

Global Majic Software, Inc. Custom Controls

Instrument Custom Control Library Ver 1.02

How To Use:



Toggle Switch Control



LED Control



Aircraft Instrument Controls



Car Gauge Control



Odometer Control

What Is Shareware?

Why Register?

Registration.

Product Support

Copyright

Usage



Aircraft Instrument Control

Properties

Events

Description:

Aircraft Instrument Controls display a variety of small airplane flight instruments including compass, heading indicator, altimeter, vertical speed indicator, airspeed indicator, and horizontal situation indicator. The controls can be used as input controls when MouseControl is set to True. The controls include bevels for a 3D appearance.

Remarks:

When sizing the controls, keep in mind that smaller instruments update faster.

Why Register?

Register because you find the software useful and you feel the efforts put into writing the code are worth compensating.

Register because you would like to be informed of updates to this software.

Register because you want to encourage the author to spend time to develop other useful shareware software.

Register because you would like to have technical support.

Register because you want to get rid of those annoying sign-on banners.

Usage

The **Instrumentation Custom Control Library** is a collection of *Microsoft Visual Basic* custom controls that can be used by placing them on a *Visual Basic* form. In order for the controls to appear in the *Visual Basic* toolbox, use the **Add File** command to add each control to your project. Then you can position and size the control as desired on the form.

Once the control is placed on the form, use the properties box to set up controls display characteristics and default values. Some properties are only available at design-time and some only at run-time.

A test program using **TOGGLE.VBX**, TOGTEST.EXE, is included for illustration purposes. Double click on this from the File Manager to start the test program which allows the user to see examples of the toggle control. On computers equipped with sound boards, the sound capabilities of the control will be demonstrated.

A test program using **AIR.VBX**, AIRTEST.EXE, is included for illustration purposes. Double click on this from the File Manager to start the test program which allows the user to see each gauge type, and to use either the mouse (click Mouse Control ON and then use the mouse to move the needles on the gauges) or slider controls to adjust the values of the gauges.

A test program using **CARGAUGE.VBX** CARTEST.EXE, is included for illustration purposes. Double click on this from the File Manager to start the test program which allows the user to see each gauge type, and to use either the mouse (click Mouse Control ON and then use the mouse to move the needles on the gauges) or slider controls to adjust the values of the gauges.

A test program using **LED.VBX**, LEDTEST.EXE, is included for illustration purposes. Double click on this from the File Manager to start the test program which allows the user to see each LED type, and to use either the mouse (click Mouse Control ON and then use the mouse to turn the LEDs "on" or "off") or slider controls to adjust the values of the LEDs.

A test program using **ODOMETER.VBX**, ODOMTEST.EXE, is included for illustration purposes. Double click on this from the File Manager to start the test program which allows the user to see different odometer sizes and styles.

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Mail completed form with payment to:

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Instrument Custom Control Library Ver 1.02

| | QTY | Amount |
|--|--------|--------|
| REGISTRATION: \$25 each, | _____ | _____ |
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| | Total: | _____ |

Out of curiosity, where did you
come across this software: _____

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Madison, Alabama 35758

CompuServe: 73261,3642
Internet: 73261.3642@compuserve.com

Product Support is free for a period of three (3) months from the date of registration.

Events:

Change
Click
GotFocus
LostFocus
Turn

Properties:

AltBarometer
AltBarometricPressure
BackColor
Bank
BevelInner
BevelOuter
BevelWidth
BorderWidth
CompassStyle
DisplayMode
Enabled
FontSize
Height
HelpContextID

HSIBearing
HSICompass
HSICourseDelta
HSICourseDeviation
HSICourseDisplay
HSICourseHeading
HSIDistance
HSIDistanceDisplay
HSIGlideSlopeDelta
HSIGlideSlopeDeviation
HSINavigationSource
HSISpeed
HSITime
HSITimeSpeedDisplay

Inclinometer
Index
Left
MouseControl
MousePointer
Name
Pitch
TabIndex
TabStop
Tag
Top
Turn
Value
Visible
Width

AltBarometer Property

Description

Enables and disables the barometric pressure indicator displayed on the altimeter.

Usage

[*form.*]control.**AltBarometer**[= *boolean*]

Setting

The AltBarometer property settings are:

| Setting | Description |
|----------------|--|
| True | Barometric pressure setting is displayed |
| False | Barometric pressure setting is hidden |

Remarks

This property only applies when DisplayMode =2 (Altimeter).

Data Type

Integer (Boolean)

DisplayMode Property

Description

Selects the type of instrument being displayed.

