Effective Algorithm for Detection of Dissolve in Presence of Motion and Illumination

Abstract

The detection of dissolve transition is more difficult than detecting fade in and fade out. In this transition, the last frames in the previous shot fade out and the beginning frames in the next shot fade in i.e. the overlapping of fade out and fade in occurs. The dissolves may be of three or more number of frames. In some videos very short dissolve of even three frames also occurs. So, there are lots of challenges in detection of dissolves. Also illumination and camera / object motion gives rise to false positives thereby degrading the algorithm performance. Many researchers addressed this issue but could not achieve the robustness in the presence of illumination and object / camera motion. Therefore this issue needs to be resolved. An algorithm has been proposed for dissolve detection. In this algorithm, color histogram difference between consecutive frames is calculated and average value of this difference for all consecutive frames is used as a metric for dissolve detection.

References

Index Terms

Computer Science

Algorithms

Keywords

Dissolve, shot boundaries detection, color histogram difference, recall, precision.