# **The Package Multis**



This text was translated with Deepl and my poor school English.

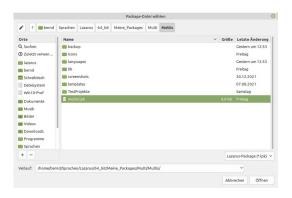
See also <a href="https://www.lazarusforum.de/viewtopic.php?f=29&t=14033">https://www.lazarusforum.de/viewtopic.php?f=29&t=14033</a> or the demo projects in the package.

# Installation

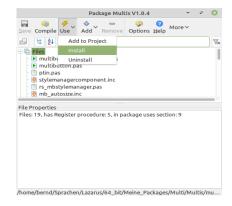
The package is located in the following Github account: <a href="https://github.com/wennerer/Multis">https://github.com/wennerer/Multis</a>
After the package has been cloned or downloaded, it can be installed in Lazarus. To do this, open Lazarus and click on Open Package File (.lpk)... under Package.



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



#### The following window will open:



Click on Use and then Install.

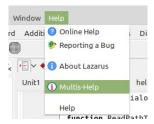
# Confirm this dialogue with Yes:



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 streched Panel

DropDownMe nu.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** 

On Change Bounds : 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

On Visible : Is triggered when the panel becomes visible for the first time

### 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);

 $procedure\ Notification (A Component:\ TComponent;\ Operation:\ TOperation);\ override;$ 

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

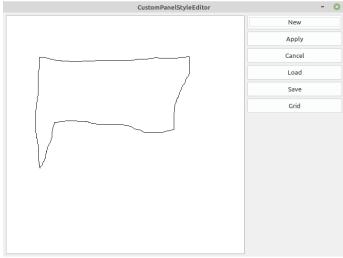
#### mpsCustom:



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:



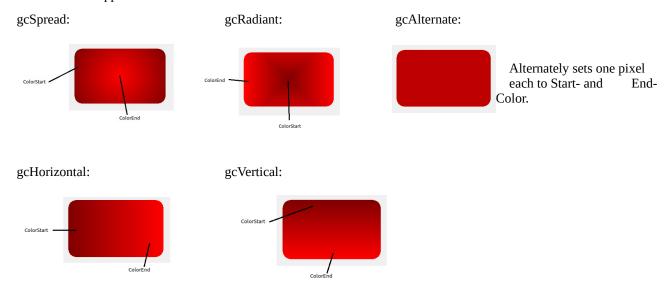
If you now click on New, you can simply draw the shape of the MultiPanel with the mouse.If you click on Use, the MultiPanel shape is ad-

opted. With Discard the MultiPanel shape is accepted and the editor is closed. With Save can save a drawn shape and with Load you get it again. Grid displays an auxiliary grid may help you when drawing.

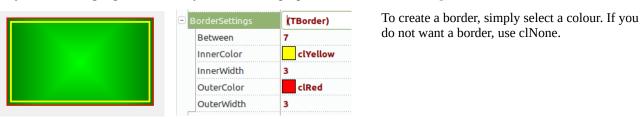
Remember it must be set to mp-sCustom!

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.



If you want to highlight the border, you can use the properties of the BorderSettings.



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.

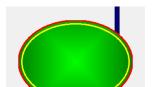
The default value is 0.05. The smaller the value, the slower the animation. With a value of 0.001 it is already very slow.

Example code:

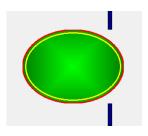
MultiPanel1.AnimationSpeed:= 0.001;

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 exam ple, the drawn line is not scaled correctly here.

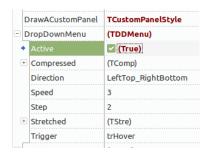
If the parent has a colour gradient, it is possible to compensate for the scaling problem by calling the procedure InvalidateBackground.

#### 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.



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 re commended to place the desired child controls (buttons etc.) in this state. The direction in which the MultiPanel unfolds is determined by the property DropDownMenu.

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 <code>DropDownMenu.Speed</code> and <code>DropDownMenu.Step</code>. 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 : Switches the focus frame on and off

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, switches on off

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.BorderWith : 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.PresdColBlendVal : How translucent the pressedcolor is (0=transparent, 255=opaque)

MessageButton.Pres sedColor : 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

ShowTurnedOn : Makes a visible MessageButton coloured when the button is Down

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);

#### **Public Variables**

MouseButton : can be used in OnClick to determine with which mouse button the MultiButton

was clicked.

**Events** 

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

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.

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If FocusFrameOn is set to false, the border is retained but the focus is not shown in colour.

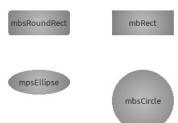
With ForegroundFocusOn, the focused MultiButton has a dotted rectangle. The colour of the rectangle can be influenced with FocusColor. It can be useful here to set FocusFrameWidth to 0 and FocusFrameOn to false so that the corners are not visible!





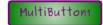
The Style property is used to set the desired geometric shape of the MultiButton.

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.



