VISION ON

The customer newsletter from Crystal Vision

WELCOME to the September edition of our "Vision On" newsletter.

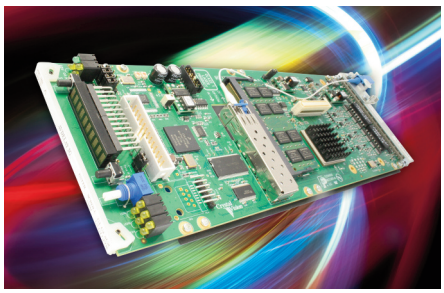
In this issue you can read about three of the product highlights you'll be able to see on our IBC stand in Amsterdam (**Stand 2.B11** in Hall 2 as usual!). For correcting large lip-sync errors there's the AVDELAY 3G audio/video delay, while the Safe Switch-L 3G 2 x 2 clean and intelligent switch and MultiLogo three-layer logo keyer both get new (customer-requested) features.

June was our best month for orders… ever. This is on the strength of our project-winning interface products which we really do believe to be the best in their price range – mainly because broadcasters have evaluated them and told us that they are. Alongside the Safe Switch-L 3G, there's the Up-Down 3G up/down/cross converter (now including the new synchronising version, Up-Down-S 3G), Q-Down-AG 3G short-delay down converter, SYNNER-E 3G multi-functional synchroniser and TANDEM 3G audio embedder/de-embedder. You'll be able to see all these products on our stand at IBC – and judge them for yourself.

THE SOLUTION TO LARGE LIP-SYNC ERRORS

NEW from Crystal Vision is **AVDELAY 3G** – an audio/video delay designed for correcting large lip-sync errors on incoming 3Gb/s, HD or SD signals containing up to four groups of embedded audio.

The audio and video delay are independently adjustable, allowing the user to change the relative audio/video timing by several seconds in either direction. Large changes can be accommodated because the board provides ten seconds of video delay in SD, five seconds in HD and two seconds in 3Gb/s, along with ten seconds of audio delay.



Explains Managing Director Philip Scofield: "Having both audio and video delay on this product means that we can cope with the lip-sync being out in either direction. If the audio is earlier than the video, then you can use AVDELAY 3G to delay the audio to let the video catch up."

The source is viewed on a monitor with any adjustments made by eye. The video delay is adjustable in seconds and frames. The audio delays are adjustable in seconds, video frames and milliseconds. There are four separate audio delay settings and each mono audio channel can be assigned to any one of them, or to bypass the delay completely. Three default buttons allow the operator to set all the video and audio delays to 0, 1 or 5 seconds, giving them a useful starting point for making their adjustments. The audio will jump instantly to the new delay setting, allowing the user to rapidly correct lip-sync errors.

AVDELAY 3G provides sophisticated handling of Dolby E audio, which is automatically aligned with the guardband of the outgoing video. Dolby E can be assigned to the four audio delay settings in the same way as other audio, and the delay applied to the Dolby E will be the delay setting rounded to the nearest time that gives the correct guardband alignment.

It is easy to give AVDELAY 3G integrated fibre input/output connectivity – while still only using a single frame slot. The motherboard is simply fitted with either the FIP fibre input option which is used to receive an optical input, or the FOP fibre output option which is used to transmit an optical output. Having the fibre integral to the board reduces the need to use additional rack space for separate fibre optic transmitters and receivers, and also brings financial savings.

AVDELAY 3G is a space-saving 100mm x 266mm module which fits in the Crystal Vision frames alongside any of the other products, with 12 boards fitting in 2U. The one 3Gb/s, HD or SD input and two outputs are accessed by using the RM62 frame rear module.

The usual control options are available, including board edge switches, an active front panel on the frame, a remote control panel, GPIs, SNMP and the Statesman PC software.

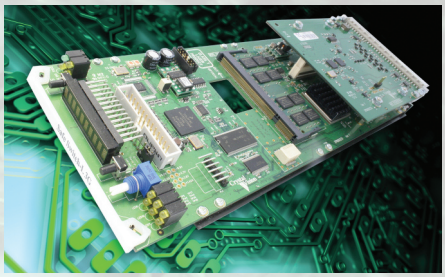
AVDELAY 3G will be shipping in September, and was developed following a request from a broadcaster who knew of Crystal Vision's video delay expertise demonstrated in the best-selling range of ViViD video delays.

