

# METRIX

A configurable analog meter.

## Introduction

METRIX.VBX is a custom control that provides a configurable analog meter for Visual Basic programs.

## Installation

Copy METRIX.VBX to a suitable sub directory on your machine. The directory that contains VB.EXE is a possible choice.

When a Visual Basic project needs a meter you will need to add the meter to the toolbox. Do this by running Visual Basic and selecting File.Add. then select the file METRIX.VBX. The new tool should now appear in your Toolbox. It can be used in the same way as any of the other tools that are there.

## Properties

The properties for this custom control, and their effects, are given below

### BackColor

The color used for the background of the standard meter face. When using a custom face this color will only show if the shape ( ratio of width to height ) of the custom control does not match the associated picture.

### CtlName

The standard Visual basic name, defaulting to Metrix1...

### CtrlOptions

A design time only option. When this attribute is selected a dialog box can be obtained by pressing the elipses button [...]. A dialog box with the following options will appear

The options in the dialog box are as follows :-

#### Radio buttons for color focus.

The radio buttons at the top of the dialog box allow the user to select which item will have focus after the user exits from the dialog box. For example, if the user wishes to change the pointer color

- \* display the dialog box by selecting the CtrlOptions property
- \* press the Pointer radio button
- \* press OK in the dialog box
- \* select the Forecolor property for the METRIX instance
- \* select a foreground color ( the pointer color will update immediately )

#### The display options

These check boxes allow the user to determine how much of the meter face will

be drawn automatically, and how much will be supplied, as a picture, by the user.

**Digital** - This displays the input value in digital form at the bottom of the meter face

**Color** - This draws a circular arc around the the meter, with different colors for low alarm range, high alarm range, and normal. The user can select the colors by using the ForeColor focus buttons

**Frame** - This determines if the control will provide a frame

**Inset Scale** - If this is true then the scale on the meter will be inset by the width of the frame, even if the frame is not visible ( This allows the user to provide a frame, but use the control's capability to provide other parts of the dial face. )

**Scale** - Requests the control to draw a scale with the parameters given below.

**Dial Graphic** - When this is set the users Dial graphic ( none by default ) will be displayed, together with any other elements that have been selected

### **Scale Origin, Scale Increment, and Mark Every x Division.**

These parameters determine the numerals that will be shown on the scale. The Scale Origin is the lowest number that will be displayed at extreme counter clockwise on the scale. The Scale Increment determines the amount by which the displayed number is incremented every time that a new number is displayed round the dial. Mark Every x Division determines which divisions will be marked.

### **Divns, by.**

The parameters determine how many major divisions there will be on the scale, and how many subdivisions between each major division.

The meter will be updated as soon as a user moves from one entry box to another. The best way to get the scale as you want it is to work interactively. Change a parameter and see the reesult, as soon as you move to the next enty box

### **Scale \*\*\*.\*\***

Determines the number of significant digits in the scale markings. The dimensions are also used to determine where the scale values should be place

### **Digital \*\*\*.\*\***

If the optional digital display has been selected this string determines the accuracy of the display.

### **PtWidth**

Determines the width of the pointer

### **FrWidth**

Determines the frame width, if one is displayed, and determines the pointer

length and scale inset.

### **Units**

A string can be entered here which will be displayed below the center of the meter. A typical string would be 'Deg C' The size of the text is determined by other properties of the control

### **Caption**

A string can be entered here which will be displayed above the center of the meter. A default string of 'Technocratix' is supplied.

### **Scale Limits**

The Lo and Hi Limits determine the values of the property 'Value' which will cause the meter to show minimum and maximum on the dial. Other values are linearly interpolated between these limits. These limits do not have any influence on the scale display, but would normally be the same as the maximum and minimum scale values.

The Lo and Hi Alarms determine where the color of the option arc will change. The actual color can be chosen by getting focus for one of the parameters and selecting colors from the palette.

### **The OK button.**

The dialog box is modal. Press this button to return to the property display

### **DialGraphic**

This property supplies the name of the graphic if the user wants to supply part or all of the backdrop for the meter. The graphic can be produced by any drawing or painting package that can provide a .BMP, .WNF, or .ICO file. ( The samples that are provided are in .WMF form and were produced with Micrografx Designer )

### **FontName**

Allows the user to select the font that is used for any text drawn by the control

### **FontSize**

The FontSize can be selected using this property. The available options depend on the font package, if any, installed on the machine.

### **ForeColor**

Allows the selection of the forecolor for the object with focus

### **Height, Index, Width, Top, Left, Visible**

The standard VB properties

### **Value.**

When this value is updated the position of the pointer on the analog meter will be recomputed and redisplayed.

**Help**

If you have any questions or comments about this custom control, please contact

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