VIDEO OBJECT SEGMENTATION BASED ON ACCUMULATIVE FRAME DIFFERENCE

Author(s) : Bing Leng (Tsinghua University, China)  
Qionghai Dai (Tsinghua University, China)

Abstract : This paper addresses the problem of extracting video objects from head−shoulder video sequences. A method based on accumulative frame difference is proposed. First, a preliminary motion analysis is performed to each block of the frame and the blocks with fast moving edges are detected. Then, for each block, we accumulate frame difference with a different amount of frames, based on its motion attributes. After thresholding and post processing, the objects are obtained. Experimental results demonstrate that the proposed method can eliminate the expanded changed region and thus achieves a significantly improved segmentation result.