=opaque)                                 |
| FocusColor          | : The color of the Fokusframe/Foregroundfocus when the Control has the focus                    |
| FocusFrameOn        | : Indicates when the button has focus   |
| FocusFrameWidth     | : The whidth of the focus-frame   |
| Font                | : The font to be used for text display in this button   |
| ForegroundFocusOn   | : Indicates when the button has focus   |
| GroupIndex          | : The Index within the group of MultiButtons  |
| Height              | : The vertical size of the control.The height of the MultiButton is minus HoverFrameWidth       |

|  |   |
|--|---|
| HelpContext                              | : The ID for context-sensitive Help on this control   |
| HelpKeyword                              | : The keyword for context-sensitive Help on this control  |
| HelpType                                 | : Determines whether context-sensitive Help is selected by numeric ID or keyword                |
| Hint                                     | : The text to show in the Hint window for the control   |
| HoverEndColor                            | : The endcolor of a hoverevent  |
| HoverFontColor                           | : The color of the Caption during one hoverevent  |
| HoverImageIndex                          | : The Index of a Image in a ImageList when during one hoverevent                                |
| HoverOn                                  | : Allows to show or hide a hoverevent   |
| HoverStartColor                          | : The startcolor of a hoverevent  |
| ImageIndex                               | : The Index of a Image in a ImageList   |
| ImageLeft                                | : The coordinate of the left edge of a Image  |
| Images                                   | : A list for including images   |
| ImageTop                                 | : The coordinate of the top edge of a Image   |
| ImageWidth                               | : The unique width of all images in the list  |
| Left                                     | : The client coordinate of the left edge of the control   |
| MessageButton                            | : A message button to display information or to provide a second integrated button              |
| MessageButton.Alignment                  | : The position of the messagebutton   |
| MessageButton.BorderColor                | : The color of the border   |
| MessageButton.BorderWidth                | : The whidth of the border  |
| MessageButton.CalculateAlthoughInvisible | : Is required if the MessagButton is only visible at runtime                                    |
| MessageButton.Caption                    | : The text that the user writes in the messagebutton  |
| MessageButton.CaptionAlignment           | : Alignment of the text in the caption (left, center, right)                                    |
| MessageButton.CaptionHorMargin           | : The horizontal distance of the text in the text rectangle (only effective with taLeftJustify) |
| MessageButton.CaptionLayout              | : Alignment of the text in the caption (top, center, bottom)                                    |
| MessageButton.CaptionVerMargin           | : The vertical distance of the text in the text rectangle (only effective with tlTop)           |
| MessageButton.ColorEnd                   | : The end color of the messagebutton ( for color gradient)                                      |
| MessageButton.ColorGradient              | : The direction of the gradient   |
| MessageButton.ColorStart                 | : The start color of the messagebutton ( for color gradient)                                    |
| MessageButton.Font                       | : The font to be used for text display in this button   |
| MessageButton.Height                     | : The vertical size of the control  |
| MessageButton.HoverOn                    | : The color of a hoverevent   |
| MessageButton.HoverOn                    | : Allows to show or hide a hoverevent   |
| MessageButton.ImageIndex                 | : The Index of a Image in a ImageList   |
| MessageButton.ImageLeft                  | : The coordinate of the left edge of a Image  |
| MessageButton.Images                     | : A list for including images   |
| MessageButton.ImageTop                   | : The coordinate of the top edge of a Image   |

|                                  |   |
|----------------------------------|---|
| MessageButton.ImageWidth         | : The unique width of all images in the list  |
| MessageButton.PositionFactor     | : Position factor, only active if alSE,alSW,alNW,alNE,alW,alE,alN,alS,alRightIn,alLeftIn,alTopIn,alBottomIn |
| MessageButton.PressedColBlendVal | : How translucent the pressedcolor is (0=transparent, 255=opaque)   |
| MessageButton.PressedColor       | : The color of the messagebutton when it is pressed   |
| MessageButton.ShowBorder         | : Allows to show or hide a border   |
| MessageButton.ShowPressed        | : Allows to show or hide the pressedoption  |
| MessageButton.Style              | : The geometric shape of the messagebutton  |
| MessageButton.Visible            | : Allows to show or hide the control, and all of its children   |
| MessageButton.Width              | : The horizontal extent of the control  |
| MultiButton_StyleManager         | : Simplifies the design of the MultiButton  |
| PopupMenu                        | : A context-sensitive menu that pops up when the right mouse button is clicked over this control            |
| PressedEndColor                  | : The end color of the button when it is pressed (for color gradient)                                       |
| PressedFontColor                 | : The color of the text of the caption when the button is pressed   |
| PressedImageIndex                | : The Index of a Image in a ImageList when the Button is pressed  |
| PressedStartColor                | : The starting color of the button when it is pressed (for color gradient)                                  |
| RndRctRadius                     | : Corner diameter if the geometric shape is RoundRect   |
| ShowBorder                       | : Allows to show or hide a border   |
| ShowHint                         | : When True, the Hint text is shown when the mouse hovers over the control                                  |
| ShowMsgButtonInGroup             | : Shows the message button on the MultiButton in a group  |
| Style                            | : The geometric shape of the button   |
| TabOrder                         | : Determines the sequence of control navigation when the user presses the Tab key                           |
| TabStop                          | : Allows the user to navigate to this control, by pressing the Tab key                                      |
| Top                              | : The client coordinate of the top edge of the control  |
| Visible                          | : Allows to show or hide the control, and all of its children   |
| Width                            | : The horizontal size of the control. The width of the MultiButton is minus HoverFrameWidth                 |

## Public Procedures

procedure **SetStyleManager**(AValue: TMultiButtonStyleManager);

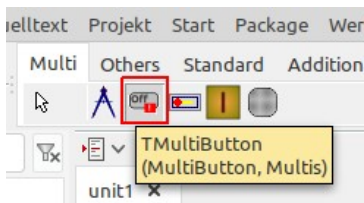
## Events

|                           |   |
|---------------------------|---|
| OnClick                   | : Notification handler for mouse clicks   |
| OnDragDrop                | : This handler determines the action on a drop onto this control, in a drag-drop operation        |
| OnDragOver                | : Event handler for a control being dragged over this control                                     |
| OnEndDrag                 | : Notification handler for the end of a dragging operation  |
| OnEnter                   | : Handler for control receiving the focus   |
| OnExit                    | : Handler for control losing the focus; This is a good place for checking the finished user input |
| OnKeyDown                 | : Handler for keyboard key pressed  |
| OnKeyPress                | : Handler for a character entered by the user   |
| OnKeyUp                   | : Handler for keyboard key released   |
| OnMouseDown               | : Event handler for mouse button going down   |
| OnMouseEnter              | : Event handler for mouse entering the area of the control  |
| OnMouseLeave              | : Event handler for mouse leaving the area of the control   |
| OnMouseMove               | : Event handler for mouse movement within the control   |
| OnMouseUp                 | : Event handler for mouse button going up   |
| OnStartDrag               | : Event handler for the start of a dragging operation   |
| MessageButton.OnClick     | : Notification handler for mouse clicks   |
| MessageButton.OnMouseMove | : Event handler for mouse movement within the control   |



## Description

You can find the MultiButton in the Multi tab:



It is important to know that the MultiButton is surrounded by a focus frame. As you can see here, the focused MultiButton has an olive green frame. This means that the actual button is smaller around the frame.



The [FocusColor](#) property can be used to set the colour of the focus frame. With [FocusAlphaBValue](#) the transparency of the focus frame can be controlled. The value 0 means transparent and 255 opaque. [FocusFrameWidth](#) determines the thickness of the frame.

Wert 50:



Wert 200:



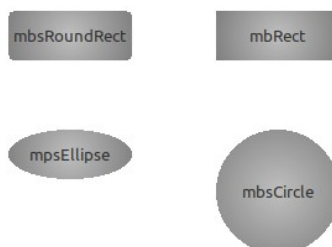
If [FocusFrameOn](#) is set to false, the border is retained but the focus is not shown in colour.

With [ForegroundFocusOn](#), the focused MultiButton has a dotted rectangle. The colour of the rectangle can be influenced with [FocusColor](#). It can be useful here to set [FocusFrameWidth](#) to 0 and [FocusFrameOn](#) to false so that the corners are not visible!



The [Style](#) property is used to set the desired geometric shape of the MultiButton.

If [mbsRoundRect](#) is set, the [RndRctRadius](#) property can be used to set the diameter of the corner rounding.



