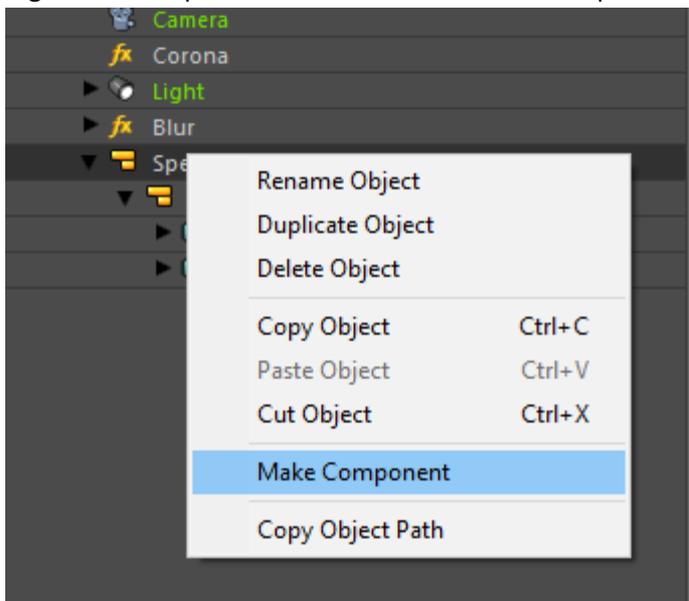## 7: Components

Delete slide 2.

Step 1: Create component

- Right click on Speedometer and select Make Component.

- The appearance changes

- Double click icon to open
- Edit state opens
- Select NeedleSpeed and activate animate toggle

- Move playhead for example to 6 seconds and rotate the needle to 260 km/h (z-value)
- Check the animation in Viewer or move playhead (component animations are not visible in editor)
- Animate the needle colour change from blue to red (or any combination) during rotation
- Go back to Scene and play.
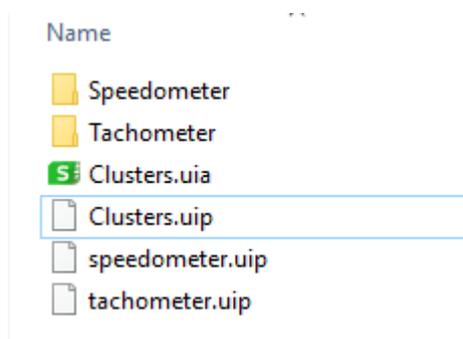
7: Subpresentations

In this sequence, two subpresentations are added to one main presentation using both an image and a layer to displaying the presentations . For that purpose, separate main presentation is created to be able to show the presentations side by side.

Step 1: Create main presentation

- Create new project (File menu)
- Browse folder, not the same than the previous one
- Give name (Clusters), uncheck Create Directories (not needed) → Create
- Edit -> Presentation Settings
- Size 2048 x1024
- Apply, OK

Step 2: Add subpresentation 1

- Rename layer to Speedometer
- Go to File Explorer and copy to same folder with the main presentation the earlier created .uip for speedometer and its folder and also tachometer.uip and its folder from delivered project assets (Original >Cluster parts_05 > Clusters).
    - o You can also use speedometer.uip instead of earlier created version

- Open Clusters.uia into text editor

```xml
<?xml version="1.0" encoding="UTF-8"?>
<application xmlns="http://qt.io/qt3dstudio/uia">
    <assets initial="Clusters">
        <presentation id="Clusters" src="Clusters.uip"/>
    </assets>

    <statemachine ref="#logic">
        <visual-states>
            <state ref="Initial">
                <enter>
                    <goto-slide element="main:Scene" rel="next"/>
                </enter>
            </state>
        </visual-states>
    </statemachine>
```

