# New for IBC 2018... and beyond
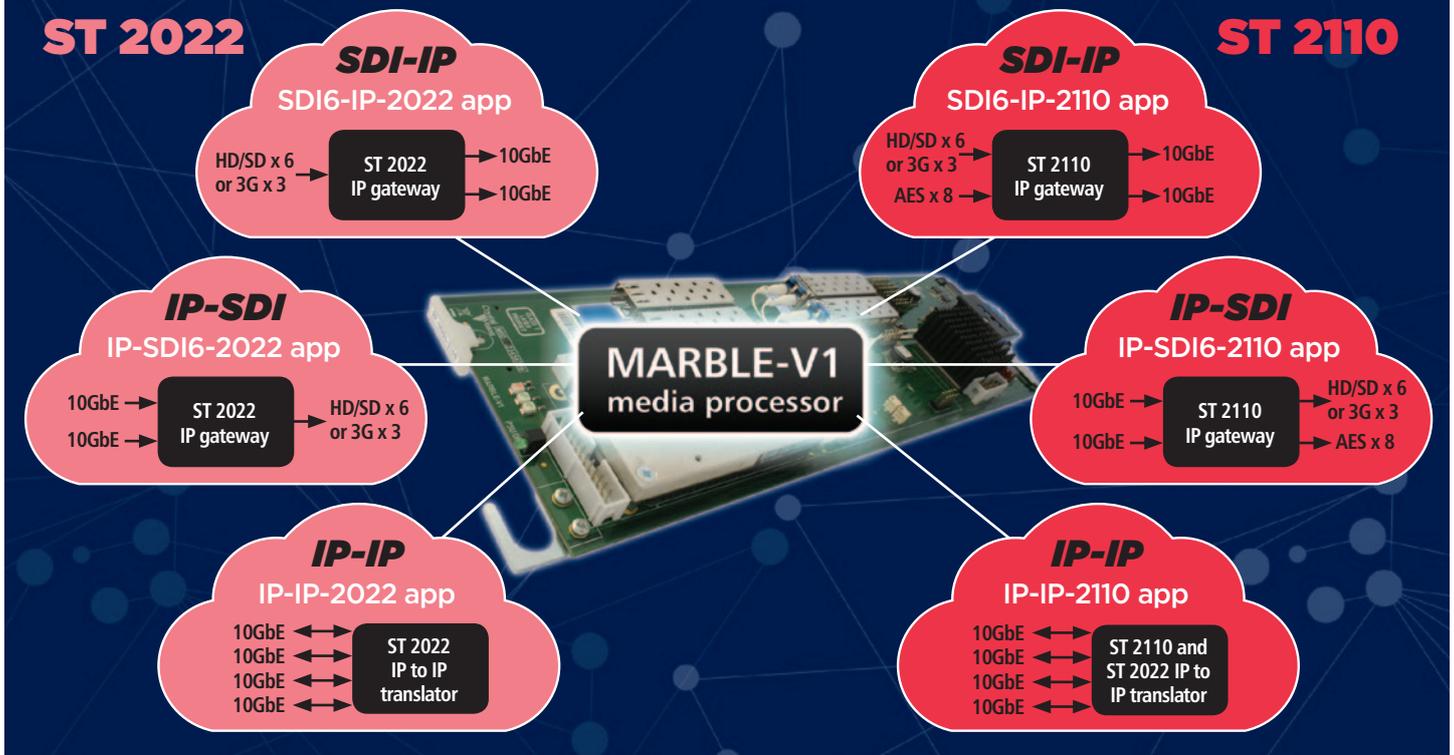
## Crystal Vision

## Welcome...

With our MARBLE-V1 media processor and its best-of-breed software apps, we believe we offer the most flexible video over IP – and we'd love to discuss how MARBLE might be able to help solve your IP issues. If you're working with SDI, new pricing combined with the very best support makes our real-time chroma keyer more attractive than ever – not forgetting our full range of project-winning interface products.

Visiting IBC? Come along and see us on **Stand 2.C28** – great for getting to know us personally, IBC also provides the perfect opportunity to ask us any questions that might not be answered by our written documentation, as well as to tell us about the IP features you need! Not visiting IBC? Talk to us now to find out more or to arrange a meeting at your premises.

## The most flexible video over IP

### ST 2022

**SDI-IP**
SDI6-IP-2022 app

HD/SD x 6 or 3G x 3 → ST 2022 IP gateway → 10GbE / 10GbE

**IP-SDI**
IP-SDI6-2022 app

10GbE / 10GbE → ST 2022 IP gateway → HD/SD x 6 or 3G x 3

**IP-IP**
IP-IP-2022 app

10GbE / 10GbE / 10GbE / 10GbE ↔ ST 2022 IP to IP translator

### MARBLE-V1 media processor

### ST 2110

**SDI-IP**
SDI6-IP-2110 app

HD/SD x 6 or 3G x 3 / AES x 8 → ST 2110 IP gateway → 10GbE / 10GbE

**IP-SDI**
IP-SDI6-2110 app

10GbE / 10GbE → ST 2110 IP gateway → HD/SD x 6 or 3G x 3 / AES x 8

**IP-IP**
IP-IP-2110 app

10GbE / 10GbE / 10GbE / 10GbE ↔ ST 2110 and ST 2022 IP to IP translator

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Crystal Vision's IP products are software apps which run on the MARBLE-V1 media processor, a shared hardware platform housed in the Vision frames. Apps that are bought with the hardware can be replaced with different apps as needs change, helping you make the most of your budget.