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

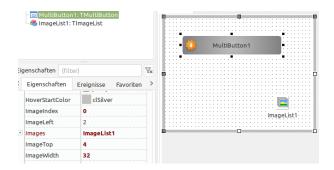
Enable

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: <a href="https://www.lazarusforum.de/viewtopic.php?f=18&t=13170">https://www.lazarusforum.de/viewtopic.php?f=18&t=13170</a>



With Images you enter the image list on the form. With ImageIndex you can select the desired image from the Image-List, where -1 means no image. With ImageLeft and ImageTop you determine the position of the image. With Image-Width 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 you want to have an additional feature that the button is in the down position, you can make a Message-Button visible and set the property ShowTurnedOn to true. The MessageButton then gets the colour in down position that is defined under MessageButton.PressedColor.



See also GroupIndex

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.



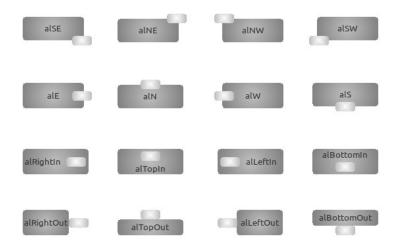
If you want to make the pressed button visually clearer, you can still use the property ShowMsgButtonIn-Group. The last pressed button gets a MessageButton.



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 alSE,alSW,alNW,alNE,alW,alE,alN,alS,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:



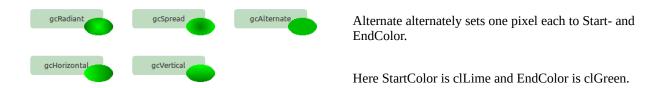
To get around this there is the property MessageButton.CalculateAlthoughInvisible. If you set this property to true for No. 2, it looks like this:



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.Border-With.



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.



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.Pressed is true, the colour set in MessageButton.P

If you want to determine in the OnClick with which mouse button the event was triggered, you can do this with the public variable MouseButton. The value in MouseButton is retained until it is overwritten again in the MouseDown procedure of the component.

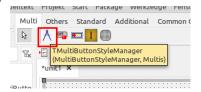
# Example:

```
procedure TForm1.MultiButton1Click(Sender: TObject);
begin
if MultiButton1.MouseButton = mbLeft then showmessage('Left');
if MultiButton1.MouseButton = mbRight then showmessage('Right');
if MultiButton1.MouseButton = mbMiddle then showmessage('Middle');
end;
```

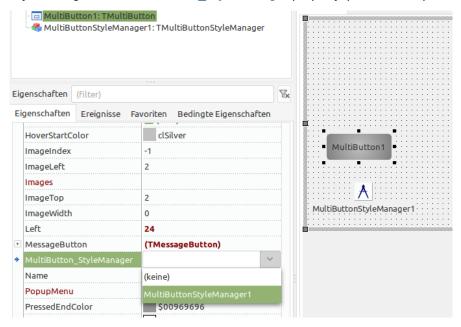
# **TMultiButtonStyleManager**

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 MultiButtonStylmanager 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!

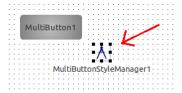
# Attention! If you try to change a property of a connected MultiButton in the OI tab of the button (not the manager), this will fail!

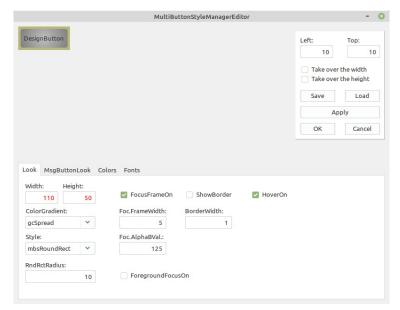
For me, the procedure that has turned out to be good is that I first set all the desired properties of the MultiButtons with the Stylmanager and then remove the connection again. But that is certainly a matter of taste.

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

MultiButtonStyleManager 1. Color Start := clLime;

MultiButtonStyleManager1.ColorEnd := clRed;

for lv := 0 to pred(ComponentCount) do

if (Components[lv] is TMultiButton) then

 $if \ TMultiButton (Components[lv]). MultiButton\_StyleManager = MultiButtonStyleManager 1 \ then the style of the style o$ 

TMultiButton (Components[lv]). SetStyleManager (MultiButtonStylemanager 1);

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 unvisible)

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 : Switches the focus frame on and off

FocusFrameWidth : The whidth of the focus-frame

ForegroundFocusOn : Indicates when the slider has focus, switches on off

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

JumpToPosition : If active, the button jumps to position when clicked in the track

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

Knob1Settings.HoverOn : Allows to show or hide a hoverevent

Knob1Settings.HoverStartColor : The startcolor of a hoverevent

Knob1Settings.KnobColorEnd : The end color of the knob (for color gradient)

Knob1Settings.KnobColorStart : The start color of the knob ( for color gradient)

Knob1Settings.KnobPosition : The Position of the Knob in the Slider

Knob1Settings.KnobStyle : The shape of the knob

Knob1Settings. Visible : Shows the Knob

Knob2Settings : The properties of the Knobs

Knob2Settings.ColorGradient : The direction of the gradient

Knob2Settings.Design : The appearance of the knob

Knob2Settings.DesignColor : The color of the border or characters in the knob

Knob2Settings.HoverEndColor : The endcolor of a hoverevent

Knob2Settings.HoverOn : Allows to show or hide a hoverevent

Knob2Settings.HoverStartColor : The startcolor of a hoverevent

Knob2Settings.KnobColorEnd : The end color of the knob ( for color gradient)

