

DSP Media Postation II

The Postation II is a powerful fully integrated editing system for post. Michael Gissing hops straight on and gets to work.

What is Postation II? It is a super-fast, reliable digital audio workstation, linked to a digital mix engine, which is controlled by a touch screen/motorised fader mix controller, which talks to the editor. At the same time, the editor and mixer are locked to a digital video deck. Meanwhile a comprehensive digital audio routing system handles all the input/output patching and a monitoring section controls all the various mixes and feeds them via a comprehensive analogue router to speakers.

So when we look at the Postation II we're in fact looking at five distinct, albeit

we sit in front of our systems and that good dedicated controllers really separate the professional from the garage systems. But with the PS2, the ergonomics blend with a new style that conjures up words like 'sexy' [maybe that's *too* many hours in front of the system Michael! – CH]. With the DEP sitting in the Postation II furniture you just want to sit down and get to work. For the sake of this review, I will not go into all the DEP features, other than to say it has almost no peers.

Vmotion Commotion

The next system along from the DEP is the new video disk recorder, the Vmotion. This is brand new from DSP Media and is a further development of the non-linear video systems of the early Postation systems. The

Vmotion differs in that it records full 10-bit uncompressed digital video.

Motion JPEG has been abandoned for the vastly superior DV compression or simply uncompressed digital. (The need for uncompressed resolution is clear when you consider large screen video projection needs in feature film mixing.) As such, the Vmotion is a stand-alone product to rival tape systems like D1 and Digital Betacam.

But this is not a mere recorder for synchronised picture playback. The Vmotion also has picture and sound editing features on board and can be used synchronised to edit picture with 32 tracks of DEP. EDL handling is included and if that is not enough, the Vmotion also has extensive on-screen features like automated text insertion and visual cueing of record drop in. For use in post syncing dialogue, the combination of an on-screen cue plus the artists' text superimposed over the picture makes this an extraordinary visual system for sound post applications.

The on-screen interface for the Vmotion features a high-resolution touch screen with 18 thumbnail images as cue locators. The screen also has full transport controls on screen plus access to file and editing functions. When locked with the DEP, the Vmotion is always in perfect sync, even when jogging, spooling or running at slow-mo speeds. This is very important as the mix automation of the Postation II can work at non-play speeds. The Vmotion also has the ability to control and synchronise external 9-pin devices. This means the Vmotion can control a video machine to record in pictures, without



totally integrated,

products:

- DEP (or Disk Editing Processor).
- Vmotion, non-linear video system.
- Virtual Control Surface (VCS).
- Digital Mix Engine.
- The Monitor Section.

DEP Heat

Now call me biased, but I think the DSP Media DEP (or Disk Editing Processor) is the best of all digital editing systems. But then, I have three of them. Based on a PC hardware platform, but using their own software operating system, the DEP is blindingly fast. I recently upgraded my machines to Pentium III 750MHz motherboards and doubled my Ram to 128MB.

The difference was barely noticeable, just degrees of the instantaneous in fact.

The DEP comes in a range of configurations. The Postation II version is commonly 32-track/24-bit. A high-resolution plasma touch screen shows the track layout and is one way of accessing the editing functions. The other way is via the ergonomic custom keyboard, and, all up, gives the operator total control of all editing functions – no fishing around with mice and menus... dedicated keys all the way. Ergonomics is a bit of an obsession with the designers at DSP Media. They know about the hours

tying up the DEP to control external devices. The range of I/O for the Vmotion covers all needs from serial digital (SDI), composite and component video, plus AES and analogue audio. Furthermore, the Vmotion can switch between PAL and NTSC modes.

Mixing, Automation, Routing & Monitoring

Most of this review must be concerned with the mixing, automation, routing and monitoring features of the PS2. For many years DSP Media integrated their DAWs with Yamaha digital mixers – fully automating the mixing functions of desks like the DMC1000 and the O2R. This external automation control was a vast improvement over the Yamaha's own internal mix automation and meant that you could edit your audio and automation simultaneously. The Postation II, while it can still control one or more O2Rs, is now more commonly packaged with a new mixing engine manufactured by Matsushita for DSP Media. The Matsushita alliance on this mixing engine allows DSP Media to fully customise its characteristics.