If you want to add a coloured border to the MultiButton, set [ShowBorder](#) to true. The colour of the border is set with [BorderColor](#) and the width with [BorderWidth](#).



To change the colour of the MultiButton you need the properties [ColorStart](#), [ColorEnd](#) and [ColorGradient](#). To get a single-coloured MultiButton, ColorStart and ColorEnd must be the same. Otherwise, the composition of the three properties determines the appearance.



Alternate alternately sets one pixel each to Start- and EndColor.



Here is StartColor clGreen and EndColor clYellow.

By default, [HoverOn](#) is set to true. This means that when a hover event occurs (the mouse moves over the MultiButton) the appearance can be changed as desired with [HoverStartColor](#), [HoverEndColor](#), [HoverFontColor](#) and [HoverImageIndex](#). If you do not want this, set HoverOn to false.

|                 |  |
|-----------------|--|
| HoverEndColor   | : The endcolor of a hoverevent                                   |
| HoverFontColor  | : The color of the Caption during one hoverevent                 |
| HoverImageIndex | : The Index of a Image in a ImageList when during one hoverevent |
| HoverOn         | : Allows to show or hide a hoverevent                            |
| HoverStartColor | : The startcolor of a hoverevent                                 |

When the MultiButton is pressed, the properties [PressedStartColor](#), [PressedEndColor](#), [PressedFontColor](#) and [PressedImageIndex](#) influence the appearance. If you do not want any changes when the button is pressed, the only thing left to do is to set the same settings such as ColorStart etc..

|                   |  |
|-------------------|--|
| PressedEndColor   | : The end color of the button when it is pressed (for color gradient)      |
| PressedFontColor  | : The color of the text of the caption when the button is pressed          |
| PressedImageIndex | : The Index of a Image in a ImageList when the Button is pressed           |
| PressedStartColor | : The starting color of the button when it is pressed (for color gradient) |

The [Enable](#) property determines whether the control reacts to mouse or keyboard input. The appearance when not enabled can be influenced at runtime with [DisabledAlphaBValue](#) and [DisabledColor](#).



If you do not want to see a frame, set [DisabledColor](#) to the same colour as the parent.

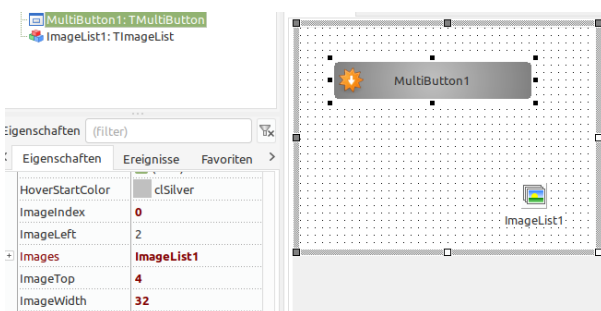


If necessary, use `MultiButton2.DisabledColor:=GetColorResolvingParent` instead of `clDefault`.

If you want to insert an image, you must first drag an ImageList onto the form. You then assign the desired images in the desired sizes to this ImageList. The operation of the ImageListEditor is described very well here: <https://www.lazarusforum.de/viewtopic.php?f=18&t=13170>



With **Images** you enter the image list on the form. With **ImageIndex** you can select the desired image from the ImageList, where -1 means no image. With **ImageLeft** and **ImageTop** you determine the position of the image. With **ImageWidth** you can scale the size of the image. It is recommended to scale only smaller.



Tip:

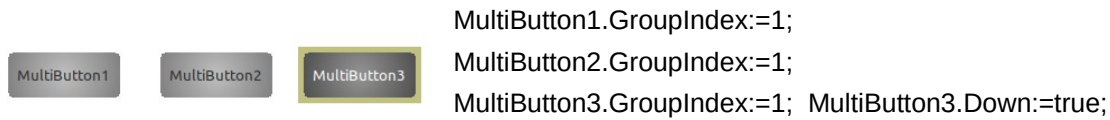
If you use HighDPI under Windows, the images and the MultiButton are scaled. In order for it to work at runtime, I had to select Vista-8:an,8.1+:pro Monitor(True/PM) in the project settings for DPI adjustment.

The **AllowsUp** property turns the button into a kind of switch. This means that when the button is pressed, it remains pressed until it is pressed again. If you want the MultiButton to appear pressed at the beginning of the programme, you do this with the property **Down**.



If the button is pressed, it is displayed with the properties Pressed....!

If needed, the MultiButton can belong to a group. This is achieved with the property [GroupIndex](#). If a MultiButton has a value other than 0, it belongs to the group with the same value. Only one MultiButton can be pressed in a group. If a button in the group should already be pressed when the programme is started, this can be achieved with the property [Down](#).



If you want to make the pressed button visually clearer, you can still use the property [ShowMsgButtonInGroup](#). The last pressed button gets a MessageButton.



The [MessageButton](#)



To use the integrated [MessageButton](#), you must first set [MessageButton.Visible](#) to true. Then you can set the position of the [MessageButton](#) with [MessageButton.Alignment](#).



The [MessageButton.PositionFactor](#) property can be used to influence the position of the [MessageButton](#) somewhat. However, only with aSE, aSW, aNW, aNE, aW, aE, aN, aS, alRightIn, alLeftIn, alTopIn, alBottomIn



If you want to change the shape of the MessageButton, you can do this with the property [MessageButton.Style](#).



If you place several MultiButtons in a row and the MessageButton is not visible for all of them, the MultiButtons have different sizes. Here no. 2 appears larger:



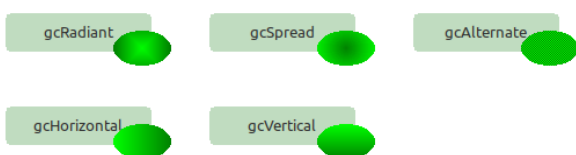
To get around this there is the property [MessageButton.CalculateAlthoughInvisible](#). If you set this property to true for No. 2, it looks like this:



If you want to provide the MessageButton with a coloured border, set [MessageButton.ShowBorder](#) to true. The colour of the border is set with [MessageButton.BorderColor](#) and the width with [MessageButton.BorderWidth](#).



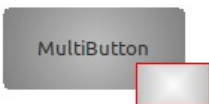
To change the colour of the MessageButton you need the properties [MessageButton.ColorStart](#), [MessageButton.ColorEnd](#) and [MessageButton.ColorGradient](#). To get a single-coloured MessageButton, ColorStart and ColorEnd must be the same. Otherwise, the composition of the three properties determines the appearance.



Alternate alternately sets one pixel each to Start- and EndColor.

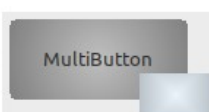
Here StartColor is clLime and EndColor is clGreen.

By default, [MessageButton.HoverOn](#) is set to true. This means that when a hover event occurs (the mouse moves over the MessageButton) a border is drawn around the MessageButton. The colour of the border can be set with [MessageButton.HoverColor](#). If you do not want this, set HoverOn to false.



[MessageButton.BorderWidth](#) influences the thickness of the hover border!

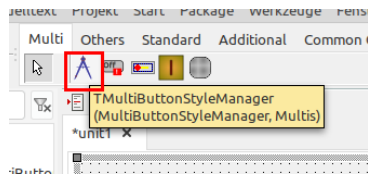
If the MessageButton is pressed and [MessageButton.ShowPressed](#) is true, then the colour set in [MessageButton.PressedColor](#) with the value stored in [MessageButton.PressedColBlendVal](#) is faded over the MessageButton. Where 0 means transparent and 255 means opaque.



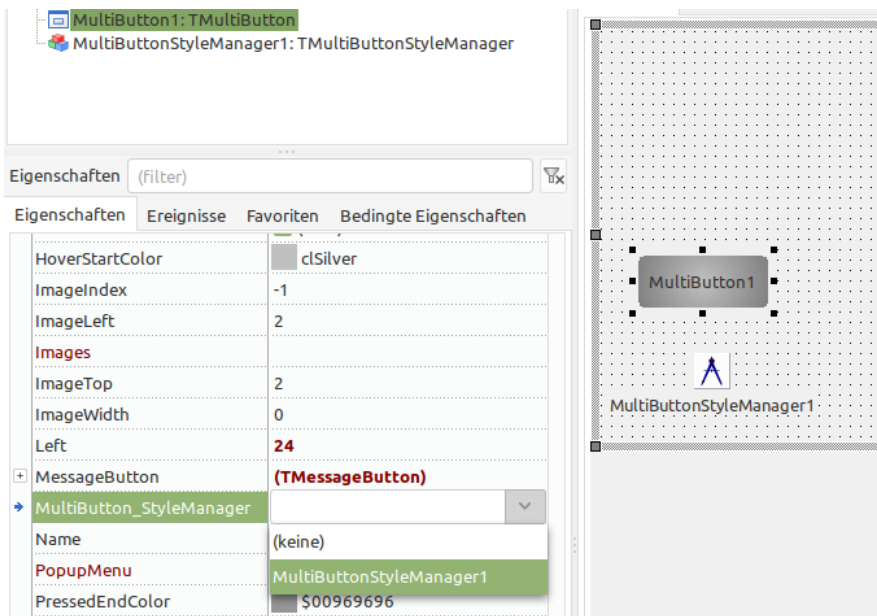
## TMultiButtonStyleManager

If you are building a form with many MultiButtons that should look similar, we recommend using the MultiButtonStyleManager.

