

# **Wipe Scene Change Detector For Use With Video Compression Algorithms And MPEG-7**

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**Consumer Electronics, IEEE Transactions on; Publication Date: Feb 1998; Vol:  
44, Issue: 1**

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## **Summary**

The use of wipes in video production to smooth the transition between two consecutive scenes complicates subsequent video compression, video editing, and video database indexing. It is important to detect the wipe region in order to improve the quality of the compressed video or to allow automatic parsing of the video for the purpose of editing and database indexing. A model is developed for the wipe region and is used to derive the statistical characteristics of the frames in the wipe region. A wipe detector that exploits the linear change in the means and the variances of the frames in the wipe region is developed. The developed wipe detector is implemented and tested with video sequences containing wipes of different types and lengths. Simulation results indicate that wipe regions are well represented by the developed wipe model, and that the developed wipe detector is robust to wipe type and length

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