"Take the Smart Path to Move our World to UHDTV!"



What is TICO Alliance?

"The growing consortium is a coalition of companies united to set the bar for **next generation UHDTV 4K and 8K infrastructure** by establishing **TICO compression**

in the new IP-based Live ecosystem.

The group will enable the industry

to seamless update the existing SDI-based workflows

WHDTV without the cost of a complete renewal. "



What is TICO Alliance?

TICO Alliance has been launched in 2015 (NAB):

- To ease UHDTV adoption over the current SDI infrastructures;
- To ease UHDTV adoption over the new IP-based infrastructures;
- To support transportation of UHDTV streams across the IP network or the existing 3G-SDI infrastructure;
- To help Broadcasters & AV facilities to fully benefit from a seamless, integrated and high-quality UHDTV ecosystem from end-to-end;
- To enhance live IP systems by increasing efficiency and reducing cost for both HD and UHDTV video thanks to TICO technology;
- To develop and promote technical specifications and standards intended to ensure interoperability among TICO equipment;
- To enable new business opportunities.







Vision, Mission & Goals

- **Vision**: Become the driving force ensuring TICO develops into a leading compression standard.
- Mission: Collaborate so that TICO is widely accepted, deployed and supported for the benefit of industry.

Goals:

- Demonstrate support for the development and use of TICO.
- Educate and create awareness about the benefits of TICO.
- Promote interoperability between standards and system devices.
- Promote the development of tools by members and industry peers.



What is TICO? A disruptive lightweight compression

"TICO is a lightweight compression technology invented by intoPIX, which enables UHDTV to be transported over legacy SDI infrastructure and modern IP production and contribution networks. TICO is now becoming a SMPTE Registered Disclosure Document (RDD35) for the benefit of the entire broadcast and media industry."

Key benefits:



- Visually lossless compression up to 4:1
- Even Mathematically Lossless capable at lower compression ratio
- Robustness to multiple encoding generations
- Resolutions from HD to 4K/8K

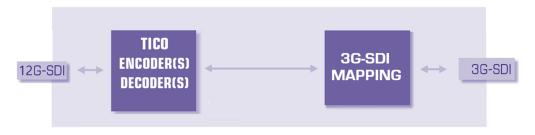
- Fixed & Pixel lines-based latency in hardware
- Extremely light in FPGA (no external DDR memory)
- 📬 Fast , low latency, & efficient in software



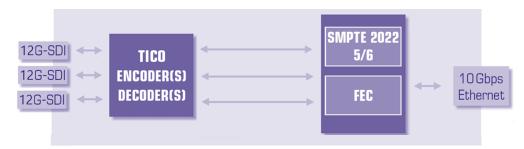


What is TICO? A Smart path to UHDTV 4K Live

4K60p over a single 3G-SDI



3 x 4K60p over 10G IP



info@tico-alliance.org www.tico-alliance.org

- ✓ Preserved quality
- ✓ Smallest latency
- ✓ Lightest implementation
- Cost effective infrastructure



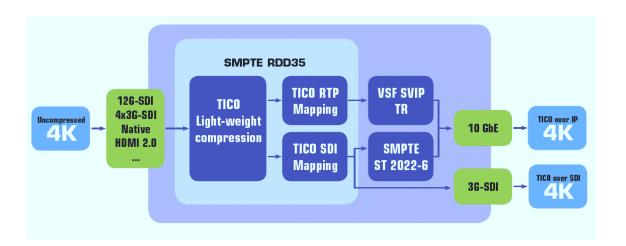
2016 Focus Areas

- Enlarge the TICO Alliance community
- Enlarge the TICO Alliance activities
- Transport interoperability (IP & SDI)
- 4K and Ultra HD (7680x4320)



TICO Alliance – SMPTE RDD35 Activity Group:

SMPTE RDD35 overview



Normative references

TICO is running with the following standards and recommendations:

- SMPTE RDD35
 - Describing the TICO compression, TICO mapping over active area of SDI/ST2022-6 and TICO mapping on RTP
- SDI/SMPTE 2022-6, ready for the future
 - SMPTE RDD35 specifies how to map TICO 4K codestream in the active area of a 3G-SDI to be carried on SMPTE2022-6 without any change to the standard
- VSF TRO3 (draft)
 - SMPTE RDD35 specifies how TICO codestream of any resolution and frame rates are mapped as a single RTP TICO stream to be carried as an independent video essence
 - (ie, AES67 for audio over IP and draft-ietf-payload-rtp-ancillary for ancillary data over RTP)





TICO Alliance Members - Q3 2016





























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Grandbeing



















quantumdata

1 Imagine









Contacts & Follow Up

- Main contact: info@tico-alliance.org
- Website: www.tico-alliance.org
- Follow us on : https://twitter.com/ticocompression

