



Single frame level detection from dailies

~Media search-based collaboration system for movie production~

Abstract

Present movie production handles all contents as digital files and demands the collaboration of remote locations. This process requires contents transfer among locations and collaboration tools. For more creative collaboration, automatic content analysis that supports editing is very effective. We propose an online collaborative platform based on retrieval technologies for movie production. Our system bases automatic content analysis on retrieval techniques for both video and audio clips. A GUI-based interface connects this function to the online collaborative system, and the total system enables efficient and secure collaboration among remote locations. In particular, our search function yields more precise detection through accurate timing, system scalability, and memory savings.

Digital movie making

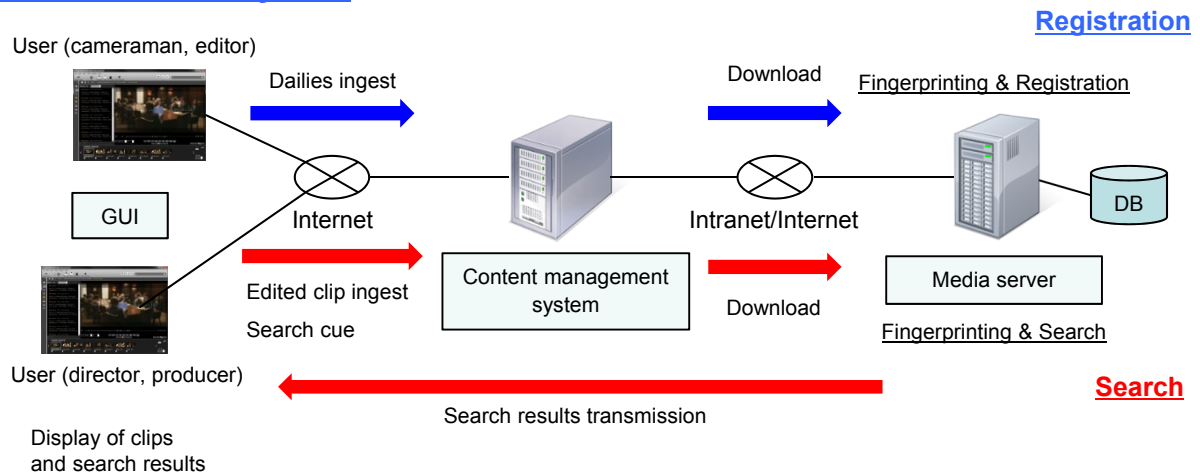
- Network-based content management → Share and comment for dailies & edited clip from remote locations → Automatic editing information acquisition for edited clip needed
- Collaboration of remote location

Precise detection of original dailies & shot boundaries

- Search of original dailies & shot positions used for edited clip from among very similar dailies
- Detection of start/end frames of focused shot with single frame level accuracy regardless of cross-fade, color-grading, or caption insertion
- Automatic registration of dailies, edited clips, and FPs

- **Collaboration system with content management & content retrieval**
- **Efficient and value-added movie production**

Overview of our system



FP: Fingerprint. Information extracted from video or audio.

Related work

- [1] M. Mori, H. Kimiyama, M. Ogawara, "Search-based content analysis system on online collaborative platform for film production," in *Proc. International Conference on Pattern Recognition*, 2014 (to appear).
- [2] M. Mori, T. Kurozumi, H. Nagano, K. Kashino, "Video content detection with single frame level accuracy using dynamic thresholding technique," in *Proc. International Conference on Pattern Recognition*, 2014 (to appear).

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