

Fostex DV40

It's threatening to condemn the DAT machine to the dustbin that so many have prepared for it but this bold gesture requires the adoption of DVD-RAM as its replacement. Fostex's DVD master recorder provides a professional user implementation and a breathtaking features list. NEIL HILLMAN says that he's ready for it.



AS I GUNNED THE Ford Mondeo 1.8TD through the autumnal gold and woodsmoke whisps of a Burnham Beeches late afternoon, I was summoned by a message-alert tone from the SatNavCam situated in the drop-down glove-box; I had to report to 'Z' division 'PDQ'. From my pinpointed position to Haywards Heath is no mean journey, but the 'Mandy' is a filly that flares her nostrils at the thrill of a chase. Onward we turbo-diesel charged, until within the hour Ms Cashcoin took my nylon rally-coat and humid, open-backed PVC driving gloves, and showed me into the *Resolution* editorial office that acted so plausibly as a front for Z's workshops.

'Z' is a man of indeterminate years, the frequently used editorial portrait of him was in fact taken some decade's earlier in a newly-divided Berlin; his gun-metal grey eyes quickly appraised me and held no hint of compassion for this hack field-operative; and so he began immediately to brief me on my next mission — to report back on the mighty Fostex Corporation's new baby: the DV40 Master Recorder. As a point of interest, it was used by Chris Munro on the set of the new James Bond movie *Die Another Day*; and as Bond's techmeister 'Q' might well have said, the DV40 comes 'fully loaded'.

Fostex is no stranger to digital audio mastering; it invented the time-code DAT 15 years ago, and introduced the time-code capable location versions too. The successor to these PD2 and PD4 models, the PD-6, promises to introduce the DVD format to feature-film location recording, and quickly establish itself as a digital, versatile, disc-based platform. Fostex is robust in its belief that the DVD-RAM format is the natural successor to DAT. Its reasoning is sound enough: DVD-RAM has a proven durability (100,000 rewrites are assured); as a cartridge-held disc it offers better protection from the bumps and grinds that could cause external damage to the disc itself; it offers good editing facilities and built-in error correction capabilities; and with the real-time, error-free recording afforded by the DV40's Verify/Write technology, the Film industry has quickly taken to it.

The Fostex DV40 uses Type-2, one-sided discs, offering a capacity of 4.7Gb (typically 120 minutes)

and formatted in accordance with the Universal Disc Format (UDF). Such is the flexibility of the system, that data can be stored in either Broadcast Wave (.WAV) or Sound Designer II (SDII) format files, in two separate 2Gb directories on the same disc. Files may be either created as New, or by the Insert option, placed into an existing file. The further bonus is that the DV40's discs may of course be read by any of the main computer operating systems, including Windows, Mac and Linux; making the transfer to external editing systems pretty well seamless.

By making use of the DVD-RAM technology, the DV40 can record up to 4 channels of simultaneous audio, in a plethora of permutations, in two basic operating modes: Normal — as per any other current random-access, non-destructive recorders; and Tape — as per a traditional linear recorder, but with the added security of knowing that in the event of a sudden power loss, the recorded data would be safe up to the point of the supply failure.

The machine itself, is indeed, fully loaded. If the machine is generous in its back-panel ins and outs, it is positively philanthropic in its front panel offerings. To fully document and detail all of the potential set-ups, features and possibilities offered by this machine is really outside the scope of the space available, such is the capability and flexibility of the DV40's design. Yet pleasingly, it's not an unwieldy beast to navigate.

The rear-panel offers four balanced analogue inputs on female Neutrik XLR sockets, switchable between +4dBu and -10dBV, and four balanced analogue outputs on male XLR sockets at +4dBu, and on unbalanced 1/4-inch sockets at -10dBV. Time code connections are on



XLR-3 connectors too; TC in on female, TC out and TC thru on male. Alongside these is the 100-base T Ethernet RJ-45 connector, below which sit a pair of connectors: the 15-pin and 9-pin D remote sockets.

The digital inputs are on two female XLR-3 sockets, the digital outputs below them on male XLR-3 sockets. Two 5-pin DIN sockets act as the GPI input and outputs, BNC connectors are available for Video reference input (with a switchable 75Ohm termination), and video. Similarly for Word Clock, there is a switchable 75Ohm termination on the input and two further BNC connectors provide word clock thru and out. The cooling fan may be selected between Hi and Lo by means of a two-position slider switch.

The front control panel is full but not fussy, and straightforward in its functionality. The left hand side of the machine houses: the reassuringly robust disc drive and the normal set of transport keys; the soft-keys for Chase/TC set-up (for turning chase mode on or off, or making time code settings and List Play/Edit for playback list editing. The 1/4-inch, 100mW, headphone socket is alongside the headphone volume pot and two other monitor selector rotary switches select between Tracks 1+2, Tracks 3+4, Tracks 1&3+2&4 and Mono. The second monitor rotary switch comes into operation when Mono is selected, and listens across the individual four tracks. The bottom left position of the front face houses connectors for an external keyboard and a mouse.