Usage

[*form.*]control.**DisplayMode**[= *integer*]

Setting

The DisplayMode property settings are:

| Setting | Description |
|---------|-------------------------------------|
| 0 | Analog Compass |
| 1 | Heading Indicator |
| 2 | Altimeter |
| 3 | Vertical Speed Indicator |
| 4 | Airspeed Indicator |
| 5 | HSI, Horizontal Situation Indicator |
| 6 | Artificial Horizon |
| 7 | Turn Coordinator |

Data Type

Integer (Enumerated)

AltBarometricPressure Property

Description

This property contains the value of the barometric pressure displayed on the altimeter.

Usage

[*form.*]control.AltBarometricPressure[= *single*]

Remarks

This property is only applicable when DisplayMode = 2 (Altimeter) and AltBarometer = TRUE. The barometric pressure is bound between 20 and 40 inches of mercury. Changes in the barometric pressure do not affect the altimeter Value.

Data Type

Single

BevelOuter Property

Description

Sets or returns the outer shadow style of the control.

Usage

[*form.*]control.**BevelOuter**[= *integer*]

Setting

The BevelOuter property settings are:

| Setting | Description |
|---------|-------------|
| 0 | None |
| 1 | Raised |
| 2 | Inset |

Remarks

This property has no affect when BevelWidth=0. This property is used in conjunction with BevelInner, BevelWidth, and BorderWidth.

Data Type

Integer (Enumerated)

BevelInner Property

Description

Sets or returns the inner shadow style of the control.

Usage

[*form.*]control.**BevelInner**[= *integer*]

Setting

The BevelInner property settings are:

| Setting | Description |
|---------|-------------|
| 0 | None |
| 1 | Raised |
| 2 | Inset |

Remarks

This property has no affect when BevelWidth=0. This property is used in conjunction with BevelOuter, BevelWidth, and BorderWidth.

Data Type

Integer (Enumerated)

BevelWidth Property

Description

Sets or returns the shadow sizes of the inner and outer bevels of the control.

Usage

[form.]control.BevelWidth[= *integer*]

Remarks

This property works in conjunction with [BevelInner](#), [BevelOuter](#) and [BorderWidth](#).

Data Type

Integer

BorderWidth Property

Description

Sets or returns the border size between the inner and outer bevels of the control.

Usage

[*form.*]control.**BorderWidth**[= *integer*]

Remarks

This property works in conjunction with [BevelInner](#), [BevelOuter](#) and [BevelWidth](#).

Data Type

Integer

CompassStyle Property

Description

Determines the display mode of the compass face.

Usage

[*form.*]control.CompassStyle[= *integer*]

Setting

The CompassStyle property settings are:

| Setting | Description |
|---------|-------------|
| 0 | Stationary. |
| 1 | Floating |

Remarks

When the CompassStyle = 0 (stationary), the compass face remains stationary while the compass needle points to the control's direction. When the CompassStyle = 1 (floating), the compass needle always points to the top of the control while the compass face rotates to the control's direction. This property only applies when DisplayMode = 0 (compass).

Data Type

Integer (Enumerated)

MouseControl Property

Description

Enables and disables mouse input to the control.

Usage

[*form.*]control.**MouseControl**[= {TRUE|FALSE}]

Setting

The MouseControl property settings are:

| Setting | Description |
|--------------|--|
| True | Allows the control's <u>Value</u> to be modified with mouse input. |
| False | Disables mouse input to the control. |

Data Type

Integer (Boolean)

Value Property

Description

Sets or returns the control's displayed **value**.

TOGGLE.VBX

Usage

[*form.*]control.**Value**[= {TRUE|FALSE}]

Remarks

The OnPicture is displayed when the toggle control's **value** = TRUE and the OffPicture is displayed when the toggle control's **value** = FALSE. When the toggle control's **value** is changed to FALSE, the OffWave wave file is played and when the toggle control's value is changed to TRUE, the OnWave wave file is played.

Data Type

Integer (Boolean)

AIR.VBX

Usage

[*form.*]control.**Value**[= *single*]

Remarks

The compass and heading indicator are bound between 0 and 360 degrees. The vertical airspeed indicator is bound between -2000 and 2000 ft per minute. The airspeed indicator is bound between 0 and 170 knots, although the display does not register values below 35 knots.

Data Type

Single

LED.VBX

Usage

[*form.*]control.**Value**[= *float*]

Remarks

This property has two possible uses, depending on the Mode property setting. If Mode = 0, then the Value corresponds to the number of LEDs turned "on". However, if Mode = 1, then the Value may be used to set the LEDs LEDStatus property. The Value may also be returned by setting the LEDStatus property of individual LEDs by using the mouse.