NEW FEATURES FOR AN EVEN SAFER SWITCH

CRYSTAL VISION has added new features to its **Safe Switch-L 3G**, which provides clean and intelligent 2 x 2 switching between two 3Gb/s, HD or SD sources and is the only way to guarantee a clean switch. The two new features are processed frozen picture detection and sophisticated operation on loss of reference.

With Safe Switch-L 3G, the clean switching comes from the full framestore synchroniser on each input timed to an analogue reference, which means that it can correct for any timing difference between the two inputs resulting in no disruption to the output picture when a switch takes place.

Ideal for planned maintenance switches to manually re-route a good signal around broken equipment, it can also be used as an intelligent emergency transmission switch by engineers who do not want to restrict themselves to timed inputs, with the option of selecting from 16 different fault conditions to automatically trigger the switch. These 16 parameters are input missing, input video standard incorrect, EDH missing, EDH full field error, EDH active picture error, line CRC error, audio group 1 missing, audio group 2 missing, audio group 3 missing, audio group 4 missing, active video black, active video frozen and audio silence on any channel in a selected group. Safe Switch-L 3G will switch away from an error on the user-selected input only if the other input is free of that fault. If both inputs have different alarms, it will use the most significant alarm to decide which feed to select. Other features include relay bypass protection and 12 bi-directional GPIs for flexible GPI control and monitoring of alarm conditions.



The first new feature – processed frozen picture detection – is an extension of the active video frozen parameter, and was developed following a customer request. Some processes – such as video compression or converting to analogue and back – introduce small changes frame-to-frame, even if the input picture is frozen. The processed frozen picture detection feature allows Safe Switch-L 3G to distinguish between this noise and real changes in the picture content – and so correctly flag up an error condition and auto switch.

The second new feature is sophisticated operation on loss of reference – an unusual and technically-advanced feature which further extends Safe Switch-L 3G's primary purpose of protecting the output from any disruption. Safe Switch-L 3G will basically change its timing smoothly between the reference and the inputs, keeping the output valid at all times. In normal operation the output timing is derived from the reference. If the reference is lost, Safe Switch-L 3G uses an input as the basis for the output clock, changing to the same sample/line/frame rate as input 1 without disrupting the output video. If the reference returns, the board adjusts its timing back to line up with the reference – again without disrupting the output signal.

The new Safe Switch-L 3G features are available now. Come along and try it at IBC!

CASE STUDY • CASE STUDY • CASE STUDY

104 BOARDS FOR THE UNIVERSITY OF YORK'S STATE-OF-THE-ART NEW BUILDING

CRYSTAL VISION has been chosen as the exclusive modular interface supplier for a multi-million pound development by the **University of York**. This major investment by one of the UK's top ten universities includes 104 Crystal Vision boards for distributing, down converting, synchronising, switching, embedding and de-embedding the signals for two HD television studios in a brand new building designed for the Theatre, Film and Television department, with the boards selected and installed by Leeds-based systems integrator AVC.

The department was previously limited to single camera shooting and some post production. The brand new facility allows an increase in student numbers and is equipped to full HD broadcast standards to provide a teaching environment that is representative of broadcast industry practise, as well as a facility capable of being hired out to external clients. Alongside the impressively-equipped 176m² and 89m² studios with associated galleries, there in an apparatus room, video and audio finishing areas, 200-seat theatre and large Black Box shooting space.

With over 20 years experience in the industry, systems integrator AVC had good knowledge of the products from its long-standing relationship with Crystal Vision and was confident that their chosen interface supplier would be able to meet the demanding timescale. Explained AVC's Managing Director, Jim Crothers: "This prestige project illustrates AVC's continuing growth in the educational sector."

