

GerbView

May 6, 2018

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Reference manual

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- About KiCad document: https://github.com/KiCad/kicad-doc/issues
- About KiCad software: https://bugs.launchpad.net/kicad
- About KiCad software i18n: https://github.com/KiCad/kicad-i18n/issues

Publication date and software version

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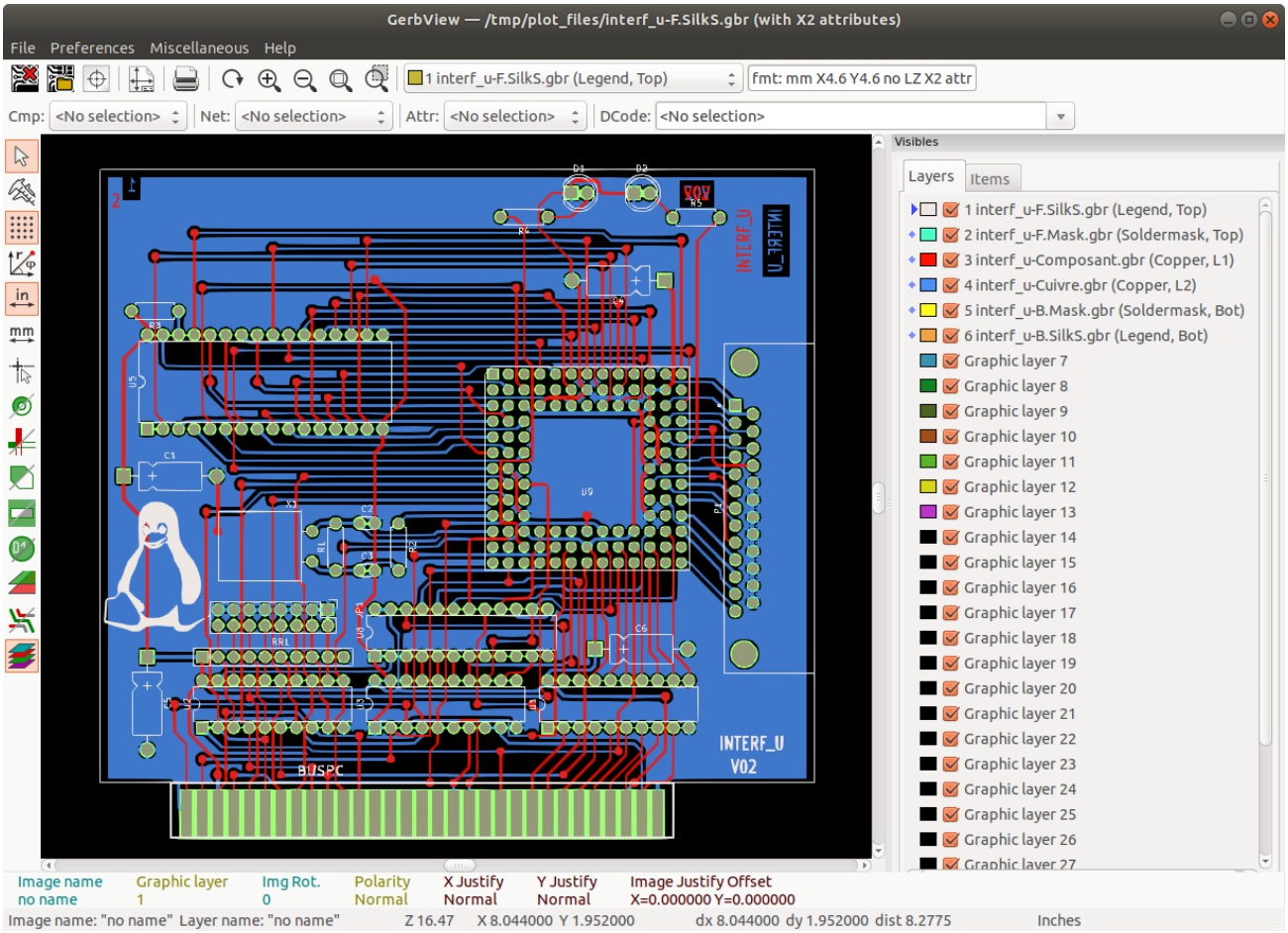
1 Introduction to GerbView

GerbView is a Gerber file (RS-274X format) and Excellon drill file viewer. Up to 32 files can be displayed at once.