Knob2Settings.KnobColorStart : The start color of the knob ( for color gradient)

Knob2Settings.KnobPosition : The Position of the Knob in the Slider

Knob2Settings.KnobStyle : The shape of the knob

Knob2Settings. Visible : Shows the Knob

Knob3Settings : The properties of the Knobs

Knob3Settings.ColorGradient : The direction of the gradient

Knob3Settings.Design : The appearance of the knob

Knob3Settings.DesignColor : The color of the border or characters in the knob

Knob3Settings.HoverEndColor : The endcolor of a hoverevent

Knob3Settings.HoverOn : Allows to show or hide a hoverevent

Knob3Settings.HoverStartColor : The startcolor of a hoverevent

Knob3Settings.KnobColorEnd : The end color of the knob (for color gradient)

Knob3Settings.KnobColorStart : The start color of the knob ( for color gradient)

Knob3Settings.KnobPosition : The Position of the Knob in the Slider

Knob3Settings.KnobStyle : The shape of the knob

Knob3Settings. Visible : Shows the Knob

Left : The client coordinate of the left edge of the control

Max: The highest value in rangeMin: The lowest value in range

Orientation : The orientation of the Slider

PopupMenu : A context-sensitive menu that pops up when the right mouse button is

clicked

Reversed : Max and min are swapped

RndRctRadius : Corner diameter if the geometric shape is RoundRect

Scale1Settings : The properties of the first scale

Scale1Settings.BigMarkColor : The color of the big marks

Scale1Settings.BigMarkInterval : The distance of the big marks

Scale1Settings.BigMarksVisible : Shows big marks

Scale1Settings.LineColor : The color of the lines in the scale

Scale1Settings.LineWidth : The whidth of the scalelines

Scale1Settings.ScaleStyle : The appearance of the markings (ssNone makes unvisible)

Scale1Settings.SmallMarkColor : The color of the Marks in the scale

Scale1Settings.SmallMarkInterval: The distance of marks in the scale

Scale2Settings : The properties of the second scale

Scale2Settings.BigMarkColor : The color of the big marks

Scale2Settings.BigMarkInterval : The distance of the big marks

Scale2Settings.BigMarksVisible : Shows big marks

Scale2Settings.LineColor : The color of the lines in the scale

Scale2Settings.LineWidth : The whidth of the scalelines

Scale2Settings.ScaleStyle : The appearance of the markings (ssNone makes unvisible)

Scale2Settings.SmallMarkColor : The color of the Marks in the scale

Scale2Settings.SmallMarkInterval: The distance of marks in the scale

ShowHint : Enables the Hint display

Style : The geometric shape of the slider

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

TextSettings : The properties of the textlabel

TextSettings.AdInPercent : Shows the value of the slider in the textLabel in percent

TextSettings.AutoAd : Shows the value of the slider in the TextLabel

TextSettings.BackgrdColor : The backgroundcolor of the textlabel (clNone for no color)

TextSettings.BorderColor : The color of the border (clNone for unvisible)

TextSettings.BorderWidth : The width of the border

TextSettings.CaptionAlignment : Alignment of the text in the caption (left, center, right)

TextSettings.CaptionBelow : Write the letters one below the other (only active poLeft and poRight)

TextSettings.CaptionHorMargin : The horizontal distance of the text in the text rectangle (only effective

with taLeftJustify)

TextSettings.CaptionLayout : Alignment of the text in the caption (top, center, bottom)

TextSettings.CaptionVerMargin : The vertical distance of the text in the text rectangle (only effective with

tlTop)

TextSettings.Font : The font to be used for textlabel

TextSettings.Height : The height of the TextLabel (only effectiv with poTop/poBottom)

TextSettings.Position : The position of the textlabel (poNone makes unvisible)

TextSettings.PostCaption : The text behind the value in the textlabel

TextSettings.PreCaption : The text in front of the value in the textlabel

TextSettings.Style : The geometric shape of the textlabel

TextSettings.Width : The width of the TextLabel (only effectiv with poLeft/poRight)

Top : The client coordinate of the top edge of the control

TrackSettings : The properties of the track

TrackSettings.ExtraColor : The color of the additional color (clNone for unvisible)

TrackSettings.ExtraRangeMax : The max Value of the additional color

TrackSettings.ExtraRangeMin : The min Value of the additional color

TrackSettings.SelRangeColor : The color of the selected area (clNone for unvisible)

TrackSettings.TrackColor : The color of the track

ValueDisplaySettings : The properties of the ValueDisplay

ValueDisplaySettings.BorderColor: The color of the border (clNone for unvisible)

ValueDisplaySettings.BorderWidth: The width of the border

ValueDisplaySettings.ColorEnd : The end color of the display ( for color gradient)

ValueDisplaySettings.ColorGradient : The direction of the gradient

ValueDisplaySettings.ColorStart : The start color of the display ( for color gradient)

ValueDisplaySettings.Font : The font to be used for display

ValueDisplaySettings.InPercent : Shows the value in percent

ValueDisplaySettings.Position : The position of the display in the slider, vdsNone makes unvisible

ValueDisplaySettings.Style : The geometric shape of the display, vdsNone makes no shape

ValueDisplaySettings.X : affects the position, only to be used with

vdpXY,vdpAboveRight,vdpBelowLeft

ValueDisplaySettings.Y : affects the position, only to be used with

vdpXY,vdpAboveRight,vdpBelowLeft

Visible : Allows the control, and all of its children, to be displayed or hidden

Width : 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

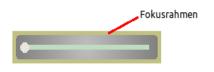
# **Description**

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 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!



