



D&R Lyra Console

MIKE GANLEY MIBS takes a look at D&R's new digital baby console.

Launched in early 2004 the Lyra is D&R's first venture into the fast growing market of small digital desks. D&R itself was founded in 1972 by musicians Duco de Rijk and Ronnie Goene, to build live sound consoles, but the company soon had products in use by broadcasters like Radio Luxembourg. Their current broadcast product line includes analogue desks like the little Airmate, through the digitally controlled analogue Airlab, to the all-digital Scorpius. Lyra has been developed after extensive discussions with users and distributors to offer a compact digital desk, suitable for news booths and small studios needing a high quality digital mixing solution.

So on to the Lyra itself. My review example arrived in two boxes – but no real shock here. Like most other similar products, the Lyra follows the system architecture of a rack mounted digital 'engine' and a separate 'control surface'. The engine can support two, four-fader surfaces which might be arranged in the now trendy split configuration. Also, by the time you read this, an eight-fader surface will also be available and the same engine can drive one of these too. The new bigger surface comes as a rack mount panel, which forms a drop-in replacement for D&R's Airmate analogue mixer – an interesting upgrade path.

A first glance at the Lyra control surface gives you the impression that although this is a quality product it might be just a little too simple for that project studio that you are planning. However, the latter is a false assumption: here is a fully digital mixer powered by the latest Texas Instruments DSP processors, with 18 digital and analogue inputs, a cross-point router, 32 bit processing, sampling rates up to 96kHz, sample rate converters on all the digital inputs, and both EQ and dynamics on every channel. What is clever here is the way you use all those tools. Yes they can be accessed from the control surface, but they can also be controlled from a PC attached to the Lyra via a network.

Control Surface

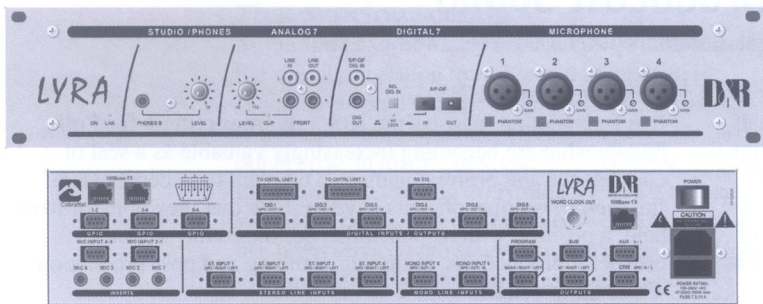
Looking at the control surface, it is divided into two distinct areas on the conventional lines of input and master sections. The input channels comprise four or eight identical strips. Starting from the bottom we have a full size fader which obviously controls the level for whatever source is routed to that channel, but in software it can also be configured to perform fader start, red light switching and monitor muting. Above

and to the left of the fader, a group of eight LEDs show status information for that strip. The two larger ones indicate which of the two main output busses the strip is routed to: Programme or Sub. This signal is always post-fade and post the channel's On switch. The 'Sub' buss would usefully provide a stereo clean feed to perhaps an ISDN codec.

The next group of three indicators is dedicated to the aux buss and the assignable EQ and dynamics. The aux buss is stereo and may be selected independently on each channel as a pre or post-fade send. Each Lyra channel may also be assigned a 'dynamics' control function – a combined compressor-limiter with a single control. The EQ provides three bands, each with a range of two octaves. The pre-set centre frequencies of 120Hz, 1.2kHz and 12kHz are sensible choices, but they maybe changed in software should other values be preferred. A simple three LED meter is provided on each channel indicating audio levels at -20, 0 and +9dB.

Each strip sports two large illuminated buttons labelled 'On' and 'Cue'. The On button functions pretty much as you would expect, and it may additionally be configured to provide a machine start command. The Cue button enables a pre-fade listen, and this too may be configured in software for various other functions. At the top of the Lyra channel are the two most obviously digital controls: a single rotary encoder and a two line LED alpha display. The latter shows the currently assigned input on the top line, while various options are displayed on the lower line. The encoder maybe turned or pushed, depending on what function is currently selected. For example, switching to an output buss is achieved by pushing the knob to switch the selected buss routing on or off, whereas setting an input level is a rotary function.

The right hand master section is topped by a pair of LED level meters, scaled from -36 to +9dB. Below this, two banks of switches cover the function assignment to the channel encoders, and source selection for the monitors. There are also level controls for the monitor speakers and headphones – the latter with a socket on the rear of the control surface. The only other connector on the control surface is a 15 way D-sub which provides the link between control surface and DSP engine. The two can be separated by up to five metres.



