Advanced Cluster Part 4

The following steps describe how to use the Custom_Gauge control in a scene. Speed gauge and RPM gauge are realized with the same control. Using the public properties for customization these Gauge controls appear similar yet different.

Once the advanced cluster scene is fully configured, it's time to test its functionality using the Scene Composer's Player.

Create a Cluster Scene with 2 Custom_Gauge Controls

1. In the Solution Explorer navigate to the Scene2D and double click it.
   - Scene2D will be opened and visible in Scene Editor and Scene Tree panel.
   - In Scene Tree panel you can see that the scene contains a camera.

2. In the **Scene Editor's bottom toolbar** make sure that "**active rendering**" and "**widgets updating**" is enabled.
   - In the Scene Editor's bottom toolbar "**active rendering**" and "**widgets updating**" are highlighted as seen in the image below.



3. From the Toolbox panel under **[Nodes 2D]** drag a **Group node** into the Scene Tree panel or the Scene Editor.
   - In the Scene Tree panel you can see the newly created Group node.
   - In the Scene Editor you can see an indicator of the Group node's current position.

4. **Rename** the **Group node** according to the table below either via the context menu "Rename" or the keyboard shortcut <F2>.
   - The Group node has been renamed accordingly.

Old Name	New Name
Group	Group_Content

5. In the Scene Tree panel select the Group node. In the Properties panel's **[Transformations]** section reset the Position property according to the table below.
   - In the Scene Editor you can see the Group node's current position.

> A property can easily be**reset** in the Properties panel by clicking on the **curled arrow icon** on the property's left.

Target Item	Position	
	X	Y
Group_Content	0.00	0.00

6. From the Solution Explorer **drag** the **image** according to the table below into the Scene Tree panel **directly onto the Group_Content** node.
   - In Scene Tree panel you can see that a new RenderNode2D with a BitmapBrushBlend effect has been created inside Group_Content.
   - In Scene Editor you can see the rendered background image.

Path in Solution Explorer	Image
Solution > Resources > Bitmaps	BackgroundBmp

7. From the Solution Explorer drag **two Custom_Gauge** into the Scene Tree panel directly onto the **Group_Content**. The path to the Custom_Gauge control is given in the table below.
   - In the Scene Editor only one Custom_Gauge will be displayed since both controls are located at the same position and therefore are completely overlapping. One Custom_Gauge is hiding the other.
   - In the Scene Tree panel the Group_Content node contains a RenderNode2D and the newly created Custom_Gauges.

Path in Solution Explorer	Control
Solution > Controls	Custom_Gauge

8. **Rename** the **Custom_Gauge** nodes according to the table below either via the context menu "Rename" or the keyboard shortcut <F2>.
   - The Custom_Gauge node has been renamed accordingly.

Old Name	New Name
Custom_Gauge	Custom_Gauge_Speed
Custom_Gauge_1	Custom_Gauge_RPM

9. Select the **Custom_Gauge controls** one after the other. In the Properties panel **configure the properties** as given in the tables below.
   - In the Scene Editor the gauge controls for RPM and Speed are both visible.
   - The Scene2D starts to look like a cluster, see image below.

Custom_Gauge_RPM Property	Value
Transformation	
Position X	965.00

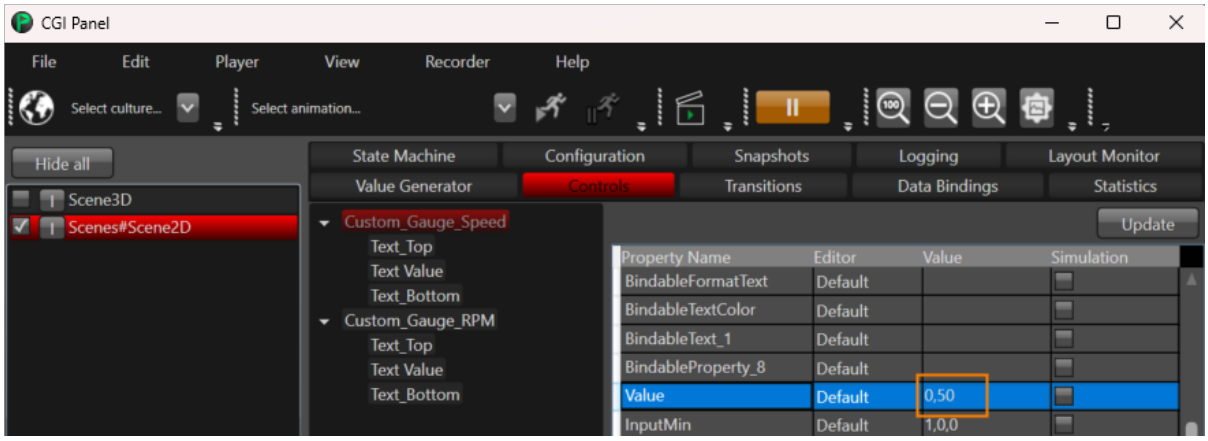
Position Y	30.00

Custom_Gauge_Speed Property	Value
Transformation	
Position X	60.00
Position Y	30.00
Control	
Value	120
Input Max	240
Top_Text	Speed
Value_Format Text	%d
Bottom_Text	km/h
BackgroundImage	Solution/Resources/Bitmaps/Points_BlueBmp
ForegroundImage	Solution/Resources/Bitmaps/Numbers_0-240Bmp



Check the Scene in the Player

1. **Save** your work and **start** the **Player** to test the functionality of your configuration. To do this, please perform similar steps to the ones described in the GettingStartedControls Best Practice.
   - The Speed Gauge can be tested by manipulating Custom_Gauge_Speed's Value Property (The property is changed to 50 in the image below).
   - The RPM Gauge can be tested by manipulating Custom_Gauge_RPM's Value Property.



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