realm, but this is a limitation imposed by software architecture and minimum processor requirements.

The big question on most minds will likely be, "How does it sound compared to the originals?" The general sonic essence of each piece is represented quite nicely. Does it sound *exactly* like a 1073? Not really. Does it sound good? Yes, definitely. The bottom line is that for me, the *TonePort* is a really useful tool. For $200 street, it's enough of a bargain that I ordered one for myself. The *TonePort* won't likely replace anyone's rack of outboard gear, but I think it will easily find a nice niche with beginning recordists eager to dabble with a lot of useable sounds on a budget, and medium level recordists like me looking for a tool to capture late night ideas with a little flavor.

*($269 MSRP; www.line6.com)*
*Jason Reed, www.dreammachinemusic.com*

# Other World Computing
## Mercury Extreme G4 processor upgrade

"Oh yes, it's very simple!" said the guy on the other end of the phone at OWC. I have a 400 MHz Power Mac G4. I'm running OS X (Panther). I wanted more without having to buy a new computer, so I bought a 1.5 GHz G4 processor upgrade. I was excited! The box arrived, and when I opened it, I thought, "How smart, they even included a screwdriver. This will be a cinch." Wrong. Here's the big catch. What I didn't know is that I would have to upgrade my G4 firmware to version 4.2.8 before installing the new processor, since I owned an AGP Graphics G4 running firmware version 3.something. This is also the case for the Gigabit Ethernet and Digital Audio models of G4. Now, to upgrade your firmware to version 4.2.8, you need to boot in OS 9. And, you need to boot in OS 9 from a local partition, not just the installer CD. I found this out from the Apple support document the OWC manual refers you to (http://docs.info.apple.com/article.html?artnum=120068). Not just any old version of OS 9 will do either, it has to be OS 9.1 or higher. *And*, to have OS 9 run on a partition, you have to have the OS 9 driver installed on that drive. AAARRRRRGHGHHHHH! So, this meant I needed to *wipe* my internal drive (both partitions) and re-initialize them with OS 9 drivers. Then, install OS 9.0.4 onto one of my (newly formatted) partitions. Then, upgrade 9.0.4 to 9.1. Thank goddess for having an upgrade disc, rather than having to download it from Apple's website *and* for those discs not being scratched or otherwise damaged. Now don't think you can cheat by booting from your OS 9 installer or restore CD and just copying the system folder to your drive. No such luck, 'cause, at least for me, I got an unhappy dialog box saying I couldn't do just that, so I had to actually install OS 9. Note that you can reduce install time by installing minimal stuff though. So, I prepared. I backed up all my data. (I highly recommend making disc images using Carbon Copy Cloner, donationware from www.bombich.com.) I made sure my OS 9 and OS X installer CD's were bootable. Then I did the whole wiping, reformatting, installing, wiping again, and restoring. Whew! The actual replacing of the processor was fairly simple. I used the included wrist grounding strap and made sure to reduce any static charge before touching the daughterboard. The only thing I ran into is that the screwdriver OWC provided was just slightly too big for one of the screws. I had to use my own. Plus, the package seal had been opened, and the connector joining the fan had come off, so the posts were bent. Obviously, I got a previously installed or returned processor (not cool).

Nonetheless, I moved forward and installed the processor very carefully. After a restart, I checked the "About This Mac" box, and low and behold, I had the green light, "Processor: 1.5 MHz Power PC G4." Yippie! It's been running so smoothly for over a month—no problems. The only thing that aggravates me is that it's louder and spits out some noise around 16-17 kHz. Because it's in my bedroom, I can't sleep peacefully with it on at night. I live in Manhattan, and I can sleep with the traffic on my street no problem, so this must be no minor noise! *($349 direct; www.macsales.com)*
*–Hillary Johnson <hillary@tapeop.com>*

