Abstract

Image compression is a method to minimize the file size of the image in the process of the depositary on storage. In this final task, the compression algorithm used is JPEG 2000 lossless with addition of LZMA-compressed complement coming from a JPEG 2000 image lossy. JPEG 2000 was chosen because was able to produce a digital image lossless (no information is lost) and lossy (there was missing information). JPEG 2000 lossy used because it is capable of producing a better quality of digital image compression, i.e. the previous JPEG compression. The complement is used to rebulid the image of JPEG 2000 lossy be lossless image. The Complement compressed with Lempel-Ziv Markov chain-algorithm (LZMA) first and then stored in a file so that the file size becomes smaller than the previous complement. Lossless image built from merging lossy image (JPEG 2000 lossy) and complement file.

Keyword : *Image Compression, Lossy Image, Lossless Image, Complement, Lempel-Ziv-Markov chain algorithm (LZMA)*