Video Object Retrieval using Color Features

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Abstract

The development of image and video archives has made multimedia retrieval become important. Hence, an efficient system for multimedia retrieval is needed. In this study, we will propose a content-based video object retrieval system to retrieve bothmoving and stationary objects. First, users must circumscribe a query object by a bounding box on the video, image, or poster. The central cross growing algorithm is proposed to extract a representative query region within the box. Then, two color features, dominate color and color structure, are extracted to retrieve similar regions in keyframes. The experiments are conducted on three videos, Garfield, Finding Nemo, and Monsters Inc. The experimental results show that the proposed method can efficiently index the similar regions from the test videos.

Keyword：content-based object retrieval, dominate color descriptor, color structure descriptor.