BY STEPHEN MURPHY

All-In-One Workstations: Ready For Primetime

T ake a long hard look in the mirror, inhale deeply and repeat after me: "There is a very good chance that I may be…a nerd." There now, isn't that better?

Let's face it. If you make your living in pro audio and your heart pumps human blood, you can't help being excited by the breathtaking technical advances that are occurring in our field. The trick is in knowing when and with whom to show your excitement.

Since we are all friends here, now is a great time to look at some of the recent changes that have occurred in the "all-in-one" workstation market – changes that lift these units out of the basement and into the world of pro audio.

TALES FROM THE CRYPT

DATELINE: 1979, New York City. TASCAM unveils the TEAC 144 4-track cassette Portastudio at the Audio Engineering Society convention in the Waldorf Astoria Hotel.

The TEAC 144 was not only the world's first multitrack cassette recorder – a major breakthrough taken on its own. It was also the world's first portable studio in that it integrated the multitrack recorder with a 4 x 2 mixer complete with mic/line inputs, five faders, an auxiliary send, two-band equalization and pan control.

This significant event changed the recording landscape for the better and set the stage for a new industry that has been growing steadily ever since.

(It was a scant six months later when a certain 13-year old Murphy plunked down a very hard-earned $1,000 and came home with his own 144 Portastudio – yes, I knew I was 'nerd' at a very young age.)

Twenty-five years have passed since the introduction of the now-ubiquitous (but TASCAM-trademarked, nonetheless) term "Portastudio" came into our vocabulary. Although many changes have taken place in the all-in-one recording workstation market (including the introduction of the term "workstation"), the general opinion that these are devices better suited for home use persists.

MOVE OUT OF YOUR PARENTS' BASEMENT

It is true that all-in-one systems continue to serve a valuable function to musicians, hobbyists and those on the learning curve towards professional engineering-dom. But it is also true that the developments in the latest generation of portable workstations have many pro-

Roland VS-2000CD

ducers and engineers putting them to professional use.

While it is unlikely that a commercial studio will ditch their current setup for an all-in-one, there are many applications and working styles where the reasonably small investment in one of these new systems can expand productivity and increase income for those working in professional capacities.

The products highlighted in this article are a representative sampling of workstations, each with unique feature sets. Some selected features include:

Uncompressed (not recompressed, in other words) recording at rates up to 24-bit/96 kHz

Simultaneous recording of up to 16 tracks

Onboard VGA monitor support and standard keyboard/mouse support

The ability to import and export standard WAV and AIFF files

Onboard MIDI tone modules and sample playback

USB 2.0 and SCSI interfaces for real-world data transfer and networking

Up to 56 simultaneous mixer inputs

Input insert paths and even multiple channels of onboard analog compression

AKAI DPS24

Large internal hard drives – up to 60GB as standard

Moving faders, multiple fader banks and control of computer-based DAWs

When one considers the amount of functionality, ease of portability and relatively low cost of these all-in-one workstations, potential professional uses start to suggest themselves:

Dedicated preproduction room; secondary room for continuation of limited-budget projects tracked in the main room; secondary room for simple transfers, editing, and/or voice over work; live-event recording; location audio acquisition (such as recording a specific concert hall grand piano, church organ, or uncooperative musician); continuation of projects outside of the studio (for instance, while on vacation…doh!); use as a slave deck complete with built-in submixer to add tracks and inputs to an otherwise finite setup; use with SMPTE-to-MTC interface for location audio for video and film; and on and on… (Okay, my brain hurts).

Here's a closer look at some of the latest all-in-one workstations primed for professional employment.

AKAI DPS24

The Akai DPS24 ($3599) is a 24-track digital recorder featuring 16/20/24-bit uncompressed recording at 32 kHz, 44.1 kHz, 48 kHz,

88.2 kHz, 96 kHz sampling rates. The DPS24 boasts a 46-channel, 20-bus mixer with eight subgroups and four stereo effects returns. Each channel has three-band semiparametric EQ, dynamics and four aux sends. All analog I/O is balanced including four balanced inserts on Channels 1-4.

Unique in this round up: 12 x 100mm motorized touch-sensitive faders; time stretch, pitch shift, BPM matching; ASCII keyboard input; talkback mic.

Additional features: 28 analog inputs (12 x XLR combo, 12 x TRS, 4 x TRS returns); coax S/PDIF and ADAT/TOS optical I/O plus 16-channel expansion option; 4 x TRS aux sends; CD-RW burner; 60GB hard disk; mono switch; mains and closefield monitor outputs; USB for computer track view display and data networking; word clock I/O; 256 virtual tracks.

(See www.akaipro.com for more information. It should also be noted that Numark/Alesis has inked a deal to distribute Akai in the US.)

