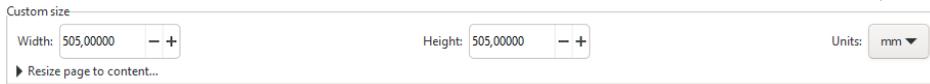


How-To: Create front plate for a Wordclock with Inkscape

This How-To was created based on Inkscape 1.0.2. No liability or guarantee can be assumed for completeness and correctness. It should only be a suggestion to deal with Inkscape yourself. Let's get started.

After opening Inkscape, first in the menu "File" -> "Document Settings..." in the tab "Page" set the page size to the desired size of the foil. Make sure that "mm" is chosen as the unit and not "px" or other exotic stuff.



In the same window under the tab "Grid" define a new grid.

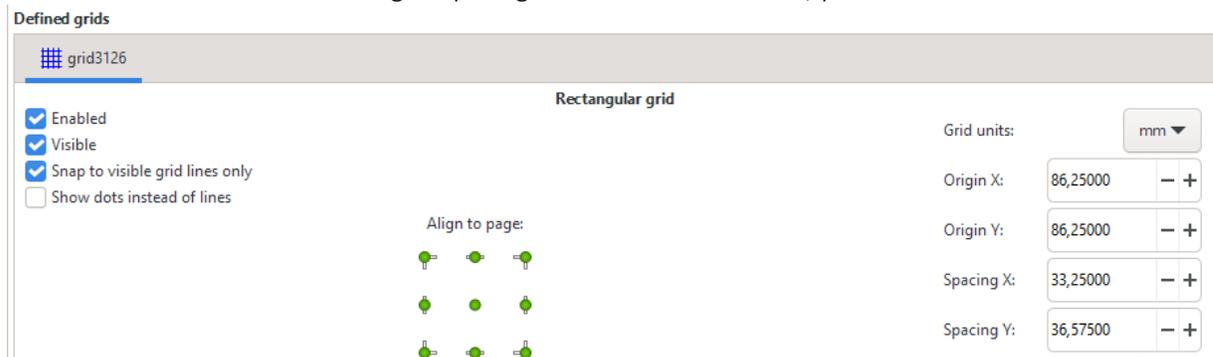


This should have the dimensions of the desired grid. Again, make sure that "mm" is selected as the unit.

Short digression on the calculation of the grid spacing (exemplary):

Given: LED strip with 30 LEDs per meter. Specifically, an LED every 33.25 mm. Thus, the horizontal spacing would be 33.25 mm. If, for example, 11 letters are to be placed in a row, the result is: $33.25 \text{ mm} \times 11 = 365.75 \text{ mm}$.

If one continues to assume that 10 letters should be arranged in the vertical and the resulting arrangement should result in a square, the result is: $365.75 \text{ mm} / 10 = 36.575 \text{ mm}$. Thus, the distance and thus what would have to be entered as the grid spacing would be: $x = 33.25 \text{ mm}$, $y = 36.575 \text{ mm}$



Now you can start inserting the desired letters. So that the letters snap to the grid that has just been created, at least the following buttons in this toolbar must be pressed:



If this is the case, after selecting the font tool, you should move over the grid with the mouse look like this and

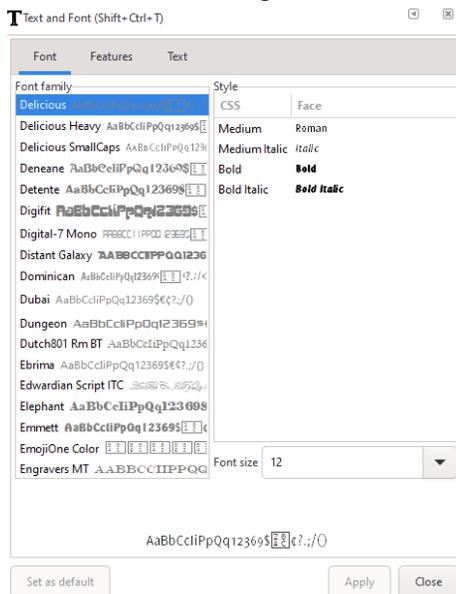


always snap the cross nicely:

Select the font tool (Attention, there are several similar-looking icons, do not confuse):



