Semi-Automatic Image Segmentation: A Bimodal Thresholding Approach

Hanwei Shen

Christopher R. Johnson

E-mail: hwshen@cs.utah.edu and

crj@cs.utah.edu

Department of Computer Science

University of Utah

Salt Lake City, UT 84112 USA

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Abstract

We have developed a semi-automatic image segmentation tool which combines conventional manual segmentation utilities with a novel automatic image segmentation algorithm. Manual segmentation is achieved by dropping control points and fitting cubic splines to these points. Automatic segmentation is achieved by bimodally thresholding local windows of the target image and contour following. By combining these two segmentation methods, a user can obtain accurate boundary descriptions with much less effort.