Korg D32XD

The high-powered Korg D32XD ($3,750) features uncompressed 96 kHz/24-bit audio recording. Resolutions of 48 kHz and 44.1 kHz at 24-bit and 16-bit depths are also supported. The D32XD has eight XLR mic inputs, each with individual phantom power supply, plus eight 1/4-inch TRS and

Korg D32XD

one Hi-Z instrument jack.

The D32XD features a 56 input (32 tracks playback plus 24-channel sub mixer) 14-bus digital mixer with full four-band parametric EQ, and a final eight-band fully parametric EQ is available when recording to the master stereo track.

Unique in this round up: 16 tracks simultaneous record (see features below); 80GB hard disk; 8 analog compressors for recording/mixing;

Additional features: Simultaneous playback 32 tracks, simultaneous recording eight tracks at 44.1 kHz/48 kHz, 16-bit (if the AIB-8 is installed; 16 tracks of simultaneous recording); simultaneous playback 16 tracks; simultaneous recording eight tracks at 44.1 kHz/48 kHz, 24-bit; simultaneous playback eight tracks, simultaneous recording four tracks at 96 kHz, 24-bit; USB interface; CD-RW burner.

(See www.korg.com for more information.)

Roland VS-2000CD

The VS-2000CD ($2395) 44.1 kHz/16-bit and 24-bit workstation is the latest model in Roland's popular VS line.

The 17-fader VS-2000CD is capable of recording up to eight simultaneous inputs through its eight phantom-powered XLR, eight 1/4-inch, Hi-Z instrument or S/PDIF inputs. The unit can play back 18 tracks plus stereo mastering track at 16-bits and 12 plus stereo at 24-bits. Tracks 17 and 18 double as returns from the internal Rhythm Track drum sequencer.

Unique in this round up: Third-party plug-in via optional VS8F-3 expansion board. Also supports mouse control and VGA display via optional VS20-VGA output board.

Additional features: 40-channel mixer; 4-band EQ and dynamics per channel; 40GB hard drive; CD-RW burner; USB 2.0 data transfer; integrates with Edirol video editors thru V-LINK; WAV and AIFF import/export (via conversion).

At the top of the Roland VS range is the VS-2400CD (see *PAR* review in this issue, page 30), and Roland's flagship VS-2480DVD ($5,195), a 96 kHz-capable, 64-track workstation with motorized faders and VGA monitor and third-party plug in support.

(See www.rolandus.com for more information.)

TASCAM 2488

Here's an amazing sign of the times: TASCAM's new 2488 24-track digital Portastudio ($1,499) is selling on the street for the around the same price as the TEAC 144 4-track cassette Portastudio when it was introduced.

The 2488 is a 24-track, 44.1 kHz/24-bit workstation capable of recording up to eight simultaneous inputs. Although it is the least expensive (by more than $1,000) of the bunch, it has the most number of faders: 20 x 45mm. TASCAM provides three-band EQ (two sweepable shelves and full parametric mid) on all channels, eight assignable dynamics processors plus dedicated stereo bus compressor, and dedicated effects and guitar multi-effects processors.

Unique in this round up: Onboard 64-voice/16-Part General MIDI sound module; also includes a standard MIDI file player.

Additional features: 36-channel mixer; 3 aux sends per channel; 40GB hard drive; CD-RW burner; USB 2.0 data interface; WAV import/export; 250 virtual tracks; eight mic/line inputs (4 x XLR-1/4-inch combo with phantom power, 4 x 1/4-inch).

*(See **PAR** review in this issue [page 26] and www.tascam.com for more information.)*

Yamaha AW4416HD

As the earliest model in this round up, the Yamaha AW4416HD ($3,799) has reached street price of around $2500. The O2R-based AW4416 features 17 motorized faders (65mm), 16-tracks of uncompressed 44.1 kHz/48 kHz, 16-bit/24-bit audio and 32-bit internal processing (with 54-bit 4-band parametric EQ processing).

The AW4416 can record eight tracks simultaneously through its two phantom-powered XLR, eight 1/4-inch TRS, Hi-Z or S/PDIF inputs; 16 more channels of analog I/O can be added via Yamaha mini YGDAI cards.

Unique in this round up: Computer DAW control templates for Nuendo, Sonar, Cubase and Logic; also features eight pads x two banks of sample playback.

Additional features: 44-channel mixer; 20 busses (including eight aux and eight groups); two effects processors; four-band EQ and dynamics processing per channel; stereo mix down track; 112 virtual tracks; 20GB hard disk, user-expandable to 64GB; CD-RW burner; external SCSI and mouse support; word clock I/O; WAV import/export.

*(See **PAR** review (1/01) and www.yamaha.com for more information.)*

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