

# Universal streaming video decoding



Integrated digital streaming video  
for optimal performance & operations



**BARGO**

Visibly yours



REDUCED INFRASTRUCTURE AND MAINTENANCE COSTS •

## Barco's digital solution

Barco's streaming video solution is built on the integrated universal decoder that provides two primary benefits. The first is the fact that it is an integrated solution which saves equipment costs, space, enhances picture quality, lowers latency, and last but not least, reduces setup and maintenance times. The second benefit is the fact that it provides a universal decoding function which provides maximum flexibility for the control rooms to view streams from multiple suppliers as well as multiple compression technologies. This improves collaboration with other jurisdictions, allows the control center to support multiple technologies and suppliers simultaneously, and thus improves efficiency of operations and adaptability for future changes in technology or suppliers.

Barco's digital solution provides the control center with:

- reducing control center equipment
- cost-effective maintenance
- no need for dedicated decoders per encoder type
- no need for matrix switch to achieve input flexibility
- reduced space requirements (with integration)
- enhanced display flexibility (multiple simultaneous input formats)
- enhanced interoperability with digital streaming video
- investment protection with ability to interchange or simultaneously mix inputs

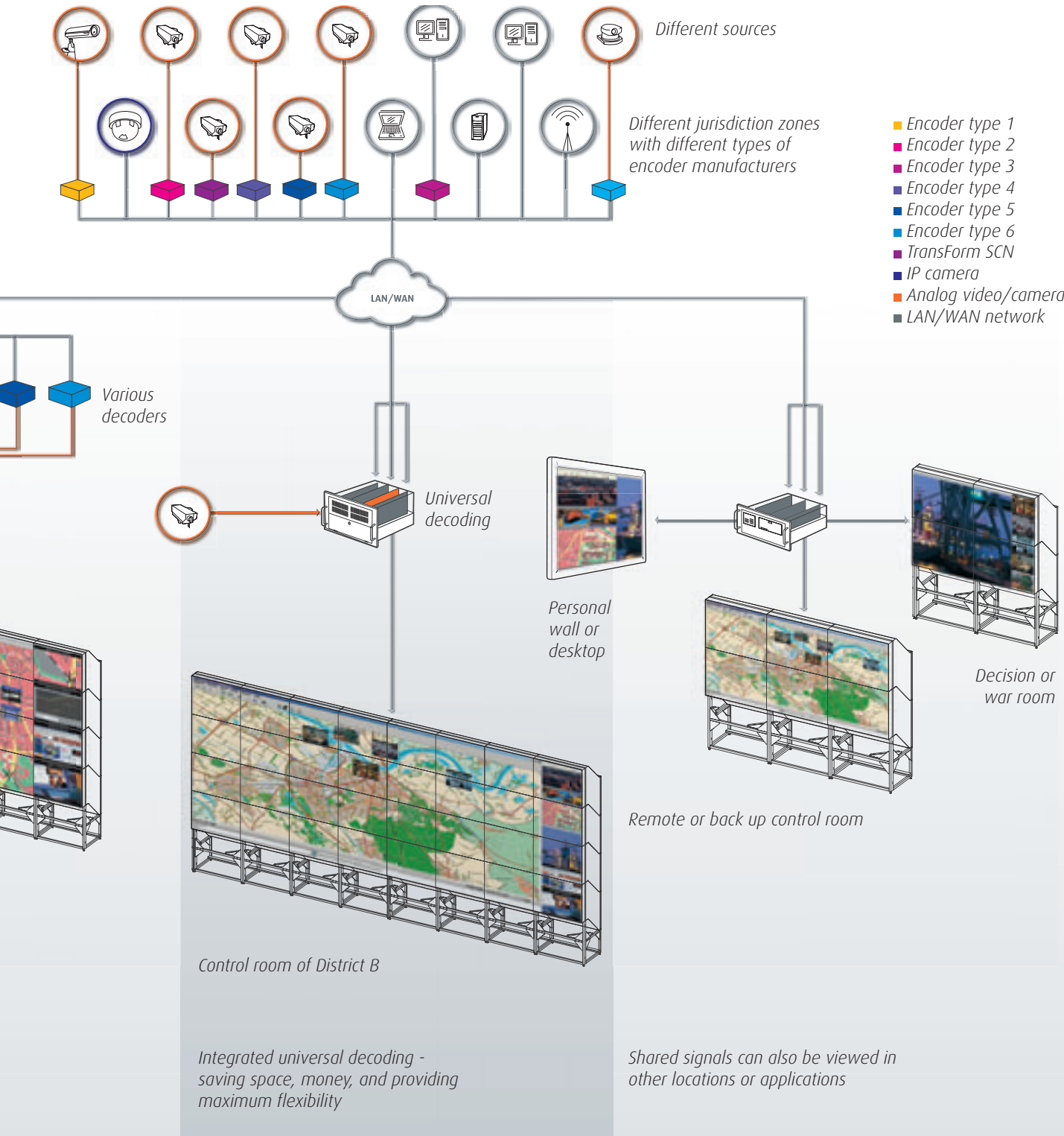


Control room of District A

*Traditional methods of decoding signals from different jurisdictions by using different external (non-integrated) decoders of specific manufacturers*



