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Subject: Re: Speaker placement

Posted by [Wayne Parham](#) on Wed, 29 Mar 2006 15:30:43 GMT

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You can make up your own definitions for bass, midbass, midrange, overtones and treble. Those are loosely defined regions, so it's probably more accurate to discuss specific frequency ranges. But 100Hz to 1000Hz is midrange to me, since that's where vocals and many other instruments lie. I identify the range from 1000Hz to 5000Hz also as midrange, but I like to call it the overtone region because that's what is usually present there, the harmonics generated by vocals and instruments. Treble is 5kHz and up, with 10kHz to 20kHz as the top octave. I consider everything under 100Hz to be bass, with content under 30Hz as deep bass and above 60Hz as midbass. Those are my definitions, so when you hear me use one of those phrases, you'll know what I'm talking about.

You can move the edges of your definition of "bass" and "midrange" up or down a half octave or so, makes no difference to me. To me, the midbass to midrange, the area between about 60Hz to 180Hz or so, is a transition area that makes it harder to deal with. The modes are growing increasingly denser as we near the top of this range, but at the bottom the modes are still sparse and need smoothing. But this is also an area where localization becomes possible and you definitely want close integration with the mains. I tend to think the woofers used in this range should be spaced relatively close to the mains, just a few feet away, and probably should be symmetrical with respect to the mains. Deeper bass can be sent to subs placed further away, but midbass woofers should be nearer. Remote subs - especially distant ones - are better crossed down low.