

DVD±R media (DVD-R only on the Mac). However, the maximum speed of the CD burner on that unit is 16x, and the DVD burn speed is 4x.

**Plug and Play**

The Bravo Disc Publisher comes with everything you need to get up and running quickly. Windows users get Sonic PrimoDVD 2.0 for burning and SureThing CD Labeler for printing. On the Mac side, Charismac Engineering Discribe 5.1 is the burning application and Magic Mouse Discus Labeler is the graphics program. The burning programs let you create audio and data discs.

For the most part, the bundled programs offer only basic functionality. Fortunately, Discribe lets you set the amount of time between tracks on audio CDs. You can use third-party burning and graphics software with the Bravo Disc Publisher, but when you do, you forfeit the use of the robotic arm.

The Bravo Disc Publisher requires discs with an ink-jet printable surface, and eight blanks are included for testing purposes (I needed only two to calibrate the review unit). Primera sells printable blank CD-Rs in quantities of 50 and 500, but compatible third-party discs are also available. With the purchase of an adapter kit (\$199), the Bravo Disc Publisher can also process three-inch, rectangular, and hockey-rink business-card CD-Rs.

The minimum system requirements for Windows users are a Pentium III/450 MHz and Windows 2000 or XP. Mac users need a G4/700 MHz computer and OS X 10.2. Both systems require 258 MB of RAM, a minimum of 2 GB of hard-disk space, and FireWire and USB ports. I tested the Bravo Disc Publisher using a Mac PowerBook G4/1.33 GHz.

**The First One's a Snap**

It was easy getting the Bravo Disc Publisher up and running. The manual is thorough, showing you how to install the drivers, design and print a label, and burn a disc. Templates are also provided. The calibration routines are explained well and are easy to perform. When I called Primera's tech support to get a few questions answered, the service was excellent. Fax and e-mail technical support are also available.

Once everything was sorted out, the Bravo Disc Publisher ran without a hitch. My first

run—a set of four 73-minute CDs with a four-color label—finished in 18 minutes (less than 5 minutes per disc). And through all subsequent runs, things have gone smoothly: I haven't had a CD-R rejected during the verification process, and the finished discs played on compatible players.

I was also very pleased with the printing quality, which is a major improvement over adhesive labels. My only qualm is that the blank discs occasionally have blemishes, which stand out if you are printing a stark design.

**Burning Desires**

With the Bravo Disc Publisher, Primera has brought high-quality CD-R duplicating and printing into the realm of the personal studio. Although it excels at producing large runs of CD-Rs, it's great for customizing individual discs for demo purposes. Once you use it, you'll wonder how you got along without it.

**Overall EM Rating (1 through 5): 5**

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**SEVEN WOODS AUDIO**

**Ursa Major Space Station SST-206**

By *Larry the O*

Seven Woods Audio's original Ursa Major Space Station SST-282 from the late 1970s was a multitap delay-based echo, ambience, and reverb device. Its newest incarnation, the SST-206 (\$1,395), uses a Motorola DSP56311 chip to faithfully recreate all of the earlier Space Station algorithms (and key front-panel controls), and it adds a new Room algorithm that is completely different from the other Space Station programs.

At first glance, the SST-206 is quite a surprise: what appears to be a nicely designed wood-sided remote control unit turns out to be the entire device! At 5 inches wide and 6.5 inches long, the diminutive SST-206 takes up less space than a paperback novel.

A single cable carries the power line along with the AES/EBU digital audio I/O; there's no analog I/O and no power switch. If your AES/EBU and AC connections are in



**The compact Ursa Major Space Station SST-206 from Seven Woods Audio offers vintage reverb and echo effects through its digital I/O.**

opposite directions, the cable fan-out may not be enough; it was barely adequate in my studio. The SST-206's only displays are sets of LEDs that indicate the selected operating mode, audition delay pattern, and input level. Nothing else is needed because there are no presets, and the unit does not offer MIDI, footpedal, or other controller inputs.

There are, however, plenty of knobs, and they mostly conform to the functions and even the color coding of the original Space Station. In some cases, though, the knobs are redefined for use with the Room program.

**Inner Space**

The Space Station architecture is based on the clever use of 24 delay taps: 15 are time modulated and are used to generate the reverb, 8 (the Audition Delay Taps) are arrayed in pairs and provide the algorithm's outputs, and 1 is used for echo. You can choose from 16 tap configurations for different qualities and decay ranges. When combined with the choice of SST Echo or SST Reverb mode, that yields quite a bit of variety. The front-panel controls, including four that set the relative levels of the Audition Delay Tap pairs, enable even further contouring.

The SST-206's specifications are somewhat unusual. The unit is designed to operate at 48 kHz and also supports 44.1 kHz. It can, however, work at rates varying from 32 to 96 kHz with a few caveats: in

the original Space Station algorithms, the delay times are scaled proportionally to the sampling rate. (In other words, you get longer times at 44.1 and 32 kHz, and shorter times at 88.2 or 96 kHz.) The new Room program, which works the DSP chip much harder than the old algorithms, doesn't function at 88.2 or 96 kHz sampling rates.

The dry signal is always passed to the outputs as a full-bandwidth, 24-bit stereo signal; but the original algorithms sum the inputs before processing, have no more

than 7 kHz bandwidth, and exhibit what amounts to 14-bit resolution. The Room algorithm, on the other hand, provides full-bandwidth 24-bit stereo processing.

The operating manual contains some useful information on how to best use the SST-206. It lacks other basic material, however, such as a front-panel graphic with labels and descriptions for the knobs and a block diagram showing the architecture of the algorithms. Those would help clarify the controls and parameters quite a bit.

More Space

My favorite use for the old SST-282 was always on guitar and vocal tracks, and I found the same to be true with the new SST-206. Although it's excellent for many other uses, I prefer using the Space Station to make a lead guitar sound big or to put space around a voice without losing it in the mix. The SST-206 is still not my first choice for snare or kick drum, but I enjoyed it as an overall room ambience. In fact, I received wonderful results when I took a stereo room track from a drum session, compressed the heck out of it, and ran the track through the Space Station. That yielded a much enhanced feeling of envelopment.

The Space Station is a remarkably versatile unit with a flavor that you won't hear in other multitap delays. Even without fully understanding how to exploit its subtleties, you'll find many readily available effects. And once you grasp the architecture, you can easily create many more.

Fans of the old SST-282 will no doubt be delighted to see it reappear as a compact unit that also includes the new Room program. The SST-206 is a bit pricey, but the main reason for the resurgence of vintage processors is that they offer character, and that's the Space Station's strongest suit.

Overall EM Rating (1 through 5): 4

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BIG FISH AUDIO

LA Drum Sessions (Acidized WAV)

By Marty Cutler

Big Fish Audio's *LA Drum Sessions* (\$99.95) consists of three CD-ROMs packed with Acidized WAV-file grooves that you can easily arrange into a variety of song forms. The session drummers varied their hardware setups, using different snare sizes and different sticks to best enhance each style. During the recording process, different mics and mic techniques were used as needed. At mixdown and mastering, the producers applied an appropriate amount of dynamic processing for each performance. For