

# AN01 – Segmented Gauge GUI Element in DATRANVue

Rev 01

## Introduction

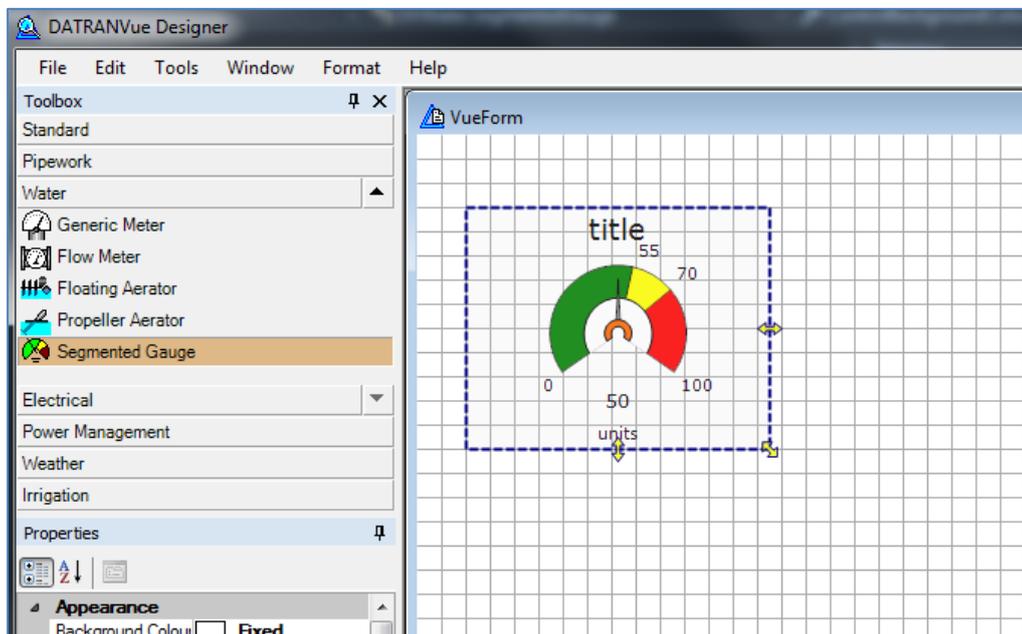
This document provides instructions for designing DATRANVue forms using the new Segmented Gauge GUI element, added to DATRANVue in version 3.17.

## Prerequisites

- DATRANVue Designer and Runtime must be installed (version 3.17 or greater required).
- DATRAN must be installed (version 6.74 or later recommended).
- DATRANVue Designer and Runtime must be licensed (if you require additional licenses please contact us).

## Creating a Form using the Segmented Gauge

1. Open DATRANVue Designer (open the start menu, type “DATRANVue Designer”, press enter).
2. Create a new form (File -> New).
3. Scroll to the bottom of the Water Toolbox submenu, and locate the Segmented Gauge element.
4. Drag an instance of the Segmented Gauge from the menu onto the canvas.



You now have a Segmented Gauge instance with default settings. The following sections cover the Segmented Gauge property menus, which allow the appearance and behaviour of the Gauge to be customized.

## Layout Menu

The Layout submenu contains two properties: Width and Height. These can be set directly through the menu to resize the Gauge, or you can resize the Gauge using the drag arrows on the Gauge’s border box.

**Toolbox** ✕

Standard

Pipework

Water ▲

- Generic Meter
- Flow Meter
- Floating Aerator
- Propeller Aerator
- Segmented Gauge