ENHANCED FLEXIBILITY, NETWORK REACH • ENHANCED INTEROPERABILITY

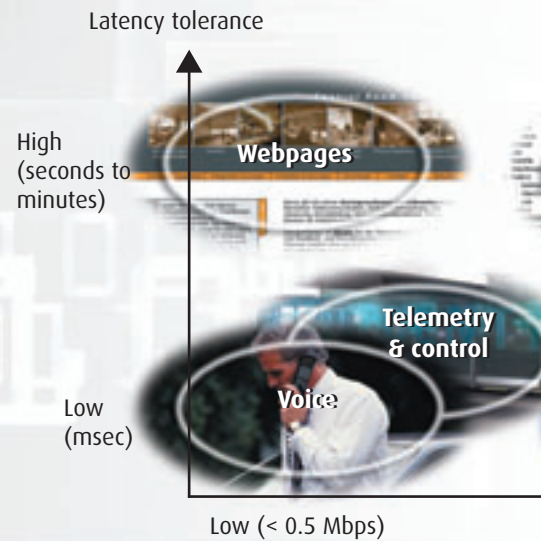




TRAFFIC MANAGEMENT • SURVEILLANCE SYSTEMS • COMMUNICATIONS

## Barco's universal decoder

In building digital networks, there are two main considerations - the video compression standard as well as the networking standard. It is expected that the MPEG family of video compression and IP networking standards will dominate the video networking world. However, to maintain flexibility, Barco provides the user with a universal decoder platform with maximum flexibility to interoperate across multiple compression standards (MPEG-1, MPEG-2, MPEG-4, MJPEG and several proprietary protocols) over the IP networking standards. TRANSFORM SCN the universal streaming video decoder platform supports both standard and proprietary stream encapsulation and management methods. (ES, TS, MPTS, UDP, RTP, TCP, HTTP, ...) It is a flexible platform that allows to implement upcoming standards.





AND & CONTROL • NETWORK MANAGEMENT • UTILITIES & PROCESS CONTROL • ...

### Capable of supporting different compression technologies

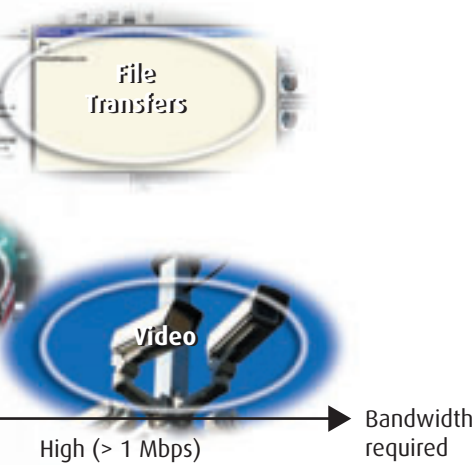
The compression technology determines the cost, the amount of network bandwidth required and the quality of the video upon playback. To maximize interoperability, the industry has typically adopted standard compression techniques that provide the best performance in terms of cost, bandwidth and quality. There are two main groups of video compression standards used: M-JPEG and MPEG.

The JPEG standards are based on compressing individual still images. For video, multiple, independently compressed stills may be strung together in a sequence for playback – similar to a movie. Such JPEG strings are called M-JPEG (M for Motion). However, there is no standard that is accepted universally at this time that defines M-JPEG – i.e. the protocol and methodology that defines the construction and deconstruction of the video sequences.

The MPEG family of standards are defined to playback movies in the digital format and have been accepted by the broadcasting industry as their compression standard (MPEG-2). The fourth phase of the MPEG standard process (MPEG-4) has been designed for network based video to minimize bandwidth and increase quality for broadcast and video conferencing applications.

**Barco has a universal decoding architecture that supports multiple compression technologies. Barco's streaming video solution supports MPEG-1, MPEG-2, MPEG-4 and MJPEG. Support for H.264 (AVC) is planned.**

(Please check the interoperability list on [www.barco.com/controlrooms/en/products](http://www.barco.com/controlrooms/en/products)).



The integrated streaming decoder solution have proven to provide the following savings for various deployments

Category	Savings
• Equipment (in \$ costs per channel)	up to 60%
• Space in Rack Units	up to 48RU
• Labor (in \$ cost)	up to 86%
• Inventory Levels (in \$ cost)	up to 60%

# Barco's integrated streaming video solution

Barco's integrated streaming video solutions are centered on a universal decoder card that is usable within the modular chassis architecture of the TRANSFORM series, Barco's family of controllers (TRANSFORM A and HYDRA). This means that the decoder card may be used alongside other interface cards (i.e. composite analog, HD-SDI, SDI) within any of Barco's family of controllers. This allows for simultaneous deployment of multiple technologies and protects the investment on the display walls by providing an easy migration to a complete end-to-end digital solution.