The majority of the Crystal Vision boards are being used to distribute a variety of video and audio signals around the facility. 52 3GDA105N digital DAs are distributing general 1.5Gb/s HD video for the studios and some shared facilities, with the 3GDA105N's 3Gb/s capability perfect for future proofing the infrastructure. Reference signal and autocue distribution comes from ten VDA110M HD and VDA210M HD analogue video DAs. Eleven AADA416FM are being used for analogue audio programme distribution in both studios, and distribution of audio, test signals and timecode in the apparatus room and post production. Finally, AES test signals are being distributed in the post production areas using two DADA208N and a DADA208.

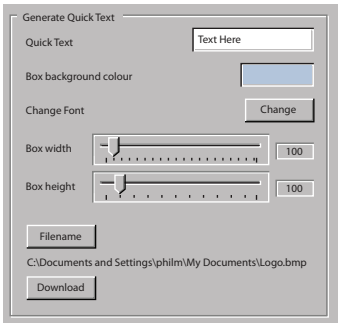
Four Q-Down short-delay down converters and DAs, offering a flexible combination of analogue and digital outputs, are being used for the distribution of both the main studio feed and a selected floor monitor feed, with the HD, SDI and PAL outputs suiting a variety of operational needs. The university is using two SYN HD synchronisers along with two SW221 3G 2 x 2 routing switches for an emergency cut function, available should a vision mixer fail. A total of 20 TANDEM HD-21 are also in use, configured as six de-embedders and six embedders for the feeds in and out of the larger studio and four de-embedders and four embedders for the smaller studio feeds.

The 104 boards are housed in ten 2U and two 1U frames. For control, most boards have been manually pre-set on board edge switches with no changes required on a day-by-day operational basis, while the SW221 3G is using GPI control to switch from "normal" to "emergency cut" mode.

TEXT INSERTION AND MORE GPIS FOR MULTILOGO

CRYSTAL VISION has introduced enhancements to the **MultiLogo logo keyer**, the most feature-packed, space-saving and easy-to-use modular solution to HD or SD station branding. With MultiLogo having its most successful year yet, these new features provide the control of multiple logo keyers, text insertion functionality and an additional 16 GPIs for the recall of presets.

MultiLogo is a multi-layer logo keyer which provides three layers of keying from a variety of internal and external sources including a non-volatile eight-port 4 GB or 8 GB video store with DRAM and Flash memory which can hold up to 500 still or animated logos. The logos are transferred from the graphics PC to the video store over fast 100Mbit Ethernet, while MultiLogo saves broadcasters rack space with up to 12 logo keyers fitting in 2U.



The new MultiLogo software being demonstrated at IBC allows the control of multiple logo keyers – ideal for those that have more than one board to set up and control. The new software will store a list of IP addresses at which any MultiLogos can be found, with the user able to easily change the control from one logo keyer to another by selecting from the list. Each of the IP addresses can be given a 32-character label for easy identification.

The enhanced MultiLogo software also includes a customer-requested simple text insertion function – Quick Text – which allows the operator to type in text for internal use, such as for a studio ident, and then convert the text to a graphic format for sending to the MultiLogo board. Quick Text can be used with an unlimited number of characters and with any available Windows font. The text box background can be any 24 bit colour and can be sized up to full screen 1080p.

Also new for the V131 and V131 8G versions of MultiLogo is the ML-GPI8, an add-on board which plugs on to the motherboard and is ideal for broadcasters who work by recalling presets and who want a manual backup in case the automation system fails. The ML-GPI8 provides eight GPI inputs for recalling eight presents and eight GPI outputs which act as a tally and show which of the eight GPIs was recalled most recently. With an ML-GPI8 fitted, MultiLogo V131 becomes a 'double decker' board which uses two frame slots, with the 16 GPI connections accessed through the 26-way high density D-Type on the RM33 frame rear module which is used in combination with the standard RM52.

The new MultiLogo software and ML-GPI8 are both available now.

Who's Buying What…?

Here are just a handful of the orders we've received in the last few months…

BELGIUM

- Broadcaster Ment TV has bought an SW222 routing switch and TANDEM-110 dual audio embedder/de-embedder from distributor AV Group.
- Broadcaster RTC Télé Liège has purchased a MultiLogo V131 logo keyer, TANDEM HD-21 audio embedder/de-embedder and Q-Down-AG 3G down converter from distributor AV Group.