Electrical ▼

Power Management

Weather

Irrigation

**Properties** ⌵

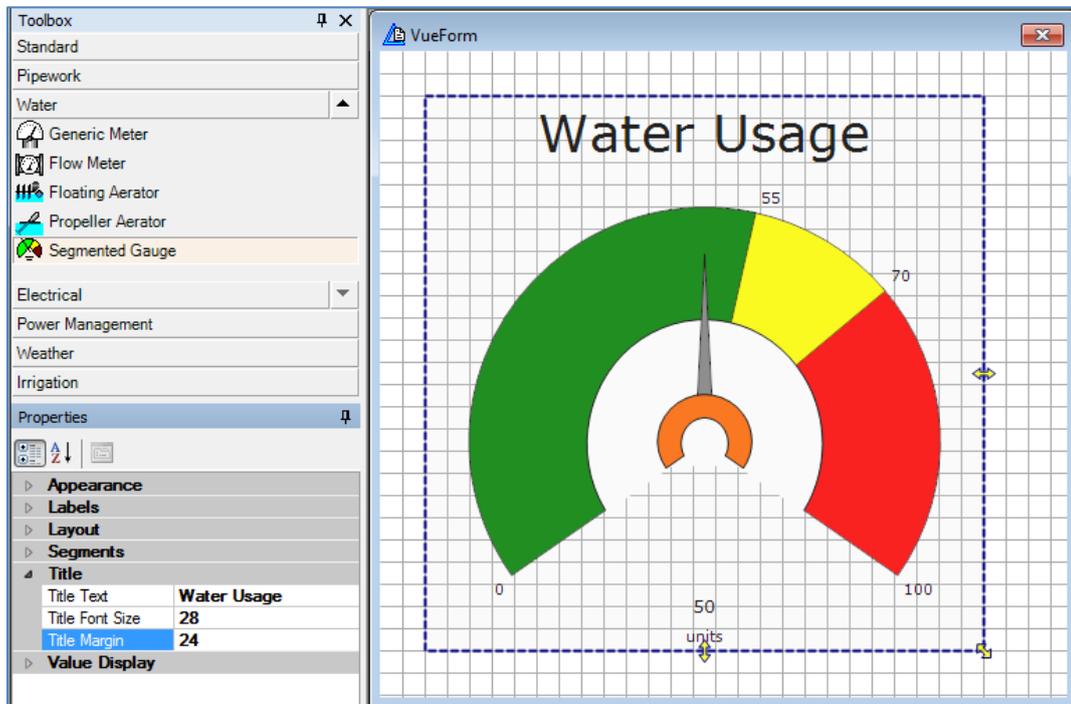
- ▶ Appearance
- ▶ Labels
- ▶ Layout
 

Width	400
Height	400
- ▶ Segments
- ▶ Title
- ▶ Value Display

**VueForm** ✕

## Title Menu

The Title submenu lets you configure title text, font size, and margin (space between the title and the Gauge face).



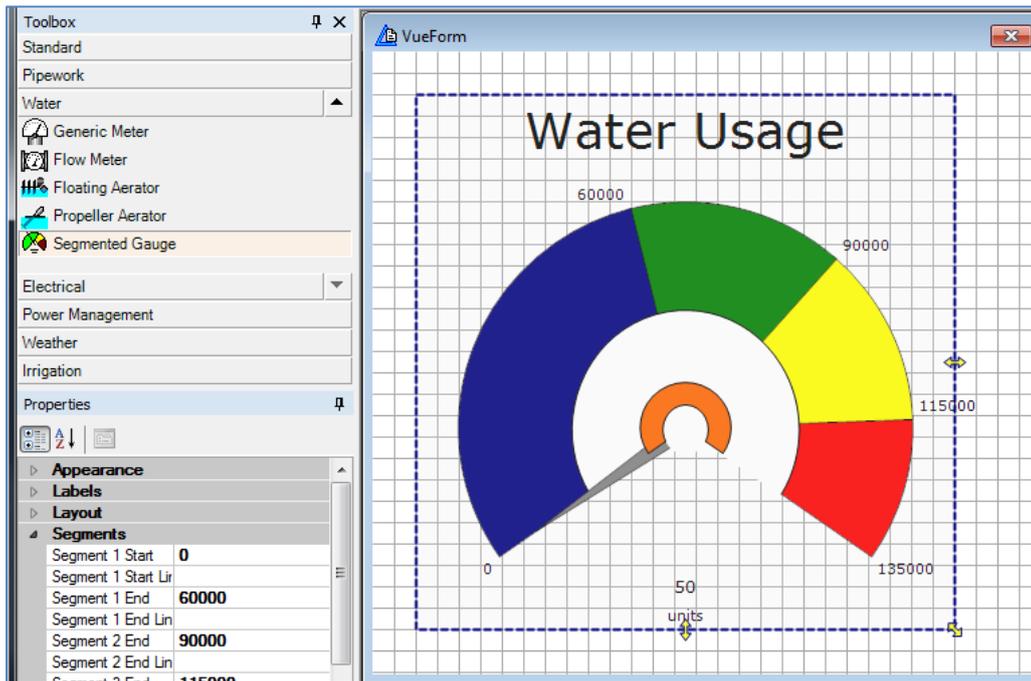
## Segments Menu

The Segments submenu lets you set the colour and ranges of the Gauge Segments.

The Gauge supports up to 10 segments. Segments are specified with the values Segment 1 Start, Segment 1 End, Segment 2 End, ..., Segment N End, where  $1 \leq N \leq 10$ . Segment ends must be contiguous (i.e., you can't have Segments 1, 2, and 4 but not 3), and must be in increasing order.

Alternatively, the Segment ends (and Segment 1 start) can be linked to DATRAN node values using Segment 1 Start Link, Segment 1 End Link, ..., Segment 10 End Link. If these links are set, the Segments will dynamically redraw themselves in real time as the DATRAN node values change.

The Segment 1 Fill, ..., Segment 10 Fill properties allow you to change the colour of the segments. In the current version, only solid fill colours are supported.