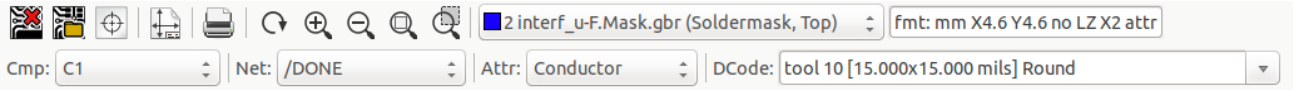
For more information about the Gerber file format please read the Gerber File Format Specification. Details about drill file format can be found at the Excellon format description.

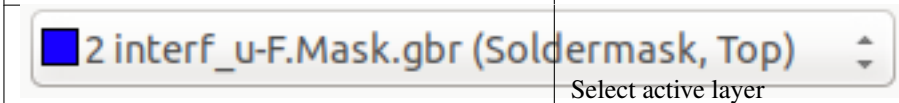
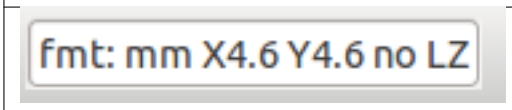
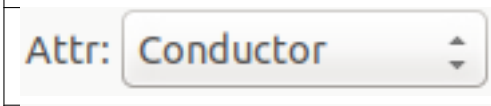
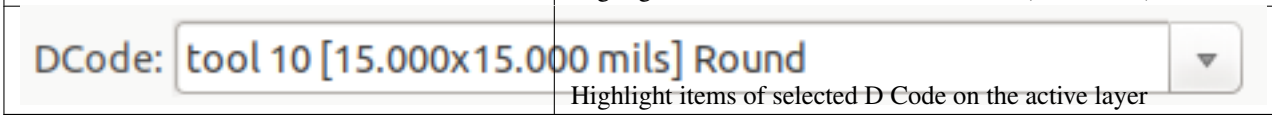
2 Interface

2.1 Main window



2.2 Top toolbar

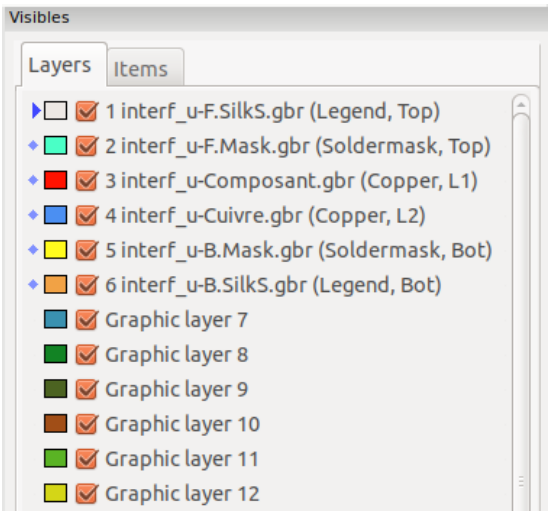


	Clear all layers
	Load Gerber files
	Load Excellon drill files
	Set page size
	Print
	Redraw view
	Zoom in or out
	Zoom auto (zoom fit)
	Zoom to selection
	Select active layer
	Display info about active layer
	Highlight items belonging to selected component (Gerber X2)
	Highlight items belonging to selected net (Gerber X2)
	Highlight items with the selected attribute (Gerber X2)
	Highlight items of selected D Code on the active layer

2.3 Left toolbar

	Select items
	Measure between two points
	Toggle grid visibility
	Toggle polar coordinates display
	Select inch or millimeter units
	Toggle full-screen cursor
	Display flashed items in sketch (outline) mode
	Display lines in sketch (outline) mode
	Display polygons in sketch (outline) mode
	Show negative objects in ghost color
	Show/hide D Codes
	Display layers in diff(compare) mode
	Display current layer in high-contrast mode
	Show/hide layer manager

2.4 Layers Manager



The Layers Manager controls and displays visibility of all layers. An arrow indicates the active layer, and each layer can be shown or hidden with the checkboxes.

