
Subject: A \$400 soundblaster?

Posted by [Aaron Allen](#) on Sun, 25 Sep 2005 02:38:18 GMT

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uipment and air conditioning is turned on,
etc. This is a pretty important issue, because it pretty much defines
the audible dynamic range of music that you can hear in your particular

as possible, so you can hear as wide a dynamic range as possible. Right?

There are two parts to d

Subject: Re: A \$400 soundblaster?

Posted by [uptown jimmy](#) on Sun, 25 Sep 2005 04:19:54 GMT

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are
going to have to both figure out and then negotiate how to get your

Early Reflections

Early reflections are the group of reflections of a sound that arrive at

monitor loudspeaker) arrives. Without explaining why (see my website,

reflections is critically important.

Based on research that I and others have been doing, I now believe that
the be

Subject: Re: A \$400 soundblaster?

Posted by [Tom Bruhl](#) on Sun, 25 Sep 2005 06:31:36 GMT

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to encourage the sound to decay equally quickly in ALL audible frequency
ranges.

I like to make the front wall absorbent at ALL frequencies (this can
require some moderate carpentry, building a flexural absorber for low
frequencies and covering it with foam or fiberglass for high
frequencies). Also, make at least the front third of the ceiling
absorbent down to 500 Hz. (4 inches of fiberglass covered with fabric or

down to under 150 ms. and with other absorption in the room, it is
possible to get the decay time under 100 ms., which will yield really
good results.

Interestingly, if you do it right, the room will still sound pretty natural, and not particularly dead, absorbent or weird. To give you an

Standing Waves

Standing waves are the long low frequency waves supported by the room dimensions. They add a resonant signature to the room, and are generally problematical at low frequencies. At mid and high frequencies, standing waves are everywhere in great profusion, and

Happily, standing waves are dependent on the room walls being reflective at low frequencies. IF you make the front wall absorptive at low frequencies, you will pretty much take care of any standing waves that would be a problem. Further, openings like doors and windows can make

use a big atrium window as a bass trap in my room, and it works very well.

Loudspeaker Placement

Loudspeaker placement is often as important as the choice of loudspeaker itself in determining the overall sound quality of a system. There are

homework on the room, above, placement of the monitors is going to be a lot more benign, not to mention easier.

To begin with, the loudspeakers need to use the same median plane as the

Secondly, the tweeters need to be at ear height, and/or directly aimed at the ears (unless the manufacturer specifically tells you otherwise).

low frequency response from being seriously disrupted by interfering

nice thing to do, and it is moderately easy if you build something like

cutouts for the speakers.

If you want the speakers to be out in the room, it is good to get them several feet (at least 3 feet, 5 is better) from the front wall, unless that wall is REALLY absorbent at low frequencies. Similarly, you should

feet as a minimum distance). Finally, you should avoid having the speakers at the same distance from the front and side walls, if possible. For the rest of it, there is a common practice tradition of listening to speakers that are each 30° off the median plane (and we do our serious listening ON the median plane), so that the two loudspeakers and our listening position constitute an equilateral triangle. This setup works pretty well, but the 30° part is fairly informal and so long as the phantom images and spaciousness are working well, you can have wider or narrower spreads without much problem. What you definitely have to have is symmetry, and you must be listening on the median plane.

Loudspeaker Behavior

hard on this question over the past couple of years, and have some suggestions, as you can probab

Subject: Re: A \$400 soundblaster?

Posted by [wmarkwilson](#) on Tue, 27 Sep 2005 04:51:50 GMT

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ing analog

- > recorders during the last 40 or so years. Most of those records were not
- > recorded and mixed in 8 hours. 8 months is more typical.
- > Dark Side of the Moon took many months to record and mix and has more real

I understand and appreciate this point. The high frequency content starts to degrade right away... perhaps not perceptibly. I agree that there are many wonderful recordings that have taken years to produce on analog tape, and still sound amazing. I was simply stressing the need to transfer sooner during a project, rather than later. If you have the take you want, why not transfer right away?

- >
- > It should be obvious that I am a fan of analog tape, and in the absence of
- > all-analog recordings, I like to do analog/digital hybrid recordings. I have
- > often used my Ampex and Rexox 2 tracks just this way.
- > I have also had good luck going the opposite way from the common method.
- > I have produced several projects that started digital, that I moved to analog
- > 48 just prior to mixing. Actually I worked that way exclusively for several

- > Respectfully,
- > Gene

I wish I actually had budgets to work with. Sadly, recording in our city has gone to the basement... both literally and figuratively. It has been ages since I had a really good project to work on. I trust you consider yourself fortunate to be able to work on proje
