JOANNEUM RESEARCH Forschungsgesellschaft mbH Institut of Informationsystems Steyrergasse 17 8010 Graz Tel +43 316 876-12 08 Fax +43 316 876-11 91

martin.winter@joanneum.at

www.joanneum.at/iis



SEMI-AUTOMATIC CONTENT BASED VIDEO QUALITY ASSESSMENT

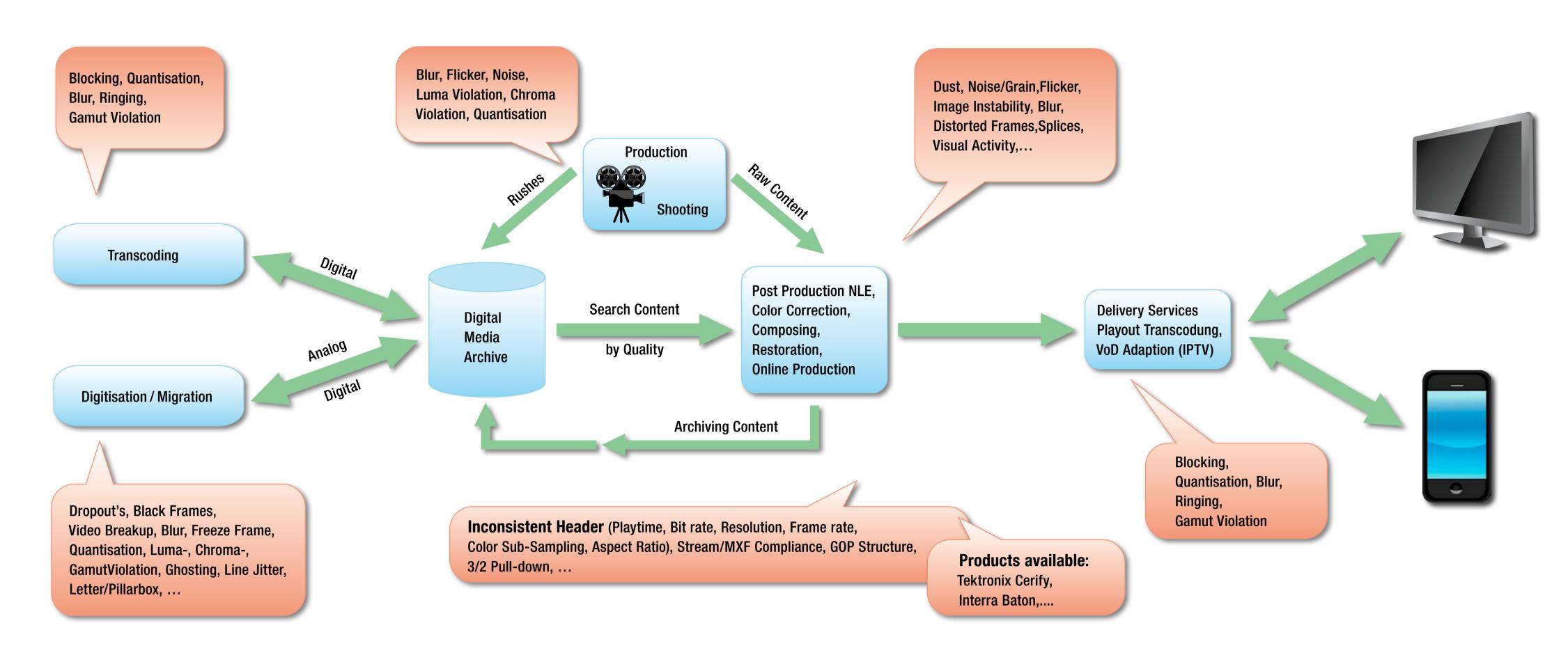
Winter M., Schallauer P., Fassold H., Hofmann A., Bailer W., Stiegler H.

Abstract

Automatic quality control for audiovisual media is an important task for media production, delivery and archiving processes. We focus on semi-automatic video quality inspection and develop algorithms for the detection of various visual degradations and appraisal of quality measures. To enable efficient human interaction we integrate our algorithms into the "quality summary" viewer which allows to quickly grasp frequency and strengths of visual degradations and quality measures in the content.

