Subject: Re: Driver for front-loaded horn
Posted by Dangus on Fri, 14 Feb 2003 11:55:14 GMT
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I'm only just barely clever enough to figure out how to use that program. Unfortunately I don't have my full design finished, so I can't say for sure a lot of the details it wants. Nor do I have a driver picked out, and so it's a useful tool, but only so far as I can manage to use it. Definitely will be something I'm going to keep at hand. I've been using a javascript calculator for horns at this page: http://melhuish.org/audio/horn.htm Again, I have my limitations, I've only just started studying horns in any real detail this week. For lack of a better modelling program, I'm using a game level design tool called Worldcraft to actually make a representative 3D model.I'm doing all the woodwork myself, and free wood, so this thing can get pretty crazy without too many tears shed. What Q would you recommend I hunt for on an 8 or 10 inch woofer? Any thoughts on xmax? What about power handling? I assume I want something stiff, like a PA woofer, with relatively high efficiency... Is low FS ideal for this or high? I've heard totally conflicting sources on this. Some say that you want the fs of the woofer to be higher than the low frequency you want to reach with your horn, and I've heard others say the total opposite. Only constant so far is not to use a long throw driver...Aside from still being unsure what driver to use, I also would like to ask something pretty basic.... If I divide the horn into 4 segments, starting with one, and then splitting it up into the four... I assume the 4 must each be as long at least as 1/4 wavelength? That would include the original one channel I would think. Furthermore, even though I think they must be a certain length no matter how many there are, they DO combine their total opening areas in calculating the actual flare of the horn, as they represent the same pressure curve right? So if at segment one, it goes from 64 square cm to 100 square cm, and then splits into four segments, if each of those segments is the same length, and each is 100 square cm, their totals add together to make that segment 400 square cm insofar as calculating the actual segment taper? If that horn then went on to some length like 240 CM for each segment, they'd still produce a combined effective output of something like 50Hz flat? I know that's an almost criminally rough math job, but you get the idea....