



FAIRLIGHT XYNERGI

Media Production System

With relatively recent big advances in core technology, Fairlight has been busy spreading the words of power, flexibility, and value. ALEX JOSEPH visits Xynergi with an open mind...

THE REVIEWER

ALEX JOSEPH is a high profile UK-based Foley Editor, Sound Designer, and Mixer, with fingers in film, TV, and game sound. Most recently, he was Foley Supervisor on *Quantum of Solace*.

Like most other Pro Tools users, I'm happy with most aspects of the platform. I and other colleagues have asked for various updates and extras to be implemented over the years – sometimes we're nicely surprised, and sometimes we're ignored. Anyway, healthy competition was, for me, the main attraction of reviewing the Fairlight system. There's nothing wrong with looking at an alternative, and there's always the possibility that you'll be pleasantly surprised.

To showcase its system, Fairlight had rather cleverly employed the services of an award-winning Sound Designer – Cliff Jones. What better way is there? I remember a particular demo I once attended where the designer was at the helm. Most of the audience left with no better idea of the product's capabilities than they had when they went in.

To be clear, this review is focused on the Xynergi Media Production System. While the 'Xynergi' label is most commonly applied to the controller, it's difficult to separate it from the other necessary parts of the system. Thus, a full Xynergi Media Production System incorporates the Xynergi desktop edit and control station, the core processing technology, and Fairlight's PyxisTrack Video

system. Past that, larger Fairlight post production systems (Constellation, Connie II, Connie III) incorporate Xynergi at their heart.

As such, Xynergi's configuration can adapt, depending on the user. It can cater to a freelancer like myself, who needs a fairly minimal set-up, or to a full-on mix facility.

The bits you need to buy depend on what it is you want to do. The system I reviewed was somewhere in the middle ground.

The system can run on any standard PC, as the Xynergi system isn't dependent on the PC's processing power. It does all the clever stuff with the all-important CC-1 card (Crystal Core technology). Of course,

much of the processing in Pro Tools|HD is done on the DSP cards, so why is Fairlight special?

Well, the company has been clever and developed its system around a massive field programmable Gate Array (FGPA), all architected into a custom-built chip. To give you an idea of the power that this chip has, Fairlight claims that one CC-1 card delivers more audio processing capabilities, with low latency (0.05 milliseconds if using all 230 channels, with EQs, etc), than other systems using up to 64 of the most

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Xynergi: flanked by Constellation modules.

parameters and facilities (eight parametric EQ bands, three stages of dynamics, 12 auxiliaries, and more), and the system boasts 36-bit floating point mixing, with 72-bit EQ processing. High standards indeed.

Alongside the CC-1 card, a required component is the SX-20 sync I/O hardware, which comes with two mic/Inst preamps, two balanced analogue inputs, 12 balanced analogue outputs, four digital inputs, eight digital outputs, 9-pin, and so on. It also provides sync at any framerate, with HD Trilevel sync, video sync, wordclock, and LTC. It also generates LTC at any standard rate. For more I/O, up to four SX-48 units can be connected via MADI, per card, which brings up to 192 channels of discrete I/O per engine.

The CC-1 card's architecture allows multiple engines to be linked to form even bigger systems, so for large facilities, the fairlight system is definitely a viable product.

CC-1 has an audio bridge to VST plugins, via ReWire. The audio bridge supports 64 channels of plug-ins, and can accommodate six plug-ins on each channel. You can call up your plug-ins and have full

powerful floating point DSP chips.

It's a very powerful system with a fast and precise tactile response. It also sounded pretty good when Cliff was playing me some of his work.

Control Station

From the off, Xynergi looks impressive. It's a very sleek design. The hardware controller itself connects to the PC via USB, and the self-labelling keyswitches are impressive. These buttons are able to display full colour images, animated icons or text, and as a result, the surface is 'self intuitive'. If you call up the notepad, the buttons behave like a standard qwerty keyboard – application aware, in other words. In normal use there are a range of Xynergi modes, depending on the current activity: Project, Setup, Monitoring, Recording, Mixing, and Editor.

Keys on the surface change according to mode. Even the numeric keypad has a number of different functions – not just locate values. One thing you can do is determine the number of tracks shown by typing that number in, or it can be a bank of user-defined keys, so the number 3, for instance, could be used to call up a dialogue stem on screen.

The top of the Xynergi has a pad with eight rotary touch-sensitive encoders. Transport on the Xynergi uses a weighted jog wheel that reminds me a little of the DAR jog wheel in feel. As a retired DJ, I can best describe it as that direct drive turntable feel. Sadly, you can't currently record in varispeed mode though.

