

# Shedding light on

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In previous issues we have looked at Strand's MX lighting control desk and had a look at the world of Musical Instrument Digital Interface 'MIDI'. Like most things in life MIDI requires thought and perseverance to get the best out of it. In the early days, many musicians gave it the 'cold shoulder' out of sheer laziness. Today it is second nature in the music business and a lot of people owe their success to it.

Sound to light has been around for years in one form or another and whilst the actual chases and flash patterns have got pretty sophisticated, the control side and how it responds to the actual music has not. The MX and MIDI will change all that, allowing the musician to create visually as well as musically.

Strand MX, or Mantrix MX as it is known in the USA, will appeal to the self contained Pro or Semi-Pro band or artist, and those who cannot afford the permanent services of a lighting engineer. The importance of lighting in the rock world is very apparent. Subtlety is rarely a consideration and imagination often goes 'over the top'.

Whilst the theatre world is slow to change and fairly conservative, one or two top lighting designers have admitted utilising some of the more imaginative ideas that occur in rock lighting.

Ideas abound when a system like the MX becomes available. As with all new products you have to embark on a voyage of discovery to find out if what you want to achieve is possible.

Fig.1

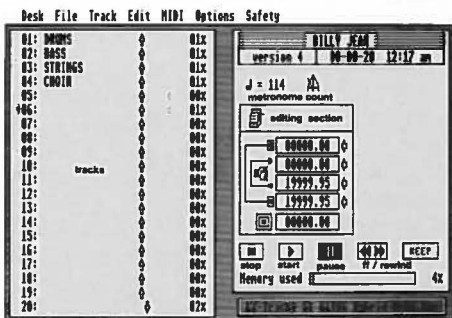
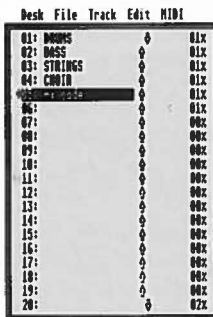


Fig.3



## THE IDEA

The objective was to create a mood for each song and change that mood automatically with the verse and chorus. For example:

- Intro — trigger red lights from a blackout.
- Verse — fade in some warm yellows.
- Chorus — trigger a suitable chase pattern.
- Verse — all colours on.
- Finale — slow fade to solitary blue light.

Pretty standard stuff for a lighting person but a whole new ball game for the average musician. The main difference here being this is all now triggered and controlled from a MIDI keyboard/sequencer, either a self contained unit or in conjunction with a computer.

## THE SEQUENCER

The musical sequencer may be unfamiliar to some people so a simple explanation is in order. A sequencer is a digital tape recorder. It records and plays back digital information in the form of musical notation. You input notes in time, or as near as you can get, to a metronome click at the speed that suits your musical abilities.

Only a few bars need to be recorded and these can then be repeated, altered, cut, pasted and generally played around with like a musical wordprocessor. As you record each track the previous one will play along with you.

The power of the sequencer is in its ability to overdub without quality loss, something not possible with an analogue tape recorder. Fig. 1 shows a software sequencer; computer sequencers are much more powerful than onboard ones. This should be self explanatory, but a point of interest here is the amount of tracks

# MIDI



available. It looks like there are 16 tracks left but in fact there are more than 100. This is because the four recorded tracks can be bounced down onto track one leaving the others free for recording again and again, and remember sound quality is not affected.

## THE MIDI MODES

On our voyage of discovery the four MX MIDI modes were investigated and work as follows:— MIDI Normal — In this mode MX only receives the MIDI real time clock signals. No MIDI messages are transmitted.

MIDI In — Most console operations are suppressed board control is via the received MIDI signal. Only the grand master and blackout keys remain operative.

MIDI Slave — As above except the individual channel faders and flash buttons are not controlled from MIDI but remain operational on the console.

MIDI Out — All fader movements and most key operations are transmitted on the current MIDI channel. In this mode a MIDI SYNC will force a complete snapshot of the current MX status to be transmitted.

The Audio/MIDI switch and fader work in all MIDI modes. Depending upon the position of the Audio/MIDI switch the fader will control the speed of an effect either on the bass beat (audio position) or through a MIDI controlled sequencer clock (MIDI position)

Fig.2