You can find it here:



Like any component, you simply drag it onto the form. To connect it to a MultiButton, you must now select the StyleManager in the [MultiButton\\_StyleManager](#) property (of the button).



The properties displayed in the Object Inspector under MultiButtonStyleManager now affect all connected MultiButtons simultaneously.



Here all six buttons are connected. By changing the style to mbsEllipse (in the OI under MBStyleManager) all MultiButtons change at once!

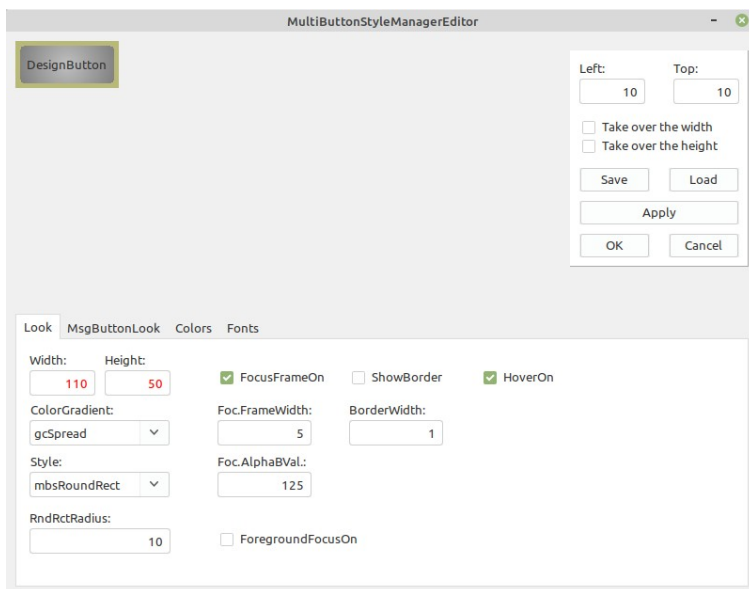
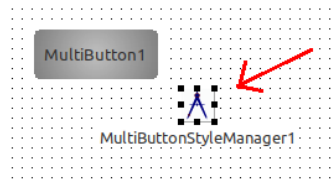
**Attention! If you try to change a property of a connected MultiButton in the OI tab of the button (not the manager), this will fail!**

For me, the procedure that has turned out to be good is that I first set all the desired properties of the MultiButtons with the Stylmanager and then remove the connection again. But that is certainly a matter of taste.

A special situation arises with the properties Width and Height. These two properties can only be changed via the style manager if the properties [OffsetHeight](#) and [OffsetWidth](#) of the style manager are deliberately set to true (default = false).

## MultiButtonStylemanagerEditor

Furthermore, the MultiButtonStylemanager offers the possibility to make all settings in a MultiButtonStylemanagerEditor. This can be opened by double-clicking on the component symbol on the form.

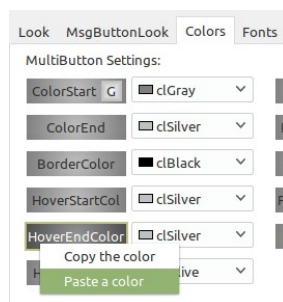
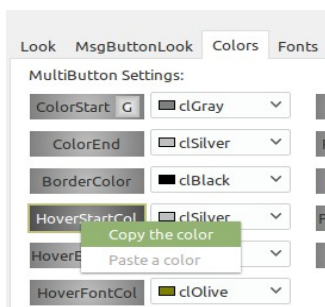


If you move the mouse over the various setting options, their functions are displayed as hints.

The button in the upper left corner serves as a pattern. It can be moved in the editor with *Left* and *Top*.

If you have created a design that you may want to use in another project, you can save it in a file by clicking *Save*. With *Load* you can retrieve it from there.

If you want to copy a colour from one selection to another, click with the right mouse button on the selection button, a pop-up opens and you can select copy or paste.



If you have connected several MultiButtons to a style manager and want to change the buttons via the style manager at runtime, you can use the public procedure [SetStyleManager](#).

This works like this, for example:

```
procedure TForm1.AdjustTheMultiButtons(Sender : TObject);
var lv : integer;
begin
  MultiButtonStyleManager1.ColorStart := clLime;
  MultiButtonStyleManager1.ColorEnd  := clRed;
  for lv := 0 to pred(ComponentCount) do
    if (Components[lv] is TMultiButton) then
      if TMultiButton(Components[lv]).MultiButton_StyleManager = MultiButtonStyleManager1 then
        TMultiButton(Components[lv]).SetStyleManager(MultiButtonStylemanager1);
  end;
```





# TMultiplexSlider

## Properties

|                             |  |
|-----------------------------|--|
| Action                      | : The Action associated with the control   |
| Align                       | : Specifies the placement of the control inside its Parent                       |
| Anchors                     | : The set of anchor definitions for this control                                 |
| AutoRangeNegative           | : If Min is reached, Min increases by AutoRangeValue                             |
| AutoRangePositive           | : If Max is reached, Max increases by AutoRangeValue                             |
| AutoRangeValue              | : Only active with AutoRangePositive and AutoRangeNegative                       |
| AutoSize                    | : Only active in conjunction with textlabel                                      |
| BorderColor                 | : The color of the border (clNone makes invisible)                               |
| BorderSpacing               | : Determines the inner and outer border spacing for this control                 |
| BorderWidth                 | : The width of the border  |
| ColorEnd                    | : The end color of the slider ( for color gradient)                              |
| ColorGradient               | : The direction of the gradient  |
| ColorStart                  | : The start color of the slider ( for color gradient)                            |
| Constraints                 | : The minimum and maximum Width and Height for the control                       |
| Cursor                      | : The shape of the mouse pointer, when the mouse is over this control            |
| DragCursor                  | : The cursor shape shown while the control is dragged                            |
| DragKind                    | : The operation when the control is dragged - Drag or Dock                       |
| DragMode                    | : Allows the user to drag the control  |
| Enabled                     | : Determines whether the control reacts on mouse or keyboard input               |
| FocusAlphaBValue            | : How translucent the focusframe is (0=transparent, 255=opaque)                  |
| FocusColor                  | : The color of the Fokusframe/Foregroundfocus when the Control has the focus     |
| FocusFrameOn                | : Indicates when the slider has focus  |
| FocusFrameWidth             | : The whidth of the focus-frame  |
| ForegroundFocusOn           | : Indicates when the slider has focus  |
| Height                      | : The vertical size of the control   |
| HelpContext                 | : The ID for context-sensitive Help on this control                              |
| HelpKeyword                 | : The keyword for context-sensitive Help on this control                         |
| HelpType                    | : Determines whether context-sensitive Help is selected by numeric ID or keyword |
| Hint                        | : The text to show in the Hint window for the control                            |
| Knob1Settings               | : The properties of the Knobs  |
| Knob1Settings.ColorGradient | : The direction of the gradient  |
| Knob1Settings.Design        | : The appearance of the knob   |
| Knob1Settings.DesignColor   | : The color of the border or characters in the knob                              |
| Knob1Settings.HoverEndColor | : The endcolor of a hoverevent   |

