CAD This or CAD That

Screaming Circuits

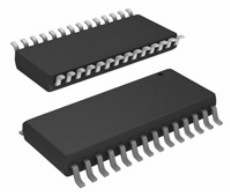
I use Eagle CAD a lot. I can get away with the "Light" version, because the designs I create are small and non-commercial. I do use them sometimes to illustrate points here on my blog, but I think that still meets the qualifications of their free version. It's a good program and the multiple license levels from the free version up to the full professional version add a lot of flexibility to have the software grow with you.

Our partner, Sunstone [1], builds most of our PCBs here, which is a nice segue into an alternative CAD package. There are a lot of reasons to pick one CAD package over another. I won't go into that here because those reasons tend to be specific to the application. Most CAD packages are sold as a lump-sum purchase up front. A lot of them also have yearly license renewal fees. That works sometimes, but there are other times where up front costs are more important. The model that Sunstone uses for PCB123 is to provide the software at no charge and just add a little tiny bit of the software cost onto the PCB board purchase.

PCB123 isn't the only package that follows this business model and is tied into a specific PCB vendor. But, as far as I can tell, PCB123 is the only package of its sort that has enough capability to be a viable replacement for more traditional pay-first CAD packages.

I recently downloaded V4.1.11 and have started to run it through my own personal "can I use this for my stuff" test. I know it's a good package because we, here at Screaming Circuits [2] get boards of all sorts designed with PCB123 to assemble from all manner of company. But, something can be a good package and still not fit an individuals specific requirements. Hence my personal tests.

I do find it odd, but not really an issue, that it starts you off in the layout editor instead of the schematic editor for a new design. Oh well. One click and I'm in the schematic where I can search for my parts. I use PIC chips and it's pretty rare that I find the exact chip. I always seem to have to find something close and then modify it, which just adds more opportunities for error. I know there's a jillion



varieties, but once in a while it would be nice to just find the actual part.

Fortunately, today I'm looking for PIC18F2320 in an SOIC package. Fortunately, because it's actually there! I hit the "Insert" menu and choose "Add Part". Then I put "PIC18F23" in the search box, and there it is, but not on the computer. It was in their online labraries. (In the cloud?) It took all of about 15 seconds to automatically download the library footprint though, so first test = passed.

And the really cool thing is that once I have that part in there (for the parts found pre-made in the library), I just select the "Bill of Materials" tab down on the bottom and I can see if DigiKey has the part in stock and how much it costs.

Duane Benson
If it's in Oregon, the "cloud" is probably a rain cloud

SOURCE [3]

Source URL (retrieved on *07/14/2014 - 7:57am*):
http://www.ecnmag.com/news/2011/05/cad-or-cad?qt-most_popular=0

Links:
[1] http://www.sunstone.com
[2] http://blog.screamingcircuits.com
[3] http://blog.screamingcircuits.com/2011/05/cad-this-or-cad-that.html