

### ABSTRACT

In the area of digital image processing, problem-solving usually demanded extensive experiments which including using numbers image samples to test or model the image software. The thesis is about applying C-Program to build a functional integrated program for digital image processing. It is exerting dual CCD image system to take samples and then applying the threshold limit value, binarization, and thinning function of the program to clarify the image outline and turn it into the pixel outline. In the process of testimony, the image noise would cause misunderstanding; therefore, the image mark was applied to effectively extract the needed image. Then the skill of Skeletonize of MATLAB was utilized to display the image branch and the trellis—liked supporting line. After the Skeletonize, the process continued to the step of Endpoint, which was to reveal the position of every end point and then utilized the virtual part of this experiment. Through the process of comparison, the same object of the dual image will on the same coordinating position.

Keywords : CCD Image System、 Threshold Limit Value、 Binarization、 Thinning

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