

PRODUCT reviews

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GTCO CalComp InterWrite PRS RF

By J.V. Bolkan

GTCO CalComp's InterWrite PRS RF personal response system is a high-end radio frequency solution for college classrooms and some high schools. Most K-12 environments will probably be better served by a lower cost infrared PRS system from GTCO CalComp or one of its competitors. But the InterWrite PRS RF is a great choice if you need a powerful system that can handle slightly more than 2,000 response units, or you need the flexibility of "clickers" that don't require direct line of sight with the receiving unit, and you need enhanced interaction between students and the system.

The hardware portion of the system is simple, consisting of a USB receiver just slightly larger than a deck of playing cards and the clickers. The receiver plugs into standard power and has a single LED status light that confirms power, and USB connection to a computer. Because it is a radio device, you can hide the device under, or even in your desk, and that might be a good thing because in addition to a massively uninspired design (it is ugly) the device's plastic case appears only slightly more durable than your average model airplane.

Conversely, the clickers, or response units are, if not gorgeous, at least attractive in an industrial, utilitarian way. Better yet, they feel durable, solid,

Although powerful, the PRS is composed of remarkably simple software and hardware that is almost foolproof.



and well built. A two-line text screen adds a degree of interactivity that the less expensive infrared devices simply can't provide. The radio technology enables the handheld clicker to receive as well as send, so students know if their response has been recorded. Five alpha buttons (A-E), true and false buttons, and a simple 12 button numeric array (1-0 with a decimal and minus button) provide flexibility in answering multiple-format questions. A recessed on/off switch, up and down scroll, back, setup, and a larger return button complete the controls. The tiny buttons are well spaced, so

even ham-fisted senior editors can easily press just the right choice. The devices run on AAA batteries and, according to the company, should power a unit through a typical semester before replacement. The miserly battery usage may come in part from the default settings for sleep mode—the clickers put themselves to sleep in about two minutes. Most people will want to change that setting right away.

Naturally, the hardware really isn't the heart and soul of the system. The software, its power and usability, is what makes a response system work. GTCO CalComp seems to understand

this completely. The PRS software is Java-based, so it runs and appears essentially the same on Macintosh, Windows, or any other Java-enabled platform. This cross-platform openness is also evident in the format of the data gathered by the system. The

gradebook data can be exported in basic Excel format, and you can import data into the gradebook.

Instant feedback, colorful graphs, and a host of configuration options make a personal response system an incredibly powerful tool in the class-

room. A powerful system such as the InterWrite PRS RF only makes it better.