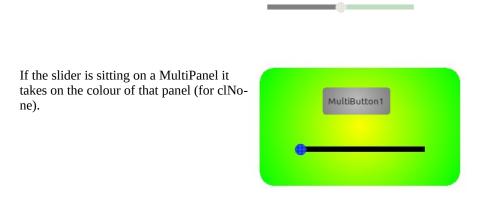
Here the red border shows that the slider has the focus.

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.



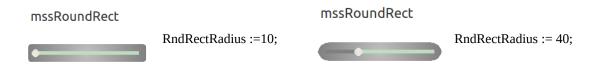
Tip: If you set ColorStart and ColorEnd to clNone, the background gets the colour of the parent.



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



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



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.

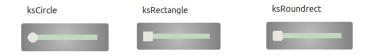


The properties of the knobs can be found under Knob1Settings, Knob2Settings and Knob3Settings.

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.

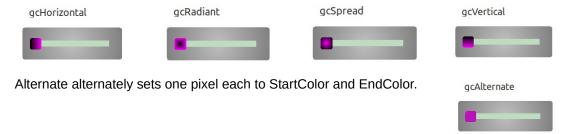


To change the background colour of the knob you need the properties

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.



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. Hover End Color: 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.

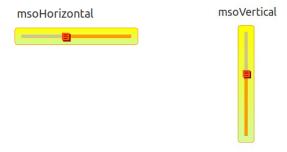
In the examples, DesignColor is clYellow. DesignColor is not used for kdDefault.



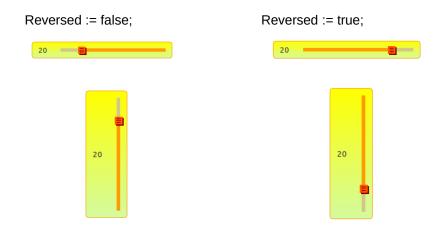
The Knob1Settings.KnobPosition, Knob2Settings.KnobPosition or Knob3Settings.KnobPosition property can be used to set or query the position of the knob within the slider.



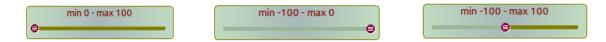
The orientation of the MultiplexSlider is achieved by means of Orientation.



If the Reversed property is used, the max. value and the min. value are reversed.

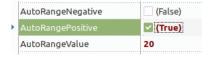


The property Max represents the highest value in the value range of the MultiplexSlider and Min the lowest. Here with knob position 0.



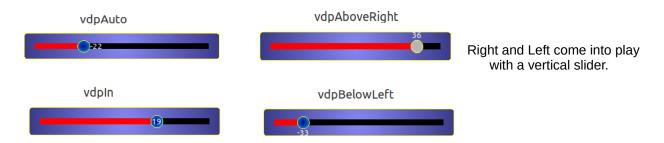
If you are not yet sure about the value range of the MultiplexSlider or if you need a dynamic value range, you can use the properties AutoRangeNegative or AutoRangePositive and AutoRangeValue.

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



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 (clNone for invisible) and Border. Width.

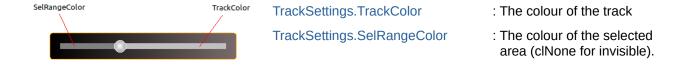


With ValueDisplaySettings.Font, you can set all attributes of the font, such as colour and size, as usual.

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.



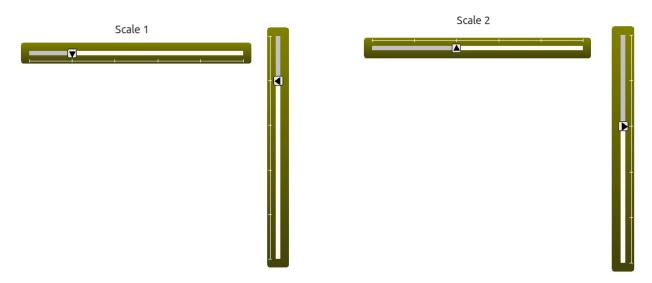
If you want to display an additional colour, you can do this by assigning a colour to the property TrackSettings.ExtraColor (clNone for invisible). With the properties TrackSettings.ExtraRangeMax and TrackSettings.ExtraRangeMin you determine the limits of this colour.



This slider has a value range of 0-100. ExtraRangeMin is set to 80 and Max to 100.

ExtraColor is clRed.

The MultiplexSlider has two integrated scales. The settings for these can be found in the properties of Scale1Settings and Scale2Settings. If you set Scale1Settings. Scale5tyle or Scale2Settings. Scale5tyle to ss-Dash 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

 $Scale 1 Settings. Small Mark Color, Scale 2 Settings. Small Mark Color: here \ cl Lime$ 

With Scale1Settings.SmallMarkInterval or Scale2Settings.SmallMarkInterval the distance between the small marks can be set.