The jog wheel also works as a zoom key, and to jump between clips if required. It can jog all tracks at once, with the screen monitoring everything.

Of course, there are ample assignable quick-keys on the Xynergi surface, and each can have a particular function depending on the working mode.

Core Function

As mentioned above, the CC-1 card is the processing engine behind all of Fairlight's new audio mixers and workstations (which include the Xynergi, MPC, Constellation, and Anthem products, with the SX20 and SX-48 Remote I/O boxes. In addition to the 230 channels, one card provides 72 user-definable mix busses, a 96-channel audio bridge for 3rd party plug-ins, integrated video track (SD or HD), and up to

220 physical I/Os – analogue, digital, or MADI. Every channel has a complete set of processing



Third party effects, courtesy of Re-wire.



All tracks, plus video, on one screen.

control of them on the rotary touch sensitive dials of the Xynergi surface, and you can freely assign parameters to dials, according to your needs. Your set-ups can be saved and recalled. In other systems it can be very time consuming, without a dedicated control surface, to use plug-ins. If VST plug-ins are used, the system will analyse/interrogate the plug in and give it the appropriate delay compensation.

Play Nicely

One of my bugbears with different audio systems is the issue of compatibility. Too often users are screwed over on this issue, so I was pleased to find out that Fairlight has a very open attitude to this. The list is very long: OMF, BWAV, WAV, MP2, MP3, MP4, Mpeg2 Long Gop, SD2, MXF, AIFF, AVI, dv25, XML, WMV, Fairlight MT, and Quicktime to name a few; and there's a fully integrated file transfer

utility for AAF, MXF (D10/IMX, dv25, dv50, DVCpro HD, etc.), Wiretap, Vegas Video, Open TL, AES31, PT5.0, DAR, DSP Media, Bitmaps, Cineon, and DPX Image Sequences.

I would have liked to see a higher version of Pro Tools compatibility, but you can't have everything – you could export a Pro Tools session via one of the other formats, and still keep most of the mix information. Xynergi has an EDL tool built in, so no third-party software is required. It also supports Avid change notes, so the system performs well in the recutting of projects. For real flexibility, you can have mixed sample rates and mixed bit depths in any session.

Timecode-wise, Xynergi will work well with film speed projects (24fps), which is becoming much more common these days, and has proved problematic on other systems. It also generates its own time code reference, which makes the system very useful in recording environments.

System Highlights

The Xynergi Media Production System seems to be capable of all the various editing functions and techniques seen on other systems, so regardless of what machine you have used before, it's easy to develop a working method suitable to your own needs. If things become too much though, there's always the Xplain function. If you hold down the Xplain key and press another button, Xynergi will explain that button's function, even to the point of a step by step guide on how to perform a particular task.

The waveform display level on each clip can be adjusted so the waveform looks suitable for the particular task at hand. Each clip has 100dB worth of trim gain, which is also non destructive, and doesn't need to be rendered (works in realtime). EQ on clips works the same way.

Fairlight implements very comprehensive on-screen metering, with various parameters and work modes. One brilliant inclusion is the peak finder, which goes off and finds a mix's red-spots for you so you can quickly tuck them in.



Recordings

When recording, the system will record take after take and stack them on top of each other, but always play the top layer – useful in the dialogue and ADR realm. You can also crossfade between those layers. When you're cutting, the layers remain with the recording.

Lock up time is instantaneous so there's no way you'll drop in out of sync, unlike the old Akai bi-phase days. And it can also record in tape mode. Impressively, any muted areas don't take up extra file storage space in tape mode.

Drop-ins heal instantly, so there's no glitching at the end of audio files, and if the machine crashes while in record (not that it should), or there's a powercut, you shouldn't lose more than five seconds of the recording – as opposed to

the whole file and saved session going AWOL. Gone would be my reverb rendering woes, when the DSP runs out...

ADR Suite is an integrated and very clever aspect of the Fairlight system. You type in or import the relevant text, with pauses and breaths, and the Fairlight transcribes it, ready for the session. You can import any number of text files from whatever your source is.

You can customise most ADR settings, such as pre-roll, wipes/beep system settings, picture size, and more. You can even superimpose the lines over the picture and navigate by sight with dedicated video and audio scrollers – not unlike the Universe function on Pro Tools (or the similar AudioVision and Akai solutions, for that matter).

Of course, the flexible recording layers function is also a boon in the ADR session.