Front and rear views of the Lyra engine

DSP Engine

To the engine itself, D&R has done a remarkable job to shoehorn this amount of audio grunt into a box only 2U high – the entire engine is the same size as the PSU of the analogue desk I normally use! Looking at the front of the engine, D&R has placed two sets of semi-pro I/Os here for easy access: the first is analogue on phono connectors while the second is digital and switchable between coaxial or optical S/PDIF ports. Four XLR mic inputs are provided here too, with switched phantom power and screwdriver trim pots. These inputs are also duplicated on the rear panel on 9-pin D-sub connectors, along with unbalanced analogue insert sockets to enable the use of favourite analogue insert processors. The front panel of the engine carries a second headphone outlet (with volume control), but the source is selected in software.

The rear of the Lyra engine is crammed with connectors – mainly 9-pin D-sub for their high density. Each input connector includes relay contacts for machine control functions, and additional connectors are provided for external sources and red light switching. Six digital inputs are catered for in either AES or S/PDIF flavours and the analogue inputs are configured as four stereo and two mono. The last are intended for the connection of telephone hybrids and have associated clean feed outputs. D&R has recently introduced a rack mounting active hybrid that will interface perfectly with these mono inputs, and call divert functions can be managed from the control surface.

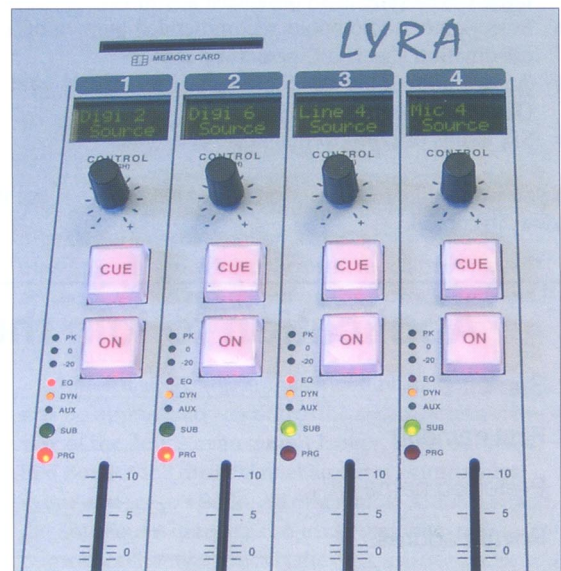
The Lyra also provides both digital and analogue outputs of all busses, and situated on the rear of the engine are connections for wordclock in and out on BNCs, an Ethernet connector, and the familiar IEC mains inlet. The desk's PSU can operate from a range of mains voltages without adjustment.

As mentioned earlier, much of the power of the Lyra desk is unlocked by connecting it to a PC. This is a painless affair and at the most basic level all you need is a single PC with a standard Ethernet connector – the Lyra is supplied with a cross-over Cat 5 cable for this purpose. Alternatively, the desk can be connected to a network hub using a standard Cat 5 patch cable. Once the connection is made the desk has to be assigned a suitable Internet Protocol (IP) number for the network, which can be either a static or dynamic depending on whether a suitable server is available on that domain. To access the desk's own 'web page' all you then have to do is open your web browser (I used both Internet Explorer 6 and Opera 7), enter the IP number of the

A close up view of the controls and displays

mixer and the Lyra log-on page appears. By default this is configured to let any user into the desk's configuration pages, but this is easily changed to restrict access. From the initial screen, a tree and branch structure takes you through all the desk setup functions.

A memory card slot on the control surface can be used to save desk configurations for instant recall, and individual users may be granted different levels of access to the various desk functions – an excellent solution to situations where 'finger trouble' is a problem. D&R also supplies a couple of programs to help new users get around the desk. The first of these is a simple utility to adjust the channel equalisation – handy because the assignable controls on the control surface will only allow you to see and adjust one EQ band at a time. The second is an Active-X applet that generates a virtual Lyra console on your computer screen, showing all of the desk's settings and enabling real time adjustments too. With this utility, it is possible to control the digital engine from any PC connected to the same network as the console.



Hands On

Getting to grips with the control structure of the Lyra was very easy and I was quickly able to put it through its paces in a number of situations – and it didn't disappoint. Audio quality was superb, as was the full set of tools available straight out of the box. I always felt in control of the desk – using the encoders on the channel strips is quite intuitive, and the ability to set it up from a PC was excellent. The digital controls show no perceptible latency. This desk will find many a happy home in both the four and eight-fader guises.

jbs

Thanks to Jan Leerschool at D&R and Marc Thomas at Preco for their help with this review.

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