InterWrite PRS RF System

Receiver and 32 response units: \$2,400
<http://www.gtccocalcomp.com>

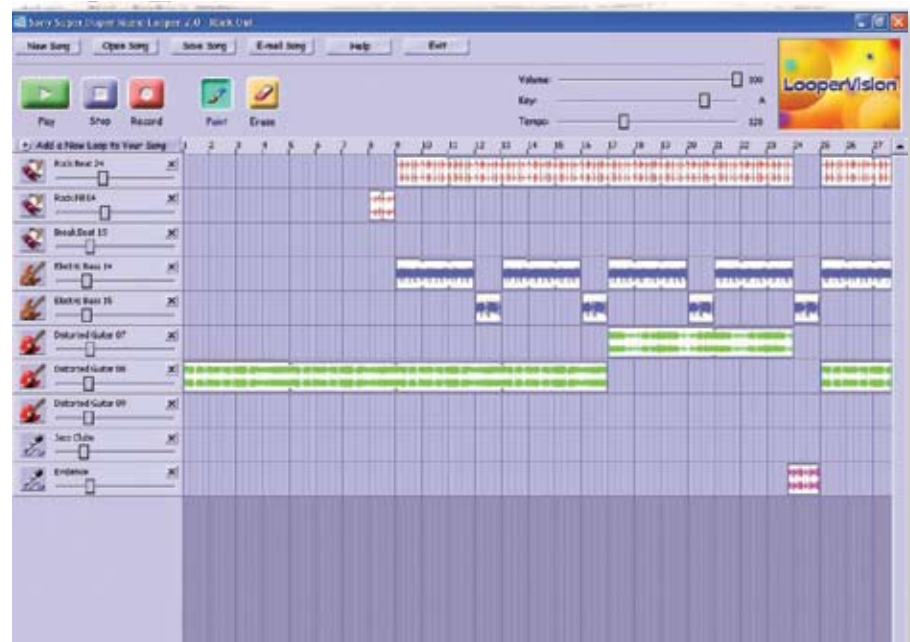
Sony Super Duper Music Looper

By J.V. Bolkan

Music touches students like no other medium. Unfortunately, it's been all but impossible to efficiently scaffold the complex skills required for music creation. Furthermore, musical ability has always involved a large measure of talent and physical ability. Painting, drawing, and even photography tools that provide access to young students are well established, as are writing and keyboarding learning programs. Finally, high-quality, ultra-accessible software for music creation is becoming available.

Sony's Super Duper Music Looper hits all the right notes. Inexpensive, simple to learn, easy to use, and tons of fun, this is a product that students in kindergarten can use, and older students won't want to stop using. In fact, my 17-year-old stepdaughter loved the program, and even my wife (who is somewhat older than 17) became enamored.

For the music purists, it's important to note that the Music Looper is not an instrument simulator and it will not teach notation. As the name implies, it is a layout program for digital loops. A loop is a prerecorded snippet of music—for instance, a few bars of a strumming guitar that can be repeated seamlessly or a drum line. Using the ultra-simple song creation space, you add loops from the wide selection by simply painting them in. For instance, if you want your song



The colorful interface is intuitive, easy to follow, and designed to make creating music simple for young students.

to open with horns only, you can paint your choice of horn loops into the first bar. Choosing from the various loops couldn't be easier. When you click on a loop, it plays until you either drag it to the song area or click on another sample. As you add loops, you can preview the song. It is virtually impossible to go wrong; by default, the loops "lock" into a rhythm and are adjusted to the correct key. Erasing a section of a loop is as easy as painting.

Once you've added loops, such as a couple drum lines, guitar, keyboards, and horns, you can add your own recordings to the song. Much as real music is produced, the song plays

along as you sing, add actual instrumental accompaniment, or just hum. The recording simply becomes another loop—once it is saved, you can erase sections, repeat it, and otherwise change it. Volume for each loop can be adjusted, but only throughout the song. For instance, you can't have the drum sample get louder in the middle of the song. Tempo and pitch can also be adjusted, but changes can only be applied to the entire song.

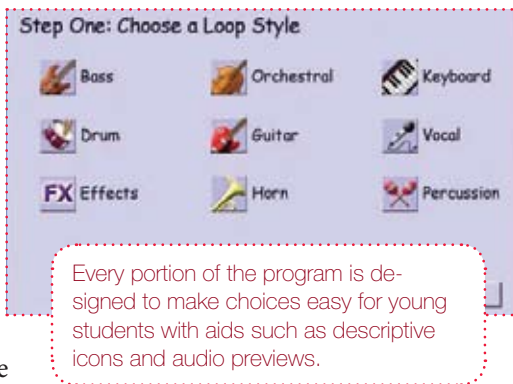
The resulting music is surprisingly good, thanks in large part to high-quality sampling for the loops. It does sound a bit canned, as the samples are all reproduced perfectly in relatively short loops, but young students will

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probably be so taken with their creations that they'll never notice. The advantage of the relatively short loops is that performance is very snappy, even on an average classroom desktop computer.

Completed songs can be saved for future playback and adjustment in Sony's proprietary format or as a Microsoft WAV file that can be played on virtually any sound-capable computer. There is also an option to e-mail your song in WMA format.

Although Sony has labeled the program for students age 6–9, somewhat older students will still find plenty of uses for the program. Super Duper Music Looper would be a great



Every portion of the program is designed to make choices easy for young students with aids such as descriptive icons and audio previews.

tool for creating music to accompany multimedia projects such as presentations, video, and picture stories. There are no copyright restrictions on the songs—they are the property of the composers.

