

Creamware Elektra

Elektra combines virtual modular synthesis with DSP hardware. Glenn Bell follows a few leads.

“Are you ready for new adventures in sound design?” This is the question which beckons you from the box of the Elektra. Okay, there’s an element of marketing hokum about the question, but you soon discover that Elektra isn’t a standard hardware or software addition to your computer but a new environment – an adventure indeed.

Which shouldn’t come as a surprise. Creamware has always offered their own take on things. Their Scope system has got to be one of the most extraordinary packages the audio world has seen – in terms of its breadth and... well, scope. Scope combines all manner of recording, testing, sampling, and synthesis, with a DSP card packed with enough power to send the first German to the moon. Only now are we seeing all that R&D nous trickling down, to the benefit of those of us on a budget. Creamware are taking specific software applications and packing them with their Luna II card – the first being their Power Sampler system and now the Elektra modular synth system. So when you buy the Power Sampler or Elektra you are effectively buying a new hardware sampler or hardware synth – only the interface is on your computer screen. With the studio computer’s performance being increasingly taxed, this is a natty and powerful approach.

But enough of the big picture stuff, what about Elektra? It’s an expandable modular synthesis DSP system. The Luna II is a standard-sized PCI card that boasts some impressive specifications which include, three 32-bit SHARC DSPs, a stereo analogue 24-bit/96k I/O, a stereo digital (S/PDIF) I/O and a proprietary Z-Link connector to interface with other Creamware products (which allows you to expand the system to as many as 36 analogue I/Os). All this is available for both a PC and Mac (on a reasonably meager minimum system spec requirement).

For this installation I used a PC system based on a

400MHz Celeron processor with 192MB RAM operating under Windows98 Second Edition. Windows95 is also supported, (no mention of WindowsNT or WindowsME in the manual, but I would imagine these would be supported soon). On the Mac side it requires Mac OS 8.6 or higher. The Elektra card installed perfectly, aided by

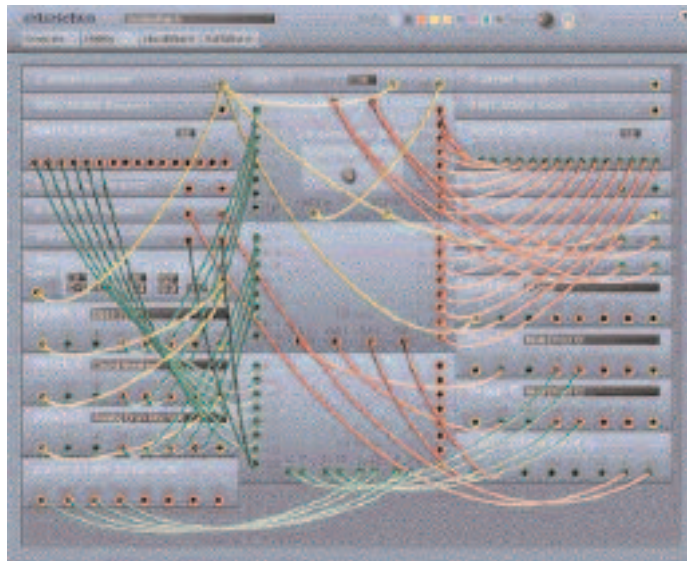
the information supplied in the ‘Quick Start Guide’ (installation manual) which explained all the steps for both PC and Mac installations, and even devoted sections to troubleshooting and performance tips. It also mentions some specific things that need to be done if you are installing the Elektra in the same computer as Creamware’s Pulsar. Next was the software install

which also went very smoothly (while the 100MB file size gives you an indication of the complexity of the install).

The Elektra comes with a host of drivers for all the popular software products, including ASIO, MME, Direct-Sound, EASI and GSIF. Creamware have also implemented something they call the Ultra Low Latency Interface (ULLI) which allows you to achieve a (in theory) latency down to 1ms for its drivers. So if you still want to use that software synthesiser, the Elektra will support this as well. While I can’t tell you that I experienced 1ms latency I can tell you that I didn’t notice any latency issues while using software synthesisers and audio sequencers.

