ScaleMaker

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http:/rabbitengineering.com

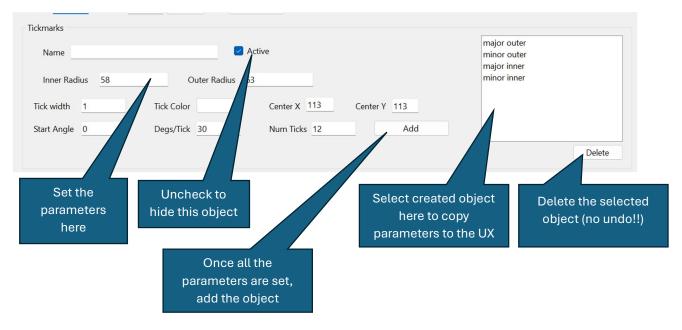A tool to draw complex circular gauge/instrument faces for aircraft cockpits and the like.

Basic concepts

Each gauge can have a background image. This can be a BMP or PNG. This image will set the size of the final rendered image.

The images are put together with 4 layers: Tickmarks, Text Arcs, Arcs and Labels. They are rendered in that order (i.e. Labels are rendered last and will appear over all other elements).
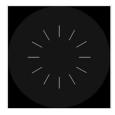
Each layer can have any number of elements. You set the parameters for the element, and then hit "Add" which will add it to the image. You can delete any element you have already created.

To edit an element, click on it in the list, and it will update the parameters. Once you have made the change click Add to create the newly edited object, and then go back and delete the older one you selected.

Tickmarks

Radial check marks, for example:

If you want to have alternating large and small tick marks, create two objects: One with shorter marks, the other with longer ones:

This example also shows how you can use the Start Angle parameter to create a specific gap in the circle.

You can use the CenterX and Century parameters to move where the object is rendered.

Text Arcs

This is used to put text at particular spacing along a circle:

The actual text placed is set in the Strings parameter. This must be a comma delimited list, and the number of items must match the Num Ticks parameter.

Note – for font you enter the font name. Use the windows Font tool in the control panel.

You can use the CenterX and Century parameters to move where the object is rendered.

Arcs

This is used to draw line arcs:

You can set the Filled property to create a pie slice:

You can use the CenterX and Century parameters to move where the object is rendered.

Labels

This puts a text label on the gauge. Use the X and Y parameters to position the text.

Sample workflow

1. Start a new project with "File->New"
2. Set the size of the gauge using Width and Height and pressing Create, or by loading a background bmp/png.
3. Create the various objects for your gauge
4. Save the project as needed
5. Once you are done, hit Export to PNG (under the generated image) to save the image to disk.