|  |  |
|--|--|
| <code>Knob1Settings.HoverOn</code>         | : Allows to show or hide a hoverevent  |
| <code>Knob1Settings.HoverStartColor</code> | : The startcolor of a hoverevent   |
| <code>Knob1Settings.KnobColorEnd</code>    | : The end color of the knob ( for color gradient)                              |
| <code>Knob1Settings.KnobColorStart</code>  | : The start color of the knob ( for color gradient)                            |
| <code>Knob1Settings.KnobPosition</code>    | : The Position of the Knob in the Slider                                       |
| <code>Knob1Settings.KnobStyle</code>       | : The shape of the knob  |
| <code>Knob1Settings.Visible</code>         | : Shows the Knob   |
| <code>Knob2Settings</code>                 | : The properties of the Knobs  |
| <code>Knob2Settings.ColorGradient</code>   | : The direction of the gradient  |
| <code>Knob2Settings.Design</code>          | : The appearance of the knob   |
| <code>Knob2Settings.DesignColor</code>     | : The color of the border or characters in the knob                            |
| <code>Knob2Settings.HoverEndColor</code>   | : The endcolor of a hoverevent   |
| <code>Knob2Settings.HoverOn</code>         | : Allows to show or hide a hoverevent  |
| <code>Knob2Settings.HoverStartColor</code> | : The startcolor of a hoverevent   |
| <code>Knob2Settings.KnobColorEnd</code>    | : The end color of the knob ( for color gradient)                              |
| <code>Knob2Settings.KnobColorStart</code>  | : The start color of the knob ( for color gradient)                            |
| <code>Knob2Settings.KnobPosition</code>    | : The Position of the Knob in the Slider                                       |
| <code>Knob2Settings.KnobStyle</code>       | : The shape of the knob  |
| <code>Knob2Settings.Visible</code>         | : Shows the Knob   |
| <code>Knob3Settings</code>                 | : The properties of the Knobs  |
| <code>Knob3Settings.ColorGradient</code>   | : The direction of the gradient  |
| <code>Knob3Settings.Design</code>          | : The appearance of the knob   |
| <code>Knob3Settings.DesignColor</code>     | : The color of the border or characters in the knob                            |
| <code>Knob3Settings.HoverEndColor</code>   | : The endcolor of a hoverevent   |
| <code>Knob3Settings.HoverOn</code>         | : Allows to show or hide a hoverevent  |
| <code>Knob3Settings.HoverStartColor</code> | : The startcolor of a hoverevent   |
| <code>Knob3Settings.KnobColorEnd</code>    | : The end color of the knob ( for color gradient)                              |
| <code>Knob3Settings.KnobColorStart</code>  | : The start color of the knob ( for color gradient)                            |
| <code>Knob3Settings.KnobPosition</code>    | : The Position of the Knob in the Slider                                       |
| <code>Knob3Settings.KnobStyle</code>       | : The shape of the knob  |
| <code>Knob3Settings.Visible</code>         | : Shows the Knob   |
| <code>Left</code>                          | : The client coordinate of the left edge of the control                        |
| <code>Max</code>                           | : The highest value in range   |
| <code>Min</code>                           | : The lowest value in range  |
| <code>Orientation</code>                   | : The orientation of the Slider  |
| <code>PopupMenu</code>                     | : A context-sensitive menu that pops up when the right mouse button is clicked |
| <code>Reversed</code>                      | : Max and min are swapped  |

|   |   |
|---|---|
| <code>RndRctRadius</code>                     | : Corner diameter if the geometric shape is RoundRect   |
| <code>Scale1Settings</code>                   | : The properties of the first scale   |
| <code>Scale1Settings.BigMarkColor</code>      | : The color of the big marks  |
| <code>Scale1Settings.BigMarkInterval</code>   | : The distance of the big marks   |
| <code>Scale1Settings.BigMarksVisible</code>   | : Shows big marks   |
| <code>Scale1Settings.LineColor</code>         | : The color of the lines in the scale   |
| <code>Scale1Settings.LineWidth</code>         | : The whidth of the scalelines  |
| <code>Scale1Settings.ScaleStyle</code>        | : The appearance of the markings (ssNone makes invisible)                                       |
| <code>Scale1Settings.SmallMarkColor</code>    | : The color of the Marks in the scale   |
| <code>Scale1Settings.SmallMarkInterval</code> | : The distance of marks in the scale  |
| <code>Scale2Settings</code>                   | : The properties of the second scale  |
| <code>Scale2Settings.BigMarkColor</code>      | : The color of the big marks  |
| <code>Scale2Settings.BigMarkInterval</code>   | : The distance of the big marks   |
| <code>Scale2Settings.BigMarksVisible</code>   | : Shows big marks   |
| <code>Scale2Settings.LineColor</code>         | : The color of the lines in the scale   |
| <code>Scale2Settings.LineWidth</code>         | : The whidth of the scalelines  |
| <code>Scale2Settings.ScaleStyle</code>        | : The appearance of the markings (ssNone makes invisible)                                       |
| <code>Scale2Settings.SmallMarkColor</code>    | : The color of the Marks in the scale   |
| <code>Scale2Settings.SmallMarkInterval</code> | : The distance of marks in the scale  |
| <code>ShowHint</code>                         | : Enables the Hint display  |
| <code>Style</code>                            | : The geometric shape of the slider   |
| <code>TabOrder</code>                         | : Determines the sequence of control navigation when the user presses the Tab key               |
| <code>TabStop</code>                          | : Allows the user to navigate to this control, by pressing the Tab key                          |
| <code>TextSettings</code>                     | : The properties of the textlabel   |
| <code>TextSettings.AdInPercent</code>         | : Shows the value of the slider in the textLabel in percent                                     |
| <code>TextSettings.AutoAd</code>              | : Shows the value of the slider in the TextLabel  |
| <code>TextSettings.BackgrdColor</code>        | : The backgroundcolor of the textlabel (clNone for no color)                                    |
| <code>TextSettings.BorderColor</code>         | : The color of the border (clNone for invisible)  |
| <code>TextSettings.BorderWidth</code>         | : The width of the border   |
| <code>TextSettings.CaptionAlignment</code>    | : Alignment of the text in the caption (left, center, right)                                    |
| <code>TextSettings.CaptionBelow</code>        | : Write the letters one below the other (only active poLeft and poRight)                        |
| <code>TextSettings.CaptionHorMargin</code>    | : The horizontal distance of the text in the text rectangle (only effective with taLeftJustify) |
| <code>TextSettings.CaptionLayout</code>       | : Alignment of the text in the caption (top, center, bottom)                                    |
| <code>TextSettings.CaptionVerMargin</code>    | : The vertical distance of the text in the text rectangle (only effective with tlTop)           |
| <code>TextSettings.Font</code>                | : The font to be used for textlabel   |
| <code>TextSettings.Height</code>              | : The height of the TextLabel (only effectiv with poTop/poBottom)                               |

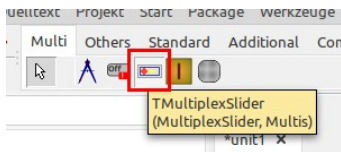
|   |  |
|---|--|
| <code>TextSettings.Position</code>              | : The position of the textlabel (poNone makes invisible)                         |
| <code>TextSettings.PostCaption</code>           | : The text behind the value in the textlabel                                     |
| <code>TextSettings.PreCaption</code>            | : The text in front of the value in the textlabel                                |
| <code>TextSettings.Style</code>                 | : The geometric shape of the textlabel   |
| <code>TextSettings.Width</code>                 | : The width of the TextLabel (only effective with poLeft/poRight)                |
| <code>Top</code>                                | : The client coordinate of the top edge of the control                           |
| <code>TrackSettings</code>                      | : The properties of the track  |
| <code>TrackSettings.ExtraColor</code>           | : The color of the additional color (clNone for invisible)                       |
| <code>TrackSettings.ExtraRangeMax</code>        | : The max Value of the additional color  |
| <code>TrackSettings.ExtraRangeMin</code>        | : The min Value of the additional color  |
| <code>TrackSettings.SelRangeColor</code>        | : The color of the selected area (clNone for invisible)                          |
| <code>TrackSettings.TrackColor</code>           | : The color of the track   |
| <code>ValueDisplaySettings</code>               | : The properties of the ValueDisplay   |
| <code>ValueDisplaySettings.BorderColor</code>   | : The color of the border (clNone for invisible)                                 |
| <code>ValueDisplaySettings.BorderWidth</code>   | : The width of the border  |
| <code>ValueDisplaySettings.ColorEnd</code>      | : The end color of the display ( for color gradient)                             |
| <code>ValueDisplaySettings.ColorGradient</code> | : The direction of the gradient  |
| <code>ValueDisplaySettings.ColorStart</code>    | : The start color of the display ( for color gradient)                           |
| <code>ValueDisplaySettings.Font</code>          | : The font to be used for display  |
| <code>ValueDisplaySettings.InPercent</code>     | : Shows the value in percent   |
| <code>ValueDisplaySettings.Position</code>      | : The position of the display in the slider, vdsNone makes invisible             |
| <code>ValueDisplaySettings.Style</code>         | : The geometric shape of the display, vdsNone makes no shape                     |
| <code>ValueDisplaySettings.X</code>             | : affects the position, only to be used with<br>vdpXY,vdpAboveRight,vdpBelowLeft |
| <code>ValueDisplaySettings.Y</code>             | : affects the position, only to be used with<br>vdpXY,vdpAboveRight,vdpBelowLeft |
| <code>Visible</code>                            | : Allows the control, and all of its children, to be displayed or hidden         |
| <code>Width</code>                              | : The horizontal extent of the control   |

