AUTOMATIC TV LOGO REMOVAL USING STATISTICAL BASED LOGO DETECTION AND FREQUENCY SELECTIVE INPAINTING (TueAmOR9)

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Abstract :

This paper outlines a method for automatically removing logos characterizing a broadcast station in TV sequences. First, the logo is detected automatically based on change detection of moving videos assuming that the image content is changing over time except for the location of the logo. In order to obtain initial logo masks, difference images between frames are binarized by thresholding. The final logo mask is obtained by subsequently refining the change masks by contour relaxation based on Markov Random Fields. Then, the image signal surrounding the logo is extrapolated using a frequency selective method and placed instead of the logo. The proposed algorithm is developed for TV sequences sampled from analog television, dealing thus with real world problems as noise, sampling and real logos.

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