The software does require the original CD to be in the drive to run. Additionally, you can not add to the library of loops and sound effects; recorded loops are only saved into the song you have open when you do the recording. Despite these minor restrictions, the program is an incredible bargain at \$19.95 and should be added to any classroom where young students are learning with and about multimedia.

Sony Media Software
\$19.99, Windows only
<http://www.sonymediasoftware.com>

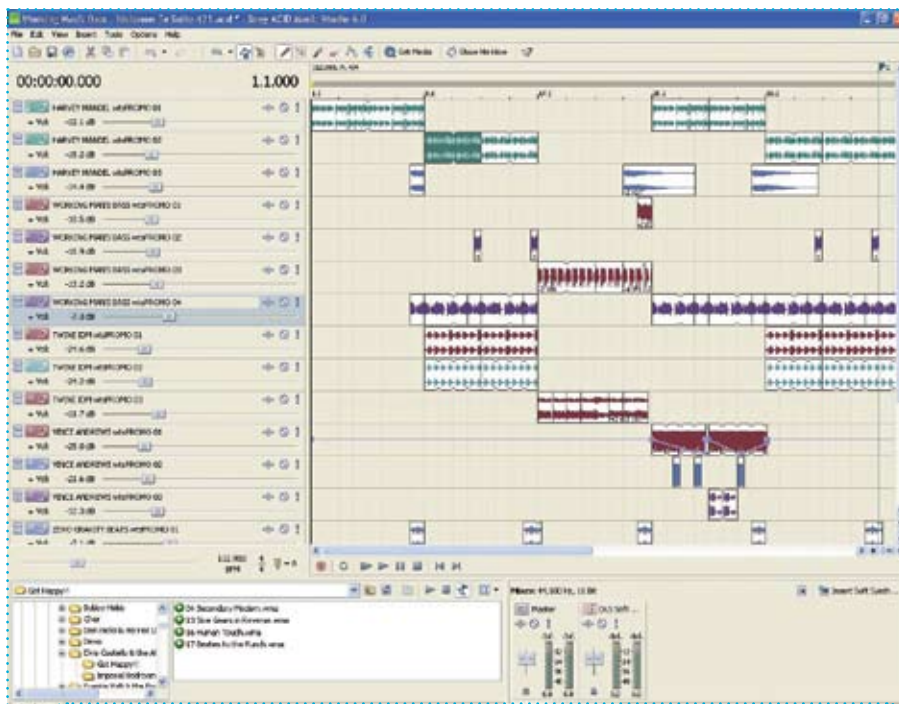
Sony Acid Music Studio

By J.V. Bolkan

Sony's Acid Music Studio could be considered the older sibling to the company's Super Duper Music Looper, if you'd consider a full-dressed Harley and a bike with training wheels siblings. The concept may be the same, but power changes everything.

Music Studio has heft. Although the main interface has more than enough depth to excite most audiophiles, layers of complexity and possibility are lurking under nearly every preset and option. Even so, it doesn't require an advanced degree in sound engineering to get started.

For those of you who skipped my review of Sony's other music looping program, a loop is a recorded snippet of sound. A loop can be virtually anything—a short chord progression, a single note, a complex beat on a full drum kit, even voices and random noise. Typically, complex loops are seamless, meaning that you can repeat them numerous times and it will sound like one long recording.



Perhaps a bit daunting at first glance, Music Studio's interface is surprisingly easy to explore and the plethora of complex options are intuitively arranged to help students build skills with audio production.

Music Studio lets you “paint” and “erase” a loop anywhere on the song time line. Simply taking advantage of the 1,700 loops included on the sample CDs, it's possible to make a pretty good sounding song.

