Fairlight Xynergi

The Xynergi and its remarkably clever keyboard was one of the most exciting developments of last year as it built on Fairlight's exciting CC-1 technology of the year before. Exciting times and exciting technology — NEIL HILLMAN has trouble finding a downside.

FAIRLIGHT

For some years now, there has been a steady but progressive downturn in revenue for those audio-only post facilities in the UK outside of the London, Soho stronghold. This has been mainly attributed to the fashion for regional commercials and TV production clients to be steered away from specialist audio companies — those that have traditionally worked in harmony with picture-editing facilities to deliver an excellent product — towards video set-ups that offer their clients 'audio mixing' at the same time as the on-line picture edit takes place, and by the same person; viz: the picture editor. This is almost always conducted in less than ideal monitoring surroundings, on equipment designed primarily for pictures, and therefore relies on little more than pro-sumer sound capabilities with which to craft the soundtrack; and frankly, Avid's video marriage with Pro Tools audio has done precious little to alleviate the situation for all concerned.

Happily, however, this disturbing trend — and its knock-on effect of noticeably lowering the audio quality of the finished programme — might have an end in sight following the introduction of the Fairlight Xynergi Media Production Centre. Yes, its promise is that good; and it's about time, too, that we in audio-post had a weapon in our armoury to fight back with. So good is it in fact, that not even Fairlight itself has really got to grips yet on informing a waiting public of its capabilities now, and what further exciting possibilities exist as this product evolves. But it will, I have no doubt, impact on the postproduction industry as a whole.

By some, the Xynergi has been heralded as some kind of incredible QWERTY keyboard — well that's some keyboard for $20,000 you might say; and yes it is, with its on-demand, self-labelling key switches that understand what application you're running, and present only those functions relevant to the active mode, resulting in less operator keystrokes. Keys that are in fact 40 pixels-square computer monitor screens, into which bitmaps, animated GIFs or video may be placed at any time, as well as text and icons. But that, impressive as it is, is only one of several, equally impressive, facets of the Xynergi.

The technological heart of the Xynergi lies with Fairlight's revolutionary Crystal Core CC-1 FPGA card. This patented media engine, three years in the making and developed with funding support from the Australian government, delivers an unprecedented level of processing power with, to all intents and purposes at 0.5mS, zero latency. Forgive the need to resort to quoting numbers, but they make amazing reading: each CC-1 card supports 230 high-resolution audio channels, with eight bands of EQ on each channel, three stages of dynamics on each channel, 12 aux sends per channel and 72 user-definable mix buses; it readily bridges with VST and Rewire and offers 220 physical I-Os per card, and a comprehensive monitoring and talkback system. And by the way, it can edit video, too; through its integrated Pyxis video player/recorder, it supports multiple video file formats as well as capturing video directly to a project's timeline. Now there's a thing…

Conveniently, all of the CC-1 card's capability can be hosted within a standard Windows PC; a PC that transforms itself into the platform for a 192-track DAW, with on-board HD and SD video. This card is simply so much more powerful than any of the other processing engines currently available, being able to record at sampling frequencies of up to 384kHz and working at 72-bit floating point.

But as we need to start somewhere, we might as well start with the keyboard, the most talked about Xynergi feature. It's actually a controller for all computers and applications within the integrated environment of a studio, allowing the operator to switch focus from one activity to another without having to move from the monitoring sweet spot or even twisting in their seat. To achieve this level of control, the Xynergi participates in a TCP/IP network of computers, allowing their applications to connect to it using a remote Application Programming Interface

(API) working via standard communication sockets. The net result is that it effectively reduces the crowding of valuable studio space on surrounding control surfaces, which can easily become cluttered by multiple keyboards. Fairlight's stated objective with the Xynergi design was to create a neat and relaxed work layout and thus achieve a clearer mind for the operator. It works: Ommmmmmm…

The on-demand nature of the keyboard means that the keys display only the symbols and commands appropriate for the application currently in use: so if, for instance, a cue list arrives as a Microsoft Word document, or in an Excel spreadsheet, the operator just needs one key push to activate the necessary programme. Xynergi's keyboard then switches to a conventional QWERTY keyboard — meaning that an extra 'utility' PC is now no longer needed in the studio — and when work is finished within the Office programme, a push on the Edit key returns the device to Xynergi's DAW software, and the keys change back to those of the 'home screen' edit functions. From this base-state, the keys change colour to indicate the active functions — when working on a specific track for instance, pushing a button mapped to that track results in the key changing from blue to red, indicating that the track is active and ready for mixing or editing.

Engineers used to the Fairlight MFX-3 and Dream products will quickly be familiar with the trademark jog wheel of the Xynergi. Fairlight has gone to great lengths to maintain the intuitive nature of the earlier models, which operators fed back to them as being important to retain. It requires just a small amount of time to become familiar with the new layout, and to be relieved that the considerable speed achieved through muscle-memory, built up over the months and years of manipulating the earlier Fairlight devices, soon make the new actions feel surprisingly familiar on what otherwise appears to be a very fresh take indeed on an old, favourite theme.