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

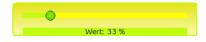
Here Scale1Settings.BigMarkColor or Scale2Settings.BigMarkColor clYellow and Scale1Settings.BigMarkInterval or Scale2Settings.BigMarkInterval 20.



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).

🗹 (True)

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.

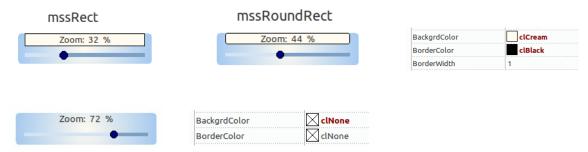




If the text in the text label is extended for any reason, the length is adjusted here:



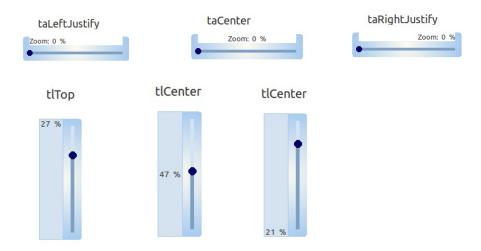
The background of the text label can be set with the properties TextSettings.BackgrdColor (clNone for no colour), TextSettings.BorderColor (clNone for invisible), TextSettings.BorderWidth and TextSettings.Style.



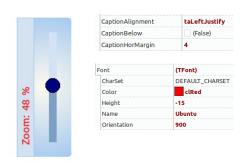
The position of the text within the TextLabel is determined by the properties

TextSettings.CaptionAlignment TextSettings.CaptionHorMargin

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

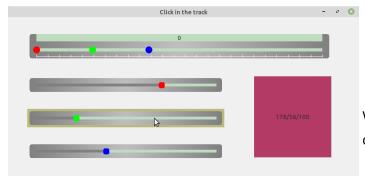


If you want to write the text from bottom to top in a vertical slider and change the font, you can do this with TextSettings.Font



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

If the JumpToPosition property is true, the knob jumps to this position when you click in the track. If two or three buttons are visible, the last button moved jumps.



When clicked here, the knob jumps to the position of the mouse pointer.

# **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 unvisible

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 unvisible

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 seperator

Top : The client coordinate of the top edge of the control

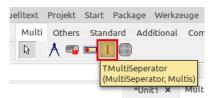
Visible : Allows the control, and all of its children, to be displayed or

hidden

Width : The horizontal extent of the control

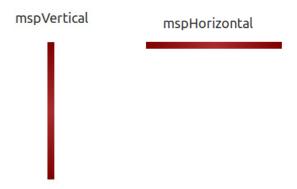
### **Description**

You can find the MultiSeperator in the Multi tab:



The MultiSeperator 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.



To change the background colour of the MultiSeperator you need the properties ColorStart, ColorEnd and ColorGradient. To get a single-coloured MultiSeperator, 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.



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.

mspRect mspRoundRect

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.

cpsSolid cpsDash cpsDashDot
cpsDashDotDot cpsDot

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:  cepENDCAP_FLAT  cepENDCAP_ROUND  cepENDCAP_SQUARE
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.
<del></del>
With LineSettings.Design a double line can be created.
ldSingle ldDouble

## **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

GroupIndex : 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

Visible : Allows the control, and all of its children, to be displayed or hidden,

also at design time

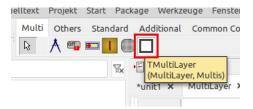
Width : The horizontal extent of the control

#### **Public Procedures**

procedure InvalidateMultiPanel;

## **Description**

You will find the MultiLayer in the Multi tab:



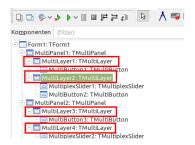
The MultiLayer is intended for simplified designing when clicking forms together. All child controls of TMulti-Layer become invisible when TMultiLayer is set to Visible := false. If the MultiLayer sits on a MultiPanel, its colour gradient is assumed as background.

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

ForegroundFocusOn : Indicates when the slider has focus, switches on off

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.Item[Index].ButtonColor : The color of the radiobutton

RadioButtons.Item[Index].ButtonSelColor : The color of the selected radiobutton

RadioButtons.Item[Index].Caption : The text that the user writes in the radiobutton

RadioButtons.Item[Index].CaptionAlignment: Alignment of the text in the caption (left, center, right)

RadioButtons.Item[Index].CaptionHorMargin: The horizontal distance of the text in the text rectangle (only

effective with taLeftJustify)

RadioButtons.Item[Index].CaptionLayout : Alignment of the text in the caption (top, center, bottom)

RadioButtons.Item[Index].CaptionVerMargin: The vertical distance of the text in the text rectangle (only

effective with tlTop)

RadioButtons.Item[Index].CaptionWordbreak: Allows a line break in the caption

RadioButtons.ltem[Index].Color : The background colour of the RadioButton

RadioButtons.Items[Index].DisplayName : The name that is displayed in the TreeView of the ObjectInspector

RadioButtons.ltems[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.Item[Index].HoverColor : The color of a hoverevent

RadioButtons.Item[Index].HoverStyle : Whether a hover event is drawn as a frame only or full-surface