## Events

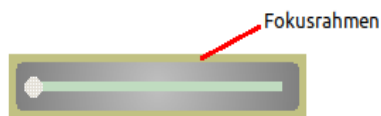
|                  |  |
|------------------|--|
| OnChange         | : Returns the value of Knob1 (as integer)  |
| OnChangeStr      | : Returns the value of Knob1 as a string   |
| OnChange3x       | : Returns the values of Knob1,2,3 (as integer)   |
| OnChangeStr3x    | : Returns the values of Knob1,2,3 as a string  |
| OnClick          | : Notification handler for mouse clicks  |
| OnDragDrop       | : This handler determines the action on an drop onto this control, in a drag-drop operation        |
| OnDragOver       | : Event handler for a control being dragged over this control                                      |
| OnEndDrag        | : Notification handler for the end of a dragging operation   |
| OnEnter          | : Handler for control receiving the focus  |
| OnExit           | : Handler for control loosing the focus; This is a good place for checking the finished user input |
| OnKeyDown        | : Handler for keyboard key pressed   |
| OnKeyPress       | : Handler for a character entered by the user  |
| OnKeyUp          | : Handler for keyboard key released  |
| OnMouseDown      | : Event handler for mouse button going down  |
| OnMouseEnter     | : Event handler for mouse entering the area of the control   |
| OnMouseLeave     | : Event handler for mouse leaving the area of the control  |
| OnMouseMove      | : Event handler for mouse movement within the control  |
| OnMouseUp        | : Event handler for mouse button going up  |
| OnMouseWheelDown | : Event handler for downward movement of mouse wheel   |
| OnMouseWheelUp   | : Event handler for upward movement of the mouse wheel   |
| OnStartDrag      | : Event handler for the start of a dragging operation  |

## Description

You will find the MultiplexSlider in the Multi tab:

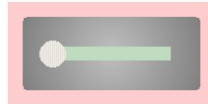


It is important to know that the MultiplexSlider is surrounded by a focus frame. As you can see here, the focused MultiplexSlider has an olive green frame. This means that the actual slider is smaller around the frame.

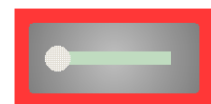


The [FocusColor](#) property can be used to set the colour of the focus frame. With [FocusAlphaBValue](#) the transparency of the focus frame can be controlled. The value 0 means transparent and 255 opaque.

Value 50:



Value 200:



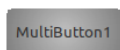
[FocusFrameWidth](#) determines the thickness of the frame.

If [FocusFrameOn](#) is set to false, the border is retained but the focus is not shown in colour.

With [ForegroundFocusOn](#), the focused MultiplexSlider has a coloured border. The colour of the border can be influenced with [FocusColor](#). This setting only makes sense if [FocusFrameOn](#) is set to false!

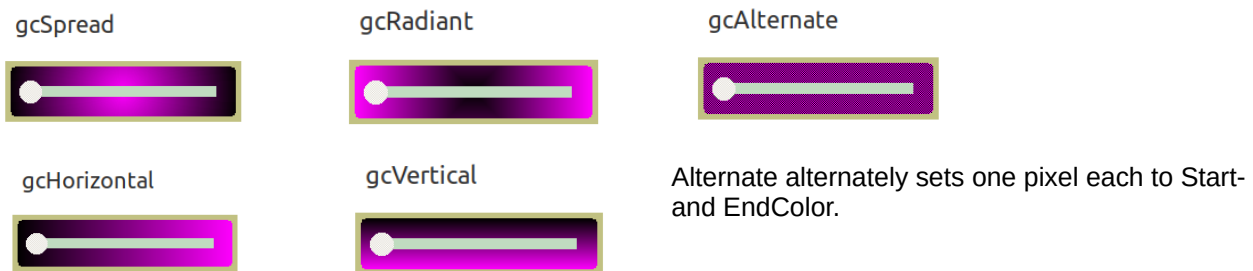


Here the red border shows that the slider has the focus.



To change the background colour of the MultiplexSlider you need the properties [ColorStart](#), [ColorEnd](#) and [ColorGradient](#). To get a single-coloured MultiplexSlider, ColorStart and ColorEnd must be the same. Otherwise, the composition of the three properties determines the colour appearance.

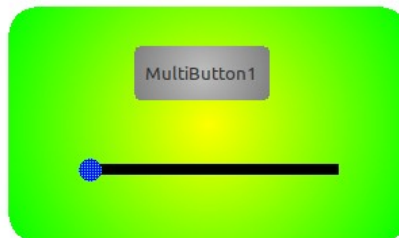
Here StartColor is clBlack and EndColor is clFuchsia.



Tip: If you set ColorStart and ColorEnd to clNone, the background gets the colour of the parent.



If the slider is sitting on a MultiPanel it takes on the colour of that panel (for clNone).



The [Style](#) property is used to set the desired geometric shape of the MultiplexSlider.

**mssRect**



If mssRoundRect is set, you can set the diameter of the corner rounding with the property [RndRectRadius](#).

**mssRoundRect**



**RndRectRadius :=10;**

**mssRoundRect**



**RndRectRadius := 40;**

If you want to add a coloured border to the MultiplexSlider, select the colour of the border in [BorderColor](#). No border is drawn with clNone. The width of the border is set with [BorderWidth](#).

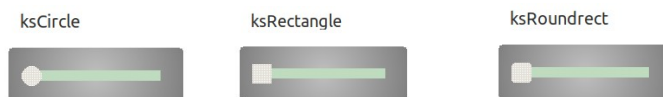


The properties of the knobs can be found under [Knob1Settings](#), [Knob2Settings](#) and [Knob3Settings](#).

While the first knob is visible by default, the second and third are invisible. [Knob1Settings.Visible](#), [Knob2Settings.Visible](#) and [Knob3Settings.Visible](#) are used to make the knobs visible or invisible.



The [Knob1Settings.KnobStyle](#), [Knob2Settings.KnobStyle](#) or [Knob3Settings.KnobStyle](#) property is used to set the desired geometric shape of the knob.



To change the background colour of the knob you need the properties

[Knob1Settings.KnobColorStart](#), [Knob2Settings.KnobColorStart](#) or [Knob3Settings.KnobColorStart](#)  
[Knob1Settings.KnobColorEnd](#), [Knob2Settings.KnobColorEnd](#) or [Knob3Settings.KnobColorEnd](#) und  
[Knob1Settings.ColorGradient](#), [Knob2Settings.ColorGradient](#) or [Knob3Settings.ColorGradient](#)

To get a unicoloured knob, ColorStart and ColorEnd must be the same. Otherwise, the composition of the three properties determines the colour appearance.

Here StartColor is clBlack and EndColor is clFuchsia.



Alternate alternately sets one pixel each to StartColor and EndColor.

By default, [Knob1Settings.HoverOn](#), [Knob2Settings.HoverOn](#) and [Knob3Settings.HoverOn](#) are set to true. This means that when a hover event occurs (the mouse moves over the knob) the appearance can be changed as desired with

[Knob1Settings.HoverStartColor](#), [Knob2Settings.HoverStartColor](#) or [Knob3Settings.HoverStartColor](#) and  
[Knob1Settings.HoverEndColor](#), [Knob2Settings.HoverEndColor](#) or [Knob3Settings.HoverEndColor](#).

If you do not want this, set HoverOn to false.

[Knob1-3Settings.HoverEndColor](#) : The end colour of a hover event.

[Knob1-3Settings.HoverOn](#) : Allows you to show or hide a hover event.

[Knob1-3Settings.HoverStartColor](#) : The start colour of a hover event.



Another possibility to add visual effects to the knobs are the properties [Knob1Settings.Design](#), [Knob2Settings.Design](#) or [Knob3Settings.Design](#) and [Knob1Settings.DesignColor](#), [Knob2Settings.DesignColor](#) or [Knob3Settings.DesignColor](#).

In the examples, DesignColor is cIYellow. DesignColor is not used for kdDefault.

