



## How to generate a GENCAD output file from PCB Editor

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This app note describes the method of how to generate the GENCAD ASCII files (rte.txt, brd.txt, symb.txt and pad.txt) from OrCAD and Allegro PCB Editor using the extracta command. It will also mention some alternative outputs that PCB fabricators / assemblers / test houses can use for their processes.

#### GENCAD export

Using the "extracta" command line utility, (You MUST have a Cadence PCB Editor license to be able to run the extracta command). Users can generate reports based on their requirement. In this case in order to generate the 4 ASCII files rte.txt, brd.txt, sym.txt, pad.txt, the following steps along with the "valext.txt" file will help.

1. Download the "Extract command file" (valext.txt) from <http://orcad.co.uk/downloads/genCAD.zip>.
2. Extract the file into the windows directory where the board file is.
3. Open a Command prompt from Start - Command prompt.
4. Change directory to the current PCB board file location (and valext.txt location).
5. Type extracta and respond to the prompts as follows:

Layout name (\*.brd): boardname press return

Extract command file (\*.txt): valext press return

Extract output filename (\*.txt): brd press return

Additional output filename (return if none) (\*.txt): pad press return

Additional output filename (return if none) (\*.txt): sym press return

Additional output filename (return if none) (\*.txt): rte press return

Additional output filename (return if none) (\*.txt): press return

Note: The extracta utility will produce 4 files: brd.txt, pad.txt, sym.txt, and rte.txt at the specified path. Import these four files into the relevant CAMCAD software.

If the Extract command fails:

The extracta command may fail to complete processing if the .brd file is missing user-defined attributes that the extracta command file (valext.txt) is looking for. If this happens, the extracta.log file will identify the missing attributes. Missing attributes are identified in the extracta.log file as follows:

#User Attributes are added here:

BARCODE

Field 'BARCODE' is unknown

This example says that the attribute 'BARCODE', defined for extraction in the extracta command file, was NOT found in the .brd file. In order to process the .brd file, you will need to comment the attribute 'BARCODE' out of the command extract file. To do this, open the valext.txt file in a text editor and place '#' in front of the keyword, 'BARCODE'.

### Alternative outputs

There are a few alternative outputs that assembly /ICT/Fabrication houses may be able to use instead of the GENCAD files.

From Allegro:

1. File – Export – Fabmaster out generates a fabmaster output file.
2. File – Export – ODB++ inside generates an ODB++ output file.
3. File – Export – IPC2581 generates an IPC2581 xml file.
4. File – Export – Placement generates a placement text report.
5. File – Export – IPC356 generates an IPC356 netlist report.
6. Tools – Quick Reports – Component Report also generates a more detailed placement report file.

From OrCAD:

1. Export – FABMaster generates a fabmaster output file.
2. Export – ODB++ inside generates an ODB++ output file.
3. Export – IPC-2581 generates an IPC2581 xml file.
4. Export – Pick/Place data generates a placement text report.
5. Export – IPC-356 generates an IPC356 netlist report.
6. Export – Quick Reports – Component Report also generates a more detailed placement report file.

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