

ABSTRACT

The thesis is completed on 52 sheets, it contains an 3 annexs and a list of references to used sources from 15 titles.

The purpose of this work is to create a convenient software system for the processing of raster images. The main requirement for the created system is the convenience of using and working in real time.

The existing software tools for solving the problem are considered, namely iPhoto developed by Apple, which is included in the standard software package of the operating system «Mac OS X", "Paint" is developed by Microsoft for the operating system "Windows".

The paper considers mathematical and programmatic methods for processing raster digital images, namely, gamma correction, Gaussian filter, linear interpolation, color correction. After analyzing all the methods discussed to solve the problem, it was decided to use a variety of filters, one of which is the Gaussian filter.

During the implementation of the thesis, the system has been developed, which is an auxiliary tool for processing raster images. A test of a designed software product has been performed.

Keywords: bitmap images, Gaussian filter, pixel matrix.