RadioButtons.Item[Index].ImageIndex : The Index of a Image in a ImageList

RadioButtons.Item[Index].ImageLeft : The coordinate of the left edge of a Image

RadioButtons.Item[Index].Images : A list for including images

RadioButtons.Item[Index].ImageTop : The coordinate of the top edge of a Image

RadioButtons.Items[Index].ImageWidth : The unique width of all images in the list

 ${\tt RadioButtons.Items[Index].ParentFont} \qquad : \ {\tt Uses \ the \ font \ from \ the \ Parent \ when \ enabled}$ 

RadioButtons.Item[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

Rows : Number of lines when Wordbreak is active

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

#### **Events**

OnChange : Returns the Index of the RadioButtton
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

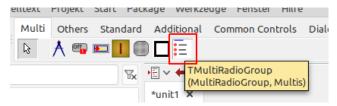
OnMouseEnter : Event handler for mouse entering the area of the control
OnMouseLeave : Event handler for mouse leaving the area of the control
OnMouseMove : Event handler for mouse movement within the control

OnMouseUp : Event handler for mouse button going up

OnStartDrag : Event handler for the start of a dragging operation

### Description

The MultiRadioGroup can be found in the Multi tab:

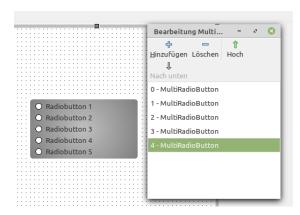


If you set the MultiRadioGroup to the form, it has only one RadioButton.



This one radio button cannot be deleted either!

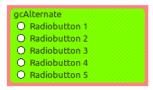
To add more radio buttons, click on RadioButtons in the Object Inspector. Now an editor opens in which further radio buttons can be created.



In the TreeView of the Object Inspector, you can now see the individual MultiRadioButtons under the Multi-RadioGroup.



It is important to know that the MultiRadioGroup is surrounded by a focus frame. As you can see here, the focused MultiRadioGroup has a red frame. This means that the actual RadioGroup is smaller by 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.

Value 50:

Value 200:

Gadiobutton 1

Radiobutton 2

Radiobutton 3

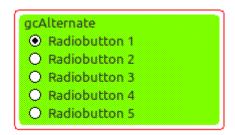
Radiobutton 4

Radiobutton 4

Radiobutton 5

If FocusFrameOn is set to false, the border is retained but the focus is not displayed in colour.

With ForegroundFocusOn the focused MultiRadioGroup has a border. The colour of the border can be influenced with FocusColor. With FocusFrameWidth the distance to the actual RadioGroup can be set. It can be useful to set FocusFrameOn to false.

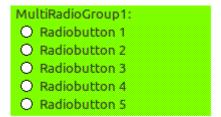


The Style property is used to set the desired geometric shape of the MultiRadioGroup.



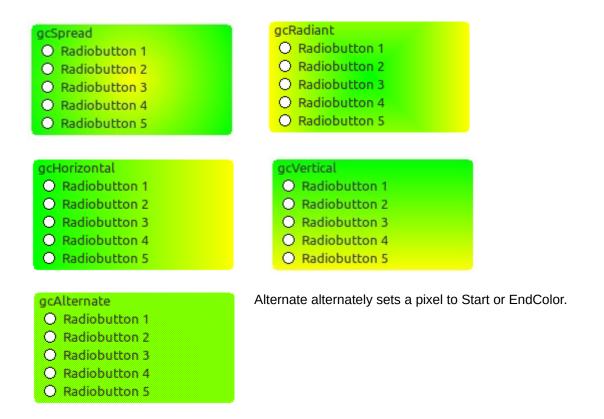
If mssRoundRect is set, you can set the diameter of the corner rounding with the property RndRctRadius.

With Caption you can add a heading to the MultiRadioGroup.



The background can be influenced with the properties ColorStart, ColorEnd and ColorGradient.

Here ColorStart is clLime and ColorEnd is clYellow:



If you set either ColorStart or ColorEnd to clNone, the background becomes transparent.

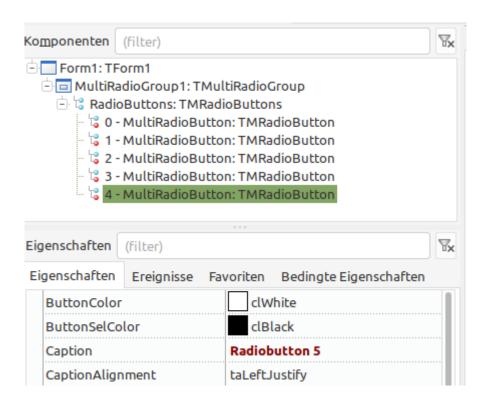


If the property GroupIndex is given a value other than 0, several MultiRadioGroups that are located on the same parent and have the same index can be connected together.



This allows any arrangement to be realised. You can navigate with the arrow keys, select with the space bar.

The settings for the individual MultiRadioButtons can be made separately for each button. The only exception is the font size. If this is changed for one button, it affects all other radio buttons. To easily access the view of the radio buttons, the component tree should be visible in the object inspector. If it is invisible, click with the right mouse button in the OI and tick Show component tree. Now you can simply select the individual MultiRadioButtons.



