

# VISION ON

The customer newsletter from  
**Crystal Vision**

**WELCOME** to the March issue of our "Vision On" newsletter.

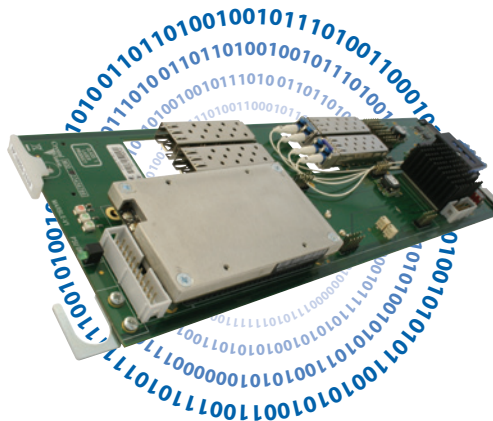
In this edition you can discover which features we'll be including in the three SMPTE 2110 gateway and translator apps that run on our MARBLE-V1 media processor. There's also news on the Safire 3 price reduction, which opens up our real-time chroma keyer to new markets and helps equipment budgets go further.

Finally, there are previews of two events where you can learn more about our IP problem solving: the 2018 NAB Show (where you can find us on **Booth N2516**) and the 2110-themed SMPTE meeting we're hosting at our Cambridge offices on 15th May.

## INTRODUCING THE SMPTE 2110 APPS

CRYSTAL VISION'S IP products are software apps which run on the MARBLE-V1 media processor hardware – the industry's most flexible solution to video over IP. At the 2018 NAB Show we will be previewing the three ST 2110 apps – IP gateways between SDI and SMPTE 2110 and an IP to IP translator for making adjustments to IP flows.

The SDI6-IP-2110 IP gateway app encapsulates SDI to uncompressed IP, converting up to six HD/SD or three 3Gb/s SDI input connections for output as ST 2110 over 10GbE network interfaces, with stream duplication ability for redundant output flows. The IP-SDI6-2110 IP gateway app de-encapsulates SDI from uncompressed 10GbE IP, converting to up to six HD/SD or three 3Gb/s SDI output connections, with flexible assignment of the converted ST 2110 flows from any combination of the two 10Gb/s input network interfaces. The IP-IP-2110 IP to IP translator app de-encapsulates and re-encapsulates SMPTE 2110 and 2022 flows (up to six HD/SD or three 3Gb/s) between up to four bi-directional 10GbE IP network interfaces. Designed to help broadcasters solve IP challenges, this unique product provides a bridge between the ST 2022 and ST 2110 protocols as well as allowing changes to network settings. Uses include protocol



conversion, network address translation, multicast to unicast address conversion and the creation of media firewalls.

The three 2110 apps support AMWA NMOS IS-04 for discovery and registration and IS-05 for device connection management. SDP is read and written where appropriate, while data encapsulation and de-encapsulation conform to

ST 2110-40 standards. There are no limitations on VLAN support. System synchronisation and time-stamping is via PTP, adhering to the SMPTE ST 2110-10 standard. User definable traffic shaping makes the apps compliant in any media network: they can be configured per flow to use either N, NL or Wide.

On the SDI6-IP-2110 de-embedded audio as well as external digital audio (input via the DIOP8 audio piggyback) can be routed to AES67 output flows in accordance with ST 2110-30 standards; on the IP-SDI6-2110 AES67 audio flows can be configured for embedding into the SDI outputs as well as being output as external AES via the DIOP8 audio piggyback. AES3 over IP is supported for non-PCM streams adhering to ST 2110-31.

Signals are monitored for signal integrity including video black, video frozen, audio presence and PTP health, while available IP statistics include flow type, bit rate, packet loss, duplicated packets, physical layer errors and packet delay variation.

## NEW PRICE AND NEW FEATURES FOR SAFIRE 3



CRYSTAL VISION has significantly reduced the price of its Safire 3 real-time chroma keyer. It is now cheaper than the Blackmagic Ultimatte 12.

Used by some of the most prestigious broadcasters in the world for adding realism to any virtual set, the new pricing makes Safire 3's high quality chroma keying available now to systems that previously had to rely on the lower quality chroma keyer in their mixers – and makes everybody's equipment budget go further.

Benefiting from Crystal Vision's responsive technical support and five year warranty, Safire 3 works with 31 video standards including 1080p, includes tools such as lighting compensation to solve common real world issues and is easy to set up and drive – with a simple intuitive workflow for setting up a key.

There have also been further improvements to the VisionPanel control of Safire 3, following the touch screen, knob and hard button enhancements made to the 3U control panel last year. GPI outputs have now been added to VisionPanel showing which of the first eight boards is being controlled. This can be used for selection of sources (when used with either a Crystal Vision switch such as SW803 3G or MultiLogo, or a third party switch) or as a light indication. In a multi-chroma keyer system, VisionPanel's GPI outputs could, for example, be used to trigger a switch to the Safire 3 currently being adjusted which can be used to drive a monitor.

If you want to see the quality of Safire 3's keying for yourself, then why not come along to **Booth N2516** at the NAB Show, where you can choose from either a quick or in-depth demo!



*VisionPanel control*

**MARCH 2018**

# PREVIEWING THE NAB SHOW

WE ARE looking forward to welcoming you to our booth at the 2018 NAB Show, which runs between 9th and 12th April. We've got a great location, on **Booth N2516** at the front of the North Hall.

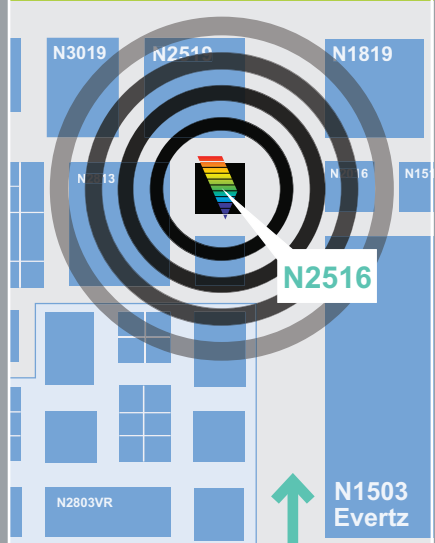
The NAB Show provides a great opportunity to discuss your IP problems and how we might be able to help. The highlights of our booth will be our MARBLE-V1 media processor and its ST 2022 and ST 2110 IP apps along with our newly-priced Safire 3 chroma keyer, but there will be chance to see the other products in our range too, including our logo keyers, fail-safe routing switches and video delays.

Manning the booth will be Managing Director Philip Scofield, Head of Sales Stewart McGhie, Sales Manager Michael Hall, US Product Manager Chris McLendon and Product Manager Andrew King.

If you'd like to add us to your myNAB Show planner, you can do so by searching for us on the NAB Show website or by accessing our page directly at [https://nab18.mapyourshow.com/7\\_0/exhibitor\\_details.cfm?exhid=429](https://nab18.mapyourshow.com/7_0/exhibitor_details.cfm?exhid=429).

If you have something in particular to discuss and want to make an appointment then please contact us now on [sales@crystalvision.tv](mailto:sales@crystalvision.tv). Alternatively just turn up! We look forward to seeing you in Las Vegas!

## How to find our booth



North Hall entrance

## SAVE THE DATE! MAKING SMPTE 2110 INSTALLATIONS WORK



CRYSTAL VISION will be hosting its next SMPTE meeting at Whittlesford on the evening of Tuesday 15th May.

In "Making SMPTE 2110 installations work" our Principal Software Engineer/System Architect Richard Lawrence will explain how some of the problems of putting together a live media IP installation can be solved, covering topics such as network security, compatibility between equipment suppliers, firewalls and other network issues and new methods of monitoring.

The meeting is open to both SMPTE members and non-members at no cost, with food served from 6.15pm. Crystal Vision is easy to get to – located just off the M11 motorway (Junction 10), and two minutes walk from Whittlesford railway station with regular train services to London Liverpool Street and Cambridge.

Come along to discuss how we can all prepare ourselves for the new world. Registration is via the SMPTE website.

## WHO'S BUYING WHAT...?



Here are some of the orders we've received in the last few months...

### AUSTRALIA

- Virtual advertising company Broadcast Virtual has bought VIVID 3G video delays.

### AUSTRIA

- National broadcaster ORF has bought an additional 58 boards for the upgrade of its final regional station to HD. The products included MultiLogo V432 8G logo keyers, Q-Down-AG 3G down converters, Safe Switch-L 3G fail-safe routing switches, SYNNER 310 multi-functional synchronisers, FTX-L 3G fibre transmitters and various distribution amplifiers and converters.
- National broadcaster ORF has ordered another 11 MultiLogo three-layer logo keyers along with Up-Down-ATS 3G synchronising up and down converters from distributor Gelantec.

### BULGARIA

- Production company OTSE has bought 3GDA111C 3G/HD/SD video distribution amplifiers.

### CZECH REPUBLIC

- Broadcaster Czech TV has purchased 29 boards including Q-Down-AG 3G down converters, FTX-L 3G and FRX 3G fibre transmitters and receivers, TANDEM 310 embedders/de-embedders and AADA416FM, DADA208N and VDA110M HD distribution amplifiers, supplied by distributor Elektronika.

### GERMANY

- Broadcaster ProSiebenSat.1 Media AG has ordered an additional four MultiLogo V132 logo keyers for its Austrian channel Puls 4, purchased via distributor SHM Broadcast and installed by BFE Studio.
- Broadcast services provider TV Skyline has bought TANDEM 320 dual audio embedders/de-embedders, REGEN black generators and 3GDA210R, VDA110M HD and AADA416FM DAs from distributor SHM Broadcast.

### GREECE

- Television channel Kontra has bought 32 boards from distributor Ariston BTS, including 3GDA105C and 3GDA105N digital video DAs, AADA416FM analogue audio DAs, DACA214 audio converters and TANDEM 310 and TANDEM 320 audio embedders/de-embedders.
- Distributor Ariston BTS has supplied the Cultural & Conference Center of Heraklion with 3GDA105C 3G/HD/SD distribution amplifiers.

### INDIA

- Broadcaster Star India has ordered another two Safire 3

chroma keyers from distributor AGIV.

- Sony Pictures Networks, which looks after Sony Pictures' interests in India, has purchased another Safire 3 chroma keyer along with five VIVID 3G video delays, with the order co-ordinated by distributor AGIV.
- Broadcast graphics company Vizrt has purchased VIVID 3G video delays and an ADP 310 audio delay and processor for broadcaster Flowers TV.

### POLAND

- The Polish Television and Film School has purchased SYNNER 310 multi-functional synchronisers, TANDEM 320 dual embedders/de-embedders and 3GDA105R video DAs from distributor JBD.

### SWITZERLAND

- Broadcast graphics company Vizrt has bought a VIVID 3G-20 long video delay for in-house use.

### TURKEY

- Broadcaster TRT has bought a Safire 3 chroma keyer, Up-Down-AS 3G synchronising up and down converters, TANDEM 320 dual embedders/de-embedders and 3GDA105C and 3GDA204R video DAs from distributor Teratek.

### UK

- ITV Studios is using 116 interface boards for the move of its Daytime production business from the South Bank to White City in London. Installed by Dega Broadcast Systems, the boards include Up-Down-A 3G up and down converters, FTX-L 3G and FRX 3G fibre transmitters and receivers, TANDEM 310 embedders/de-embedders and various video and audio distribution amplifiers.
- BBC North has purchased SYNNER 310 multi-functional synchronisers.
- Welsh production company Rondo Media has bought a Vision 3 frame filled with TANDEM10-VF embedders/de-embedders and VDA-VF analogue video DAs for an OB vehicle.
- The Scottish Parliament has ordered more 3GDA111C digital video DAs.

### USA

- Sports broadcaster ESPN has ordered a Safire 3 Xpress chroma keyer via Azzurro Systems Integration.

### VIETNAM

- Broadcaster Hue TV has bought a Safe Switch 3G fail-safe switch and 3GDA204R digital video distribution amplifier from dealer Alpha Communications.