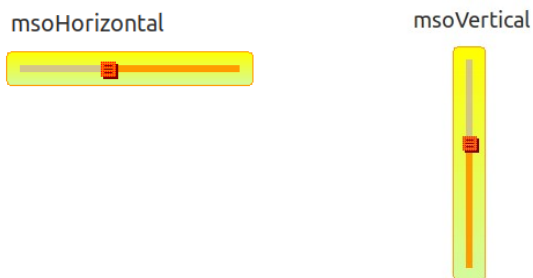


The [Knob1Settings.KnobPosition](#), [Knob2Settings.KnobPosition](#) or [Knob3Settings.KnobPosition](#) property can be used to set or query the position of the knob within the slider.



Example: `Knob1Settings.KnobPosition := 40;`  
`Label1.Caption := inttostr(Knob1Settings.KnobPosition);`

The orientation of the MultiplexSlider is achieved by means of [Orientation](#).

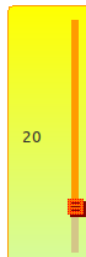
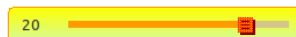


If the [Reversed](#) property is used, the max. value and the min. value are reversed.

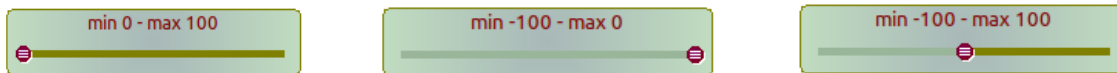
`Reversed := false;`



`Reversed := true;`



The property **Max** represents the highest value in the value range of the MultiplexSlider and **Min** the lowest. Here with knob position 0.



If you are not yet sure about the value range of the MultiplexSlider or if you need a dynamic value range, you can use the properties **AutoRangeNegative** or **AutoRangePositive** and **AutoRangeValue**.

For example, if you want the max. value to increase by 20 units when it is reached, set the following:

|                          |  |
|--------------------------|--|
| <b>AutoRangeNegative</b> | <input type="checkbox"/> (False)           |
| <b>AutoRangePositive</b> | <input checked="" type="checkbox"/> (True) |
| <b>AutoRangeValue</b>    | 20   |

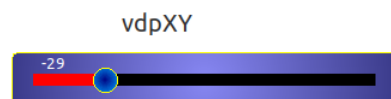
When the knob in the slider reaches the maximum value, it is increased by 20. If the knob reaches the max. value again, it is increased again. If the value falls below the original maximum value, the original value range is restored.

If you want to display the set value of the slider, you can use the properties of **ValueDisplaySettings**. To activate the display, a type other than **vdpNone** must be selected for **ValueDisplaySettings.Position**.



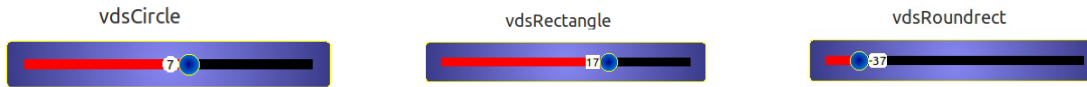
With the additional properties **ValueDisplaySettings.X** and **ValueDisplaySettings.Y**, the position of the display can be influenced for **vdpAboveRight**, **vdpBelowLeft**.

With **vdpXY**, the position of the display is freely selected in the slider with these properties.



If the display is to have a coloured background, this is realised with the properties [ValueDisplaySettings.Style](#), [ValueDisplaySettings.ColorStart](#), [ValueDisplaySettings.ColorEnd](#) and [ValueDisplaySettings.ColorGradient](#).

The shape of the background is set with [Style](#). If [vdsNone](#) is selected, no background is drawn.



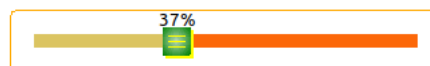
[ColorStart](#), [ColorEnd](#) and [ColorGradient](#) work in the same way as setting the background. See [31](#)

A coloured border around the display is created with [BorderColor](#) (cINone for invisible) and [Border.Width](#).



With [ValueDisplaySettings.Font](#), you can set all attributes of the font, such as colour and size, as usual.

If you need the value to be displayed as a percentage, you can simply set [ValueDisplaySettings.InPercent](#) to true.



All available properties of the track can be set in the [TrackSettings](#).



[TrackSettings.TrackColor](#) : The colour of the track  
[TrackSettings.SelRangeColor](#) : The colour of the selected area (cINone for invisible).

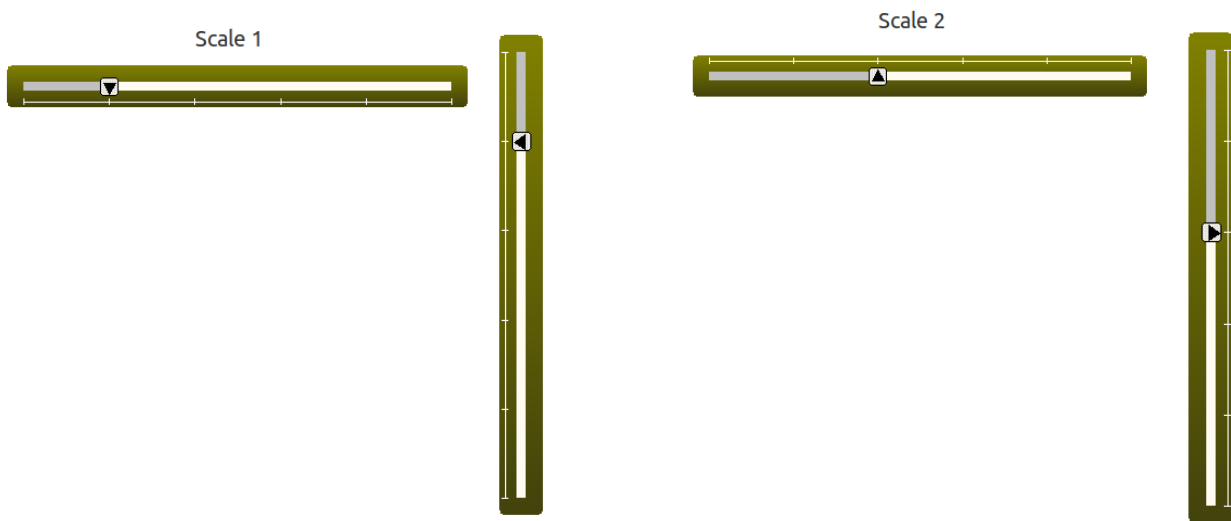
If you want to display an additional colour, you can do this by assigning a colour to the property [TrackSettings.ExtraColor](#) (cINone for invisible). With the properties [TrackSettings.ExtraRangeMax](#) and [TrackSettings.ExtraRangeMin](#) you determine the limits of this colour.



This slider has a value range of 0-100. [ExtraRangeMin](#) is set to 80 and [Max](#) to 100.

[ExtraColor](#) is cIRed.

The MultiplexSlider has two integrated scales. The settings for these can be found in the properties of [Scale1Settings](#) and [Scale2Settings](#). If you set [Scale1Settings.ScaleStyle](#) or [Scale2Settings.ScaleStyle](#) to `ssDash` or `ssCircle`, the respective scale becomes visible (`ssNone` makes it invisible).



[Scale1Settings.ScaleStyle](#) or [Scale2Settings.ScaleStyle](#):



[Scale1Settings.LineColor](#), [Scale2Settings.LineColor](#) : here `clRed`  
[Scale1Settings.LineWidth](#), [Scale2Settings.LineWidth](#) : The thickness of the lines of the scale, here 2  
[Scale1Settings.SmallMarkColor](#), [Scale2Settings.SmallMarkColor](#) : here `clLime`

With [Scale1Settings.SmallMarkInterval](#) or [Scale2Settings.SmallMarkInterval](#) the distance between the small marks can be set.



Value range here 0-100. Interval 10.

Thickness marks can also be displayed for better recognition. This is done with [Scale1Settings.BigMarksVisible](#) or [Scale2Settings.BigMarksVisible](#) (set to true).

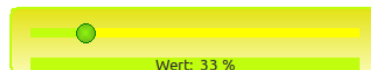
Here [Scale1Settings.BigMarkColor](#) or [Scale2Settings.BigMarkColor](#) `clYellow` and [Scale1Settings.BigMarkInterval](#) or [Scale2Settings.BigMarkInterval](#) 20.



If you want to use the built-in text label, you have to set the property [TextSettings.Position](#) under [TextSettings](#) to a value other than poNone (poNone makes invisible). If you set [TextSettings.AutoAd](#) to true, the value is automatically displayed in the text label. If you want to add more text to the label, you can do this with the properties [TextSettings.PreCaption](#) and [TextSettings.PostCaption](#). What is entered in PreCaption appears in front of the value, what is entered in PostCaption appears behind it.



