

EBU **TECHNICAL**



## How much video compression for contribution Part 2

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Is there to be no peace?



# A new compression system is coming...

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- The JTC1 MPEG group is developing the next generation compression technology, which may be called 'HVC'.
- Initial tests have been done with technologies proposed from across the world. They were done by three laboratories – EBU, FB, EFPL.
- A selection of the best technologies has been made, and work has begun to develop a complete system.
- New compression tools are also sought for 3DTV.
- How long before we see HVC 'in the shops'? Maybe 3-4 years?

# The next generation? UHDTV (Ultra High Definition Television)



# UHDTV- not if but when!

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- At the end of 2011, the ITU-R WP6C hopes to have a standard format for 'UHDTV'. This will have **32 Megapixels/per frame** (4K vertical, 8K horizontal), extended colour primaries, and (currently) 60 frames progressive scanning.
- The colour primaries have been agreed and the scanning algorithm. Over the next year, work will be complete on the colour encoding.
- Tests reported to the ITU-R WP6C suggest that 100Mb/s AVC may be enough to deliver a 4:2:0 version.

# UHDTV and the Olympic Games

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- In **2012**, the system will probably be used for carrying some of the Olympic Games in London to 'market square' television displays across the world.
- In **2016**, the system will be used more extensively for the Rio Olympics.
- Manolo Romero from the IOC believes that UHDTV will provide a **better experience** of the Olympic Games **than 3DTV**, because it is a 'large canvas' event.

# UHDTV trials so far...

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- Tests were made in 2008 (NHK/EBU/RAI/BBC) of carrying UHDTV from London to Amsterdam on an ultra broadband IP network, and by satellite at 140 Mbit/s MPEG2 using two Ka band transponders. There were live pictures from London.
- Test were recently made (NHK/BBC) of carrying UHDTV from London to Tokyo on a broadband IP network (350Mbit/s).
- The transmission was a rock band. 'Jitter' has been reported. Was this IP network or the lead singer of the rock band?



**Thank you for listening.**