Cascading multiple mix boxes allows you to expand your system in blocks of 32 inputs. A single mix engine box is a 32-input, 32 bus output affair. This can be extended to 96 inputs and 64 bus outputs. The importance of having 32 or 64 bus outputs becomes apparent in doing the pre-mix stems on 5.1 mixes. A popular configuration entails two mix engine boxes cascaded for 64 input and 32 bus output. Four full bandwidth, parametric EQs are provided on each channel, and are optionally available on the bus sends. Separate high pass/low pass filters with adjustable frequency and slope are also on every channel. Notch EQing is very common in film sound mixing, so DSP Media provides a range of Q settings including a narrow Q of 30 for tight spiking of ugly artifacts like hum or air conditioning rumble. The 24dB of cut and boost gives plenty of push and shove in the EQ area.

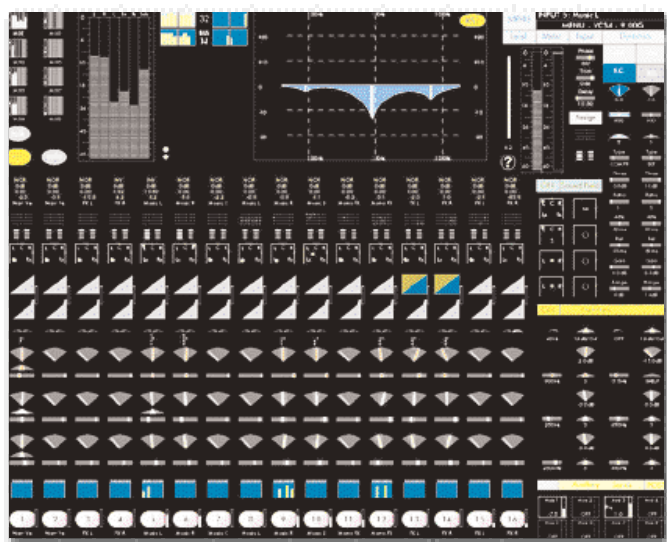
Virtual Control Surface

The Virtual Control Surface (VCS) of the mixer is a combination of 17 motorised touch-sensitive faders, one motorised touch-sensitive rotary pot plus a 'landscape' format flat touch screen. The display and layout on the touch screen is designed to show important display information for each channel plus a large surround panner area. Again, the DSP Media approach has been to get feedback from experienced mixers on screen display and optimal access to menu setups – and it shows. Although I profess my personal bias against touch screens, I found the VCS very quick and easy to operate. The new flat screens are well positioned and, being such a low profile, are not in the way like the old touch screen monitors. The bulk of what I needed to know was displayed and the settings are laid out for very quick and intuitive operation.

I am used to the way EQ is displayed on the Yamaha mixers so the DSP Media display actually surprised me by showing the EQ curves with a non-linear characteristic. This display shows the curves mimicking our perception of EQ (the EQ values are shown as a fan shape), but are also accompanied by actual numerically values. There

is also an EQ status display on each channel 'strip'. Metering, routing and fader levels are also well displayed. One problem with all virtual-type controllers is relating the displayed channel with the source track on the DEP. But DSP Media makes the 'connection' a lot easier by displaying the text of the clip name in the channel strip on the VCS. It also shows the clip start and end on the channel strip with a natty countdown indication. This is very handy for targeting a particular sound in a typically complex multitrack film mix. DSP are also working on an icon-based identifier that can be assigned to clips in the DEP which will also appear on the channel strip display.

Being touch-sensitive, the faders are easy to automate. For example, overwriting an existing fade is as easy as touching the relevant fader. Automation features like 'glideback' can be selected so that releasing a fader can make it either remain at the last setting or glide back to the previous automation values. Interestingly, when the fader is released, it returns to its previous automation by morphing to the old value from the new, not just a simple linear return. The return time can be preset from milliseconds to many seconds. The options for glideback or non return can be dynamically changed during automation. For example, you might select and set certain faders (releasing them so they remain at the set values); then, still automating, select 'Glideback' on the dedicated button and release other faders which then return to prior values. Relative automation changes can also be made by using a channel fader to ride relative values onto previous values. This is a very handy feature in a complex dialogue mix where a voice track may have been chased to ride out excessive performance dynamics. Having done that, the mixer then wants to trim the first few seconds by a few dB and then ride the rest up and down around a music track or, say, a sound effect. The relative mode enables the previous chasing to remain and the overall level to be ridden. Of course, you'd expect most of these automation features on any high-end mixer, but not this one – 'non-linear speed automation'. This feature enables the DEP to automate while the video and audio are



Postation II's VCS touchscreen interface.

playing at jog or slow speeds. It also enables automation at faster than play speed. The fact the Vmotion will perfectly sync with the DEP at all speeds means a tricky pan can be performed during a jog speed operation. Parking the DEP and marking In and Out points also enables automation values to be set and then written between the marked points. This, combined with the

ability to store snapshots, enables complex mix configurations to be recalled and set between the marked points.

