

## Grass Valley Selects intoPIX's TICO Compression for 4K/UHD and IP Connectivity

**BELGIUM, Mont-Saint-Guibert, September 10, 2015** — intoPIX today announced Grass Valley, a Belden Brand, has successfully integrated intoPIX [TICO lightweight compression](#) into a suite of its live production solutions providing support for 4K 1-wire transmission. The TICO 4:1 visually lossless compression from intoPIX carries a high-quality signal across a single wire, which eases the broadcast transition towards IP and 4K/UHD while simplifying connectivity.

“By leveraging the intoPIX TICO compression technology, we are able to deliver robust, fully integrated solutions that enable 4K 1-wire in our LDX Series cameras and K-Frame switchers, increasing the viability of 4K/UHD business models for live production,” says Mike Cronk, senior vice president of strategic marketing, Grass Valley. “Grass Valley is proud to bring to market a solution that makes it easier for broadcasters to transition to 4K/UHD and IP when the time is right for them.”

“Grass Valley evaluated a number of compression solutions before selecting TICO, but none of them offered the right features and advantages to serve broadcaster’s needs,” said Gael Rouvroy, chief technology officer and founder of intoPIX.

### Grass Valley chose intoPIX's TICO lightweight compression for five main reasons:

- 1. Uncompressed quality with suitable compression ratio:** Grass Valley selected mezzanine compression because of its ability to deliver the same visual quality as uncompressed video, without impacting quality or latency for software and hardware platforms. With this compression, content is visually lossless at compression ratios up to 4:1 and easily integrates into today’s HD workflows to 4K/UHD on both 3G-SDI and 10 GbE. In addition, TICO was tested with both objective and subjective analysis on very complex video materials, including patterns to cover broadcast and Pro-AV viewing conditions. The TICO codec has shown qualities similar to JPEG 2000 and has outpaced it on average by two to five dB with legacy VC2-LD—while achieving significantly lower latency and complexity.
- 2. A minimal footprint in FPGA:** Leveraging existing hardware and infrastructures, customers will be able to move to 4K/UHD with a very cost-effective and streamlined solution. The codec has an incredibly light footprint in the field-programmable gate array (FPGA) and requires about 10 percent of the logic resources needed for a JPEG 2000 codec (without consuming external DDR memory). Moreover, with lower latency and higher quality, the codec is more than 2X smaller than a VC2-LD codec implementation. intoPIX TICO IP-core architecture is targeted for high-pixel-rate, multi-pixel-per-cycle processing and is designed to scale up to 8K120 fps 444.
- 3. A highly parallel algorithm for software:** TICO is a powerful solution that reaches 4K 60p using cost-effective CPUs and supports 8K with its current decoder implementation.

- 4. A standard technology ready for wide adoption and interoperability:** The evolution of this technology illustrates the type of cost-effective and streamlined connectivity for 4K/UHD and IP that Grass Valley was looking for. In 2013, the new technology was submitted to VSF/EBU/SMPTE JT-NM. In 2014, intoPIX entered into the submission process of a registered disclosure document (RDD) at SMPTE, and recently an alliance has been created to support the integration of the compression in studio infrastructure (see [www.tico-alliance.org](http://www.tico-alliance.org)).
- 5. A recognized expert in high-quality video compression:** intoPIX is recognized for its significant work and know-how on JPEG 2000 implementation. A standard for a codec is not enough—intoPIX has implemented TICO with a scalable architecture addressing HD, 4K/UHD and 8K and multiple platforms (FPGA, ASIC, CPU) to significantly accelerate the time to market.

TICO compression is a breakthrough technology that allows broadcasters to transition to 4K/UHD and IP workflows as business needs dictate, with high performance and low cost. Visit Grass Valley (Hall 1, Stand D11) and intoPIX (Hall 10, Stand D31d) to learn more through hands-on tutorials and demonstrations at IBC 2015.

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#### About Grass Valley

Grass Valley, a Belden Brand, keeps broadcasters, content owners and service providers Future-Ready as they navigate the changing landscape of television. With the most comprehensive collection of workflow solutions in the industry, Grass Valley delivers end-to-end television production and content distribution workflows, combined with expert consultation and insight that lead to sustainable success. Grass Valley, headquartered in Montreal, is part of St. Louis-based Belden Inc. Belden delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. For more information visit [www.belden.com](http://www.belden.com).

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**About intoPIX**

intoPIX is a leading image compression technology provider to audiovisual equipment manufacturers. We are passionate about offering people a higher-quality image experience and have developed FPGA IP-cores and software tools that enable leading-edge TICO Lightweight compression, JPEG 2000 compression, security, video over IP and hardware enforcement. More information on our company, customers and products can be found on [www.intopix.com](http://www.intopix.com).

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