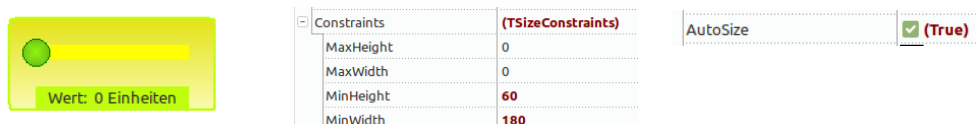
The [TextSettings.AdInPercent](#) property displays the value of the slider as a percentage.



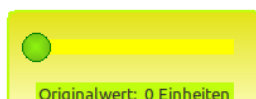
If the text label is too short, the width can be adjusted with [TextSettings.Width](#) (only effective with poLeft/poRight).

The same applies to the height, where [TextSettings.Height](#) must be used (only effective with poTop/poBottom).

The [AutoSize](#) property extends or shortens the entire slider to the necessary size of the text label. If the slider is shortened, the use of [Constraints](#) makes sense.



If the text in the text label is extended for any reason, the length is adjusted here:



The background of the text label can be set with the properties [TextSettings.BackgrdColor](#) (clNone for no colour), [TextSettings.BorderColor](#) (clNone for invisible), [TextSettings.BorderWidth](#) and [TextSettings.Style](#).

mssRect

Zoom: 32 %

mssRoundRect

Zoom: 44 %

|              |                     |
|--------------|---------------------|
| BackgrdColor | <div></div> clCream |
| BorderColor  | <div></div> clBlack |
| BorderWidth  | 1                   |

Zoom: 72 %

|              |                    |
|--------------|--------------------|
| BackgrdColor | <div></div> clNone |
| BorderColor  | <div></div> clNone |

The position of the text within the TextLabel is determined by the properties

- [TextSettings.CaptionAlignment](#) : Alignment of the text in the caption (left,centre,right)
- [TextSettings.CaptionHorMargin](#) : The horizontal spacing of the text in the text rectangle (only effective with taLeftJustify).
- [TextSettings.CaptionLayout](#) : Alignment of the text in the caption (Top,Middle,Bottom) [Text-](#)
- [Settings.CaptionVerMargin](#) : The vertical spacing of the text in the text rectangle (only effective with tlTop)

taLeftJustify

Zoom: 0 %

taCenter

Zoom: 0 %

taRightJustify

Zoom: 0 %

tlTop

27 %

tlCenter

47 %

tlCenter

21 %

If you want to write the text from bottom to top in a vertical slider and change the font, you can do this with [TextSettings.Font](#)

Zoom: 48 %

|                  |                                  |
|------------------|----------------------------------|
| CaptionAlignment | taLeftJustify                    |
| CaptionBelow     | <input type="checkbox"/> (False) |
| CaptionHorMargin | 4                                |

|             |                 |
|-------------|-----------------|
| Font        | (TFont)         |
| CharSet     | DEFAULT_CHARSET |
| Color       | clRed           |
| Height      | -15             |
| Name        | Ubuntu          |
| Orientation | 900             |

Zoom

0

%

If you want to display the letters below each other, you can use [TextSettings.CaptionBelow](#) (only active with poLeft and poRight).

# TMultiSeperator

## Properties

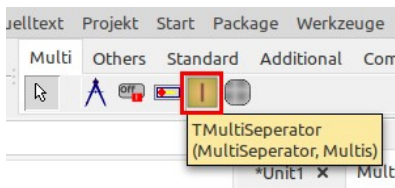
|                          |  |
|--------------------------|--|
| Action                   | : The Action associated with the control   |
| Align                    | : Specifies the placement of the control inside its Parent                       |
| Anchors                  | : The set of anchor definitions for this control                                 |
| BackgrdImage             | : Contains the image displayed in the control, only active with gcBitmap         |
| BorderColor              | : The color of the border, clNone makes invisible                                |
| BorderSpacing            | : Determines the inner and outer border spacing for this control                 |
| BorderWidth              | : The whidth of the border   |
| ColorEnd                 | : The end color of the background ( for color gradient),clNone makes unvisibel   |
| ColorGradient            | : The direction of the gradient  |
| ColorStart               | : The start color of the background ( for color gradient),clNone makes unvisibel |
| Constraints              | : The minimum and maximum Width and Height for the control                       |
| Cursor                   | : The shape of the mouse pointer, when the mouse is over this control            |
| Enabled                  | : Determines whether the control reacts on mouse or keyboard input               |
| Height                   | : The vertical size of the control   |
| HelpContext              | : The ID for context-sensitive Help on this control                              |
| HelpKeyword              | : The keyword for context-sensitive Help on this control                         |
| HelpType                 | : Determines whether context-sensitive Help is selected by numeric ID or keyword |
| Hint                     | : The text to show in the Hint window for the control                            |
| Left                     | : The client coordinate of the left edge of the control                          |
| LineSettings             | : The Settings of the line in the seperator                                      |
| LineSettings.Color       | : The color of the line  |
| LineSettings.Design      | : The number of lines  |
| LineSettings.EndCap      | : The shape of the line ends   |
| LineSettings.LinesLength | : The lenght of the lines at dash,dashdot ...                                    |
| LineSettings.LinesSpace  | : The lenght of the space at dash,dashdot ...                                    |
| LineSettings.Margin      | : The distance from the line to the border                                       |
| LineSettings.PenWidth    | : The width of the line  |
| LineSettings.Style       | : The style of the line, cpsNull makes invisible                                 |
| Orientation              | : The orientation of the seperator   |
| RndRctRadius             | : Corner diameter if the geometric shape is RoundRect                            |

|          |  |
|----------|--|
| ShowHint | : Enables the Hint display   |
| Style    | : The geometric shape of the separator                                   |
| Top      | : The client coordinate of the top edge of the control                   |
| Visible  | : Allows the control, and all of its children, to be displayed or hidden |
| Width    | : The horizontal extent of the control                                   |



## Description

You can find the MultiSeparator in the Multi tab:



The MultiSeparator is a component that is intended for visual design. It can also be used as a separator between other controls.

With the [Orientation](#) property, the position of the separator can be switched between horizontal and vertical.

mvpVertical



mvpHorizontal



To change the background colour of the MultiSeparator you need the properties [ColorStart](#), [ColorEnd](#) and [ColorGradient](#). To get a single-coloured MultiSeparator, ColorStart and ColorEnd must be the same. Otherwise, the composition of the three properties determines the colour appearance.

Here StartColor is clMaroon and EndColor is \$0000B5FF.

gcSpread



gcRadiant



gcAlternate



Alternate alternately sets one pixel each to Start- and EndColor.

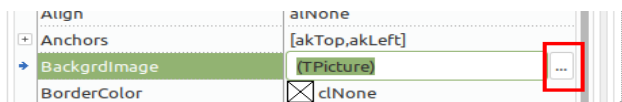
gcHorizontal



gcVertical



In order to be able to use the type `gcBitmap`, a bitmap with the property `BackgrdImage` must first be loaded. To do this, click in the box with the three dots at `BackgrdImage` in the OI.



The Load Image dialogue opens. Click on Load and select a bitmap (it also works with png). Finally, select `gcBitmap` under ColorGradient and the bitmap is used as the background.



The `Style` property is used to set the desired geometric shape of the `MultiSeperator`.



If `mspRoundRect` is set, you can set the diameter of the corner rounding with the property `RndRctRadius`.

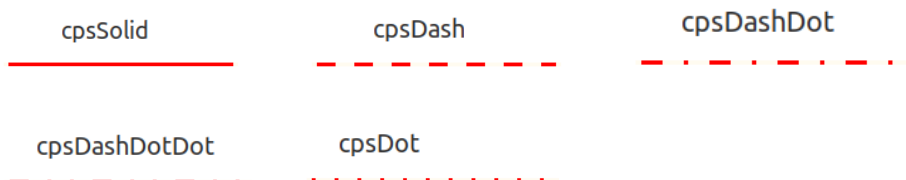
If `BorderColor` is set unequal to `clNone`, a border appears. Its thickness can be set with `BorderWidth`.



With the settings under `LineSettings`, a line can be drawn in the separator.



By setting a `LineSettings.Style` (`cpsNull` makes invisible) the line becomes visible.



With [LineSettings.Color](#) the colour of the line can be influenced. [LineSettings.PenWidth](#) sets the thickness of the line.