-
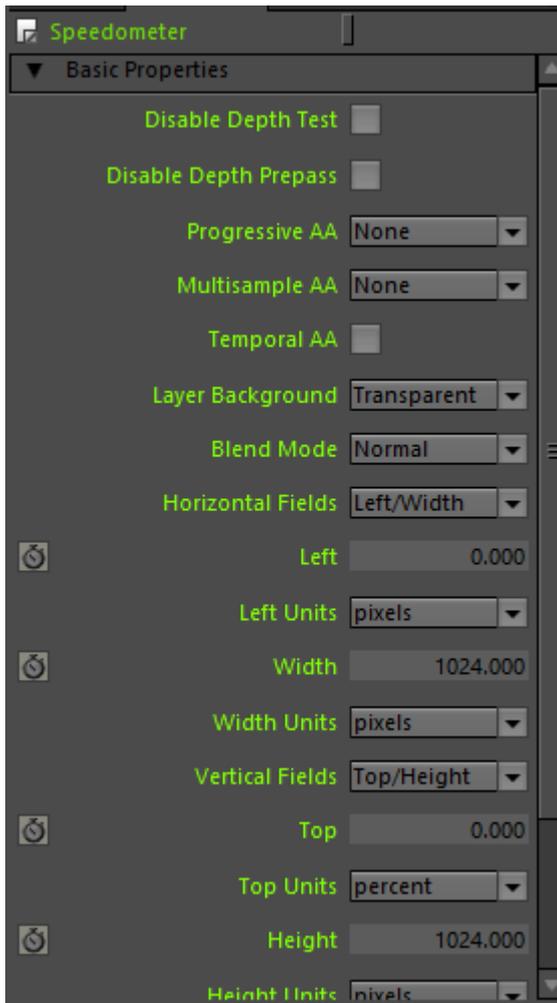- Add two other presentations in the folder to assets tag and give them both unique id. Save.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<application xmlns="http://qt.io/qt3dstudio/uia">
    <assets initial="Clusters">
        <presentation id="Clusters" src="Clusters.uip"/>
        <presentation id="speedo"   src="speedometer.uip"/>
        <presentation id="tacho"    src="tachometer.uip"/>
    </assets>

    <statemachine ref="#logic">
        <visual-states>
            <state ref="Initial">
                <enter>
                    <goto-slide element="main:Scene" rel="next"/>
                </enter>
            </state>
        </visual-states>
    </statemachine>
</application>
```
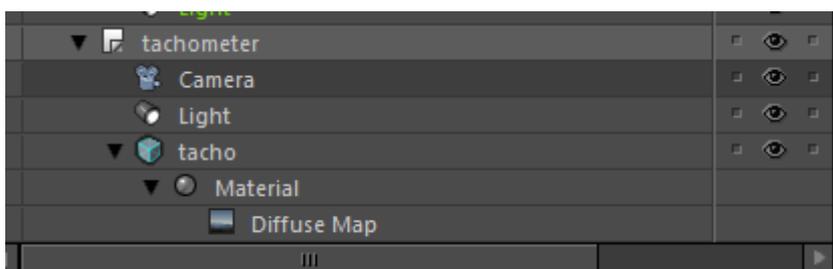
- Go to Editor
- Select Speedometer layer and go inspector property Subpresentation. Select speedometer's id from drop down menu.
- adjust layer properties to position the subpresentation. It should fill left half of the presentation.
    - Test using pixel values (1024 x 1024)
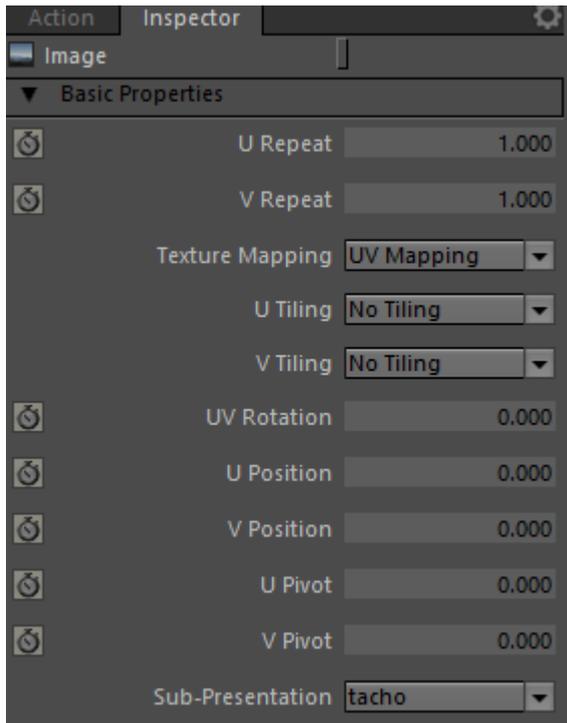   - Test using percent values (Height 100%, width 50%)

-

Step 2: add subpresentation 2
- Drag new layer and rename it to tachometer
- Drag tacho.png to it

- Resize it to fit in height and then in width
- Position it to right half
- Select Diffuse map and in Inspector go to Subpresentation property, select tachometer id from drop down menu

Play in viewer: