

Tascam DM-3200

Digital consoles have suffered at the hand of the DAW and if they are to wrestle any control back then they have to offer a package of features that complement those of the workstation. **ROB JAMES** reports on a compact digital desk that gets the balance right.



market in 'dumb' control surfaces. Hardware machine and monitoring control still has a lot going for it and very few people would say no to some extra DSP horsepower. Get the package and the price right and there is still life in the compact digital mixer concept.

Tascam is no stranger to this market. Its last mixer offering, the DM-24, was interesting and well engineered but somewhat flawed and mostly 'me too'.

The DM-3200 builds on the virtues of the DM-24 and avoids many of the pitfalls, but this time Tascam is making a much stronger play to place the DM-3200 at the core of the studio, whether for music, post or live work.

The UK£2245 (+ VAT)

DM-3200 is a 32-channel, 16-bus digital mixing console, even at its full 96kHz/24-bit resolution. It features 48 inputs at mixdown, 4-band fully-parametric EQ and dynamics on every main channel, and two effects processors. It mixes in surround, panning to up to 6.1 output channels, and the optional (£378 + VAT) IF-SM/DM surround monitor expansion card adds comprehensive surround monitoring, downmixing and bass management. The stylish meter bridge weighs in at £552 (+ VAT). Unusually, and most welcome, the angle of dangle is adjustable.

Although this console has much in common with its predecessor, the DM-24, it is less restrictive and is an altogether more fleshed out and well-rounded product. For DAW use the killer option is the (£297.02 + VAT) IF-FW/DM FireWire interface and 24 bidirectional channels over a single cable is the promise. The Tascam just shows up in the DAW

THE ONE CONSTANT you can really rely on is change. Major upheaval is easy to spot but sometimes the wind shifting a few degrees can have more profound long-term effects. As DAWs have slowly grown in power and confidence and whole generations have grown up without preconceptions about the mixer in the order of things, so 'conventional' mixers have become increasingly irrelevant in many applications. Even the more recent generation of compact digital mixers is in danger of being sidelined unless there are changes to fit in with developing production practice. Among these new generations there is acknowledgement that at least some degree of hardware control is desirable — hence the burgeoning

application as 24 ASIO or WDM I-Os. Complementing this, there is a remote layer with Mackie HUI and Mackie Control protocol options via conventional MIDI or MIDI over USB. Although this is a tantalising prospect, these protocols still fall some way short of full and convenient control over all the DAW's functions and if you use a lot of plug-ins you may well still find it less of a chore to use the DAW screen, mouse and keyboard. This is no criticism of Tascam, rather a reflection of the current somewhat chaotic state of control protocols. It costs a lot of R&D time to support a remote protocol, at the controller and DAW ends, and until a more comprehensive standard is universally adopted it is entirely understandable if manufacturers go for the lowest common denominators.

Talkback, slating and machine control with Sony 9-Pin P2 protocol, MIDI timecode (with internal generator) and MMC are all standard. These features along with the optional surround monitor card, which adds full surround monitoring control, go a long way to making the point. This is a console designed to provide all the hardware facilities lacking in a DAW as well as adding considerable DSP horsepower.

The 'Tascam Mixer Companion' software application is provided with the console. This allows mixer data to be saved and reloaded and offers a Timecode/Transport window, a Meter Bridge window, a Preferences window, firmware update facilities and the ability to take screenshots of the DM-3200 screen. Arguably the most useful feature of such an application is missing. Inexplicably there is no graphic representation of the state of the entire mixer or remote control thereof.

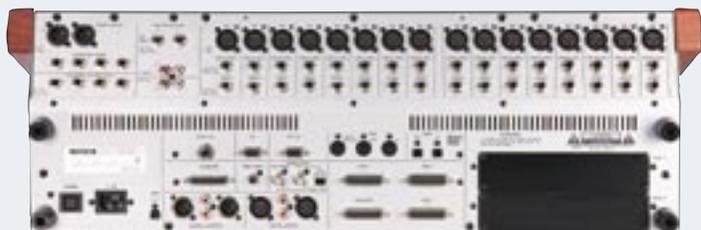
The operational paradigm follows that of many other consoles with the well-established formula set by the seminal Yamaha 02R of multilayered surface, motorised touch-sensitive faders and assignable controls. The central monochrome LCD screen is the operator's window into the complexities within. To aid comprehension Tascam has dubbed logical channel strips as modules. Each of the 32 main input modules has 4-band EQ and dynamics (gate and compressor/expander), phase switch, delay, soft inserts, pan, aux sends, mute, solo and direct, bus and stereo outputs. Each of these 32 input modules can have two alternate inputs — main and return. This may have benefits for music recording and mixdown although when the return paths are used the strips become feature challenged in a similar way to the other 16 input modules that are intended primarily as returns and have just aux sends, mute and solo and bus outputs.

The stereo bus module, the 8 aux and 16 bus modules have compressor/expander, soft inserts, delay, mute and stereo outputs. Bus modules can also send to aux 1 and 2. The stereo bus obviously cannot send to itself and lacks a mute. Loopback allows any of the buses, auxes, direct outs and the stereo bus to be used as channel sources, just watch your tweeters! Dither is only available on the stereo bus. There is a choice of truncate, dither or noise shaping.

Input bypass allows inputs to be patched directly to outputs, for example for format conversion. You can input an ADAT signal and output TDIF without going through the mixer. When strips are linked for stereo, pan becomes balance and width is available on the POD 3 encoder. Either module can be used as a mono signal or both together. If L or R is selected the balance control acts as a pan. Surround mixing is available in formats up to 6.1 but stereo sources cannot be linked for surround panning.