Fairlight refers to the area that includes the centrally mounted, colour edit screen, and the surrounding buttons, knobs and jog wheel as the 'parameter pad'. Here the screen displays all the expected information about the audio tracks, giving users a comprehensive visual representation of a file's components: such as track name, EQ and dynamics. Bargraph level meters indicate the distribution of the tracks across the Left, Centre, Right, Left surround, Right surround and Sub channels, and a timecode display sits noticeably, but not intrusively, in the top right hand corner of the screen. This screen area can be filled automatically by the operator 'grabbing' an area of the current application's screen, or by specifically programming content for it.

Apart from the two Monitoring section knobs, the Xynergi control surface provides eight programmable, endless, rotary knobs. These are touch-sensitive, allowing them to act as switches and as continuous controllers. The knobs are positioned close to the edge of the Screen Area, and show what parameter is being controlled, what value it currently has, and what switch function is currently enabled. Much thought has gone into reducing the eye and head movement of the operator through the ergonomics of the panel layout, and Fairlight has been successful –- the Xynergi is comfortable to fly.

Along with the CC-1 card, each standard Xynergi is supplied with an 'SX-20 Sync and I-O toolbox'. The SX-20 is a 1U rackmountable device that includes two microphone or instrument preamps, plus two additional balanced analogue inputs, 12 balanced analogue outputs, four digital inputs and eight digital outputs. Additionally, the SX-20 provides multimachine 9-

pin control and includes synchronisation at any rate including HD Trilevel sync, videosync, Word clock, AES and LTC; the unit can also generate LTC at any standard rate.

The Xynergi can also be supplied with an optional 'Modular High Density remote I-O', the 'SX-48 Signal Exchange'. Up to four SX-48 units can be connected to a single CC-1 card via MADI, providing up to 192 channels of discrete I-O per engine. The SX-48 is designed to accommodate all standard sampling frequencies from 44.1kHz to 96kHz and can be installed in 8-channel modular blocks, allowing numerous combinations of up to six cards of analogue and/or digital I-O to be mixed together in each SX-48 unit, or added to at a later date. The SX-48 is designed to lock to external sync at any frame rate and accepts HD Trilevel sync, video sync, Word clock or AES as a reference.

For those of us who still like to move real faders, albeit under computer recall, each Xynergi system can be supplied with up to two, optional, 12-fader sidecars. Each sidecar has touch-sensitive motorised faders, encoders and switches, fader bank switches, channel status LEDs, OLED displays and a joystick surround panner that proudly shows its lineage back to the Prodigy desks of the late 1990s.

The Xynergi is a fully-loaded digital audio workstation that has simply redefined the breed. Not withstanding its editor's self-labelling, multifunction keyboard and control surface, its on-demand QWERTY keyboard, colour parameter pad, high resolution jog-wheel and smart transport, integrated talkback and monitoring system, multiple speaker-set selection, digital patchbay, the industry's most comprehensive file exchange system and Tri-level sync support, what else does it have to offer? How about an on-demand, interactive Help function, a comprehensive mix automation system, touch-sensitive rotary encoders, a built-in multitrack recorder, an integrated ADR package, sophisticated editing modes, advanced channel and track management and third-party plug-in support; and don't forget that all important integrated video player/recorder.

Why do I keep going-on about this basic video capability? Because it points the way forward to the exciting prospect of an audio facility offering — in the near future — in the same room, and on the same equipment, one day track-laying, the next day mixing, the next day grading pictures and the next day compiling and authoring the DVD. Laughable? No; I don't think so, let's wait and see — providing Fairlight is sensible and attentive to further supporting this picture possibility with sensible third-party software alliances, it is entirely conceivable that Broadcasters also could derive a huge improvement in efficiency from such an arrangement of rooms, aiding the present headache of having to schedule certain tasks only to certain suites.

The Fairlight CC-1 card of the Xynergi is a quantum leap in technology; it uses just 12 Watts of power — reduced from a more-typical 600 Watts for comparable audio systems — which in turn means a 98% reduction in heat emissions. Carbon emissions are reduced therefore too, from 800g per hour down to a greener 16g per hour. And with less than 1% of the components to go wrong compared to other systems, the Xynergi has also redefined reliability — such is the level of redundancy on the CC-1 chip at present, that only one half is used by your Xynergi: the other half has a second, mirrored Xynergi in the unlikely case of a system failure; enabling a visiting service engineer to simply re-assign the card addresses in situ. This is fantastically re-assuring for those studios that strive to install the best equipment that they can, but worry about the possible cost of a system's on-going, out-of-warranty reliability. All of this adds up to an unprecedented level of integration and capability within a DAW, at the keenly priced entry-point of £11,500.

What this really amounts to is that a whole new generation of multimedia users are now able to benefit from a professional grade audio finishing system to create whole projects with: single room audio post studios, freelance sound editors and sound mixers, music project studios, live sound, mobiles and trucks, corporate in-house AV media creators, aspiring home studios; as well as Fairlight's well-established customers in multiroom commercial audio post facilities, film studios offering recording, sound editing, ADR and mixing and television and radio broadcast postproduction departments.

But ultimately, it means that it will no longer be appropriate for audio suites to compete against a video facility's 'We'll throw the sound in for you as we do the on-line'. *Plus ca change; et merci.* ∎

PROS	The Xynergi's great price point, along with its basic picture capabilities, spans a market much wider than traditional pro-audio customers; meaning a client's expectation for quality, from the most modest of budgets, could now be met by enterprising audio facilities, not just video houses.
CONS	Er, I'm not saying there aren't any but I'm struggling to find them.

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