Subject: Re: 4pi Commercial Dinner Theater Build
Posted by Wayne Parham on Fri, 02 Sep 2011 14:43:45 GMT
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Answers by numbers:

1. If I understood your picture properly, the west wall is on the left, where the mains are. So that would be where you would put flanking subs. Distant subs would be put somewhere else, more distant from the mains. The low-pass frequency is set empirically - if you can't tell they're on, then the crossover frequency and SPL is right. It should provide deep bass foundation but still be subtle, you definitely should not be able to tell where the rumble is coming from. So set the distant sub(s) crossover frequencies empirically. You can even use measurements to find what settings give smoothest response, if you have that capability.

2. Indoors subs should be in a different position in all three coordinates that the mains. It is different than outdoors, where we want to have them acoustically close, acting as a single source. Indoors, we want to spread things around. Wall reflections create multiple virtual sound sources, so we cannot create a point source anyway. It creates course interference, because the number of sources is fairly small, so the spacing between peaks and nulls is wide, and pretty obvious. The goal of the multisub configuration is to actually make even more interference, and by making the interference pattern more dense, it more closely resembles an averaged reverberent field.

3. All drivers should be pointed at the audience. It actually doesn't matter much what direction low frequency sound sources are facing, so if it is more convenient to point subs in another direction, you can do so.

As for lead time, I keep stock of all crossover parts, and many drivers. But I go through a lot of 2226 woofers and DE250 compression drivers. So it seems like every other month, I get backlogged on one or both of those drivers for anywhere from a week to a month. The TD12S often takes several months to fill. Everything else is usually either in stock, or if not, less than a week until the replenishments arrive.

We build the crossovers at time of order. Sometimes I'll have a couple on the shelf, but there are

one for the DE250. Then there are the coil, cap and resistor options. So in most cases, we have to build the crossover at time of order.

All other kits are taking two to four weeks. If you order all of them at once, it will take a little longer to get them all ready for you, but we can ship as we make ready rather than all at once, if that will help.