

Abstract

Image processing has been widely used in many applications such as medical imaging, remote sensing, and robot vision. Unfortunately, imaging equipment was expensive, and not available to everyone. An advancement in electronics and computer technology helps to produce more powerful and less expensive personal computers, thus it is possible to use these computers as imaging equipment. However, image processing software is still expensive, and written for specific computers. One solution to overcome this problem is the use of image processing library which is a collection of image processing subroutines, most of image processing algorithms are ready for the users. Therefore, developing imaging applications is simply choosing the algorithms required from the library and tailoring to the specific need.

The objective of this research is to develop a portable image processing library. The library provides most image processing algorithms published by image processing community, and forms the backbone for image processing application development. The library can be used on most computer systems, subroutines that must be modified are those involve with image capturing and display.