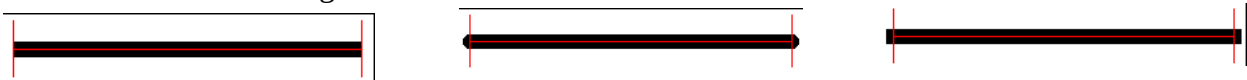
The length of the break between the lines can be set with [LineSettings.LinesSpace](#) and the length of the lines with [LineSettings.LinesLength](#).



With [LineSettings.EndCap](#) the end of the line can be adjusted:



For a better understanding of the line ends:



If you want to set the distance of the line left and right to the margin the same, this is done with [LineSettings.Margin](#).



With [LineSettings.Design](#) a double line can be created.



# TMultiLayer

## Properties

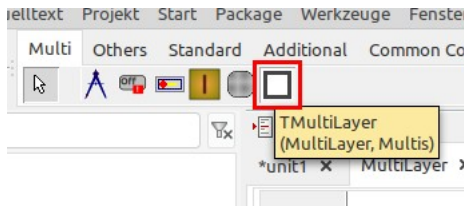
|                   |  |
|-------------------|--|
| Align             | : Specifies the placement of the control inside its Parent   |
| Anchors           | : The set of anchor definitions for this control   |
| BorderSpacing     | : Determines the inner and outer border spacing for this control                                     |
| Color             | : The background color of the control  |
| Constraints       | : The minimum and maximum Width and Height for the control   |
| Cursor            | : he shape of the mouse pointer, when the mouse is over this control                                 |
| <b>GroupIndex</b> | : The index of the group to which the MultiLayer belongs   |
| Height            | : The vertical size of the control   |
| HelpContext       | : The ID for context-sensitive Help on this control  |
| HelpKeyword       | : The keyword for context-sensitive Help on this control.  |
| HelpType          | : Determines whether context-sensitive Help is selected by numeric ID or keyword                     |
| Hint              | : The text to show in the Hint window for the control  |
| Left              | : The client coordinate of the left edge of the control  |
| Top               | : The client coordinate of the top edge of the control   |
| <b>Visible</b>    | : Allows the control, and all of its children, to be displayed or hidden, <b>also at design time</b> |
| Width             | : The horizontal extent of the control   |

## Public Procedures

procedure **InvalidateMultiPanel**;

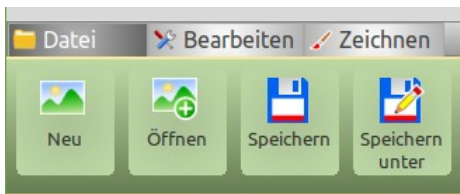
## Description

You will find the MultiLayer in the Multi tab:



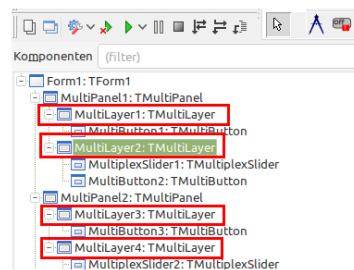
The MultiLayer is intended for simplified designing when clicking forms together. All child controls of TMultiLayer become invisible when TMultiLayer is set to **Visible** := false. If the MultiLayer sits on a MultiPanel, its colour gradient is assumed as background.

Tip: If you place a MultiLayer on top of a MultiLayer, the first TWinControl behind it is taken as the parent!



Here, a TMultiLayer sits on a MultiPanel for each tab. By switching **Visible** := true to false, each tab can be designed as desired at design time.

Another way to switch layers during design time is to **double-click** on the MultiLayer you want to make visible in the Object Inspector treeview.



If MultiLayers have the same parent but are to be switched independently of each other, the **GroupIndex** must be set to different values.

If the background of the MultiPanel or other MultiControls is not redrawn in any constellation, a redrawing can be triggered with **InvalidateMultiPanel**.

# TMultiRadioGroup

## Properties

|                  |   |
|------------------|---|
| Action           | : The Action associated with the control  |
| Align            | : Specifies the placement of the control inside its Parent                          |
| Anchors          | : The set of anchor definitions for this control                                    |
| AutoSize         | : Allows automatic adjustment of the size for the control, according to its content |
| BidiMode         | : Customization (of text controls) in bidirectional reading environments            |
| BorderSpacing    | : Determines the inner and outer border spacing for this control                    |
| Caption          | : The headline of the radio group   |
| ColorEnd         | : The end color of the RadioGroup ( for color gradient)                             |
| ColorGradient    | : The direction of the gradient   |
| ColorStart       | : The start color of the RadioGroup ( for color gradient)                           |
| Constraints      | : The minimum and maximum Width and Height for the control                          |
| Cursor           | : The shape of the mouse pointer, when the mouse is over this control               |
| DragCursor       | : The cursor shape shown while the control is dragged                               |
| DragKind         | : The operation when the control is dragged - Drag or Dock                          |
| DragMode         | : Allows the user to drag the control   |
| Enabled          | : Determines whether the control reacts on mouse or keyboard input                  |
| FocusAlphaBValue | : How translucent the focusframe is (0=transparent, 255=opaque)                     |
| FocusColor       | : The color of the Fokusframe/Foregroundfocus when the Control has the focus        |
| FocusFrameOn     | : Switches the focus frame on and off   |
| FocusFrameWidth  | : The whidth of the focus-frame   |
| Font             | : The font to be used for text display the caption                                  |
| GroupIndex       | : The Index within the group of MultiRadioGroups                                    |
| Height           | : The vertical size of the control  |
| HelpContext      | : The ID for context-sensitive Help on this control                                 |
| HelpKeyword      | : The keyword for context-sensitive Help on this control                            |
| HelpType         | : Determines whether context-sensitive Help is selected by numeric ID or keyword    |
| Hint             | : The text to show in the Hint window for the control                               |
| Left             | : The client coordinate of the left edge of the control                             |

|  |   |
|--|---|
| RadioButtons                               | : Opens the editor to add radio buttons   |
| RadioButtons.Items[Index].ButtonColor      | : The color of the radiobutton  |
| RadioButtons.Items[Index].ButtonSelColor   | : The color of the selected radiobutton   |
| RadioButtons.Items[Index].Caption          | : The text that the user writes in the radiobutton  |
| RadioButtons.Items[Index].CaptionAlignment | : Alignment of the text in the caption (left, center, right)                                    |
| RadioButtons.Items[Index].CaptionHorMargin | : The horizontal distance of the text in the text rectangle (only effective with taLeftJustify) |
| RadioButtons.Items[Index].CaptionLayout    | : Alignment of the text in the caption (top, center, bottom)                                    |
| RadioButtons.Items[Index].CaptionVerMargin | : The vertical distance of the text in the text rectangle (only effective with tlTop)           |
| RadioButtons.Items[Index].CaptionWordbreak | : Allows a line break in the caption  |
| RadioButtons.Items[Index].Color            | : The background colour of the RadioButton  |
| RadioButtons.Items[Index].DisplayName      | : The name that is displayed in the TreeView of the Object Inspector                            |
| RadioButtons.Items[Index].Enabled          | : Determines whether the control reacts on mouse or keyboard input                              |
| RadioButtons.Items[Index].Font             | : The font to be used for text display the caption  |
| RadioButtons.Items[Index].HoverColor       | : The color of a hover event  |
| RadioButtons.Items[Index].ImageIndex       | : The Index of a Image in a ImageList   |
| RadioButtons.Items[Index].ImageLeft        | : The coordinate of the left edge of a Image  |
| RadioButtons.Items[Index].Images           | : A list for including images   |
| RadioButtons.Items[Index].ImageTop         | : The coordinate of the top edge of a Image   |
| RadioButtons.Items[Index].ImageWidth       | : The unique width of all images in the list  |
| RadioButtons.Items[Index].ParentFont       | : Uses the font from the Parent when enabled  |
| RadioButtons.Items[Index].Selected         | : Determines if a radio button is selected  |
| RadioButtons.Items[Index].Tag              | : Can be used to store an integer value in the component  |
| RndRctRadius                               | : Corner diameter if the geometric shape is RoundRect   |
| Style                                      | : The geometric shape of the RadioGroup   |
| TabOrder                                   | : Determines the sequence of control navigation when the user presses the Tab key               |
| TabStop                                    | : Allows the user to navigate to this control, by pressing the Tab key                          |
| Tag  | : Can be used to store an integer value in the component  |
| Top  | : The client coordinate of the top edge of the control  |
| Visible                                    | : Allows the control, and all of its children, to be displayed or hidden                        |

Width : The horizontal extent of the control