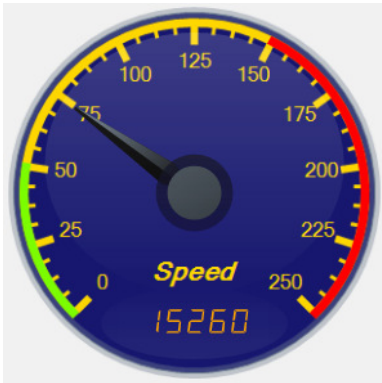# AquaGauge control for .NET - Usage

AquaGauge is a very powerful and simple dial-gauge control for .NET ideated and developed by **Ambalavanar Thirugnanam** (ambalavanar.thiru@gmail.com).

An accurate description of the entire project can be see on CodeProject:

http://www.codeproject.com/KB/GDI-plus/AquaGauge.aspx

AquaGauge is written in C# and uses GDI+.

Bernardo Giovanni (http://www.settorezero.com) has added some features and corrected some bugs. This document will refer to modified version of the control.

Changes from original version are listed in the AquaGaugeEdits.txt document

Elements of the modified AquaGauge control are shown on AquaGaugeElements.pdf document: please refer to AquaGaugeElements document in order to understand the meaning of used terms.

Values – The Pointer – The Digital Value

One of first property to set is the `ValueToDigital` property. When this property is `TRUE`, the pointer and the digital value will show the same value as defined by `Value` property. In this case mumbers on the scale and numbers in the digital value will use the same decimal places as defined by `DecimalPlaces` property.

If `ValueToDigital` is `FALSE`, digital value will show the value defined by `DigitalValue` property and will use decimal places as defined by `DigitalValueDecimalPlaces` property. This feature is useful to display two different values on the same gauge.

You may want to don't display the digital value, in this case you can use the `DigitalValueVisible` property, used to show (TRUE) or hide (FALSE) the digital value.

Pointer has only one property: `PointerColor`, used to set the color of the pointer.

DigitalValue has those other properties:

`DigitalValueColor`, used to set the color of numbers.

DigitalValueBackColor, used to set the background color of the area that contains digital value.

DigitalValueBackAlpha, used to set the opacity of background area (0=background not visible, 255=full opacity)

The Dial

The Dial is the gauge body. There are only few properties to set:

DialColor : is the background color of the entire gauge

DialAlpha : is the opacity of background color (0: background not visible, 255:full opacity). Using the default value (255) the text will be more crisp.

DialBorderColor : used to the set the color of external border of the gauge.

The scale

MinValue and **MaxValue** will set the first (most-left) and the last (most-right) values on the scale. Those values can be negative or decimal as well. Numbers will use decimal places as defined by **DecimalPlaces** property. Font used for numbers on the scale is obtained from **Font** property but the size defined by font property will <u>not be used</u>: <u>Scale font is automatically resized proportionally the gauge dimension</u> and the size can be a little adjusted using **ScaleFontSizeDivider** : this value can be a number from 15 (font bigger) to 25 (font smaller).

The amount of big mark-signs (ones with number in near of) is obtained from **NoOfDivisions** property. The amount of small mark-signs (from a big sign to subsequent) is obtained from **NoOfSubDivisions** property.

The color of the entire scale (numbers, divisions and subdivisions) is obtained from **ScaleColor** property.

The color of the rim above the scale is obtained from **RimColor** property. It's possible to adjust the rim opacity usign **RimAlpha** property (255=full opacity, 0= rim not visible).

The Dial Text

Dial text is a small text normally shown under the pointer, above the digital value. The text to show is defined by **DialText** property. The vertical position of this text can be

adjusted using **DialTextVOffset** property (0 by default): negative values will bring text up, positive values will bring text down. DialText can be multi-line defining it from code and using the special character **vbCrLf** between two lines.

The font used by DialText is the same as **Font** property by default but can be changed using **DialTextFont** property, size defined by this font will be used as well. Text Color can be changed using **DialTextColor** property.