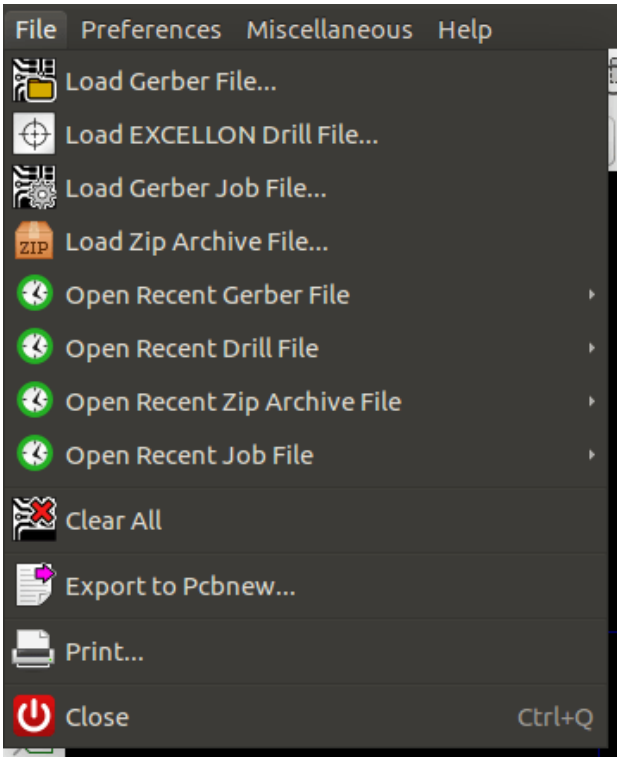
Mouse button assignments:

- Left click: select the active layer
- Right click: show/hide/sort layers options
- Middle click or double click (on color swatch): select the layer color

The Layers tab allows you to control the visibility and color of all loaded Gerber and drill layers. The Items tab allows you to control the color and display of the grid, D Codes, and negative objects.

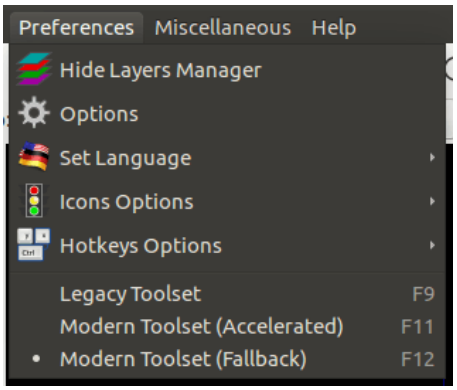
3 Commands in menu bar

3.1 File menu



- **Export to Pcbnew** is a limited capability to export Gerber files into Pcbnew. The final result depends on what features of the RS-274X format are used in the original Gerber files: rasterized items cannot be converted (typically negative objects), flashed items are converted to vias, lines are converted to track segments (or graphic lines for non-copper layers).

3.2 Preferences menu



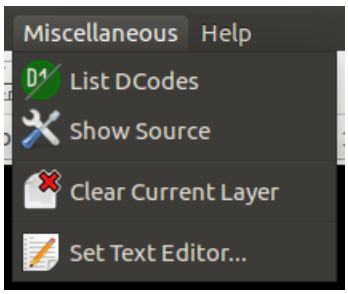
3.2.1 Toolsets

GerbView now supports the modern graphics toolset that is available in PcbNew. Enabling the modern toolset brings new features and better performance. You can select which toolset to use in the preferences menu. Using the Modern (Accelerated) toolset is recommended if your graphics card supports it (requires OpenGL 2.0). If your graphics card does not support the Accelerated toolset, you can still use the new features by selecting the Modern (Fallback) toolset.

Using the Legacy toolset is only recommended if you notice that the Modern toolset does not support a feature you need or if it does not render a Gerber file correctly. If you notice such a problem, please notify the KiCad developers so that it can be fixed in a future release.

The Legacy toolset will be removed in a future version of GerbView.

3.3 Miscellaneous menu



- **List DCodes** shows the D Code information for all layers.
- **Show Source** displays the Gerber file contents of the active layer in a text editor.
- **Clear Current Layer** erases the contents of the active layer.
- **Set Text Editor…** allows you to choose which program to show source with.