## Labels Menu

The Labels submenu lets you configure the labels that appear around the Gauge face at the Segment ends. The Label Font Size and Label Margin properties configure the font size and distance from the Gauge face of the labels.

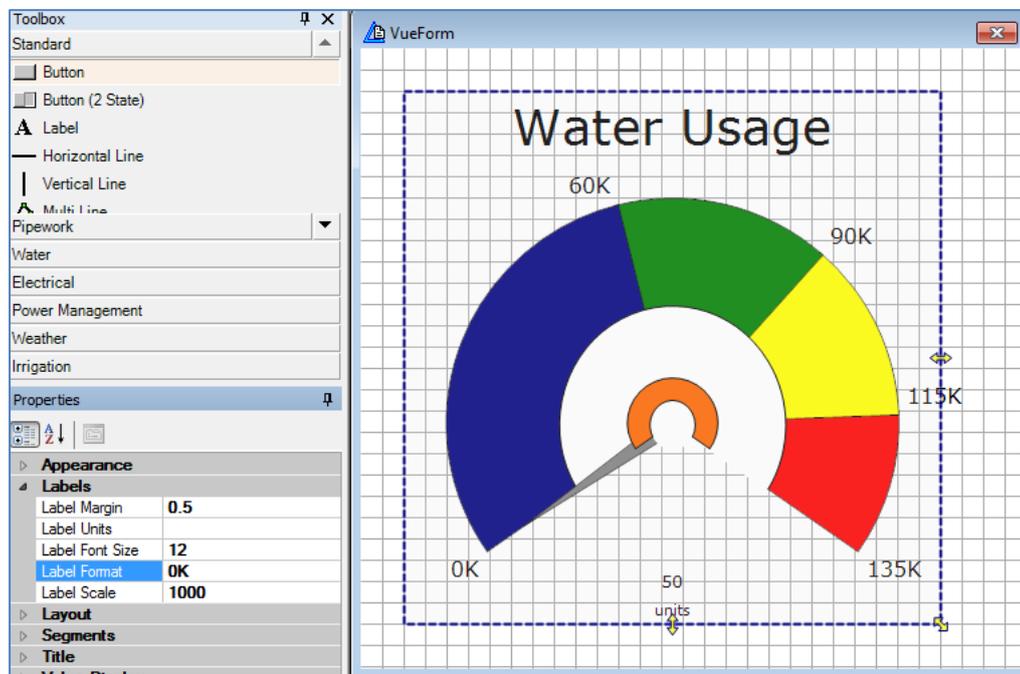
The Label Format allows specification of Visual Basic-style formatting of the labels. Some common examples:

0,0 specifies a comma separator between powers of 1000s, e.g., 12345 => 12,456

0.0 specifies 2 decimal places, e.g., 12 => 12.00

The Label Units allows an arbitrary units string to be appended to the labels. A space is added between the label value and the unit.

The Label Scale specifies a scaling factor by which the Segment edges are divided for their label value. E.g., for labels in 1000s of units instead of 1s, set the Label Scale to 1000.



## Value Display Menu

The Value Display submenu is used to configure the numeric display below the Gauge face.

The options are similar to those for the labels; the font size, units, format, and scale are configurable in the same manner.

The Value Link property is used to specify the DATRAN node that controls the displayed value on the Gauge (both the numeric display and the needle position).

The Value Display Visible property allows the numeric display to be disabled.

The screenshot displays the VueForm software interface. On the left is a 'Toolbox' with categories like Standard, Pipework, Water, Electrical, Power Management, Weather, and Irrigation. The 'Water' category is selected, showing icons for Generic Meter, Flow Meter, Floating Aerator, Propeller Aerator, and Segmented Gauge. Below the toolbox is the 'Properties' panel, which is expanded to show the 'Value Display' settings for the selected 'Segmented Gauge'.

The main workspace shows a 'Water Usage' gauge on a grid. The gauge is a semi-circular dial with five colored segments: blue (0K), green (60K), yellow (90K), red (135K), and orange (115K). The needle points to a value of 78,341 Litres. The title 'Water Usage' is centered above the gauge.

The 'Properties' panel for the 'Value Display' property is as follows:

Property	Value
Value Display Font	18
Value Display Units	Litres
Value Display Units	12
Value Display Form	0.0
Value Display Scal	1
Value Display Visib	Yes
Value Link	Data Root\Gauge\X

## Appearance Menu

The Appearance submenu is used to change the colours of the three central components of the Gauge.

Background Colour controls the colour of the white segment in the middle of the Gauge face. This is intended to be set to the same colour as the Form's background colour.

Pointer Guard Fill Colour controls the colour of the orange segment at the base of the pointer needle.

Pointer Fill Colour controls the colour of the needle itself.