The Thresholds

Thresholds are useful to mark ranges on the scale. A Threshold is a small arc painted on rim above the scale that starts from a value an ends to another value.
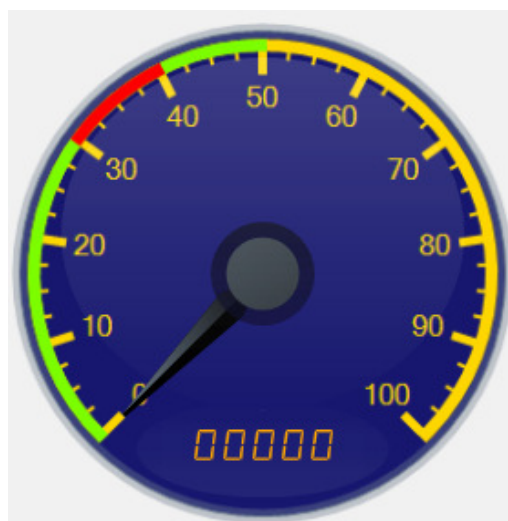
Is possible to define up 2 thresholds: Threshold1 and Threshold2. Start and Stop values for the two thresholds are defined by **Threshold1Start**, **Threshold1Stop**, **Threshold2Start** and **Threshold2Stop** properties.

When start and stop values are the same or stop value is less than start value, thresholds are not painted.

Color of thresholds can be changed with **Threshold1Color** and **Threshold2Color** properties. By default Threshold1Color is green and Threshold2Color is red.

If Threshold2 has common values with Threshold1, Threshold2 will be painted over Threshold1.

Please see this picture:

In this picture Threshold1 is the green arc and Threshold2 is the red arc. Threshold1 start/stop values are: Threshold1Start=0, Threshold1Stop=50 and so a green arc from 0 to 50 is painted. Threshold2 start/stop values are: Threshold2Start=30, Threshold2Stop=40 and then a red arc from 30 to 40 is painted over threshold1.

In the above picture the remaining arc is yellow as defined by **RimColor** property.

Other properties

Glossiness property is used to paint a gloss over the dial gauge: it is a value between 0 (no gloss) to 255 (full gloss):

GLOSSINESS: 0   GLOSSINESS: 80   GLOSSINESS: 255
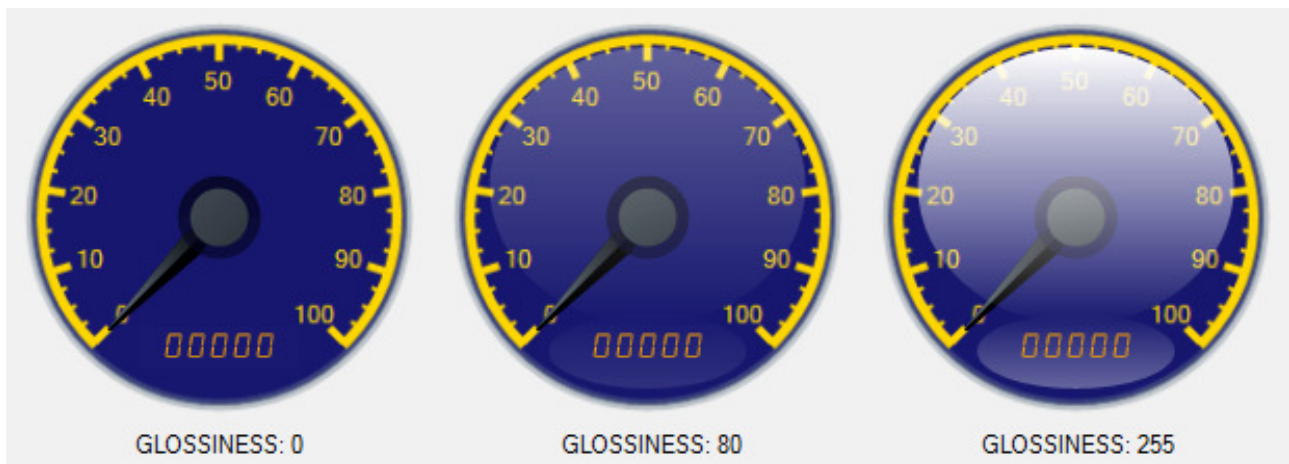
Credits

AquaGauge is distributed for free, "as is", without any warranty.
If you use this control in your project, <u>you must give credits to original authors</u> in your software (in the "about" form if your software has one or in the manual or in a text document distributed with your software if your software doesn't have an about form).

You must include following lines:

```
This software uses AquaGauge Control by:
Ambalavanar Thirugnanam (ambalavanar.thiru@gmail.com)
Bernardo Giovanni (http://www.settorezero.com)
```