Subject: Re: 3D Sound
Posted by Wayne Parham on Sat, 29 Oct 2011 03:13:40 GMT
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I've done that. In fact, I did it for a whole summer one year when I was young. I really liked it, because it's pretty much a transformation of the stereo speakers into overgrown headphones. Cool effect. But like I said, it limits the listening spot to the span between the speakers, in a very narrow region where the path lengths are the same. Pretty much a one trick pony.

Back then, I tried both binaural recordings and regular "store bought" material. I didn't care much for the binaural recordings, but that may have been more due to the very limited content as it was with the quality and effect. There just wasn't much recorded in binaural back then, and I don't see much more now. But really, that didn't matter much - the cool imaging trick happens when you just have the speakers flanking you in fairly close proximity so that the right speaker is mostly in the right ear and vice versa. Positioned that way, the left ear gets much more volume from the left speaker, and little from the right. Same for the right speaker and right ear. Neat trick, as I said, it's basically headphones that you don't have to wear.

I much prefer the setup I described in my last post. It's much more attractive to me, because it gives me the same effect over a wider area. It also provides two other benefits, modal smoothing and purity of wavefront launch. These are acoustic issues, not psychoacoustic, so there are measurable improvements using this approach.

When I place speakers as I've described, I enjoy the same great imaging over a much wider area, and it also provides smoother response through the modal region. This is a pretty big deal, since most speakers (or I should say speakers in rooms) suffer huge response anomalies from the midrange down. The fundamentals of pretty much every instrument are fractured, unless techniques like those I've described are used.

Of course, you can do some of that (like flanking subs) even with a binaural arrangement like you described. But I must say that I wouldn't go back to that, because I like being able to move a little bit without having imaging fall apart. I have been using this arrangement for about 30 years now, starting with my constant directivity cornerhorns in 1980. While I've experimented with many other approaches over the years, I've never found anything that keeps me coming back like this arrangement.