

BLUE SKY STAR SYSTEM ONE

Scalable 2.1 to 7.1 Monitors With DSP



The SAT 6D features a Cirrus Logic sample rate converter and Burr-Brown 192kHz/24-bit converters.

Each year advances in audio technology bring us better equipment, even as prices continue to fall. One aspect of music production that remains constant is the listening environment. In fact, the democratization of high-quality audio gear means engineers often find themselves recording and mixing in less-than-optimum acoustic spaces.

While Blue Sky can't buy you a million-dollar control room, the company can help solve some of the issues in control rooms. That's the motivation behind Blue Sky's flagship Star System One Modular Monitoring System, which, in addition to offering an expansion path from 2.0 to 7.1 surround systems, includes software optimization tools and integrated DSP to analyze, identify and correct room anomalies.

There are two main components in the Star System One. The SAT 6D is a compact, two-way, bi-amped monitor featuring a 6.5-inch, high-excursion woofer and a 1-inch ring radiator tweeter manufactured by Scan Speak exclusively for Blue Sky. The SUB 12D subwoofer has a 12-inch high-excursion woofer, 400 watts of amplification and a response from 25 to 200 Hz, ± 1.5 dB. Looking at the cabinets from the front would lead one to believe that they form a "typical" satellite/subwoofer system, but a glance at the rear panels reveals that each unit has a USB connector, gain trim pot, DIP switches for setting input and crossover modes, and analog and digital inputs. The SAT 6D has a plate that may be changed to open its port. The SUB 12D has analog and digital outputs for feeding the SAT 6Ds.

UNDER THE HOOD

Software is the other major component in the Star System One. The SAT 6D and SUB 12D both feature onboard DSP including $\frac{1}{3}$ -octave graphic EQ, eight bands of parametric EQ, adjustable filters, time delay and a calibration noise generator. Initially, this scared me; I'd rather leave well enough alone than second guess the designer of a loudspeaker and start messing with the box's parameters. Blue Sky's Speaker Room Optimization (SRO) makes tuning the system easy and eliminates guesswork. Used in conjunction with Blue Sky Speaker Manager and Binary Organic Optimization software (BOO!), SRO measures each speaker's response, and calculates the DSP required for optimizing its performance in your room.

Two additional components are required to run SRO: a measurement microphone and a USB audio interface. Blue Sky recommends the ART USB Dual Pre (approximately \$80 street) and either the Behringer ECM8000 or Dayton Audio EMM-6 measurement microphone for the task (approximately \$50 each). I used the USB Dual Pre and the Behringer ECM8000. The instructions for using SRO are detailed but very clear, and address the required settings in Windows.

The first time I went through the process it took about 30 minutes; thereafter I was able to do it in half that time. The basic concept is similar to shooting the room "manually." Once the mic and interface are set up, you press Measure in SRO. The system plays calibration noise through the speaker and analyzes the response. On screen you see Target, Measured and Electrical response curves, so right off the bat you get an idea of the accuracy (or lack thereof) of your room's response based upon the differences between the curves.

Pressing Optimize starts the process, which displays a corrected curve as well as the complementary EQ curve. When Optimization is complete, the Speaker EQ screen is automatically shown and you can write that EQ into the speaker via USB, or you may modify the curve to taste using the 31-band 'graph or one of eight parametric bands (I did not). This process is performed for each speaker, and the resulting files may be saved and recalled.

My initial impression was that the SAT 6Ds were light in the loafs and exaggerated the low-midrange a bit. I then read the section in the manual describing the SAT 6D's various modes of operation. The SAT 6D ships in Mode 1: Sealed, 80Hz filter off, intended for use with the SUB 12D. I switched the SAT 6D to Mode 4 "Extended" (see the "Try This" sidebar). The difference in low-frequency response

was profound, almost like I had already put the subwoofer into the system. I could probably have lived happily with the two SAT 6Ds sans SUB 12D in Mode 4.

A REVOLUTION IN RESOLUTION

After a few days of listening to the SAT 6Ds alone I connected the outputs of my Dangerous Monitor ST to the analog inputs of the SUB 12D, and then fed the SUB 12D's analog outs to the SAT 6Ds. I moved the subwoofer around the control room a bit but settled on a spot under the desk

with the cabinet a few inches closer to the listening position than the SAT 6Ds. (In this spot, the Measured and Target curves were “in the ballpark” of each other: if you find that Measured and Target Curves differ radically, you may need to reposition the SUB 12D.) With the nuts and bolts tightened up, it was time to track and mix.

During tracking I found that the Star System One 2.1 excelled at truly revealing the material I was recording—nothing added and nothing subtracted. This is a deceptively simple concept. If there's a hum from a guitar amp, or a squeaky kick pedal, I want to hear it and address the issue. I prefer accuracy rather than colored or flattering reproduction. Low frequencies (particularly bass synths) were produced with clarity and authority but never sloppy—even at loud volumes.

PRODUCT SUMMARY

COMPANY: Blue Sky International

PRODUCT: Star System One 2.1

WEBSITE: abluesky.com

PRICES: SAT 6D: \$1,695 each;
SUB 12D: \$1,995

PROS: Excellent sound. Great resolution of detail. Solid construction. SRO software corrects room anomalies.

CONS: SRO software currently runs under Windows only; no power indicator on front panels.

Listening to mixes I had done in the past was a treat. I was able to hear more detail (especially in reverbs, delays and ear candy) but fortunately never heard something unexpected. In some of my mixes I could clearly hear layers of depth from front to back for kick, snare and hi-hat: The hi-hat was dry and up front on the left, the kick center and slightly behind it with a bit of the natural room sound, and snare behind the kick with a hall reverb. I had never before noticed that. The SAT 6D's sweet spot was very generous—in fact, when directly in front of one

speaker I could still hear a decent stereo image.

The Star System One 2.1 proved equally adept for the mixing process. It was easy to hear small changes in fader levels, or adjustments in EQ and time-based effects. Mixes translated extremely well to other systems.

The Blue Sky Star System One 2.1 does not come cheap, but quality tools for precision work seldom do. And don't forget that you're getting high-quality amplification, acoustic analysis and DSP in the package. If the 2.1 system is within your budget, I strongly recommend that you audition it, and if not, consider the idea of starting with a pair of SAT 6Ds and adding the SUB 12D when budget allows. You won't be disappointed. ■

Steve La Cerra is a New York-based recording and live sound engineer.