4 Display modes

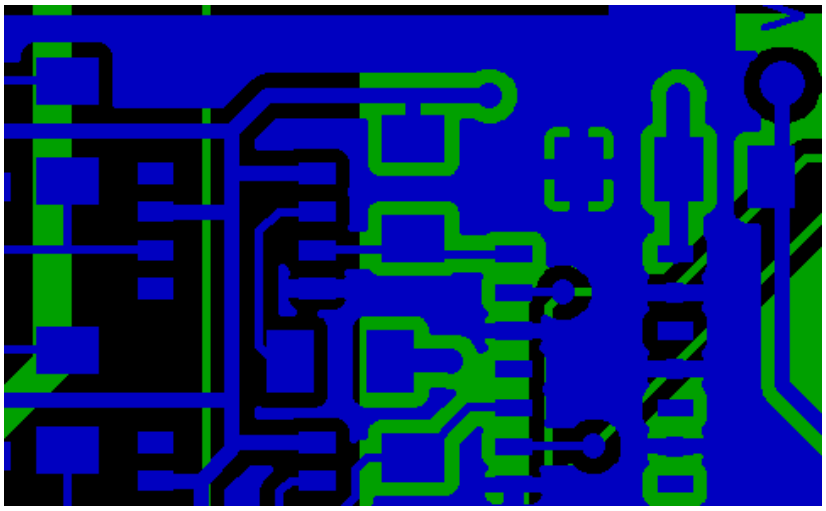
GerbView has three display modes which are useful for different situations or requirements.

Note
Stacked mode and Transparency mode provide a better graphical experience, but may be slower then Raw mode on some computers.

4.1 Raw mode

This mode is selected by . Each file and each item in the file are drawn in the order files are loaded. However, the active layer is drawn last.

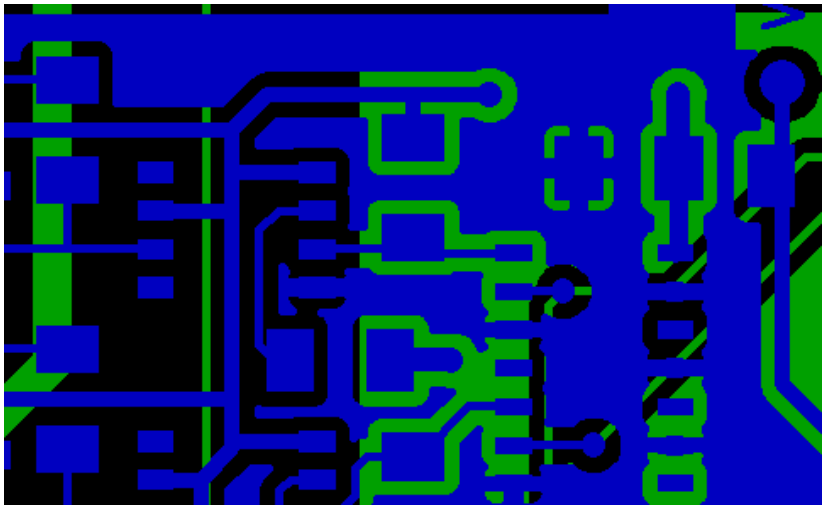
When Gerber files have negative items (drawn in black), artifacts may be visible on already-drawn layers.



4.2 Stacked mode

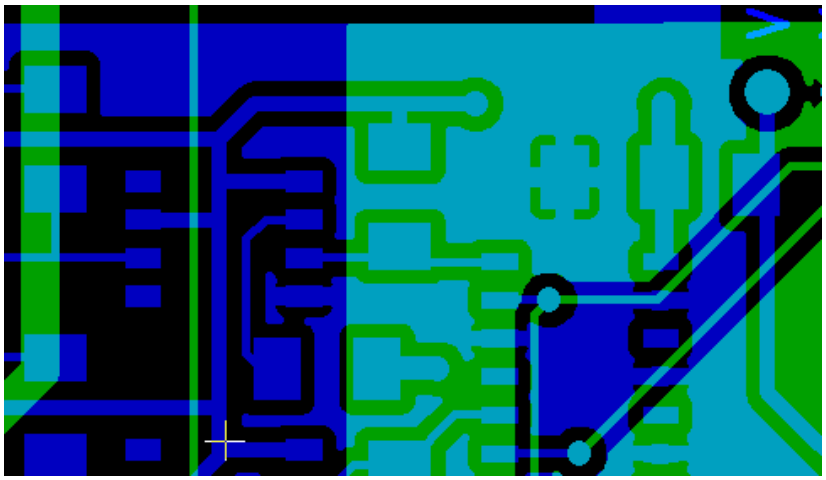
Invoked by , each file is drawn in the order files are loaded. Again, the active layer is drawn last.