Across from the monitoring section, along the bottom of the front face, are the operating parameter controls. Toggle switches for Control — Local or Remote; Audio File selection — BWF, SDII, or Option; Input — Analogue or Digital; Track Mode — Mono, Stereo or Multi (4-track) and Pull Up/Down — +0.1%, normal or -0.1%.

Four rotary switches select Sampling Frequency — 48 and 44.1kHz at 16-bit depth; 44.1, 48, 88.2, 96, 176.4, 192kHz at 24-bit depth. Frame Rate is selectable between 23.97, 24, 25, 29.97DF, 29.97, 30DF; Time Code Generator Mode is selectable between Ext Run, Free Run, Rec Run and 24Hr Run. The Clock source is selectable between Internal, Video, Word and Digital.

The final, bottom two dual-concentric pots control the input levels for Tracks 1+2 and Tracks 3+4. An on/off bypass toggle switch can disable these pots.

The remainder of the front panel is primarily taken up with a large jog/shuttle wheel, which is also used to increment numerical values when editing a memory, or for selecting an item in the set-up mode. An alphanumeric keypad allows direct entry of characters when editing a name or a time, or specifying a memory or cue point, while a large display panel provides title and time information, track levels and the confirmation of other settings such as file-type, sample-frequency, bit-depth, system clock, display content and status.

The remaining two-dozen soft-key buttons, for supporting front-panel operations, surround the display window and include such provisions as a meter Margin Reset/ Clear key, Display Time, Display Level, SetUp/ Utility (for entering either of those menus), and File Selection/Directory for the selection of a file or the creation of a new one.

VariPitch turns the varispeed playback mode on or off (when it is 'on', the jog dial changes the speed directly) and there are also Jog and Shuttle selection keys. A Locate key stores the point at which it was last pressed, but is over-ridden each time it is pressed. Audio Edit enters the editing mode while a Time Code ready key arms the time code track.

A Slate Tone/Tone record button draws from a slate and/or 1kHz oscillator source and Audio Ready/Insert turns the Insert mode on or off (current data may be replaced, or new data may be added to the file).

Mute/Mute Record mutes analogue and digital outputs or permits the recording of a period of adjustable, pre-determined silence before recording from an input source. Audio Ready/New File creates a new file or determines that each recording will be allocated a new file.

Once audio files have been recorded or imported to the DV40, they can be processed by the in-built, non-destructive editing functions such as Copy, Paste, Insert, Cut and Erase; with a virtually unlimited number of Undos. This editing is made easier with the combination of the precision jog/shuttle wheel and the concise display panel.

The actual production use of the DV40 during the short time it was in my possession was rather humble given its capabilities. I employed it as a duplex record source to my MFX-3 hard-disk, for a series of radio ads — I won't go into too much detail, but I warn you now, this Christmas a shopping centre near you could well have a pageant of penguins in its yuletide grotto. I also used it as the ISDN play-out source of the completed ads for the traffic centre of a well-known group of independent radio stations. Controlled by its Sony 9-pin remote from the console of my Prodigy 2, and mimicking the MFX-3 time code, the machine performed as well as it should; workmanlike, it locked up, and it obeyed its commands with little or no fuss. As opposed to the 10 minutes I spent assigning and re-assigning our ISDN link to cure a screeching on the line

that I couldn't hear, but I was assured by an earnest young lady at the traffic centre that we were transmitting. You got it: the -18dB, 1kHz stereo split-tone was obviously disturbing the tranquillity of an otherwise smoothly running commercials department.

The overall conclusion has to be that the Fostex DV40 is clearly a device that has been well thought-through by the designers, has the promise of longevity, and should really come with a License To Thrill. It certainly shouldn't scare The Living Daylights out of a new user in the way that the Nagra IV-S TC seemed to do some when it broke new ground 20 years ago.

The original James Bond would probably describe it more succinctly; 'Shplendid!'

The DV40 can integrate seamlessly into its role as a work-horse DAT replacement. Operationally, it merely bides its time while the take-up of units increases, and renders the vagaries of DAT as an amusing source of anecdotes to tell future generations of engineers. I'm being ungracious. DAT admirably served its purpose for a time. But that time, frankly, is up. ■



PROS

A welcome replacement for time code DAT as an industry-standard platform; new software has also enabled easy integration with the Deva location recorder; I've seen the future, I like it, and I want one.

CONS

Sadly, the DV40 will have to sit there in the rack and co-exist alongside the despised DAT machines until everyone agrees to change and use them as expensive door-stops; had it been blessed with another four tracks, the more-loved DA-78, 88 and 98s could have gone too.

EXTRAS

Fostex's PD-6 is a 6-track location recorder that writes to DVD-RAM.



The portable device includes a full-function mixer, supports BWF file format, has a Firewire interface,

pre-record memory buffer and extensive time code facilities.

A new 5050 option for the DV40 DVD master recorder permits the playback of 6-track PD-6 discs.

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