



PrestoPRIME

FP7-ICT-2007-3 231161

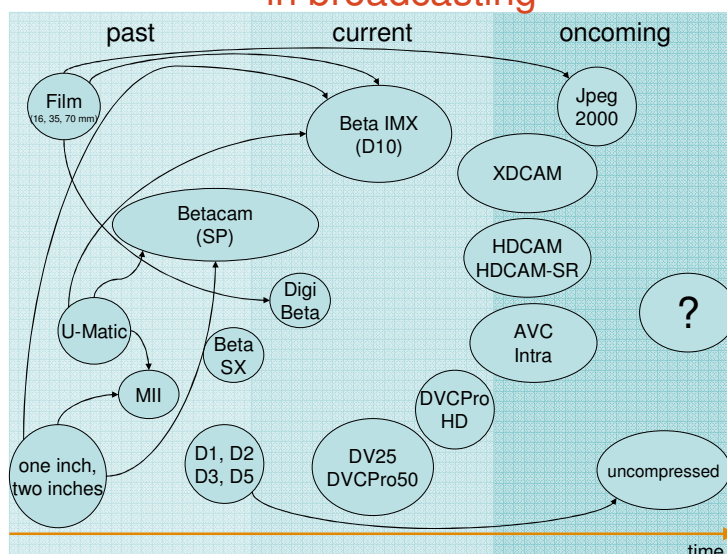
Breakout session One
Preservation in Broadcast Archives context

Vienna, 2009-10-06

Christoph Bauer, Laurent Boch, P. Schallauer, Richard Wright



Most (but not all!) of the video formats used in broadcasting

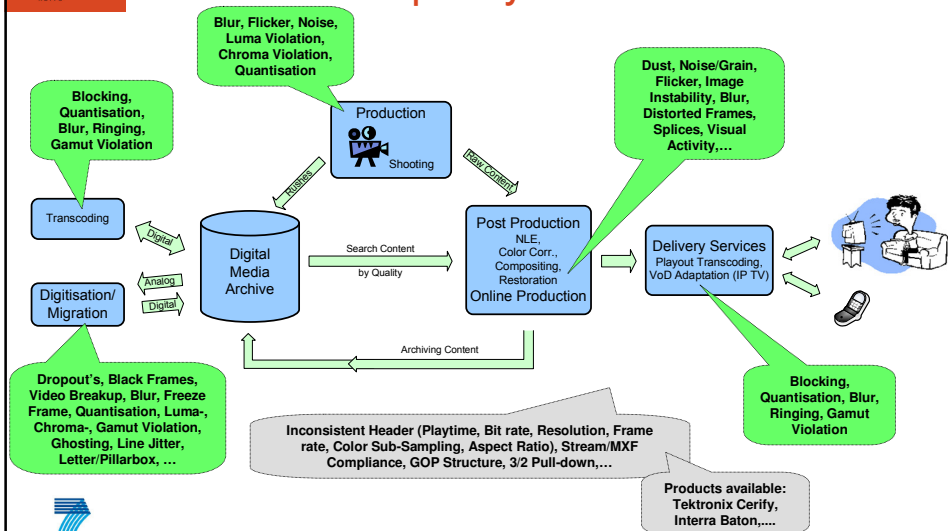



File formats in use & to be considered

- **Wrappers**
 - MXF
 - Op1A
 - Atom
 - MOV
 - AVI
- **Formats**
 - MPEG-2: D10 (50Mbit 50i, 80Mbit, 70Mbit GOP, 30Mbit), 8Mbit
 - Uncompressed SDI
 - DV25 420
 - DVCpro 50
 - DVCpro 100
 - MPEG-4, AVC, H264
 - JPEG2K
- **Problems**
 - with HD: capture, encode, store
 - differences in header of wrapper (from various applications) eg D10
 - getting 'standard' MPEG2 from IMX or Sony BlueRay XDCAM
 - getting content out of a wrapper
- **Migration concerns**
 - MPEG2 is considered long term reliable standard BUT compatibility problems already detected




What is content based video quality assessment?





Video Quality analysis in the preservation domain


- Quality checking needed
 - Fully vs semi-automatic
 - Fully automatic needs standardised workflow
- Syntax-checking:
 - Solutions and products available (e.g. Cerify, Baton, etc.)
- AV-defects:
 - Black frames
 - Freeze frames
 - Bitrate sufficiency
 - Audio synchronisation
 - Audio level(s)



C. Bauer (ORF), L. Boch (RAI), P. Schallauer (JRS), R. Wright (BBC)

FP7-ICT-2007-3 231161 PrestoPRIME


5



Loss: has anybody had problems with digital technology?

Two particular issues were mentioned by participants:
database corruption, and problems with datatape

- Corruption of MAM database
 - 90% recovered from from backup
 - 10% needed to be re-ingested
 - Thanks to keeping original carriers
- Unreadable LTO tapes
 - Writer device from one manufacturer and reader device from a different one
 - Compatibility issues?



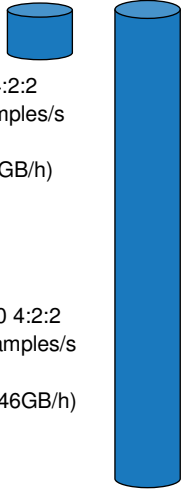
C. Bauer (ORF), L. Boch (RAI), P. Schallauer (JRS), R. Wright (BBC)

FP7-ICT-2007-3 231161 PrestoPRIME

6


PrestoPRIME
KEEPING AUDIOVISUAL CONTENTS ALIVE

The next big problem: Transition to HD



- SDTV
 - 720x576x25 4:2:2
 - 20736000 samples/s
 - 8 bits/sample
 - 166Mbit/s (75GB/h)
- HDTV
 - 1920x1080x50 4:2:2
 - 207360000 samples/s
 - 8 bits/sample
 - 1659Mbit/s (746GB/h)


- HD in production is going to be in high-end lossy compression formats
- preserving data-reduced content: big issue for "true archives"
- PPrime should make path to non-proprietary files
- Consider uncompressed in MXF for HD?
 - Yes, in theory
 - Affordability to be verified!

 C. Bauer (ORF), L. Boch (RAI), P. Schallauer (JRS), R. Wright (BBC) FP7-ICT-2007-3 231161 PrestoPRIME 7

PrestoPRIME
KEEPING AUDIOVISUAL CONTENTS ALIVE

Wishes for the future of digital AV

- Open formats
- Open applications, coders and players
- Open MAM/DAM systems – at least an open format for export of content and metadata (so people weren't 'locked in' to one system)
- Open digital repository
- Open communities – PrestoPRIME could form this community!

 C. Bauer (ORF), L. Boch (RAI), P. Schallauer (JRS), R. Wright (BBC) FP7-ICT-2007-3 231161 PrestoPRIME 8