Data Type

Long

ODOMETER.VBX

Usage

`[form.]control.Value[= long]`

Remarks

This property is simply the value displayed on the odometer. The only constraint is that it must be positive (all negative values are set to 0).

Data Type

Float

What Is Shareware?

Shareware distribution gives users a chance to try software before buying it. If you try a Shareware program and continue using it, you are expected to register. Individual programs differ in detail -- some request registration while others require it, some specify a maximum trial period. With registration, you get anything from the simple right to continue using the software to an updated program with printed manual.

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BackgroundPicture Property

Description

Determines the background graphic to be displayed in the LED control.

Usage

[*form.*]control.**BackgroundPicture**[= *picture*]

Setting

The BackgroundPicture property settings are:

| Setting | Description |
|----------|--|
| (none) | No picture is displayed. |
| (bitmap) | At design-time, specify the bitmap file name to be displayed. At run-time, specify the bitmap using the LoadPicture function. |

Remarks

When setting the picture at design-time, the picture will be saved with the form, and will be compiled into the executable. When the BackgroundPicture property is set to (none), the BackColor property is used to fill the background of the control.

Data Type

Integer



Toggle Switch Control

[Properties](#)

[Events](#)

Description:

Toggle Switch Control is a TRUE/FALSE, YES/NO or ON/OFF indicator. The control displays captions or pictures to represent the toggle state depending on the control's value. The control is capable of playing wave files to indicate the switch turning on or off. It includes bevels for a 3D appearance and blinking capability to draw attention to the control. It also has a built in timed shut-off capability.

Remarks:

Wave files used with the control will not be stored in the control as the bitmap files are, therefore, all wave files need to accompany your application. Be careful with using many timers and blinking controls on a single form because windows has a limited number of timer handles.

OnWave Property

Description

Determines the wave file to be played when the toggle control's value is set to TRUE.

Usage

[form.]control.OnWave[= filename]

Remarks

When setting the wave file at design-time, the wave file will not be saved with the form or compiled into the executable. Wave files need to accompany executables. All sounds from the control can be disabled by setting Sound = FALSE.

Data Type

String

OnPicture Property

Description

Determines the graphic to be displayed when the toggle control's value = TRUE.

Usage

[*form.*]control.**OnPicture**[= *picture*]

Setting

The OnPicture property settings are:

| Setting | Description |
|----------|--|
| (none) | No picture is displayed. |
| (bitmap) | At design-time, specify the bitmap file name to be displayed. At run-time, specify the bitmap using the LoadPicture function. |

Remarks

When setting the picture at design-time, the picture will be saved with the form, and will be compiled into the executable. When AutoSize = FALSE, the picture is stretched to fit the controls dimensions, set AutoSize = TRUE to display the picture in its full size.

Data Type

Integer

OffWave Property

Description

Determines the wave file to be played when the toggle control's value is set to FALSE.

Usage

[form.]control.OffWave[= filename]

Remarks

When setting the wave file at design-time, the wave file will not be saved with the form or compiled into the executable. Wave files need to accompany executables. All sounds from the control can be disabled by setting Sound = FALSE.

Data Type

String

AutoSize Property

Description

Enables the control to automatically size itself to fit its contents.

Usage

[*form.*]control.**AutoSize**[= {TRUE|FALSE}]

Setting

The AutoSize property settings are:

| Setting | Description |
|---------|-------------|
|---------|-------------|

| | |
|------|---|
| TRUE | Automatically sizes itself to fit its contents. |
|------|---|

| | |
|-------|--|
| FALSE | Allows the width and height of the control to be set manually. |
|-------|--|

Data Type

Integer (Boolean)

OffBackColor Property

Description

Determines the background color of the toggle control when it is Off (Value = 0) .

Usage

`[form.]control.OffBackColor[= color]`

Remarks

This property can be set using the RGB or QBColor functions.

Data Type

Long.

Properties:

AutoSize
BackColor
BevelInner
BevelOuter
BevelWidth
BlinkMode
BlinkRate
BorderWidth
Enabled
FontBold
FontItalic
FontName
FontSize

FontStrikethru
FontUnderline
Height
HelpContextID
Index
Left
MousePointer
OffBackColor
OffCaption
OffForeColor
OffPicture
OffWave
OnBackColor

OnCaption
OnForeColor
OnPicture
OnTimer
OnWave
Sound
TabIndex
TabStop
Tag
Top
Value
Visible
Width

BlinkMode Property

Description

Determines the mode in which the toggle control blinks.