Featuring a powerful CPU/GPU processor, MARBLE-V1 has six bi-directional SDI connections, four 10GbE SFP+ network interface ports and eight bi-directional discrete AES stereo channels. Just install an app to get the functionality!

The initial software apps are IP gateways for the transport of uncompressed video over 10GbE IP networks, converting to and from SMPTE ST 2022 or SMPTE ST 2110. The unique IP to IP translator apps can make adjustments to IP flows and help you solve any IP problems – use them for network address translation, multicast to unicast address conversion, 2022 to 2110 protocol conversion, creating media firewalls...and more!

### App features include...

- Support for 31 SDI video standards
- Redundant streaming
- Clean switching between flows
- Sophisticated synchronising
- PTP reference
- Up to ten frames video delay
- Unicast and multicast transmission
- Signal and flow monitoring
- Traffic shaping
- Network security features
- AES67 support (2110 apps)
- SDP reading and writing (2110 apps)
- AMWA NMOS IS-04 and IS-05 (2110 apps)

### IP doesn't have to be difficult!

The broadcast industry seems a little nervous about putting IP television systems together, but it need not be difficult. At IBC we will be demonstrating a simple IP system using low-cost switches from different manufacturers, with control provided by Rascular Technology. Up to now IP systems have often been bought from a single supplier, generally resulting in a system that is not the most convenient or the best priced. At IBC we will be demonstrating that it is now safe to buy equipment from a *mixture* of suppliers, confident that all the equipment can work together. Come and see for yourself.

**Got an SDI interface or chroma keying project? Turn over for more news...**

# Now everyone can afford the best chroma keying

Our Safire 3 real-time chroma keyer is used by some of the world's most prestigious broadcasters for adding realism to any virtual set. Safire 3 has been significantly reduced in price and is now the lowest cost of the industry's best chroma keyers.

If you're a large broadcaster, the new price makes it easier to justify a chroma keyer on each camera which gives the most flexible system when using a virtual set that works from different camera angles, improving the workflow and reducing the stress levels of your operators during live applications. If you're a smaller broadcaster currently relying on the lower quality chroma keyer in your studio mixer, the new pricing would allow you to have better quality keying.

Offering support for resolutions from SD to 1080p and including features such as lighting compensation, colour correction and video delay, Safire 3 comes with the industry's best support as well as a five year warranty. With recent enhancements to its control panel making it a real pleasure to operate, Safire 3 is better than it's ever been – and now makes your equipment budget go further.

## Indigo frame system
### For our biggest range of SDI products...

**Fibre transmitters and receivers**
**Up and down converters**
**Distribution amplifiers**
**Audio embedders**
**Colour correctors**
**Routing switches**
**Chroma keyers**
**Synchronisers**
**Video delays**
**Converters   Logo keyers**

Still a great solution for those SDI projects, the well-established Indigo frame system offers the biggest range of interface and keying boards (over 70) and a choice of three frame sizes (2U, 1U and desk top box). As well as housing the Safire 3 chroma keyer, Indigo is the way to get up to four minutes of video delay, sophisticated station branding, cost-effective clever colour correction and a guaranteed clean switch. And much more.

## Vision frame system
### The frame system for the future...

**IP to IP translators     IP gateways**
**Fibre transmitters and receivers**
**Video distribution amplifiers**
**Audio distribution amplifiers**
**Up and down converters**
**Audio embedders**
**Synchronisers**

Available in 3U and soon 1U sizes, our forward-looking Vision frame system houses our MARBLE-V1 IP platform as well as some core interface cards. Features include the ability to handle higher bandwidth signals including IP and 4K (as well as SDI), very powerful redundant power supplies, more signal outputs than Indigo, a common dual reference distributed to every card, complimentary SNMP and powerful remote backup and restore of all card settings and presets for added system security.

## What's new?
**Worried about being hacked? We've recently added increased security to our Indigo and Vision frames – including the ability to prevent access to the frames via FTP, SSH, HTTP, SNMP and ASCII control protocols.**

## What next?
Get in touch with us! Either come along to **Stand 2.C28** (same location as last year) at IBC or contact us now on +44 (0)1223 497049 or sales@crystalvision.tv and tell us how we can help you. Or ask us a question on our website Live Chat. We look forward to hearing from you!