Patching Things Up

The Elektra’s controlling software consists of three panels: the System Patch window, the Mixer window and the Patch windows. The System Patch window is the main controller window which gives you all the signal routing options – for example, send the audio stream from the analogue input through patch A, then through the mixer and out to the analogue output. The routing is achieved by drawing connecting wires between the



various modules, which are presented in a very realistic manner, much in the same way as you would see a physical patch lead. While I did find the process of drawing the connecting leads a tricky proposition at first, it soon made sense and I had no problems. Each of the drawn wires can be colour-coded to then be removed or shown on the screen. This feature comes into its own when you start to connect a lot of different modules, making it much easier to make sense of the sea of virtual patch cords. Routing options are available for all the inputs and outputs, both Midi and audio, and you can add virtual inputs and outputs, eg. to give the card multiple wave devices, which then can be accessed in your audio sequencing software. This becomes particularly useful as you can use the card as an audio processor for adding effects, filters etc. without using the computer's CPU.

The Mixer window, isn't particularly sophisticated but includes the functions required. It controls levels, pans, and sends to auxiliary buses, to then be routed to a patch. It also allows for monitoring the level at input and output, and mutes and solos channels. It can control 24 audio streams in three panels each having eight audio streams. All these panels can't be monitored simultaneously – so if you do have nine audio streams going it can be a bit tiresome flicking between the panels to make adjustments.

Luna Modules

The real heart of the Elektra is its synthesiser power in the patch window, and what an amazing amount of power it has. The modular approach is becoming quite familiar to many now – the idea being you build from basic components a tailor-made synthesiser of your own specifications. These basic components include a huge range of oscillators, modifiers, filters, gates, envelopes, effects and mixers that you can use to build your own synthesiser. While most of these work only with Midi information, some work with audio streams as well – it even has mini drum and pattern sequencers to include in your sound. And, before I go any further, it's worth noting that modular synthesis is certainly not for everyone. The satisfaction is in the (often time consuming) process of configuring your synth in exactly the manner you want, free from the constraints of a predetermined architecture. Saying that, Creamware do offer over 100 preset patches to get you started (more available on their website) which will get the novice started. Additionally Creamware has included a number of tutorials which guide you through the steps of creating your own sound and a detailed manual which explains what all the various modules do. All these manuals are electronic PDF files only.

All of the modules are significantly adjustable and the Midi signal can be routed via multiple methods, such as frequency, note, gate, etc. And there are some nice touches (such as having I/O meters for the compressor) which give all the modules a sense of realism that makes it a joy to use. The Elektra also allows you to use samples as your sound source and accepts .WAV files, AIFF files and Akai sample files. Mind you, the sample playback

uses computer RAM which can chew up your memory quite swiftly. These samples can be kept in the file system or added to a sample pool for easier access. Of course, while you're happily interconnecting to your heart's content and creating a virtual monster the system's DSP power is given an increasing workout – so keep an eye on Elektra's DSP gauge to check out what juice you have left in the tank.

I may be giving you the impression of limitless power and flexibility here, and, of course, Elektra does have some limitations. The main cap on your creativity is a permitted maximum of six different patches. Having six patches, (which could be a synthesiser sound or a group of effects to apply to an audio stream), doesn't sound like very many and, while the programming fire was in my belly, I did occasionally find myself wanting more. There again, the Elektra is obviously limited by its (admittedly pretty generous) DSP and processing power, and I do prefer this 'guaranteed maximum' approach to a 'keep building until you suddenly run out of power' approach. Another rather odd limitation/omission is that there is no reverb effect. Certainly, good reverbs do chew up your DSP overhead but it would be nice to have something within the Elektra environment to get you underway. Additionally, all the panels take up a lot of screen real estate, even before you start talking about having a sequencer or other audio programs running. I found that I needed to go to a screen resolution of 1280 by 1024 to really even start to be happy with having what I needed to see on the screen.

Elektra-fying?

If you love the process of building and fine-tuning synth patches, or creating sounds which are something out of the ordinary, then modular synthesis is for you. But huge flexibility and sonic power comes at a cost to the performance of your host computer, and, of course, this is where Elektra's Luna II PCI card comes into its own. As mentioned, this is not a software synth as such, it's a full-blown hardware synth – only, you're using your PC as the interface. Having the DSP card is a critical piece in the puzzle: you're effectively not touching the overall performance of your Midi Audio system (the sampling storage excepted); you are assured of a guaranteed performance from Elektra (independent on what other processing you're doing elsewhere in your setup); and you can go directly in and out of your PC without troubling your main sound card. Also, the beauty of modular synthesis is that new modules can be added down the line – and I look forward to what else Creamware has in store for us.



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