Usage

[*form.*]control.**BlinkMode**[= *integer*]

Setting

The BlinkMode property settings are:

| Setting | Description |
|---------------------|---|
| 0 (Never) | The toggle switch never blinks. |
| 1 (Always) | The toggle switch always blinks. |
| 2 (When On) | The toggle switch blinks only when the switch is On. |
| 3 (When Off) | The toggle switch blinks only when the switch is Off. |

Remarks

This property has no affect when BlinkRate = 0.

Data Type

Integer (Enumerated)

OffPicture Property

Description

Determines the graphic to be displayed when the toggle control's value = FALSE

Usage

[*form.*]control.**OffPicture**[= *picture*]

Setting

The OffPicture property settings are:

| Setting | Description |
|----------|--|
| (none) | No picture is displayed. |
| (bitmap) | At design-time, specify the bitmap file name to be displayed. At run-time, specify the bitmap using the LoadPicture function. |

Remarks

When setting the picture at design-time, the picture will be saved with the form, and will be compiled into the executable. When AutoSize = FALSE, the picture is stretched to fit the controls dimensions. Set AutoSize = TRUE to display the picture in its full size.

Data Type

Integer

Sound Property

Description

Enables the control to play wave files when its value is changed.

Usage

[*form.*]control.Sound[= {TRUE|FALSE}]

Setting

The Sound property settings are:

| Setting | Description |
|---------|---|
| TRUE | Enables the control to play wave files. |
| FALSE | Disables the control from playing wave files. |

Data Type

Integer (Boolean)



LED Control

[Properties](#)

[Events](#)

Description:

This control displays a variety of LED shapes such as rectangular and circular. User supplied bitmaps may also be used to define a LEDs appearance. The mouse can be used for input when the MouseControl property is set to True. The control include bevels for a 3D appearance.

Remarks:

When sizing the controls, keep in mind that smaller instruments update faster. It should also be noted that when using bitmaps to define LEDs, the LEDColor property has no effect.

Properties:

AutoSize
BackColor
BackgroundPicture
BevelInner
BevelOuter
BevelWidth
BorderHorizontal
BorderVertical
BorderWidth
DecayRate
Direction
Enabled
Height
HelpContextID

Index
LEDColor
LEDHeight
LEDIndex
LEDSep
LEDStatus
LEDStyle
LEDWidth
Left
MaxDecay
Mode
MouseControl
Name
NumLEDs

OffPictureGreen
OffPictureRed
OffPictureYellow
OnPictureGreen
OnPictureRed
OnPictureYellow
TabIndex
TabStop
Tag
Top
Value
Visible
Width

BorderVertical Property

Description

Sets or returns the vertical border size of the control. This defines the distance between the top edge of the control and the position of the upper left portion of the first LED.

Usage

[form.]control.BorderVertical [= *integer*]

Remarks

This property works in conjunction with [BorderHorizontal](#).

Data Type

Integer

Mode Property

Description

Selects the analysis method of the Value property.

Usage

`[form.]control.Mode[= integer]`

Setting

The Mode property settings are:

| Setting | Description |
|----------------|---|
| 0 | The Value property determines the number of LEDs "on" |
| 1 | Perform at bitwise analysis on the Value property |

Data Type

Integer (Enumerated)

Events:

Click
GotFocus
LostFocus

BorderHorizontal Property

Description

Sets or returns the horizontal border size of the control. This defines the distance between the left edge of the control and the position of the upper left portion of the first LED.

Usage

[form.]control.**BorderHorizontal**[= *integer*]

Remarks

This property works in conjunction with [BorderVertical](#).

Data Type

Integer

Direction Property

Description

Selects either a forward or backward fill for the LEDs.

Usage

`[form.]control.Direction[= integer]`

Setting

The Direction property settings are:

| Setting | Description |
|----------------|---|
| 0 | Forward. This is left to right for horizontal Orientation and top to bottom for vertical Orientation. |
| 1 | Backward. This is right to left for horizontal Orientation bottom to top for vertical Orientation. |

Data Type

Integer (Enumerated)

Orientation Property

Description

Selects either a horizontal or vertical positioning of the LEDs.

Usage

`[form.]control.Orientation[= integer]`

Setting

The Orientation property settings are:

| Setting | Description |
|----------------|--------------------|
| 0 | Horizontal |
| 1 | Vertical |

Data Type

Integer (Enumerated)

LEDStyle Property

Description

Selects the display type for the LEDs.

Usage

`[form.]control.LEDStyle[= integer]`

Setting

The LEDStyle property settings are:

| Setting | Description |
|----------------|--|
| 0 | Rectangular |
| 1 | Circular |
| 2 | Bitmap (uses User supplied bitmaps for the LEDs) |

Data Type

Integer (Enumerated)

LEDColor Property

Description

Selects the color for each LED.

