

Re: advice on selecting new PCB design package

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 - *Date:* Thu, 23 Mar 2006 14:13:28 GMT
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DJ Delorie wrote:

"Lukas Louw" <louw1@xxxxxxx> writes:

OK check out the specifications at www.pcad.com and if you can convince me that gEDA will be as productive or better, I'll switch today:)

No, I mean why do **you** find it a step backwards? A long list of features that people may not use isn't a realistic target. What do **you** find useful in PCAD that gEDA doesn't have? I'm not trying to convince you to switch, I'm trying to figure out what's going to be important to work on in gEDA.

(and yes, this is as close to real marketing research as gEDA gets :)

A quick glance shows the following PCAD limits:

- * 999 layers
- * 30 character layer names
- * 0.1 mil max resolution

The first is a compile-time constant for PCB, you can have as many as you want. The others PCB already exceeds.

(not that I'm saying PCB is **better** than PCAD, just that there are at least a few example specs that PCB is better at).

DJ, Stuart, sci.electronics.cad readers,

Hey, didn't we just do this last week? Darn those time warps! I'd like to make another attempt to answer your questions about gEDA and marketing it. First, I do want to thank the gEDA community for all of the hard work, and to assure all of you that my comments are not meant as put-downs, but suggestions for improvement. Ready? Good!

First, the business essence of software is productivity. There are a few parts to this. First is how long it takes

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to learn a tool. This is a one-shot cost, but it is part of the cost of software, which means free isn't (free) when you look at the big picture. I would give Eagle a C-, gEDA a D+. What the gEDA community needs to do is to make it easier to learn and use. Not that it is hard, and Stuart's Circuit Cellar articles will help -- even if they are a year old (which I find hard to believe, but I'll take DJ at his word). A specific suggestion is to copy a well know user interface such as either Autocad or Microsoft Draw. Not that I'm in love with either, but it will reduce the learning curve.

Next is the time it takes to do something. This is more a matter of experience, but some tools are just easier to use. For example, the much maligned VB6 is easy to learn and use for GUI's and database applications under Windows. It is not my language of choice for heavy lifting -- I'll use C/C++ for that. The gEDA community should always be asking itself "how can we make doing simple jobs easy, and difficult jobs not so hard."

The final aspect to productivity is feature set. After all, if it can't do the job it isn't productive. This is a marketing question more than technical or usability. My sense is that gEDA should aim for the market sweet spot which I suppose is something like:

- * Cross section of 4S4P
- * Size of double EuroCard (forget these dimensions)
- * Nodes numbering into 2048, perhaps higher
- * Schematic capture, layout, spice, electrical analysis of stripline/microstrip, 3D view of layout. Listed these in order of importance to me. Not a big fan of autorouters.

To re-cap, gEDA needs to be more productive, which means easier to learn/use with a common and consistent user interface, moderate feature set.

On to a few other issues. Top of this list is W I N D O W S version!!! I'm not a great fan of Windows, but it is on over 85% of technical desktops. This is a market ripe for the picking. You will need that familiar/consistent U.I. and a setup program along with (my words) "gEDA for Dummies". This is a lot of work, but who says you have to give it away. If you can make the Windows user more productive with gEDA than Eagle, then charge for it, or for support.

Finally, work with someone to get a Knoppix (or other Linux LiveCD) to include the full gEDA suite. Again, more work.

Gee, I started out to write a few sentences and look what happened! Kind of like software isn't it (it never ends, especially if the users find it useful).

Good luck, and for me it is back to Eagle to get some cards designed.

Regards,
Dave

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