With the RadioButtons.Items[Index].Font settings (except the font size), different settings can be made for all buttons.



The RadioButtons.Item[Index].ButtonColor property is used to fill the background of the RadioButton.



Here Orange.

RadioButtons.Item[Index].Selected determines whether a RadioButton is selected. With RadioButtons.Item[Index].ButtonSelColor the colour of the selection can be determined.



Here Yellow.

With the property RadioButtons.Item[Index].Caption the text behind the RadioButton can be set. With RadioButtons.Item[Index].CaptionAlignment, RadioButtons.Item[Index].CaptionHorMargin the horizontal alignment of the text can be influenced.



With RadioButtons.Item[Index].CaptionLayout and RadioButtons.Item[Index].CaptionVerMargin the text can be aligned vertically.

With RadioButtons.Item[Index].CaptionWordbreak the text is wrapped if necessary.



However, the number of rows required must be specified with Rows.

RadioButtons.Item[Index].Color sets the background of the RadioButton, clNone makes it transparent.



RadioButtons.Item[Index].HoverColor changes the colour of the background of the RadioButton when you move the mouse over it, clNone makes it transparent.



RadioButtons.Item[Index].HoverStyle can be used to select whether the hover event is to be fully filled or only displayed as a frame.



Images can also be inserted with the help of an image list. To do this, select the ImageList at RadioButtons.Item[Index].Images. Select the desired image at RadioButtons.Item[Index].ImageIndex and determine the position of the image with RadioButtons.Item[Index].ImageLeft and RadioButtons.Item[Index].ImageTop.



# **TMultiCheckGroup**

### **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 checkgroup

Checkboxes : Opens the editor to add Checkboxes

CheckBoxes.Item[Index].ButtonColor : The color of the checkbox

CheckBoxes.Item[Index].ButtonSelBackColor : The backgroundcolor in the selected CheckBox

CheckBoxes.Item[Index].ButtonSelColor : The color of the selected checkbox

CheckBoxes.Item[Index].Caption : The text that the user writes in the checkbox

CheckBoxes.Item[Index].CaptionAlignment: Alignment of the text in the caption (left, center, right)

CheckBoxes.Item[Index].CaptionHorMargin: The horizontal distance of the text in the text rectangle (only

effective with taLeftJustify)

CheckBoxes.Item[Index].CaptionLayout : Alignment of the text in the caption (top, center, bottom)

CheckBoxes.Item[Index].CaptionVerMargin: The vertical distance of the text in the text rectangle (only

effective with tlTop)

CheckBoxes.Item[Index].CaptionWordbreak: Allows a line break in the caption

CheckBoxes.Item[Index].Color : The background colour of the checkbox

Checkboxes.Items[Index].DisplayName : The name that is displayed in the TreeView of the ObjectInspector

CheckBoxes.Item[Index].Enabled: Determines whether the control reacts on mouse or keyboard input

CheckBoxes.Items[Index].Font : The font to be used for text display the caption

CheckBoxes.Item[Index].HoverColor : The color of a hoverevent

CheckBoxes.Item[Index].HoverStyle : Whether a hover event is drawn as a frame only or full-surface

CheckBoxes.Item[Index].ImageIndex : The Index of a Image in a ImageList

CheckBoxes.Item[Index].ImageLeft : The coordinate of the left edge of a Image

CheckBoxes.Item[Index].Images : A list for including images

CheckBoxes.Item[Index].ImageTop : The coordinate of the top edge of a Image

CheckBoxes.Item[Index].ImageWidth : The unique width of all images in the list

Checkboxes.Items[Index].ParentFont : Uses the font from the Parent when enabled

CheckBoxes.Item[Index].Selected: Determines if a checkbox is selected

CheckBoxes.Item[Index].SelectedStyle : The character that is displayed in a selected box

Checkboxes.Items[Index].Tag : Can be used to store an integer value in the component

ColorEnd : The end color of the checkGroup ( for color gradient)

ColorGradient : The direction of the gradient

ColorStart : The start color of the checkGroup ( 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

ForegroundFocusOn : Indicates when the slider has focus, switches on off

GroupIndex : The Index within the group of MultiCheckGroups

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

RndRctRadius : Corner diameter if the geometric shape is RoundRect

Rows : Number of lines when Wordbreak is active

Style : The geometric shape of the CheckGroup

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

#### **Events**

OnChange : Returns the Index of the checkbox
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

OnStartDrag : Event handler for the start of a dragging operation

### Description

You can find the MultiCheckGroup in the Multi tab:

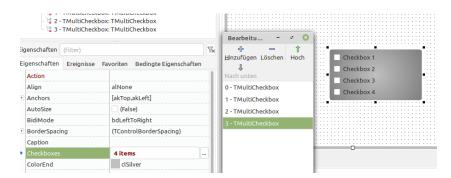


If you set the MultiCheckGroup to the form, it has only one CheckBox.

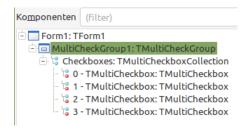


This one CheckBox cannot be deleted either!

To add more CheckBoxes, click on Checkboxes in the Object Inspector. Now an editor opens in which further CheckBoxes can be created.