## Tape Op Magazine #51 - 2006

Made for people like me who hate playing drum parts or triggering events on a MIDI keyboard, the *Trigger Finger* gives you sixteen velocity and pressure-sensitive rubber pads with user-selectable velocity curves. Plus, there are four programmable faders and eight knobs. The *Trigger Finger* can work directly over USB or MIDI, it has on-board editable preset memory, and without a doubt, it's the most solidly-built controller M-Audio makes—period. I was so curious about its sturdy construction, I actually opened this thing up to see what made it so special. There's a formidable metal plate positioned under the pads that gives the controller its noticeable heft and reinforces its most crucial element. I suppose M-Audio figured that with a controller literally designed to be beaten, it would do them no good to cut corners on its build quality (although the four fader knobs do pull right off... whoops). What they spent on metal reinforcement they saved by providing hardly a scrap of print documentation in the box (you'll need to check their website for that) or an external power supply. That's becoming fairly common these days. I guess manufacturers presume that if their customers are savvy enough to compose music with their computers, they should have no problem downloading a PDF document from their website and will likely power their devices over USB. My computer was able to recognize the controller right away over USB—no drivers necessary. There were only two times where I really had to look up some crucial info in the *Trigger Finger's* "missing" manual. The first time was when I wanted to change the note assignments of some of the pads. It's not intuitive how to do this, but after I consulted the PDF, I learned the secret ninja-death-blow button combination and was able to change note assignments very easily. The other item I had to look up was what audio programs each preprogrammed preset was designed for. There are sixteen of them (including ones for Live, Reason, GM Drum, XG Drum, iDrum, and more), and they're worth familiarizing yourself with if you plan on using this with a few different programs. There's also a free software editor called *Enigma* that can be downloaded from M-Audio's website. The software, which works with many of M-Audio's controllers, allows you to access and edit the presets and note/controller assignments by dragging and dropping parameters onto an on-screen graphic of the *Trigger Finger*, making it much easier to customize and flip between the presets. The knobs and faders are assignable to any MIDI parameter—as is pressure sensitivity—extending your expressive control beyond what's possible with standard control surfaces. Even with some of its shortcomings, for me, the *Trigger Finger* is one of the most useful, affordable ($200 street), and unique MIDI controllers released in years.

*($249 MSRP; www.m-audio.com)*
*–Chachi Jones, www.chachijones.com*

## Listening to EQ's
A few weeks ago Engineer Robert Cheek and I went into the Hangar to do some listening tests on several hardware and software EQs: The URS Fulltec, Waves Q-Clone and the Chameleon Labs 7602. Rather than repeat this three times, here's the set up we used. Tape Op's copy editor Caitlin Gutenberger is in a really cool band called Two Sheds that Robert's been recording. Her vocals were all tracked straight into Pro Tools with a Shure 330 Ribbon mic and a UA 6176. We duped her vocal track several times and used this as the source for our EQ tests. -JB

# Chameleon Labs
## 7602 mic preamp & EQ

I've always loved the sound of classic Neve mic preamps. The first preamp I ever bought was a vintage Neve 1272 racked by Brent Averill, and I used that on just about every track I recorded for nearly 10 years. Then I got a 1073 about five years ago and finally a Neve broadcast board about three years ago. I feel like I know the sound of these preamps and EQ's pretty well. The 7602 is a Chinese manufactured mic preamp and EQ whose electrical design is an exact replica of a famous British unit, and I have to say it sounds almost exactly like what I love from vintage Neve gear. The biggest difference between this and a 1073 are the cosmetics and the price. The 7602 is less than $800 while a new 1073 is $3500, and used channels can go for up to $5000! Each power supply works with two channels, so your second channel will cost you even less.

We've been using a pair around the studio now for several months, and every engineer has given the 7602 great marks. We've tried them on drum overheads, electric and acoustic guitar, bass, but strangely we hadn't yet tried them on vocals. So as a way to really test the EQ section, we thought it would be interesting to compare the 7602's EQ to our 1073 on Caitlin's vocals. We duplicated the settings on the two EQs, and I have to report that the 7602 is pretty much dead on. I love old (and new) Neve gear (and Rupert's new stuff is amazing too!), but if you're on a budget, the 7602 is a great deal. Even as a second set of preamps if you already have some of the pricier stuff. We've been sending ours out on remotes and getting great stuff back.

The build quality is overall pretty solid—not as robust as the vintage or boutique stuff but much nicer than a lot of overseas stuff I've seen. The power supply looks a bit cheap, but hey just stash it behind the rack, and track down some cool old vintage knobs to throw on this thing, and you'd be stoked.

Bottom line is, after using these for a few months, there's no way I'm sending them back. These are worth every penny. *($799 MSRP; www.chameleonlabs.com)* –JB

# Waves
## Q-Clone plug-in

Q-Clone was the single most impressive thing I saw at the 2005 NAMM show last January. There's rarely any truly new technology at the audio trade shows, but mostly refinements of existing technology. Q-Clone is a very cool and unique plug-in that uses convolution processing to "sample" your hardware EQ's. For instance, you're running the lead vocal through your beloved, but sole, Pultec EQH-2, and you really want to use it on the stereo background vocals too. Who can afford three