**Interoperability:** AXIS • Bosch • Cieffe • COE • Coretec • Cornet • DVTeL • Exterity • HaiVision • iMPath • IndigoVision • LANACCESS • Lenel • Mavix • NiceVision • Optelecom-NKF • OptiBase • Siemens OTN • Sony • Tandberg • Teleste • Telindus • VBrick • Verint • Visiowave • Vorx • ...



Barco's streaming video cards

*Streaming video solutions available on all Barco controllers*



The streaming video decoder card consists of two key components - the mezzanine decoding card and the baseboard card. The mezzanine cards provide the interface and decoding while the baseboard cards enable universal chassis backplane adaptation for our controllers.

The streaming video decoder card features two 10/100 Base-T ethernet interfaces.

The second interface is provided for redundancy. The card supports a number of simultaneous video streams, depending on changes in resolution, compression method and transmission rate.

RGB streams sent by the TRANFORM SCN RGB encoder are as well decoded by the card.

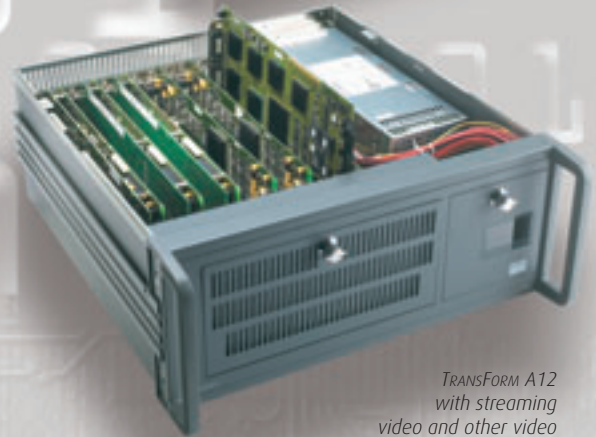
(Please check the interoperability list on [www.barco.com/controlrooms/en/products](http://www.barco.com/controlrooms/en/products))

Barco's family of integrated controllers provide:

- mixing of multiple input types  
(e.g. Composite, SDI, HD-SDI, RGB, DVI, streaming video, etc.)
- layout control and flexibility
- text insertion and border color control
- alarm responses



*TRANSFORM A  
with streaming  
video and other video  
interface boards*



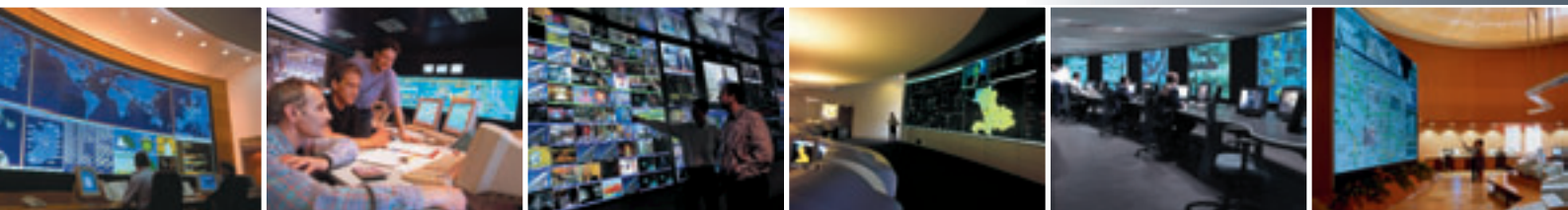
*TRANSFORM A12  
with streaming  
video and other video  
interface boards*



*HYDRA  
with streaming video and  
other video interface boards*



Barco has become the industry standard in the field of monitoring solutions for Control & Operation Centers in telecom, traffic, surveillance, public utilities, broadcasting, finance and service providing companies. Barco is renowned for its flexible, market-specific approach, successfully implemented in over a thousand control rooms worldwide.



Fully committed to quality, Barco offers full technical support as well as on-site training. With its head offices in Belgium and Germany, Barco is represented in more than 30 countries across the globe. With a yearly R&D effort of 10% of its turnover, Barco ensures it remains at the forefront of technology.

Ref. no. R599694 February 2007

Barco Control Rooms is an ISO 9001 registered company.  
The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.  
The latest version of this product sheet can be found on [www.barcocontrolrooms.com](http://www.barcocontrolrooms.com)

Barco - Belgium  
Noordlaan 5, 8520 Kuurne  
Phone (32) (56) 368211  
E-mail [sales.bcd@barco.com](mailto:sales.bcd@barco.com)

Germany Phone (49) (721) 62010  
USA Phone (1) (770) 2183200  
Brazil Phone (55) (11) 38421656  
Japan Phone (81) (3) 57628720  
Hong Kong Phone (852) 23970752

**BARGO**

Visibly yours