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Subject: Re: Build my own subs

Posted by [Wayne Parham](#) on Thu, 06 May 2010 20:18:30 GMT

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In some cases, I think that makes sense. But you can't fix everything with signal processing. Setting a delay or making a filter is easy, but some acoustics problems can't be solved that way. Two examples that come to mind are cone breakup and destructive summing. Regarding destructive summing, if you can delay one source to match another, that will prevent it but once it has already occurred, you can't correct it with a filter. Even if you boost power to the notch, you're just throwing power into a black hole.

Where I think this really shows up is self-interference from a boundary reflection. That's where multisubs work best, because they actually increase interference to smooth the modes. You can't correct the modes with processing, but you can mitigate the nulls with multiple sound sources. Naturally, it's best to get everything to sum properly but in some cases, that's not possible. So if you can't avoid interference, then the next best thing is to make the interference so dense, individual nodes can't be detected. It at least smooths the average sound field. This is an example of something that can't be accomplished with DSP. It requires an acoustic solution.