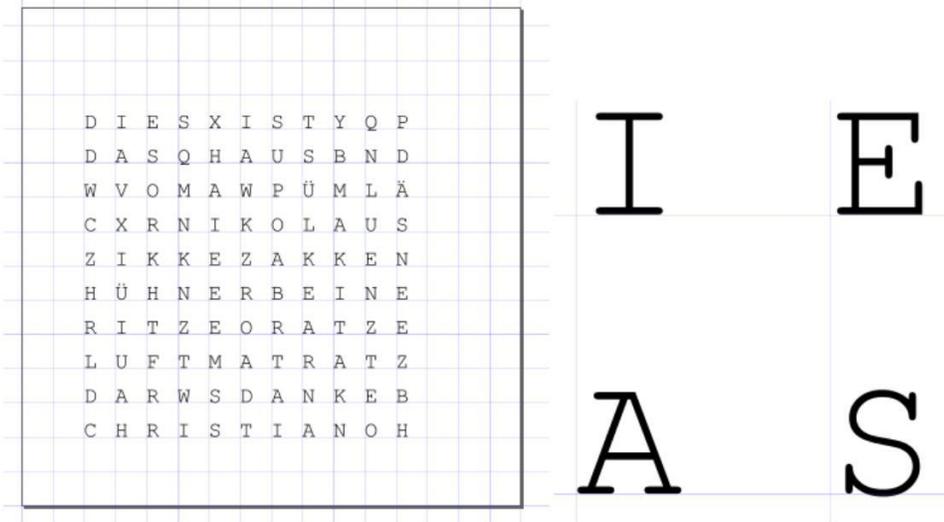
If there are no selection menus on the right edge of your screen, you can do so with make up for the **T** button. Should look something like this:



I think the menu is self-explanatory. You should only make sure that you must click on the button “Apply” so that changes to font, size, etc. are applied.

Now you can put together your desired letter matrix. Always click nicely on the grid point and set the desired letter.

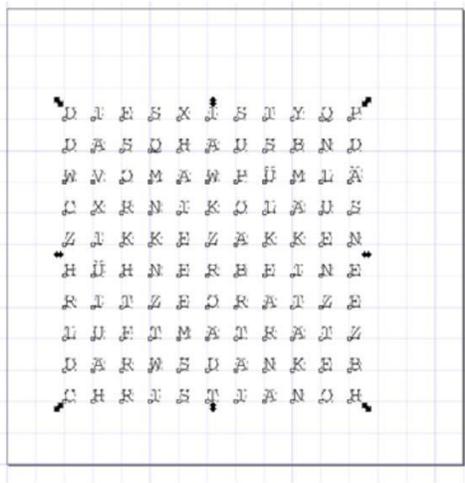
At this point, it doesn't matter where you position the matrix, the alignment comes later.



On closer inspection, you can see that the letters have been aligned to the right of the anchor point. This can now be changed to centered.



To do this, use the object selection tool to draw a frame around all letters, so that they are selected.

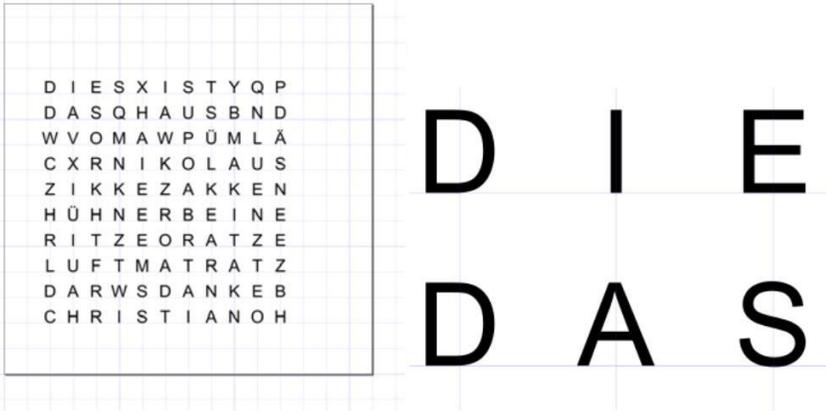


Now you can adjust everything as desired in the font dialog on the right side. Font, Size, Style... and the alignment. This is done with this button:

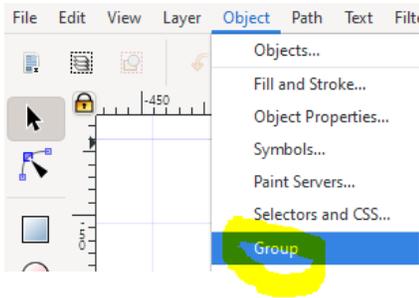


When everything is set, don't forget to click on "Apply".

