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Abstract

This paper proposes a number of improvements to existing work in off line video object segmentation. Object color and motion variance, and histogram-based merging are used to improve the initial segmentation. Segmentation quality measures taken from throughout the clip are used to enhance video objects. Cumulative histogram-based merging, occlusion handling, and island detection are used to help group regions into meaningful objects. Objective and subjective tests were performed on a set of standard video test sequences which demonstrate improved accuracy and greater success in identifying the real objects in a video clip compared to the reference method.