Usage

[form.]control.LEDColor[= integer]

Setting

The LEDColor property settings are:

| Setting | Description |
|---------|-------------|
| 0 | Red |
| 1 | Yellow |
| 2 | Green |

Remark

If LEDStyle=2 (bitmap), color is set using this property in conjunction with the bitmap properties: OnPictureRed, OffPictureRed, OnPictureYellow, OffPictureYellow, OnPictureGreen, and OffPictureGreen. For example, if a multicolored bitmap LED display is desired, the LEDColor property controls which bitmap property (listed above) is accessed.

Data Type

Integer (Enumerated)

OnPictureGreen Property

OnPictureYellow Property

OnPictureRed Property

Description

Determines the graphic to be displayed when the LED control's LEDStyle = 2 (bitmap) and the LED is turned on. Although a color is referenced in the name of the property, it in no way limits the color of the bitmap. It merely allows the bitmaps to be selected by the LEDColor property.

Usage

[form.]control.OnPictureGreen[= picture]

[form.]control.OnPictureYellow[= picture]

[form.]control.OnPictureRed[= picture]

Setting

The property settings are:

| Setting | Description |
|----------|--|
| (none) | No picture is displayed. |
| (bitmap) | At design-time, specify the bitmap file name to be displayed. At run-time, specify the bitmap using the LoadPicture function. |

Remarks

When setting the picture at design-time, the picture will be saved with the form, and will be compiled into the executable.

Data Type

Integer

LEDIndex Properties

Description

Used to assign properties to individual LEDs. Each LED has a unique LEDIndex.

Usage

`[form.]control.LEDIndex[= integer]`

Remarks

The LEDColor and LEDStatus may be set separately for each LED. These properties are referenced through the LEDIndex property. For example, for a Green LED, turned "on", in the 4th position:

```
LED1.LEDIndex=3 //numbering starts with 0  
LED1.LEDColor=2  
LED1.LEDStatus=1
```

Data Type

Integer

OffPictureGreen Property

OffPictureYellow Property

OffPictureRed Property

Description

Determines the graphic to be displayed when the LED control's LEDStyle = 2 (bitmap) and the LED is turned off. Although a color is referenced in the name of the property, it in no way limits the color of the bitmap. It merely allows the bitmaps to be selected by the LEDColor property.

Usage

[form.]control.**OffPictureGreen**[= picture]

[form.]control.**OffPictureYellow**[= picture]

[form.]control.**OffPictureRed**[= picture]

Setting

The property settings are:

| Setting | Description |
|----------|--|
| (none) | No picture is displayed. |
| (bitmap) | At design-time, specify the bitmap file name to be displayed. At run-time, specify the bitmap using the LoadPicture function. |

Remarks

When setting the picture at design-time, the picture will be saved with the form, and will be compiled into the executable.

Data Type

Integer

LEDStatus Property

Description

Selects the "on" or "off" status of the given LED.

Usage

`[form.]control.LEDStatus[= integer]`

Setting

The LEDStatus property settings are:

| Setting | Description |
|---------|-------------|
| 0 | Off |
| 1 | On |

Remarks

Individual LEDs can be turned "on" using the LEDStatus property only if the Mode property is set to "bitwise."

Data Type

Integer (Enumerated)

LEDHeight, LEDWidth, LEDSep Properties

Description

Determines the dimensions of an LED and the spacing between multiple LEDs.

Usage

[form.]control.LEDHeight[= integer]

[form.]control.LEDWidth[= integer]

[form.]control.LEDSEP[= integer]

Remarks

The LEDWidth is the dimension between the left and right edges of the LED. The LEDHeight is the dimension between the top and bottom edges of the LED. If multiple LEDs reside in the control then each LED is separated by the dimension specified in the LEDSep property.

Data Type

Integer

NumLEDs Property

Description

Defines the number of LEDs in the given control.

Usage

`[form.]control.NumLEDs[= integer]`

Data Type

Integer

HSIBearing Property

Description

Selects the bearing direction displayed in the HSI instrument.

Usage

[*form.*]control.HSIBearing[= *single*]

Remarks

The HSIBearing property value is bound between 0 and 360 degrees. The bearing indicator is only displayed when the DisplayMode = 5 (HSI), HSICompass = TRUE, and HSINavigationSource is set to 0 (VOR1) ,1 (VOR2) ,4 (TCN) or 5 (LRN).

Data Type

Single.

HSICompass Property

Description

Enables and disables the compass face displayed on the HSI.