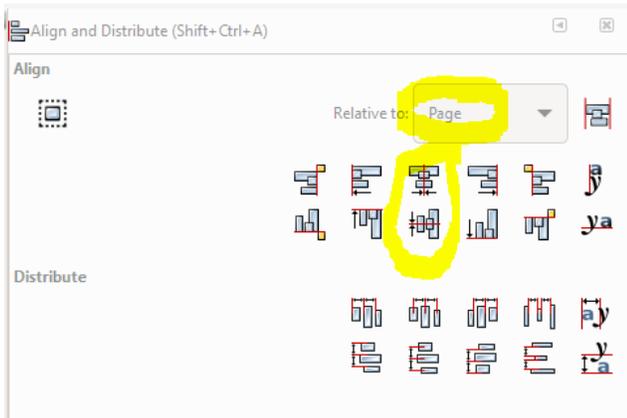
I have now selected Arial, font size 59, centered and the result looks like this:



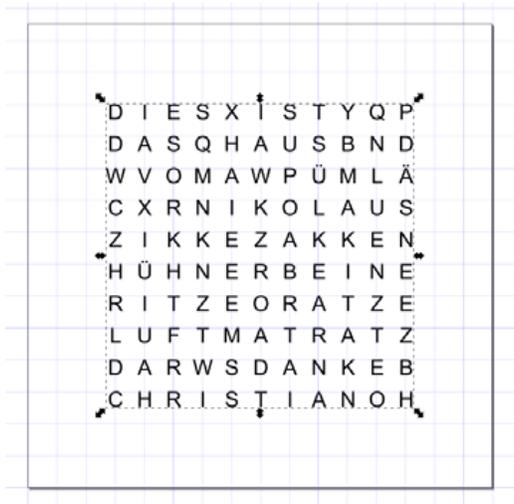
You can see that the letters are now centered on the grid. To fit the whole thing into the page, all letters are selected again. Now the letters are grouped together to fit them in their entirety into the page:



To align, select from the align icon the toolbar  and a menu appears on the right. In this menu you can choose a horizontally as well as vertically centered alignment. It is important that "relative to: page" is selected!

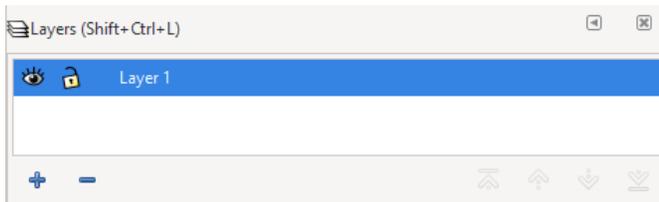


Now it should look like this and be nicely centered in the middle of the page:



We no longer need the grouping of the letters and dissolve them: Right click -> Ungroup.

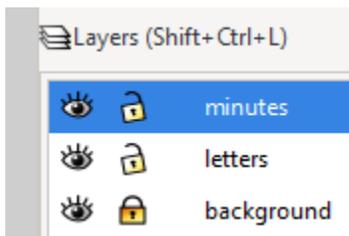
Now we continue with the minute indicators and the background. You could put all elements in one layer but it's clearer to create a new layer for the background and the corner points. First you need the layer menu, which you can open with . It looks like this:



Here you can first rename the existing "Layer 1" by clicking with the right mouse button on the name in e.g., "letters". A new Layer is created by clicking on .

You call the new layer "background" and place it below the current layer. While you're at it, you can also create another layer for the minute indicators.

Should look something like this:

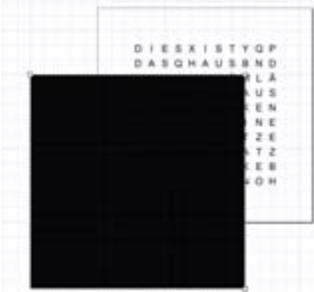


Now select the layer "background" by mouse click. All actions are therefore only on of this level.