An interesting optional extra to the system is VSR (Virtual Studio Runner). This is an organiser. It can store client details (deliverables, delivery points, and so on), and you can even specify when to send. It can also let you know when OMFs and other files are put up on your ftp site, so watch out post production supervisors... (he he)

Another plus is the great network accessible library system, with drag and drop search function. It is, though, able to use third-party library search applications.

Panning On Acid

One particularly interesting area for me, was what Xynergi's panning system was capable of. As technology gets better, opportunities for experimentation and creativity become more numerous. The world of 3D sound is already upon us, but is about to make a giant leap. The psychoacoustic possibilities of panning are phenomenal, so I hung on for the panning demo with baited breath.

I can tell you this from the outset – I was incredibly impressed. Because of this part of the Xynergi system alone, other DAW manufacturers need to be really worried. The graphical presentation is brilliant, and the system is logical and easy to use.

I can't go into too much detail on some aspects, as Fairlight is working on new things all the time. However, the panner essentially works as a 3D room modeller. Depending on your speaker set-up,

you can have height information as well, so if a cinema was equipped with high and low surround speakers, the sound could really travel over your head. The more speakers applied to your room, the more detailed the 3D effect can become. Awesome.

The panner is configurable, depending on your needs – 5.1, 7.1, 28.2 – whatever. I guess the system could also be a useful tool for things like theme park ride sound, where they have greater freedoms in speaker configurations and emphasis on immersive audio. The 3D panner also rotates, which is of huge interest to me with my games audio hat on – object orientated panning – or for the POV effect in film sound.

Lastly, there's the distance control. If, for instance, footsteps move away from the viewer, the panner uses a psychoacoustic distance algorithm to help things along. Distance information can then be sent to any associated plug-in to set, for example, predelays on a reverb.

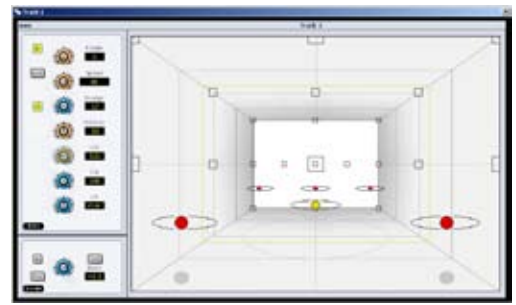
For me the panning system is the Fairlight's greatest feature, and I would love the opportunity to do more extensive experimentation with it in the future.

Conclusion

Coming from a Pro Tools background it was very interesting to see what the Xynergi, and CC-1 Combination was like and how it operated. Since reviewing the system, I've been wondering about its place in the post production world and have had some interesting discussions with colleagues on the subject.

One problem for any 'other' system is the market dominance (certainly in the UK and US) of Pro Tools – that a lot of us feel compelled to use it. That doesn't mean it's perfect though. The Fairlight system answers a lot of the questions that we've been putting to Digidesign, and in that light it certainly deserves to be a contender. It definitely has the technical clout to make an impact.

In the end, it comes down to personal preference. Some people are so familiar with their existing tools and working practices that they don't want to contemplate change. Some sound designers have unique tricks so embedded in their current workflow that they wouldn't benefit from changing their system, whereas for others it could



3D panning for an extra special experience.

revolutionise their work.

It could be that the Xynergi becomes a favourite of the commercials audio side as it is tailor-made for that realm, as it is for the gamesound world, and the one-stop-shop post production house.

For bottom-liners the cost varies massively. For the basic setup I tried we're looking at around £15,000. Well, I say basic; Xynergi is far from basic, and you do get a lot for your money.

Xynergi is a powerful and adaptable tool. It can be customised in so many different ways, all to suit the user. I personally would love to use it again and explore the panning and other features further. When the time comes for me to upgrade my tools I will have a serious look at what's going on in the post production audio market, before making any decisions. **FAW**

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INFORMATION

GB&TBA

Ⓐ Fairlight.Au Pty. Ltd., Unit 3, 15 Rodborough Road, Frenchs Forest, NSW 2086, Australia

☎ +61 2 9975 1777

☎ +61 2 9975 1999

🌐 www.fairlightau.com

✉ sales@fairlightau.com

Ⓐ UK Distributors: Total Audio Solutions Ltd., Smiths Way, Saxon Business Park, Hanbury Road, Bromsgrove, Worcs, B60 4AD, UK

☎ +44 (0) 1527 880051

☎ +44 (0) 1527 880052

🌐 www.totalaudio.co.uk

✉ sales@totalaudio.co.uk