Usage

[*form.*]control.HSICompass[= *boolean*]

Setting

The HSICompass property settings are:

| Setting | Description |
|--------------|---|
| True | The aircraft heading and bearing are displayed on a circular compass face. |
| False | Compass face is not displayed, only course deviation and glide slope deviation are displayed. |

Remarks

This property only applies when DisplayMode = 5 (HSI).

Data Type

Integer (Boolean)

HSINavigationSource Property

Description

Determines navigationsource displayed in the lower right hand corner of the HSI control.

Usage

[*form.*]control.HSINavigationSource[= *integer*]

Setting

The HSINavigationSource property settings are:

Setting

0 - VOR1

1 - VOR2

2 - ILS1

3 - ILS2

4 - TCN

5 - LRN

6 - None

Remarks

This property only applies when DisplayMode = 5 (HSI).

Data Type

Integer (Enumerated)

HSICourseDelta Property

Description

Selects the magnitude of the difference between course deviation markers displayed in the HSI instrument.

Usage

[*form.*]control.HSICourseDelta[= *single*]

Remarks

The HSICourseDelta property only applies when DisplayMode = 5 (HSI). Typical values for this property are 2.5 degrees or 7.5 miles.

Data Type

Single.

HSICourseHeading Property

Description

Selects the course heading direction displayed in the HSI instrument.

Usage

[*form.*]control.HSICourseHeading[= *single*]

Remarks

This property is bound between 0 and 360 degrees and only applies when DisplayMode = 5 (HSI) and HSICompass = TRUE.

Data Type

Single.

HSICourseDeviation Property

Description

Determines the course deviation displayed in the HSI instrument.

Usage

[*form.*]control.HSICourseDeviation[= *single*]

Remarks

The HSICourseDeviation property only applies when DisplayMode = 5 (HSI). The displayable range depends on the value set for HSICourseDelta.

Data Type

Single.



Car Gauge Control

[Properties](#)

[Events](#)

Description:

Car Gauge Instrument Controls display a variety of automobile instruments including tachometer, speedometer, fuel level, oil pressure, amp gauge, and water temperature. The controls can be used as input controls when MouseControl is set to True. The controls include bevels for a 3D appearance.

Remarks:

When sizing the controls, keep in mind that smaller instruments update faster.

HSICourseDisplay Property

Description

Returns the type of course display being displayed in the upper right hand corner of the HSI control.

Usage

[*form.*]control.HSICourseDisplay[= *integer*]

Setting

The HSICourseDisplay property settings are:

| Setting | Description |
|----------|----------------------------|
| 0 - CRS | Displays course direction. |
| 1 - DTK | Displays course direction. |
| 2 - None | Displays nothing. |

Remarks

This property is read only and only applies when DisplayMode = 5 (HSI).

Data Type

Integer (Enumerated)

HSIDistanceDisplay Property

Description

Determines the distance mode displayed in the upper left hand corner of the HSI control.

Usage

[*form.*]control.HSIDistanceDisplay[= *integer*]

Setting

The HSIDistanceDisplay property settings are:

| Setting | Description |
|----------|----------------------------|
| 0 - DME | Distance |
| 1 - TCN | TACON |
| 2 - WPT | Waypoint |
| 3 - None | Distance is not displayed. |

Remarks

This property only applies when DisplayMode = 5 (HSI).

Data Type

Integer (Enumerated)

HSIDistance Property

Description

Determines the distance displayed in the upper left hand corner of the HSI instrument.

Usage

[*form.*]control.HSIDistance[= *single*]

Remarks

This property only applies when DisplayMode = 5 (HSI) and HSIDistanceDisplay = 0 (DME), 1 (TCN), or 2 (WPT). Only three place holders are allowed to display the distance so when the value is less than 100, it is displayed with one decimal point; when the value is between 100 and 999, no decimal point values are displayed; and when the value is 1000 or greater, a value of 999 is displayed. If the distance is set to a negative number, the control will display ---, indicating that the distance is not available.

Data Type

Single.

HSIGlideSlopeDelta Property

Description

Selects the magnitude of the difference between glide slope deviation markers displayed in the HSI instrument.

Usage

[*form.*]control.HSIGlideSlopeDelta[= *single*]

Remarks

This property only applies when DisplayMode = 5 (HSI).

Data Type

Single.

HSISpeed Property

Description

Sets the ground speed displayed in the lower left hand corner of the HSI instrument.