By selecting the Rectangle tool , we draw a rectangle of any size. The size of the rectangle can now be changed to the desired dimensions of our front panel (make sure that millimeters is selected as the unit):



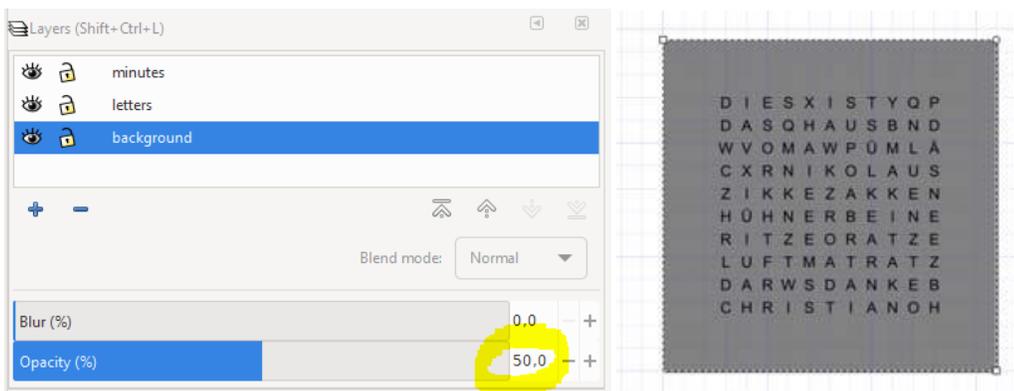
Now it looks like this, and you want to fit the square into the page:



To do this, select the horizontal and vertical centering from the “Align” menu again. Again, it is important that “Relative to page” is selected.



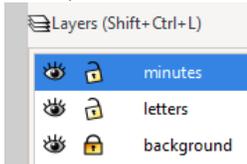
Now the black thing covers everything that is not nice. To change this set in the layer menu and set the opacity of this layer to something around 50%. As a result, it all becomes a bit transparent.



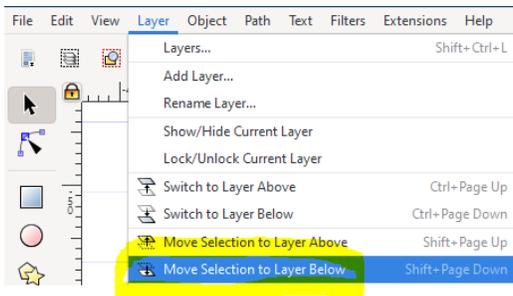
The next step is to set the minute indicators. To do this, switch to the corresponding layer and draw the minute indicators, for example, as round corner points with the ellipse tool. How they look like, and where they are placed is up to you.

Before you do the last steps (merge layers, convert to paths) you should save the file. save the file, because now you (still) have the possibility to change font, font size or other parameters relatively fast, font size or other parameters if you want to make different front panels.

Now you can move the objects of one layer to the layer below. So, select “minutes” in layer menu,



and select all objects with CTRL-A and choose in the menu “Layer” => “Move Selection to the Layer below”.



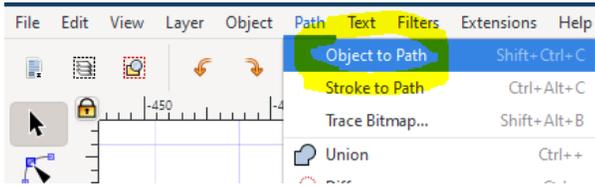
The layer “minutes” is now empty and can be deleted (right mouse button on layer name => delete current layer).

Before you merge the layer “letters” with the layer “background” it is recommended to change the color of minutes indicators and letters to “White”: Select the layer “letters” and mark all objects in this layer with CTRL-A. Now you can change the color for the fill to “white” at the bottom left of the screen.

If all objects are still selected (otherwise CTRL-A) you can now move them to the underlying layer “background” as described above. Menu “Layer” => “Move selection to layer below”. Since the layer “letters” is empty now, you can also delete this layer. So only the background layer remains, which now contains all objects. Last not least you can set the opacity of this layer to 100% again, so that the result looks like this.



Sooo. Almost done. In the very last step, we convert all objects into paths, which then serve the plotter as crop marks. To do this, select all objects with CTRL-A and choose "Path" => "Object to path".



When saving as *.svg you should now assign a new name so that you don't lose the file version with text instead of paths for later purposes. Once the text is converted to paths, you can't change it (font etc.) and you start from scratch...

In the very last step, we create the pdf file. To do this, simply choose "Save as" and select "Portable Document Format (*.pdf)" as the document format. If not already selected, you can choose "Convert text to paths" again in the pop-up menu.