In the tree view of the Object Inspector, the individual MultiCheckBoxes can now be seen under the group MultiCheckGroup.



It is important to know that the MultiCheckGroup is surrounded by a focus frame. As you can see here, the focused MultiCheckGroup has a light blue frame. This means that the actual CheckGroup is smaller by the frame.

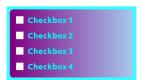


The FocusColor property can be used to set the colour of the focus frame. With FocusAlphaBValue the transparency of the focus frame can be controlled. The value 0 means transparent and 255 opaque. FocusFrameWidth determines the thickness of the frame.

Value 50:

Value 200:



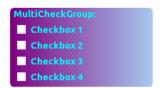


If FocusFrameOn is set to false, the border is retained but the focus is not displayed in colour.

With ForegroundFocusOn the focused MultiCheckGroup has a border. The colour of the border can be influenced with FocusColor. With FocusFrameWidth the distance to the actual CheckGroup can be set. It can be useful to set FocusFrameOn to false.

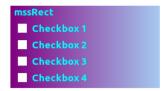


With Caption you can add a heading to the MultiCheckGroup.



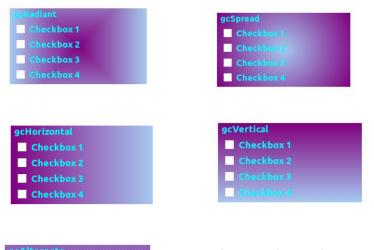
The Style property is used to set the desired geometric shape of the MultiCheckGroup.





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

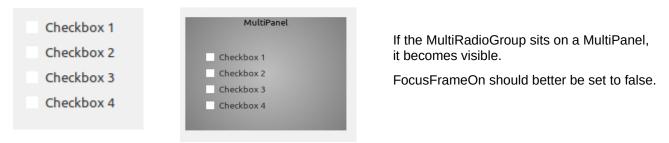
The background can be influenced with the properties ColorStart, ColorEnd and ColorGradient. Here ColorStart is clPurple and ColorEnd is clSkyBlue:



Checkbox 1
Checkbox 2

Alternate alternately sets a pixel to Start or EndColor.

If you set either ColorStart or ColorEnd to clNone, the background becomes transparent.

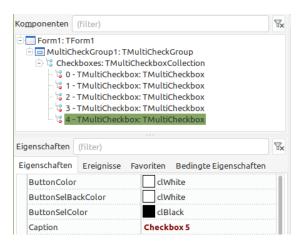


If the property GroupIndex is given a value other than 0, several MultiCheckGroups that are located on the same parent and have the same index can be connected together.



This allows any arrangement to be realised. You can navigate with the arrow keys and select with the space bar.

The settings for the individual MultiCheckBoxes can be made separately for each checkbox. The only exception is the font size. If this is changed for one checkbox, it affects all other checkboxes. To easily access the view of the checkboxes, the component tree should be visible in the object inspector. If it is invisible, click with the right mouse button in the OI and tick Show component tree. Now you can simply select the individual checkboxes.



With the CheckBoxes.Items[Index].Font settings (except the font size) different settings can be made for all buttons.



The property CheckBoxes.Item[Index].ButtonColor is used to fill the background of the CheckBox.



Here clLime.

CheckBoxes.Item[Index].Selected determines whether a CheckBox is selected. With CheckBoxes.Item[Index].ButtonSelColor the colour of the selection can be determined and with CheckBoxes.Item[Index].ButtonSelBackColor the background of a selected CheckBox.



ButtonSelColor is here clRed.

ButtonSelBackColor is here clYellow.

CheckBoxes.Item[Index].SelectedStyle determines which character is drawn in a selected CheckBox.

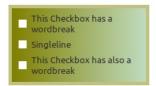


With the property CheckBoxes.Item[Index].Caption the text behind the CheckBox can be set. With CheckBoxes.Item[Index].CaptionAlignment, CheckBoxes.Item[Index].CaptionHorMargin the alignment of the text in the horizontal can be influenced.

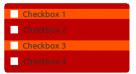


With CheckBoxes.Item[Index].CaptionLayout and CheckBoxes.Item[Index].CaptionVerMargin the text can be aligned vertically.

With CheckBoxes.Item[Index].CaptionWordbreak the text is wrapped if needed. However, the number of rows required must be specified with Rows.



CheckBoxes.Item[Index].Color sets the background of the checkbox including the caption, clNone makes it transparent.



CheckBoxes.Item[Index].HoverColor changes the colour of the background of the RadioButton when you move the mouse over it, clNone makes it transparent.



With CheckBoxes.Item[Index].HoverStyle you can choose whether the hover event is fully filled or only displayed as a frame.



Images can also be inserted with the help of an image list. To do this, select the ImageList at CheckBoxes.Item[Index].Images . Select the desired image at CheckBoxes.Item[Index].ImageIndex and determine the position of the image with CheckBoxes.Item[Index].ImageLeft and CheckBoxes.Item[Index].ImageTop .



With CheckBoxes.Item[Index].ImageWidth the size of the image can be changed. It is recommended to scale only smaller!

If you set CheckBoxes.Item[Index].Enabled to false, a selection can be disabled.



At runtime, the colour and transparency of the disabled bar can be set.