Usage

[form.]control.HSISpeed[= single]

Remarks

This property only applies when DisplayMode = 5 (HSI) and HSITimeSpeedDisplay = 1 (SPD). Only three place holders are allowed to display the value so when the value is less than 100, it is displayed with one decimal point; when the value is between 100 and 999, no decimal point values are displayed; and when the value is 1000 or greater, a value of 999 is displayed. If the value is set to a negative number, the control will display ---, indicating that the ground speed is not available.

Data Type

Single.

HSIGlideSlopeDeviation Property

Description

Determines the glide slope deviation displayed in the HSI instrument.

Usage

[*form.*]control.HSIGlideSlopeDeviation[= *single*]

Remarks

This property only applies when DisplayMode = 6 (HSI). The displayable range depends on the value set for HSIGlideSlopeDelta.

Data Type

Single.

HSITime Property

Description

Sets the time-to-go displayed in the lower left hand corner of the HSI instrument.

Usage

[*form.*]control.HSITime[= *single*]

Remarks

This property only applies when DisplayMode = 5 (HSI) and HSITimeSpeedDisplay = 0 (TTG). Only three place holders are allowed to display the value so when the value is less than 100, it is displayed with one decimal point; when the value is between 100 and 999, no decimal point values are displayed; and when the value is 1000 or greater, a value of 999 is displayed. If the value is set to a negative number, the control will display ---, indicating that the time-to-go is not available.

Data Type

Single.

HSITimeSpeedDisplay Property

Description

Determines whether time-to-go or ground speed is displayed in the lower left hand corner of the HSI control.

Usage

[*form.*]control.HSITimeSpeedDisplay[= *integer*]

Setting

The HSITimeSpeedDisplay property settings are:

| Setting | Description |
|----------|---|
| 0 - TTG | Time-To-Go, displays the <u>HSITime</u> value. |
| 1 - SPD | Ground speed, displays the <u>HSISpeed</u> value. |
| 2 - None | Nothing is displayed in the lower left corner of the control. |

Remarks

This property only applies when DisplayMode = 5 (HSI).

Data Type

Integer (Enumerated)

BlinkRate Property

Description

Determines the rate (int milliseconds) at which the toggle control blinks.

Usage

[form.]control.BlinkRate[= milliseconds]

Remarks

This property works in conjunction with [BlinkMode](#) to determine the blinking characteristics of the toggle control. When the BlinkRate = 0, the toggle control will not blink.

Data Type

Integer

OffForeColor Property

Description

Determines the foreground color used to display text for the toggle control when it is Off (Value = 0) .

Usage

`[form.]control.OffForeColor[= color]`

Remarks

This property can be set using the RGB or QBColor functions.

Data Type

Long.

OnBackColor Property

Description

Determines the background color of the toggle control when it is On (Value = 1) .

Usage

`[form.]control.OnBackColor[= color]`

Remarks

This property can be set using the RGB or QBColor functions.

Data Type

Long.

OnForeColor Property

Description

Determines the foreground color used to display text for the toggle control when it is On (Value = 1) .

Usage

`[form.]control.OnForeColor[= color]`

Remarks

This property can be set using the RGB or QBColor functions.

Data Type

Long.

OffCaption Property

Description

Determines the text displayed on the toggle control when it is off (value = 0).

Usage

[*form.*]control.**OffCaption**[= *stringexpression*]

Remarks

The default settings for this property is "Off".

Data Type

String

OnCaption Property

Description

Determines the text displayed on the toggle control when it is on (value = 1).

Usage

[*form.*]control.**OnCaption**[= *stringexpression*]

Remarks

The default settings for this property is "On".

Data Type

String

OnTimer Property

Description

Determines the how long (in milliseconds) the toggle control will remain on (Value = 1).

Usage

[form.]control.OnTimer [= *milliseconds*]

Remarks

When OnTimer = 0, the toggle control will not automatically turn itself off (Value = 0).

Data Type

Integer



Odometer Control

Properties

Events

Description:

The Odometer Control displays a simple odometer which may be manipulated in a variety of ways. These include control font, font size, with or without reset button, etc. If a reset button is desired, the mouse may be used to reset the odometer.

The control include bevels for a 3D appearance.

Properties:

BackColor
BevelInner
BevelOuter
BevelWidth
BorderWidth
Decimal
Digits
Enabled
FontBold
FontItalic

FontName
FontSize
FontStrikethru
FontUnderline
Height
HelpContextID
Index
Left
MousePointer
Name

ResetButton
ResetPicture
TabIndex
TabStop
Tag
Top
Value
Visible
Width

Events:

Click
GotFocus
LostFocus
Reset

Properties:

BackColor
BevelInner
BevelOuter
BevelWidth
BorderWidth
DisplayMode
MouseContol

Enabled
FontSize
GaugeValue
Height
HelpContextID
Index
Left
MousePointer

Name
TabIndex
TabStop
Tag
Top
Visible
Width

ResetButton Property

Description

Determines if the odometer control displays a reset button.

