Efficient film digitization and restoration

Cinetis SA
Jean-Pierre Gehrig CEO

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CINETIS THE COMPANY

- Founded by 2005 by
  - Pierre Ihmle
  - Jean-Pierre Gehrig

- Team
  - 5 film operators/video editors
  - 3 software developers

- Partnerships with
  - Bolex International
  - IDIAP Research Institute, EPFL, HES-SO

- Awards
  - European Seal Award in Multimedia, CeBIT 2006
  - IMD Startup Competition, 2007

BOLEX DIGITAL OF SWITZERLAND FILM TRANSFER SERVICE

- Consumer formats
  - Film (Super8, Normal8, 9.5mm, 16mm)
  - Video (Video8, Hi8, Digital8, VHS, VHS-C, SVHS)

- Private and institutional clients
  - Offer high quality at an affordable price

- Efficient workflow
  - We keep our eyes on images where appreciation is required
  - We exploit computers for repetitive tasks

- 25'000 reels (5'000 hours) transferred

PRIVATE ARCHIVES

- The "Living Room Experience"
  - ➡ Client wants to watch his family movies on his TV
- The "DIY Editing Experience"
  - ➡ Client wants to edit his family movies at home
- ★ We receive a "shoe box" of film reels, shot by different people in changing light conditions, on different film stocks, at various frame rates, with good shots and bad shots (over/under-exposed)
- ★ How can we digitize these films efficiently and produce a standard product ?

INSTITUTIONAL ARCHIVES

- Want to move to digital archival

  ➡ Choose storage medium, container and codec.

  ➡ Define Metadata format, import "Excel Metadata".

  ➡ Must be compatible with existing infrastructure and workflow, with the local and national TV stations, and with Europeana.

  ★ How can we help our clients choose the right standards and equipment ?

  ★ How can we integrate there choices in our workflow to digitize their archives efficiently ?

archivalp.eu

- Preserve alpine A/V patrimony

    ➡ Funded by INTERREG IV program

    ➡ Mediathèque Valais (MV)in Martigny, Switzerland

    ➡ Cinémathèque des pays de Savoie 8 (CPS), France

★ MV is Windows-based, currently archiving DV25 files, plans to move to H.264 wrapped in MXF files.

★ CPS is Mac-based, currently archiving DVCAM tapes, plans to move to Apple ProRes files.

★ Both store Metadata in a custom MySQL database.

★ Archivalp.eu will aggregate contents from both archives and publish it through Europeana.

MOTION ESTIMATION

- Based on the *Motion2D* algorithm, a robust multi-resolution motion model estimation, developed by Jean-Marc Odobez at IRISA/INRIA.

- C++ implementation using OpenCV and Quicktime.

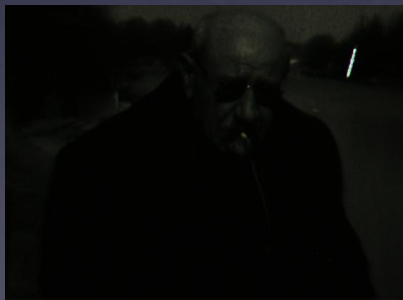# SCENE DETECTION

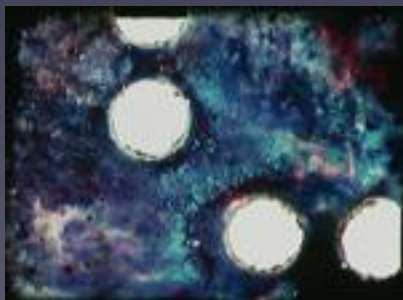MOTION DISCONTINUITY ⟹ OR ⟸ COLOR DISCONTINUITY

⟱

WE HAVE A SHOT !

SHOT CLASSIFICATION

SHOT CLASSIFICATION

Trash

Keep

AgiScan Productive film scanning

THANK YOU

jp.gehrig@cinetis.ch