There are two effects processors, each capable of running the built-in and estimable TC Works Reverb processor as well as Tascam's own time-domain,

In and out The DM-3200 is generously endowed in the connectivity department. Sixteen mic/line analogue input channels with analogue inserts and input level ranging from -60dBu to +16dBu. Phantom power is available, switched in blocks of four channels. There are four assignable balanced analogue sends and four returns and a -10dBv analogue 2-track input. Other analogue outputs comprise a main balanced stereo pair on XLRs plus balanced Control Room monitor on jacks, unbalanced studio monitors on phonos, and two headphone jacks. On the digital side there are two, 2-track inputs and outputs, one AES-EBU and one SPDIF respectively. The AES input has sample rate conversion. Multitrack digital I-O is catered for by three TDIF sockets and a pair of ADAT optical Toslinks. BNCs connect Word clock in, out



and through, likewise three DINs do the same for MIDI. A USB B-type socket connects to a host computer for remote control and MIDI. Timecode in is phono. Strangely, there is no timecode out. Two 9-pin D-sub covers RS422 for Sony P2 protocol control and GPIs. A 25-pin D-sub connects the optional meter bridge. Two option slots accommodate a wide range of boards and last, there is a footswitch jack

IF-ADDM (8-channel ADAT I-O) £158; IF-AEDM (8-channel AES-EBU I-O) £175; IF-ANDM (8-channel analogue I-O) £308; IF-TDDM (8-channel TDIF I-O) £158; IF-SMDM (surround monitoring card) £378; IF-FWDM (24-channel FireWire interface) £297. (All plus VAT).

distortion and dynamics.

Although there is a global choice of encoder gearing between coarse and 1-step, I found coarse too coarse and 1-step too slow. Dynamic gearing would be nice although pressing Shift while turning a knob does invoke whichever option is not currently set.

Control surface design makes or breaks a mixer and, if anything this is becoming truer as consoles fight for their very existence. Tascam has managed to make the DM-3200 appear airy and uncluttered, no small achievement given the number of controls. Some things naturally belong in certain places, fader strips and transport controls, for example, and the screen and meters. The 16 identical channel strips and stereo master occupy the bulk of the operator's focus. Each has a touch-sensitive motorised 100mm fader, mute, solo and select keys, record and indicator LEDs plus a rotary encoder with an annular ring of LEDs.

Immediately above each fader is an OL/Status LED. This can indicate overloads on either the mic/line or return channel inputs with overload presettable from Over through 0dBfs down to -42dBfs. Alternatively the LED can show automation status for the channel.

Fader pitch, at 25.4mm, is somewhat more generous than some of the opposition. This contributes to the spacious air and will be helpful in live work. One key to success or failure in hardware interface design is selecting the most useful controls to place on the surface and then putting them in the right place. Presupposing some familiarity with this type of desk, this is an unusually good example, with many controls intuitively falling to hand. Layer switches are large and exactly where you would look for them, as are the routing keys. The channel strip rotary encoders can be instantly switched between user selectable functions, pan, aux sends, etc. They can also be used as a horizontal channel EQ or dynamics strip. A flip switch swaps the encoder functions with the faders.

Four so-called PODs, rotary encoders with associated switches, are placed under the screen to control various soft functions. Housekeeping keys are to the right and the Compact Flash slot is to the left. Project set-ups, libraries and automation data can be saved to the Compact Flash memory card. Dynamic automation, always a strength of the DM-24, is even stronger here. Touch-sensitive faders, write to end, variable revert, trim and grouping were already present along with a proper multi-pass mode. Now you don't even need an external source of timecode. The internal generator can be used as the master for automation and machine control. I've always thought this way around made most sense.

Methodical working is positively encouraged with a project and library model. Projects contain a vast amount of information and are stored on Compact Flash so they can be moved from console to console without the need to set-up from scratch. With this board you do have to remember to save your project at regular intervals and shut down properly before turning off. I would have liked to see a user-selectable auto-save function.

Taken as a whole, this is an easy surface to use with a reasonably flat learning curve.

There are some signs of cost saving to achieve the price point. There are seriously unpleasant fake plastic wood side panels, reminiscent of the worst excesses of the automobile industry, and some buttons that wobble about in a disconcerting fashion. However, the review console had 'done the rounds' and given the hard life it's had, everything still works as it should, suggesting it is tougher than it looks. If the plastic wood offends, you could always remove it and either build the desk into a console or make your

own side cheeks from whatever exotic material slides your faders (*Or you could fit them in your car. Ed*). The other major sign of the times is the large Made in China label on the box.

All consoles of this type only really shine when considerable time is spent exploring their possibilities and designing set-ups for various scenarios. With the DM-3200 this is even more important than usual because this console is so flexible.

The DM-3200 largely succeeds in justifying its existence to DAW users who might otherwise decide they don't need a console at all. This is a highly cost effective way to get all the necessary peripherals in one box with a single FireWire connection to the workstation. The hardware has plenty of scope for future development to fulfil users' wish lists. The console would certainly benefit from a much more comprehensive 'helper' application with a graphic

representation of the state of the entire mixer and the ability to change parameters from this.

As a standalone mixer it is appealing for live work due to its sensible layout, price and specification. This time, Tascam has demonstrated more of its old form and has come up with something that pushes the envelope. The DM-3200 is well worth a look. ■

PROS Intuitive assignable; 24-channel FireWire option; surround monitor option.

CONS Rotary encoder gearing; no autosave; no stereo pan linking in surround.

Contact

TASCAM, JAPAN
Website: www.tascam.co.uk