Usage

[*form.*]control.**ResetButton**[= {TRUE|FALSE}]

Setting

The ResetButton property settings are:

| Setting | Description |
|---------|--|
| True | Reset button available. Allows the control's <u>Value</u> to be modified with mouse input. |
| False | No reset button. |

Remarks

A bitmap may be used instead of the provided graphical representation through the use of the ResetPicture Property.

Data Type

Integer (Boolean)

ResetPicture Property

Description

Determines the graphic to be displayed when the odometer control's ResetButton = TRUE.

Usage

[*form.*]control.**ResetPicture**[= *picture*]

Setting

The ResetPicture property settings are:

| Setting | Description |
|----------|--|
| (none) | No picture is displayed. |
| (bitmap) | At design-time, specify the bitmap file name to be displayed. At run-time, specify the bitmap using the LoadPicture function. |

Remarks

When setting the picture at design-time, the picture will be saved with the form, and will be compiled into the executable. The bitmap is stretched to fit the ResetButton.

Data Type

Integer

Digits Property

Description

Determines the number of rollers displayed in the odometer control.

Usage

[form.]control.Digits[= integer]

Remarks

The Digits property defines the number of rollers in the odometer. The Decimals property defines how many of the digits are used to display decimal values.

Data Type

Integer.

Decimals Property

Description

Determines the number of rollers which display decimal values in the odometer control.

Usage

[form.]control.Decimals[= integer]

Remarks

The Digits property defines the number of rollers in the odometer. The Decimals property defines how many of the digits are used to display decimal values.

Data Type

Integer.

GaugeValue Property

Description

Contains the current value of the gauge as pointed to by the gauge needle.

Usage

`[form.][control.]GaugeValue[= Single]`

Setting

The GaugeValue property is set by moving the gauge needle indicator when Mouse Control is TRUE or by manually setting the property in code..

Data Type

Single

Events:

Change
Click
GotFocus
LostFocus
Turn

DisplayMode Property

Description

Selects the type of instrument being displayed.

Usage

[*form.*]control.**DisplayMode**[= *integer*]

Setting

The DisplayMode property settings are:

| Setting | Description |
|---------|-------------------|
| 0 | Fuel Level |
| 1 | Tachometer |
| 2 | Amp Meter |
| 3 | Water Temperature |
| 4 | Oil Pressure |
| 5 | Speedometer |

Data Type

Integer (Enumerated)

Bank Property

Description

This property contains the value of the bank angle displayed on the artificial horizon.

Usage

[*form.*]control.**Bank**[= *single*]

Remarks

This property only applies when DisplayMode = 6 (Artificial Horizon).

Data Type

Single.

Pitch Property

Description

This property contains the value of the pitch angle displayed on the artificial horizon.

Usage

[*form.*]control.Pitch[= *single*]

Remarks

This property only applies when DisplayMode = 6 (Artificial Horizon).

Data Type

Single.

MaxDecay Property

Description

Enables and disables the maximum marker for the LED control.

Usage

[*form.*]control.**MaxDecay**[= {TRUE|FALSE}]

Setting

The MaxDecay property settings are:

| Setting | Description |
|---------|--|
| True | Enables the maximum marker to be displayed |
| False | Disables maximum marker. |

Remarks

This property works in relation to DecayRate.

Data Type

Integer (Boolean)

Inclinometer Property

Description

This property contains the value of the position of the inclinometer ball displayed in the turn coordinator. It is a measure of the coordinated use of aileron and rudder during a turn.

Usage

[*form.*]control.Inclinometer[= *single*]

Remarks

This property is only applicable when DisplayMode = 7 (Turn Coordinator). The units are in degrees and indicate the angle between the aircraft vertical acceleration direction and the airframe vertical direction. The visible range of the inclinometer is -10 to 10 degrees.

Data Type

Single.

Turn Property

Description

This property contains the turn rate displayed in the turn coordinator.

Usage

[form.]control.Turn[= single]

Remarks

This property is only applicable when DisplayMode = 7 (Turn Coordinator). The units are in degrees and indicate the turn angle the aircraft will make in 2 minutes. The tic marks below the level flight tic marks indicate a 360 degree turn in 2 minutes.

Data Type

Single

DecayRate Property

Description

Determines the rate (int milliseconds) at which the maximum marker decays.

Usage

[form.]control.DecayRate [= *milliseconds*]

Remarks

This property only applies when MaxDecay = TRUE.

Data Type

Integer.

