

headway, with a widening variety of systems to choose from. Perhaps the most interesting of these was the Neve NECAM system, which utilises servo-controlled faders, but that's another story. Yet still, in the under capitalised world of theatre sound, specialist mixing desks were the province of the major theatre companies, and it is only in the past few years that combined pressure from sound engineers, and sound conscious directors, that high quality theatre sound systems have started to appear in more than just a few select theatres.

Since then, the market has slowly but surely, started to expand. There are eight Libra desks in theatres all over the country, including a touring model owned by the Old Vic (latterly Prospect) Company. Hardware House in conjunction with Peter Barham Associates, are about to launch an automated theatre console, and at CISCO, the French company, Tecnicobel, showed their new CX40 special effects mixing desk. It is this desk that was mentioned in the last issue of CUE, and it is to this desk that the rest of this article is devoted.

Basically, the desk consists of a main-frame, into which various modules are plugged. In its simplest form, it appears to be a straight sixteen into sixteen mixer, but here, one must look more carefully at the routing facilities that are available. Suffice it to say at this point, that each output is equipped with a Voltage Controlled Amplifier (VCA), that is selectable to one of four master controls, or an external control. For the benefit of those who have not come across a VCA, I should explain that this is an amplifier whose gain can be varied in proportion to a varying D.C. control voltage. It is thus possible to control several discrete sound sources by one control voltage, without mixing the sources together. To return to the CX40, each input comprises the following feature; electronically or transformer- balanced mic or line inputs, treble and bass E.Q., ± 12 dB @ 6KHz and ± 12 dB @ 60 Hz respectively, E.Q. in/out switch, pre-fade-listen, and mute switches, and a miniature linear fader. The sixteen input controls are arranged in four groups of four at the extreme right side of the desk, next to the output modules.

There are sixteen of these (24 to special order), each consisting of the following controls. A sixteen way input selection switch bank, a six way D.C. grouping switch, P.F.L. and monitor controls, and an analogue V.U. meter. Outputs are unbalanced, although balanced outputs can be provided as an optional extra. Next to these modules come the four master control sections, each having sixteen output level potentiometers, a full-up switch, and a full mute switch, and an associated linear fader. The output modules can be switched to any one of these four masters which provide the control voltages for the VCAs, and can therefore be considered as preset masters.

It can be seen that the desk has some very interesting control functions, and I will attempt to describe a typical operational set-up. Once signal sources have been assigned to the various input channels, and given a level, and tone correction, any signal, or combination of signals may be selected to any output group, or combination of groups. Thus it is possible to have all sixteen inputs selected to all sixteen outputs, or each input selected to a different output, or any permutation of the two. It is then possible to assign any output, or combination of outputs to any one of the four master controls, which act effectively as presets. In addition to this, each output may be switched to independent, at which point it is controlled solely by its own fader, or it can be switched to an external control source, to allow remote operation. The provision of output potentiometers at the preset stage, taken with all the other control possibilities must make this desk one of the most flexible mixers for theatre work available. There is one other function that I have yet to mention. At the right hand side of the desk is a module that contains what the French press release calls '1 manual circular sound quadra-stick, and 1 electronic circular sound'. In other words, one quad pan-pot, and a voltage controlled quad pan-pot. Both of these controls are accessed through a pin matrix, so that various combinations of outputs can be panned. It can be seen from the above, that this desk has been specifically designed for theatre effects work, and the presetting and remote control facilities should prove very useful. In addition, interface with a computer for subsequent automation ought to be a simple matter.

I should explain that this article has been written without the benefit of a console to play with. All the information has been gleaned from a variety of technical sheets that Tecnicobel issued at CISCO, so there may well be some important areas that I have missed. I hope to travel to France in the near future, to visit the IRCAM centre in Paris, and I will take the opportunity to visit Tecnicobel, and try the desk out 'hands on'. As yet, there is no importer of Tecnicobel equipment in this country, so we will have to wait and see if the CX40 can advance the state of theatre sound still more. Judging by the specifications, and assuming it is not priced too highly, it will make a welcome and versatile addition to the theatre sound engineer's steadily growing choice of equipment.

CUE SUBSCRIPTION FORM

Subscription (6 issues including postage): UK £7.50

Eire £	9.50	Finland M.	89.50	Malaysia \$	51.50
United States \$	19.50	France F	110.00	Norway Kr.	130.00
Canada \$	22.50	Germany DM	46.00	Portugal Esc.	1300.00
Australia \$	22.00	Greece Dr	896.00	Saudi Arabia R.	79.10
New Zealand \$	24.50	Holland G	50.00	Singapore \$	51.50
South Africa R	21.00	Kuwait KD	6.75	Spain Pes.	1700.00
		Hong Kong \$	118.00	Sweden Kr.	110.00
Austria Sch	335.00	Italy L	20300.00	Switzerland F.	41.00
Belgium F	730.00	Japan Yen	5400.00		
Denmark Kr.	130.00	Luxemburg F	686.00		

To Twynam Publishing Ltd., Kitemore, Faringdon, Oxfordshire SN7 8HR.

Please send CUE Magazine for one year (6 issues) and —

1. I enclose my cheque/postal order for £ _____
2. Please send me an invoice to the address below
3. Please send me a bankers order form to the address below
4. I authorise you to debit my credit card account with £ _____ My Barclaycard/Visa/Access account number is

--	--	--	--	--	--	--	--	--	--	--

NAME (Mr. Mrs. Miss). _____

ADDRESS: _____

SIGNATURE: _____

DATE: _____