What This Gadget Can Do Is Up to You



Neuros Technology International

The Neuros OSD allows the recording of material from many sources, and that's just for starters.

By ANNE EISENBERG Published: January 6, 2008

"HACKERS, welcome! Here are detailed circuit diagrams of our products — modify them as you wish."

That's not an announcement you'll find on the Web sites of most consumer electronics manufacturers, who tend to keep information on the innards of their machines as private as possible.

But Neuros Technology International, creator of a new video recorder, has decided to go in a different direction. The company, based in Chicago, is providing full documentation of the hardware platform for its recorder, the Neuros OSD (for open source device), so that skilled users can customize or "hack" the device — and then pass along the improvements to others.

The OSD is a versatile recorder. Using a memory card or a U.S.B. storage device, it saves copies of DVDs, VHS tapes and television programs from satellite receivers, cable boxes, TVs and any other device with standard video output.

Because the OSD saves the recordings in the popular compressed video format MPEG-4 (pronounced EM-peg), the programs can be watched on a host of devices, including iPods and smartphones. The OSD is for sale at Fry's, Micro Center, J&R Electronics and other locations for about \$230.

The OSD's capabilities will grow to suit changing times, said Joe Born, founder and chief executive of the company. "Digital video is a fast-moving space," he said, and many consumers don't want to buy a new piece of hardware every time a media company comes out with a new way to watch its shows. "The best way to address this problem was to make the product open source, allowing our smartest developers and users to modify it."

The OSD has not only open hardware, but also open software: it is based on the Linux operating system. Neuros Technology encourages hacking of the device; it has contests with cash rewards for new applications for the OSD. One winner, for instance, designed a program that lets people use it to watch YouTube on their televisions.

Using the OSD for daily video recording demands no special technical background, and no PC is required. Setup is easy: Plug a U.S.B. hard drive or other memory device into one side of this lightweight unit, and plug the TV and, for example, the DVD player into the other side.

I recorded a show from a DVD this way and, to my delight, I was soon watching it on my <u>iPod</u>. Thank you, hackers!

The OSD does not have a display screen. Its menu is viewed on the television screen and navigated by using the remote control that comes with it. The device can also be connected to a computer or to a home network of computers.

People who are tired of stacks of DVDs and VHS tapes in the living room may find the Neuros an inexpensive way to tidy up: an entire library can be archived on a U.S.B. hard drive. Then you can stroll through your own personal video shop from the living room couch or, when traveling, plug the drive into a laptop to watch programs recorded from satellite or cable service at home.

But these are just the daily functions, designed for duffers like me. Gamers at their consoles can record their online contests, edit the videos and share them with friends. Brett Manners, a mechanical engineer and wind-surfing instructor in Perth, Australia, had another innovative use for the device. He rigged up a combination of the OSD and a video camera and used it to record his wind-surfing adventures directly to MPEG-4 format. (To watch some excerpts, see "Windsurfing With the Neuros OSD" on YouTube.)

Products like the OSD are a good example of a small but growing trend toward openness, said Jimmy Guterman, editor of Release 2.0, a technology and business newsletter published by O'Reilly Media of Sebastopol, Calif.

"The open source hardware movement parallels the earlier open source software movement that started off as a renegade thing 15 years ago," he said. "Now it's the center of I.T. at many major Web sites like <u>Google</u>."

He hopes for the same openness in hardware, although he said that the issue was more complicated. "Companies may keep some aspects of their hardware closed, while opening others," he said.

Paul Saffo, a Silicon Valley forecaster, said openness was likely to apply to new products like the OSD, rather than to existing proprietary products. "It's a lot easier to design future products with openness built into them," he said, "than to open a closed product."

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