Major Major and Standard Standard

Screaming Circuits Screaming Circuits

We ask for your bill of materials, Gerber and centroid files to assemble your pcbs. All of those pieces of information are necessary to properly program our machines to place your parts. That's pretty standard stuff, but did you know that when the Gerber format reference book was first published, Jimmy Carter was President of the United States, Russia was the "Soviet Union" and Voyager 1 was well inside the Solar System? Use of the format has been going on even longer. Yeah. It's been around a while. For some reason, it has been very difficult to get everyone to agree to and use a standard file format. Gerbers really don't have enough information in them to do the job properly, but it is the standard. Hopefully not for too much longer. How many of you reading this were even born when Gerber was new?

(Drawing courtesy of XKCD)

There are a number of formats around that are better than gerber and Screaming Circuits will accept many of them. First, your CAD software probably will export an "ASCII CAD file". This is a good format. Some export ODB++, which is one of the newer formats, again a good choice. One of the newest standards is the IPC-2581. It's been around a few years and is now getting a lot of attention. If you happen to use Eagle CAD, you can also send us the Eagle ".brd" file.

IPC-2581 includes the best of ODB++ and GenCAM. It has all of the fab data, assembly data, netlist and BOM. Everything needed in one convenient file. My understanding of the format is that you can exclude portions of the data set that you consider proprietary. You can learn more about the format here [1]. There's

more background information on the subject over at Circuits Assembly magazine [2] too.

Duane Benson
Where's Henry? I need an inductor.

SOURCE [3]

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http://www.ecnmag.com/news/2011/11/major-major-and-standard-standard

Links:
[1] http://webstds.ipc.org/2581/2581intro.htm
[2] http://circuitsassembly.com/cms/component/content/article/6-current-articles/11518-cover-story
[3] http://blog.screamingcircuits.com/2011/11/major-major-and-standard-standard.html