Detection of fading–in/out text regions from MPEG videos

Author(s) : Takaaki Kashio (University of Fukui, Japan)

Abstract : This paper proposes a new detection technique for fading–in/out text regions from MPEG bitstreams based on a Markov model. We focus on the property that the luminance of a text region varies linearly in fading. This feature together with the other one are extracted directly from a target MPEG bitstream and they are fed into the Markov model to detect the status of text regions. The advantage of our approach lies in the fact that erroneous feature values do not directly affect the resulting text region detection due to a good behavior of the Markov model. A recall of 80% and a precision of 90% have been obtained for several sample video sequences.