Of course, merely assembling loops and calling it a song will quickly lose its novelty for older students. Digging a bit deeper into the program is easy. For instance, if you find the strumming guitar loop a bit boring, a click

on the effects icon for that specific loop will open almost unlimited options for sculpting the sound. You can add precise levels of reverb, distortion, echo, and much more. In fact, it isn't difficult to make enough adjustments that the original and your final loop bear almost no reality to each other. Still hungry for options? In addition to the included loops, Sony offers more than 125 CDs worth of additional content as well as a pretty good collection of free loops online (<http://www.acidplanet.com>). I found most of the free online loops heavily weighted toward electronica, but Music Studio is more than capable of producing everything from rock to classical.

When even the virtually unlimited universe of loops isn't enough to satisfy your student's creativity, Music Studio has another level of depth.

You can import virtually any sound file, including MP3s and other prerecorded content. You can record live music or vocals through a microphone or directly from an instrument connected to your computer. Additionally, a high-quality software synthesizer is part of the program. The soft synth is essentially a virtual key-

board that can reproduce an acceptable facsimile of a variety of instruments, both real and whimsical. For instance, it can be a classic pan flute, or "singing" dogs. Effects and even the synthesizer are modular, meaning that you can add compatible effects, or even replace the synthesizer with a more advanced third-party version. So even with all the audio opportunity available, you still need more creative options? Music Studio can import a variety of video formats and the program makes a quite capable soundtrack studio, with special effects, audio voiceovers, and music.

Polishing your compositions is just as simple, or complex. You can set almost all controls either on a single loop or the entire composition. You can also set fades, pans, and envelopes. In other words, the program lets you shape sound like a master potter molds clay. Unlimited undo and realtime preview make it easy and fun to experiment with any aspect of your composition.

Once you've assembled and polished to perfection, there are more choices. You can burn CDs from directly within the program, send the

song to the Web, or export to a variety of audio formats, including MP3 with a variety of settings.

A deep program built around the ACID technology used in professional audio studios, Music Studio is remarkably accessible. In addition to a well designed interface that seems to lead a user naturally into the complexities lurking beneath, the help system is actually helpful, even to those without a strong audio or music base. Musically gifted or precocious middle school students might benefit, but high school students are a more likely audience for the program.

At a modest \$69.95, it's hard to justify a Windows PC in a music lab without this program. It's even difficult to not recommend this program for every high school computer used for any multimedia creation purpose. Music is an incredibly powerful medium, especially for students, and Music Studio will help you unleash that power.

Sony Media Software

\$69.99, Windows only
<http://www.sonymediasoftware.com>

Epson PowerLite 82c

By J.V. Bolkan

Portable multimedia projectors in the low to mid-range price category are practically ubiquitous. Epson's PowerLite 82c does a pretty good job of setting itself apart from the throngs of competitors.

The first move away from the pack of \$1,000 projectors is Epson's 3LCD technology. Most inexpensive projectors use DLP rather than LCD technology. Although never as drastic as proponents of either technology will allow, LCD units produce brighter, more vividly colored screens, and

DLP has the edge in response speed, producing slightly better action video. That said, I found the 2,000 lumen 82c gratifyingly bright and vivid. I never noticed the refresh lag (blurring of fast moving video) that DLP fans claim LCD is prone to.



Other differentiating features are perhaps even more defining. Epson's Instant Off feature is very

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neat; competitors can continue whirring for minutes as their fans cool down the bulb. If you're looking for immediate class feedback on a presentation or other visual, the immediate silence will be greatly appreciated. A 5-watt mono sound system is well above what competitors typically include, although it probably isn't enough for a noisy or large classroom. Automatic keystone correction and a very nice color shifting feature (preset color adjustments that can correct for a green blackboard rather than a white screen, and optimized settings for movies, presentations, and other content) are all very handy and rare in this price range. I also really liked that the exhaust from the bulb cooling fan exits the front of the projector.

On the downside, the native resolution of 1024 × 768 isn't particularly impressive, especially if the primary use of the projector will be to show computer content such as presentations, word processing documents, and spreadsheet data.

Overall, the extras combined with exceptional image brightness, contrast, and color make the 82c a solid contender in the value category.

Epson America Inc.

\$1,299 Suggested List

<http://Epson.com>



J.V. Bolkan is a senior editor for L&L with more than 20 years' experience reviewing and writing about hardware and software.