When Gerber files have negative items (drawn in black) there are no artifacts on already-drawn layers because this mode draws each file in a local buffer before it is shown on screen.



4.3 Transparency mode

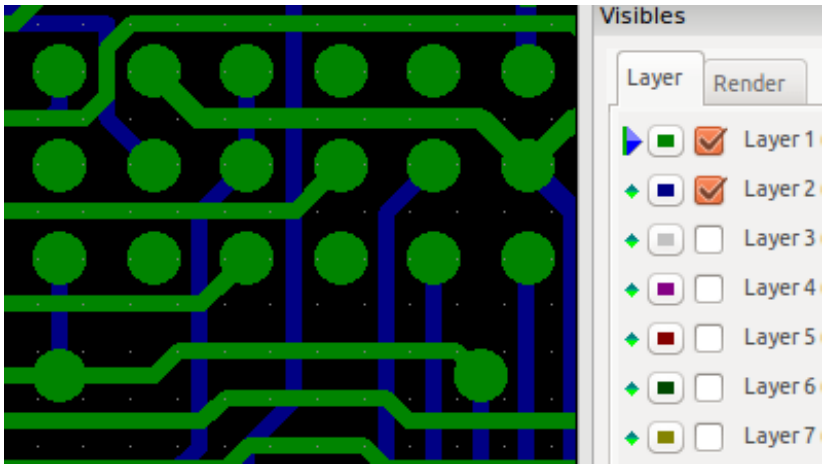
Use  to display in this mode, where no artifacts are present and layers are blended together with the active layer on top.



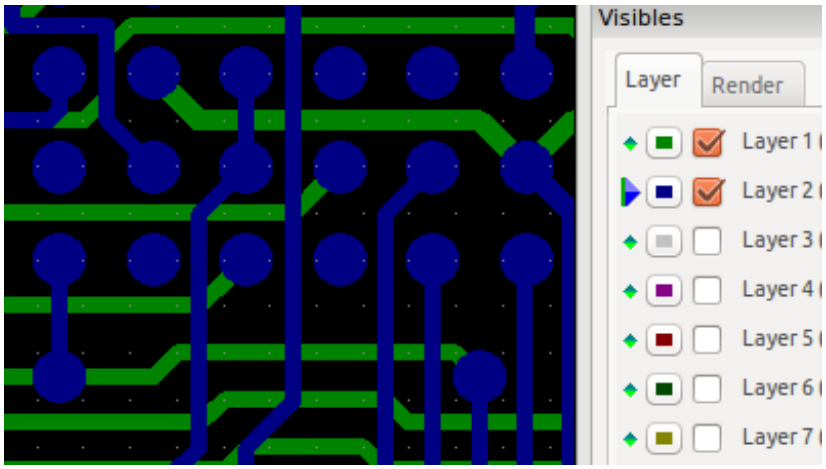
4.4 Layer occlusion

In raw or stacked mode, the active layer will be on top of other layers and hide items below it.

Here, layer 1 (green) is the active layer (note the triangle next to it) and so it is drawn on top of layer 2 (blue):



Making layer 2 (blue) the active layer brings it to the top:



5 Moving items

When using the legacy toolset, items may be selected by holding down the left mouse button and drawing a rectangle. Releasing the button picks up the items. A click of the left mouse button places the items.

This behavior is deprecated and not available in the modern toolsets.

6 Printing

To print layers, use the  icon or the **File** → **Print** menu.



Caution

Be sure items are inside the printable area. Use  to select a suitable page format.
Note that many photoplotters support a large plottable area, much bigger than the page sizes used by most printers. Moving the entire layer set may be required.