Tascam DM-24

Chasing the activity in the busy, affordable digital desk sector, and paving the way for its long-awaited and SX-1 hardware-based integrated workstation, Tascam's DM-24 is an interesting proposition.
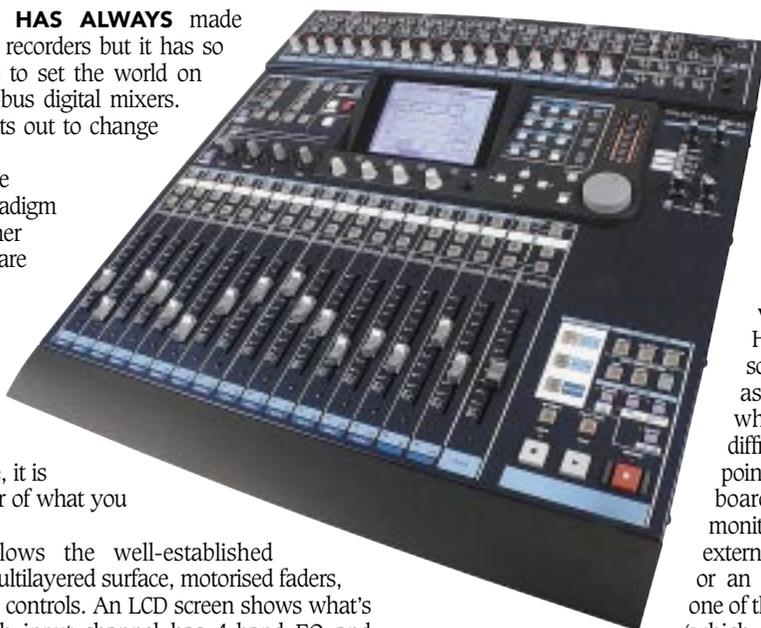
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TASCAM HAS ALWAYS made desirable recorders but it has so far failed to set the world on fire with its 8-bus digital mixers. The DM-24 sets out to change all that.

Although the operational paradigm is similar to other consoles there are sufficient differences to make you scratch your head a little. Operation is no less logical than others are, it is simply a matter of what you are used to.

DM-24 follows the well-established formula of a multilayered surface, motorised faders, and assignable controls. An LCD screen shows what's going on. Each input channel has 4-band EQ and dynamics and six further dynamics processors are assignable to aux sends, bus masters or stereo outputs. Two built-in effects processors and touch sensitive faders add icing to the cake.

96kHz operation is well thought out. You don't simply lose half the usual number of channels, buses and auxes, instead the full complement of multitrack buses is retained and the auxes reduced to four.

Surround mixing is possible using the main buses and includes divergence and vector panning. However, stereo sources are treated as two monos which makes life difficult. More to the point, there is no onboard surround monitoring. Either an external D-A convertor or an analogue card in one of the slots is required (which reduces the maximum number of digital inputs accordingly.)

The analogue inputs and outputs are clean and there is 18dB of boost and cut in the equalisers. Tascam has used SHARC DSPs and internal processing is 32-bit floating point. This imparts a crisp, if still digital, flavour to the DM-24. I would want to use something analogue in the inserts to warm it up a bit in certain applications.

Under the bonnet

On the rear surface are 16 analogue mic/line inputs, each with analogue inserts and non-automated variable gain. These can be patched to any of the 32 input channels and to more than one if required. So far, so good.

The first 24 channels have alternative inputs designated as returns. These are sourced from the on-board digital I-O or the option slots. There are three eight channel bi-directional TDIF ports, one pair of ADAT TOSlink sockets, and two slots for optional I-O cards. But, and this is a source of possible confusion, there can only be 24 active inputs sourced from all of these at any one time. So, if you want to use ADAT then TDIF 3 becomes unavailable as a source. Similarly, TDIF 1 and slot 1, TDIF 2 and slot 2, are mutually exclusive. What all this boils down to is you cannot have 24 analogue inputs and 24 'returns' connected at the same time. This is only significant for multitrack music recording, which requires recording and monitoring of 24 simultaneous tracks. Even then there are workarounds. Either, use the channel direct outs or make use of a feature Tascam has built in to the software which allows the first two aux busses to be used for a stereo monitor mix.

In the absence of dedicated effect returns these are routed to input channels.

The rest of the I-O is conventional. A single stereo SPDIF/AES-EBU, stereo analogue out, stereo monitor out and headphones. There is a separate studio output but oddly, no volume knob. The studio monitor level can only be controlled 'on screen' or externally.

An unusual and welcome feature is the provision of four assignable analogue sends and returns and an analogue insert on the main stereo output.

In the event of an interruption to an external sync source, the DM-24 does not automatically resync to internal clock or when the external source is restored. Unusually, external word clock is only accepted at 'normal' rates, so 48kHz is used for 96kHz operation.

Machine control includes MMC, RS-422, a DTRS port for Tascam machines, and a phono socket for time code input. There is currently no internal MTC generator so the dynamic automation requires an external source of code. Internal generation is scheduled for the next software version. MIDI bulk dumps enable external automation data storage or for moving it between consoles. The POD rotary encoders, faders and mute switches can be mapped to control external MIDI equipment. MIDI is also used to update the system software.

Two consoles may be cascaded with option cards and there is an optional meter bridge along with ADAT, analogue and AES/EBU I-O cards.

Good use is made of internally-illuminated keys and eight rotary encoders, four with a concentric ring of LEDs, for EQ gain, frequency, Q and pan. These can be paged to address the aux sends of the selected channel. Rotary encoder 'gearing' is selectable between 'coarse' and '1 step'. I found coarse too coarse and 1 step too fine for my liking.

One effects processor runs Tascam's own time domain, distortion and dynamics tricks. The second runs TC reverbs or Antares modelling effects. The reverbs are exactly as expected from a mid-range TC electronics unit and, will not disappoint TC aficionados. The Antares modelling is more of an acquired taste. It won't turn cheap speakers or microphones into expensive ones but it does provide some interesting alternatives to more run of the mill effects.

Automation is the star of the show and the dynamic automation is transformed by use of touch-sensitive faders. Write to end, variable revert, trim and grouping are all here and a proper multipass mode removes the necessity of re-arming every time the time code stops. Considerable thought and effort has gone into this implementation and it shows.

If you are prepared to take the time to learn to love its foibles, the DM-24 is an unusual, maybe even unique package. There is no other console that offers such a range of features at this price. ◾

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