Panning & Plug-ins

Panning deserves special mention. Using the multi buses, the mixer enables every channel to be individually panned in 5.1, four-channel and two-channel mixes. This

Postation Gestation – DSP's co-founder and Technical Director, Joe Narai, talks to Christopher Holder.

When Australian physics graduate, Joseph Narai created a two-track disk recorder in the late '80s using an off-the-shelf PC and his own software, the last thing he expected was to become an international innovator in digital audio production.

"I just wanted a two-track recording device – it was nothing to do with starting a company," Narai explains. "Then a couple of people from a post production facilities saw it and..."

By the early '90s, the recorder had evolved to an eight-track digital editor



DSP's Postation (circa 1998) installed in Margarita Mix studios.

based on an early plug-in card for standard PCs – which, at that point in history, had no hope of accommodating multi-channel audio. But supporting all the different PC brands was tricky, so Narai made a key decision: to provide integrated, turnkey solutions.

"We found that if we supplied our own particular motherboards and actually put the whole system together it was easier to support," he explains. "Customer service was also important to us. We found that the studios actually wanted us to come in and connect everything. If we just sold boards and software, it was difficult to price that in. When we sold the turnkey system it was more expensive, but the benefit to the client was that we installed it.

"In a lot of instances, we actually solved their intercommunication problems across their various pieces of equipment. That was really where integration became an extremely important factor especially as the company grew and our product range expanded. Now if something goes down, our customers call here and we can help them to sort it out." This close contact with clients also meant Narai was able to discover exactly what customers wanted from their digital recording systems. Narai was able to use this feedback to drive development.

About the same time, another defining approach, the decision to use hybrid systems, was established. Combining dedicated software with both application-specific and off-the-shelf hardware kept costs as low as possible and allowed the company to focus on developing the system's core elements.

Formed under its original name, Digital Studio Processing in 1991, the company released an integrated non-linear video system (NLV) followed

by the Virtual Control Surface (VCS) digital audio mixer. These components, together with the Editor, evolved into the Postation, a revolutionary digital audio production system that integrated the three elements into an ergonomic cockpit-design workstation.

By 1995, Digital Studio Processing had made considerable inroads into pro audio market especially in Australia and Japan. Four years later, in an effort enhance their global presence the company: changed its name to DSP Media, expanded operations into the US, and moved the company's management, sales and marketing divisions to Los Angeles.

At the same time, aggressive R&D led to the launch of Postation II all-in-one post production suite featuring a new scalable 24-bit digital mixing engine, improved software and high definition resolution touch screen technology.

Since then, the company has introduced AVtransfer – a professional audio file conversion software utility for audio project and file conversion between different formats, including OMF; the Desktop System, a compact yet powerful audio workstation featuring DSP's new Speed Console; mixing plug-ins for Postation II and, most recently, Vmotion, a stand-alone version of Postation's non-linear video capability.

"Vmotion really kicks arse. It's a whole market unto itself. We think it's also going to open us up to video broadcast market which is another area that we're really excited about entering," says Narai.

"Postation II is less than a year old, so it's still got a long life and we've got some fantastic new features coming out," Narai says.

"We will continue to build on its present success by expanding its functionality and adding multilayer mixing."

DSP Media continues to grow. The Sydney-based division recently relocated to a larger state-of-the-art facility in Homebush Bay. The new facility is over three times the size of the previous space.

Despite all the success and expansion, Narai has not lost touch with his primary goal of maintaining client contact. With more than 200 DSP Media systems in use world-wide, customer service product specialists have been appointed in the UK, US, Japan and Australia to ensure the company's now well-established philosophy.

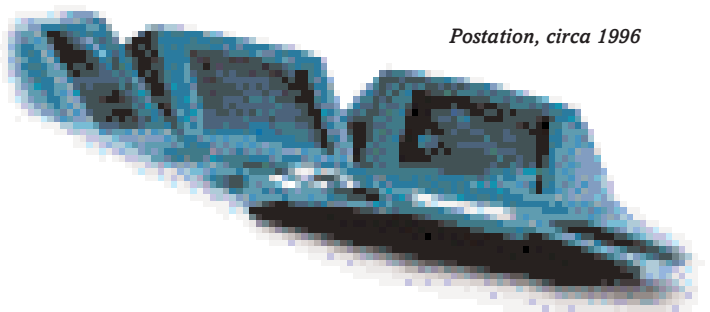
"From our modest beginning to where we are now, the key is to be certain that DSP stays true to the people who helped us get here," says Narai.

