

**CMSI 402 SENIOR PROJECT LAB**  
Project Status Report #7

**Name:** Mark S. Kolich  
**Date:** Tuesday, March 15, 2005  
**Project:** Silhouette (Real-time Shape/Color Recognition)  
**Period:** March 8, 2005 through March 15, 2005  
**Project Goals:** Silhouette will implement a known shape detection algorithm and package it into a powerful and easy to use open-source application written in Java. The application will be developed to highlight the performance of the algorithm using a live JPG stream from an Axis network-camera.

**Accomplishments**

- I've successfully integrated the Hough Circle Detection algorithm into my application. It works fairly well and allows my application to detect circles!
- I've worked on several normalization algorithms of my own creation designed to find squares in a digital image by comparing pixel gradients. While I did learn a significant amount of new material on image processing, my normalization scheme will not be of much use to my project at this time.
- I've consulted with several people on various shape detection algorithms based on segmenting my digital image into a set of lines with basic coordinates. Ideally, the program can extract shape information from these line sets by comparing edge-angles and segment lengths.

**Plans**

- To continue my rigorous research process on square detection algorithms and ideally develop a set of test cases and examples.
- I expect to have square recognition functional by the end of next week.
- Complete all test case related documents and insert into my notebook. Fine-tune my notebook and ensure it is "up-to-par" for Milestone #2.

**Risks**

- None at this time.