Motivation

avoiding error-prone and cost intensive manual inspection of video material



Defect detectors

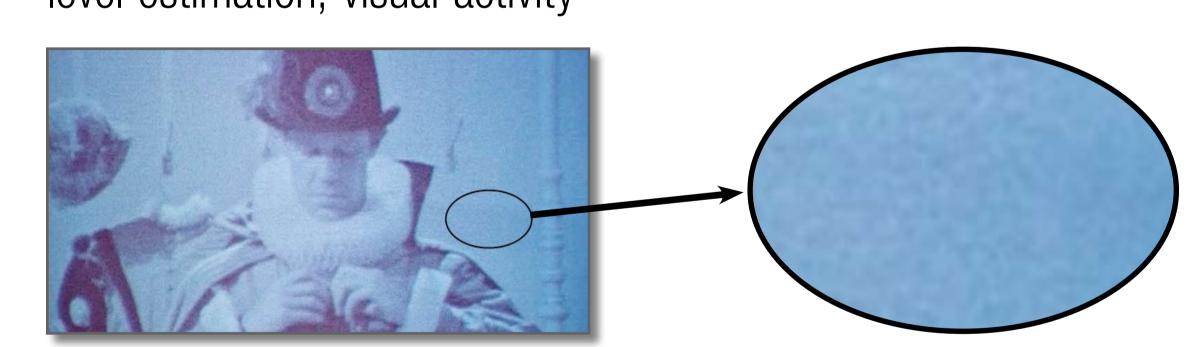
freeze frame, black frames, severe visual distortions etc.





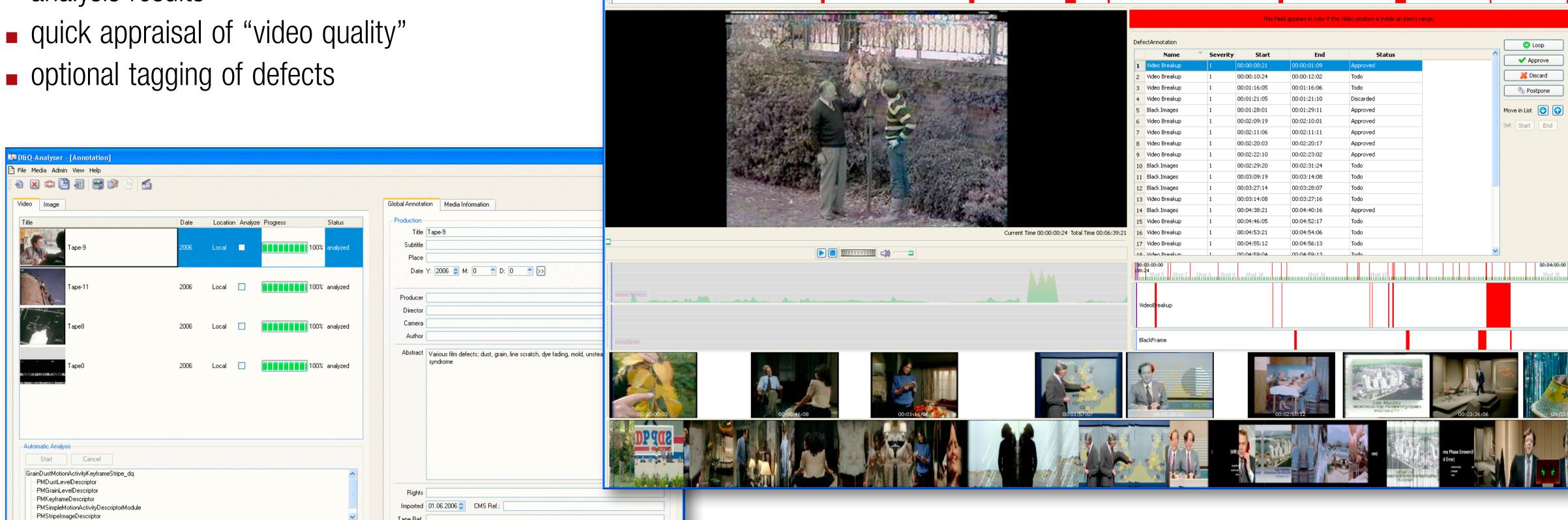
Quality measures + video properties

noise, grain, blur, flicker, level estimation, visual activity



"quality.analyse" and "quality.summary"

- batch processing of videos
- efficient browsing within video and analysis results



4 minutes 🔀