DENMARK

- Studios, systems integrator for The Danish Parliament, has purchased a DDA208B dual channel digital video DA from distributor Taurus.
- A SYNNER HD multi-functional synchroniser has gone to full-service facility company Studios via distributor Taurus.

GERMANY

- Broadcaster ProSiebenSat.1 Media has purchased a further 68 boards from distributor SHM Broadcast, including 19 MultiLogo V131 three-layer logo keyers, ten Up-Down-AT 3G up/down/cross converters, 28 3GDA111R 3G/HD/SD distribution amplifiers and five Smart Switch 3G 2 x 2 intelligent switches.
- A ViViD HD video delay has gone to post production company VR3 via distributor SHM Broadcast.

GREECE

- Broadcaster SKAI TV has bought 29 interface boards from distributor Ariston, including Q-Down-AG 3G down converters, TANDEM HD-21 embedders/de-embedders and 3GDA105N, DDA208B and VDA110M HD video distribution amplifiers.

INDIA

- Playout company Essel has bought another four CoCo HD colour correctors and legalisers, making that a total of 38 now purchased by them.

ITALY

- Virtual studio productions company Duel has ordered a Safire HD 2 chroma keyer with control panel from dealer Broadcast Solutions srl.
- A variety of boards have gone to production company Videowork srl, including a Clip N Key V121 8G clip and sting store, Up-Down-A 3G up/down/cross converter, TANDEM-110 audio embedder/de-embedder, DDA208B digital video DA, SW222 2 x 2 switch and SW808 8 x 8 routing switch with control panel.

PAKISTAN

- Television Media Network has bought a Smart Switch 3G 2 x 2 intelligent switch from dealer A & A Systems.

SOUTH AFRICA

- Sponsorship consulting practice Octagon Marketing has purchased a MultiLogo V131 three-layer logo keyer and two VDA110R HD analogue video distribution amplifiers from distributor Telemedia.

SWEDEN

- Satellite operator SES ASTRA has bought seven SYN102 synchronisers from distributor Taurus.

TURKEY

- Satellite integration and implementation company PALS has purchased two ADCA412 analogue to digital audio converters.

UK

- Dega Broadcast Systems has bought additional boards to fill the 100 Indigo 2 frames it has been installing for the central technical areas and infrastructure at the redevelopment of BBC Broadcasting House. The modules purchased include TANDEM audio embedders/de-embedders, and FRX 3G and FTX 3G fibre optic transmitters and receivers.
- ITV's The London Studios has purchased 156 boards including SYNNER-E 3G multi-functional synchronisers, Q-Down-AG 3G and Q-Down123 down converters, Up-Down 3G up/down/cross converters and 3GDA105C distribution amplifiers.
- BBC Studios and Post Production has purchased a variety of interface boards for the HD upgrade of Studio D at Elstree, including Q-Down123 down converters, TANDEM 3G audio embedders/de-embedders, CoCo 3G colour correctors, SYN HD synchronisers and VDA110M HD and 3GDA105C video distribution amplifiers.
- Dega Broadcast Systems will be installing AVDELAY 3G audio/video delays into BBC North's new building in Salford.

USA

- The Network Operations division of Turner Broadcasting System, Inc. has bought another Safe Switch-L 3G 2 x 2 clean switch.
- WMGT-TV, the NBC-affiliated television station for Central Georgia, has purchased a selection of interface boards including LKEY211 linear keyers, Q-Down123 down converters, ADDEC-210 and ALLDAC video converters and DDA208B digital video DAs.

VIETNAM

- Broadcaster Vinh Puhc TV has bought 16 interface boards from dealer VTC, including ADDEC-210 and ALLDAC video converters, VDA110M HD, DDA108 and AADA416FM video and audio distribution amplifiers, TANDEM-110 embedders/de-embedders and FTX 3G and FRX 3G fibre optic transmitters and receivers.

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