

Application of Photo Metadata to Video Metadata ...or Vice-Versa

A case study with Photo Mechanic



Rewind: 1997

- Hot Camera: Kodak / AP NC2000
 - 1.25 megapixel DSLR
 - \$15,000
- Photo Mechanic Introduced
 - Digital Workflow Outside of Photoshop
 - Ability to Apply Metadata in Batches Using the IPTC Stationery Pad

Fast Forward: 2009

- Hot Camera: Canon EOS 5D Mark II
 - 20 megapixel DSLR
 - under \$3000
 - Full HD Video @ 1920 x 1080, 30 FPS
- Photo Mechanic Impact?
 - Platypus Editing Workflow

Platypus Journalist

www.DigitalJournalist.org/Platypus.html

- Phrase Coined by Tom Burton in 1997 and Adopted by Dirck Halstead
- Journalist that uses Both Types of Media Formats
- Now One Camera for Both Formats



Not to be Confused...

- Hexley the Platypus
- Mascot for the Darwin Operating System
- Used by MacOS X and the iPhone
- Not Apple Approved



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Impact on Photographer?

- Camera and Sound Equipment
 - One Camera for Still and Video
 - Separate Audio Mics and/or Recorder
- Software Workflow Tools
 - Need to be Similar for Both Formats
 - Extension of Metadata Concepts

Metadata Stationery

- Photo Mechanic's IPTC Stationery Pad
 - Customized Rubber Stamp of IPTC Fields
 - Common Fields like Photographer, City, State, Copyright, even Basic Caption
- Same Concept for Video Clips?
 - YES: These IPTC Fields Should Apply
 - YES, YES: Extend Metadata Stationery

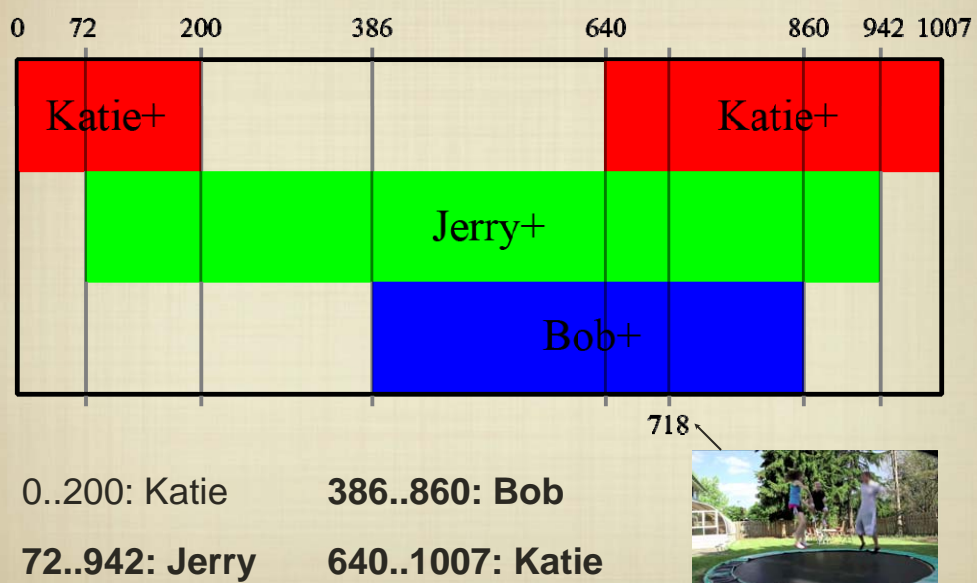
IPTC Metadata for Video

- The IPTC Metadata for a Video Clip (File) is Just Like a Stationery Pad
- Instead of a Group of Photos, it Applies to Every Frame in the Video Clip
- Extend Stationery Concept by Selectively Applying Stationery Clips to Clip Segments
- Therefore, IPTC Metadata for a Video Frame is Dynamic by Evaluating Stationery Clips

Example Video Clip



Metadata Timeline



Stationery Clip Format

- Each Stationery Clip can be Represented by an XMP Packet Containing Various IPTC4XMP Fields (e.g. Keyword, Person in Image)
- Additional Info Needed in XMP Packet
 - Segment Range (e.g. Start and End Frames)
 - Apply Flags for Repeating Fields or Caption (e.g. **Add**, Replace, Prepend, Append)

How To Embed in Video?

- XMP Spec Has MARKER Definition
 - Only Allows for a Single Comment, Not Multiple IPTC Fields
 - No Provision for Apply Flags
- Camera Bits Now Using a Proprietary Format
 - Essentially a Collection of XMP Packets
 - Compressed and Saved as a Sidecar File

Summary

- The Application of IPTC Metadata that was Intended for Still Photos Can be Extended to Video in a Dynamic Way
- We Are Looking For Ways To Do This Within the Existing XMP Schemas for Dynamic Media