

## HOW TO SETUP YOUR LIBRECAD WORKSPACE

By C.W.A. Baltus

### INTRODUCTION:

Librecad is an open source drawing program to make two dimensional drawings.

You can do your first experience with the with the aid of the user manual

(<https://librecad.readthedocs.io/en/latest/>) , however nothing is written about how to setup your workspace.

If you think to make a lot of different type of drawings (f.i. electrical schemes, mechanical or building drawings) with a similar lookout, it is recommended to make a good setup your own workspace.

In this document you get some practical guidelines.

### SCALE

At a scale drawing, the drawn info is always in mm's with a scale 1:1.

An according drawing frame is always choosen on the maximum size of the components.

If you want to print on a scale of 1:50, you drawn on a scale 1:1 and scale the print/pdf back to 1:50.

The general scaling factors are:

- 10:1, 5:1 and 2:1 (magnification)
- 1:1 (drawing on true scale)
- 1:2, 1:2.5, 1:5, 1:10, 1: 20, 1:25, 1:50, 1:100, 1: 200, 1:250, 1:500, 1:1000, 1: 2000, 1:2500, 1:5000 and 1:10000 (reduction).

For electric engineers:

- Most "electronic" blocks are drawn within the size of 10\*10 mm
- Schemes can be drawn on one or more A3 drawing frames
- When you print this drawings on A4-paper you can read them very well.

### DRAWING FRAMES

If you make occasionally a drawing, you don't have to worry about a drawing frame. You draw in millimeters, see how great your drawing becomes and print it with your custom scale.

However, when you want multiple drawings with a similar outlook and fixed scale, you can select a drawing frame (including header).

If you have a rough idea of the content of the drawing:

- you can select the drawing frame
- Make a copy of drawing frame and rename this copy to the final filename.
- Open this filename and start drawing

Frame_name	Outside measures		Drawing area	Text size	Drawing scale	Printscale (on A3)	Application
A4_210x297	210	297	200 x 287	2,5	1:1	1:1	Small components
A4	297	210	287 x 200	2,5	1:1	1:1	Small components
A3_420x297	420	297	410 x 287	2,5	1:1	1:1	E-drawings/other
A2_594x420	594	420	584x410	3,5			
A1_841x594	841	594	821 x 574	5			
A0_1189x841	1189	841	1169 x 821	7			
2A0_1682x1188	1682	1188		10			
4A0_2378x1682	2378	1682		15			
8A0_3364x2376	3364	2376	3264x2276	20	1:10	1:8	Buidling details
16A0_4756x3364	4756	3364		35			
32A0_6728x4752	6728	4752	6320x4352	40	1:20	1:16	Building components
64A0_9512x6728	9512	6728	9104x6320	60	1:20	1:22.6	
128A0_13456x9504	13456	9504		80		1:32	
256A0_19024x13456	19024	13456		125	1:50	1:45,2	
512A0_26912x19008	26912	19008		150		1:64	
1024A0_38048x126912	38048	26912	38016x24880	250	1:100	1:90,5	Buildings

Figure 1 Overview of drawing frames

## LAYERS

Besides the layer "0" and some layers with different line thickness, it is recommended to use special layers for dimensions, help lines, dotted lines and text.

	Laag	Kleur	Breedte	Lijntype	Opmerking
	0	Zwart/wit	0,25 (ISO)	Doorlopend	Blijft leeg
	0,13 lijn Dimension	Blauw	0,13 mm (ISO)	Streep	
	0,13 Dimension	Zwart/wit	0,25 (ISO)	Doorlopend	
	0,25 Tekenvlak	Zwart/wit	0,25 (ISO)	Doorlopend	
	0,70 Tekenvlak	Zwart/wit	0,25 (ISO)	Doorlopend	
	1,0 Tekenvlak	Zwart/wit	0,25 (ISO)	Doorlopend	
	Hulplijnen	Groen	0,18 mm (ISO)	Doorlopend	
	Kader_stippellijn	Rood	0,25 mm(ISO)	Streep	
	Teksten	Zwart/wit	0,18 mm(ISO)	Doorlopend	

Figure 2 Setup of layerlist

## Blocks

If you intend to make a lot of blocks, remember to make a structure to save your blocks.

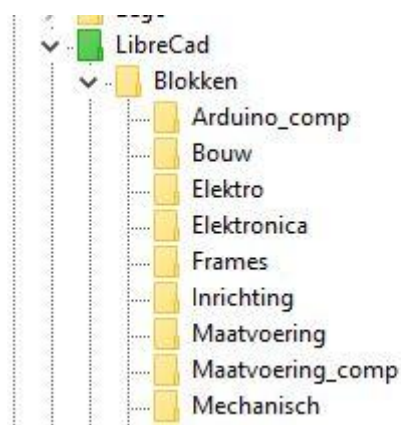


Figure 3 Blocks are stored in several maps

Blocks are made in real measures (mm's) and in the right layers.

If you insert a block in your drawing, the layers come along with that; so you can hide some info by "hide layer"

Tip: If the imported block is not visible, please check if the layer is not hided.

## PRINTING

Use Print Preview

If you draw without a frame, you can adjust the scale.

- When you use a standard frame (like block "A4\_210\_297") you can make adjustments with Options, Drawing Preferences, and paperformat or landscape/portrait
- Adjust the printing scale so the drawing fits to the papersize

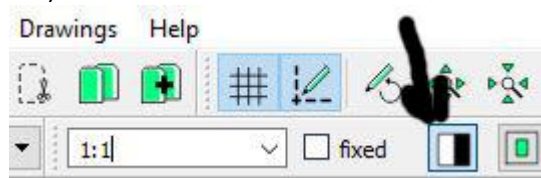


Figure 4 Set print scale

- Move the paper above your drawing (select with mouse and move)
- Make a printable pdf, by selecting Export, Export to pdf.

Tips:

- It is never recommended to do measure sizes from drawings, but if you want to do it still: place a ruler on your drawing.
- Drawings are made with colour lines. If you don't have a colour printer, select Black/white in the preview before you make a pdf (on a monochrome printer B/W files are brighter than gray scaled files).



- If you want to reuse Acad-files, you can convert them to DXF-format with

<a href="https://onlineconvertfree.com/nl/convert-format/dwg-to-dxf/">https://onlineconvertfree.com/nl/convert-format/dwg-to-dxf/</a>	Limited conversions
<a href="https://cloudconvert.com/dwg-to-dxf">https://cloudconvert.com/dwg-to-dxf</a>	Max 25 conv/day

Finally:

I can make my collection blocks and sheet frames available.