Jenny Temm.

The speed console circa 1994



Postation, circa 1996



means that a mix for 5.1 can also be simultaneously made into a four-channel and two-channel version with different panning. Also the fader level can be trimmed $\pm 6\text{dB}$ within each version. This way, different versions of the same program can be mixed for a variety of formats, each with individual control of pan and level trim. The panning can also be linked, so by panning a signal in the 5.1 field it automatically tracks to the four-channel and stereo version. By using the comprehensive grouping controls, linked panning of multiple channels can also be achieved. As well as doing your panning via a rotary pot and fader combination, it can be performed on the touch screen, using either the VCS screen or the Vmotion. This handy feature means that you can, for example, pan a car pass with the image of the car underneath the pan screen.

Plug-ins are part of this new mixer. Using an on-board Soundscape Mixstream or Mixpander/9 card, all the plug-ins available for a Soundscape system can be deployed with the DSP Media mixer. CEDAR, Dolby and TC are among the range of third party plug-in providers. These Soundscape cards are powerful indeed and are solely employed to offer DSP grunt for the plug-ins, so the existing mixer processing remains untaxed.

All up, the mixer and its control interface is incredibly powerful. Setting up and performing complex mixes has just got a lot easier. The ability to have multiple bus mixes is a real godsend (creating the variety of mixes often required these days can be a headache, but the PS2 handles this without fuss, letting you get on with your job as the mix engineer – creative story telling).

Routing & Monitoring

I think the mixer/editor/video combination is the best I have seen. But DSP Media has taken a further step to making the Postation II the complete package. Comprehensive digital routing and a monitoring section are part of this system and, as you would expect, integrate with the mixer. (Using the mixer touch screen, the routing menu is called up; inputs to channels, channels to bus, aux send/returns are all allocated and stored; taking a DA input and directing it to a channel and then on to the DEP is easily achieved; while a block diagram indicates the signal path and colour highlighting shows individual and group pathways.) I think the best and most unique part of this routing menu are tiny level meters that show actual signal through the system. If a DAT machine is sent to a channel, then to a bus and on to an output, the tiny meters show that signal all the way through the path. It is a fantastic aid to the often complex task of finding and tracking signals through routers.

The monitor section also makes sense of following the multiple mixes that can be simultaneously achieved. The monitor section, next to the VCS mixer, has selection buttons for six different mixes. This makes swapping from the 5.1 mix to the four-way and two-channel mixes a simple button press. The monitor controller feeds the mixes to speaker/amplifiers as required, as well as routing the various mixes to external recorders like a DA88 or DAT. These machine returns are also selectable on the

monitor control. So, with the simple press of a few buttons, mixes and their returns from a variety of machines can be compared. The issue of matching levels and setting control levels is also addressed – the gain of send and returns can be trimmed on the controller, including individual speaker settings. The monitor section has a large rotary knob for master gain, which can be bypassed for fixed monitoring – as required by film studios working to the 85dB pink noise standard. Talkback is part of the monitoring and a clever feature sees headphone jacks on the panel being able to monitor the actual return of a headphone feed to another room. To finish the features, four different monitor types can be used, so the mix can be sent to four different speaker types – main, alternate main, small and TV speakers. Again, individual gain settings can be set to match speaker sensitivities, so apparent loudness is unaltered. The monitoring system is smart too: by selecting 'TV' (a stereo TV simulation) the monitoring bus automatically routes the stereo mix to those speakers, regardless of the monitoring bus you were previously listening to (so it won't route a 5.1 mix to the two speakers). Similarly, selecting the stereo panner on the mixer automatically switches the monitor to the stereo mix. The way the monitoring follows the mixer is another unique feature: the mono button causes all mix types to be summed to mono; with a 5.1 mix, the mono button can be set up so that the mono sum goes to particular speakers. This can be any of the speakers or all of them. You decide.

Total Control?

The total video, editing, mixing and routing/ monitoring system is so impressive that it makes trying to cobble together these features from alternative stand-alone systems seem like a waste of time. Regardless of the DAW type you are using, I believe the Postation II is a better integrated package than anything else currently on the market. As many of us have discovered, mixing with a real mixer is better than the mouse mixer/editor combos, but finding this level of total integration is uncommon. When you consider this review has totally glossed over areas like networking and file transfer support, you can begin to understand why DSP is making huge in-roads into the US and Japanese markets. The system is not cheap, but compared to any less integrated package it is also great value. Product support and development, combined with the history of DSP working with their users, has made the Postation II the current benchmark in the DAW world.



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• Systems start from \$125,000.