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Subject: Re: Flanking Subs vs Helper Woofers

Posted by [Wayne Parham](#) on Fri, 01 Feb 2013 21:35:30 GMT

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I would agree (and expect) some differences in details, but I'm not sure how significant those details are. At least, less significant than the main idea, which is to use multiple sound sources spread apart spatially, and to use EQ, where appropriate for even smoother response. I also think that the more sound sources, the less important their positions or individual filters are. The fewer the sources, the more important those things become. It appears both Geddes and Welti would agree on those points.

As for differences, I do think we have seen some erosion of the unique features that set each approach apart. Used to be - around 2005 - Welti was symmetrical and Geddes was asymmetrical. At that time, Geddes clearly made statements that distinguished his process from Welti's. Then Welti began to use EQ to modify subwoofer response, optimized by measurements made from multiple positions. Geddes now also proposes using EQ to modify subwoofer response, and his procedure is also now guided by measurements. These similarities, combined with the agreement on both sides, that once you get to four subs, Welti and Geddes arrangements are pretty much identical with respect to performance, makes me see what is essentially a unified approach. Yes, there are differences in details, but I think we see pretty much an over-arching agreement.

I think "both" approaches are excellent, although as I said, I think "both" are now pretty much one and the same.

And I also think that - unless the main speakers are sitting right on the wall, soffit mounted or constant directivity cornerhorns - that sound sources blended in the 100-200Hz range should be used in addition to the distributed subs blended below 100Hz. The multisub approach is great for smoothing the bass below 100Hz, but it does nothing to address the anomalies from nearest boundaries, most significantly the wall behind the speakers. Flanking subs can (and usually should) be part of the multisub equation, since the flanking subs provide additional bass sound sources. Said another way, you can have two stereo flanking subs and two distributed subs, or three flanking subs in an LCR setup with one distributed sub, for a total of four subs to provide modal smoothing.