

Department of Information Technology

1. Title of Project: MAGIC COMPRESSOR
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3. Name of The degree: B.Tech
4. Student Names:
 - Poojashree Panda
 - Pragyan Mohanty
 - Shatavisha Mishra
 - Suprengya Sucharita Panda

Abstract

Image compression is the application of data compression on digital images. In effect, the objective is to reduce redundancy of the image data in order to be able to store or transmit data in an efficient form.

Image compression is minimizing the size in bytes of a graphics file without degrading the quality of the image to an unacceptable level. The reduction in file size allows more images to be stored in a given amount of disk or memory space. It also reduces the time required for images to be sent over the Internet or downloaded from Web pages.

A text file or program can be compressed without the introduction of errors, but only up to a certain extent. This is called lossless compression. Beyond this point, errors are introduced. In text and program files, it is crucial that compression be lossless because a single error can seriously damage the meaning of a text file, or cause a program not to run. In image compression, a small loss in quality is usually not noticeable. There is no "critical point" up to which compression works perfectly, but beyond which it becomes impossible. When there is some tolerance for loss, the compression factor can be greater than it can when there is no loss tolerance. For this reason, graphic images can be compressed more than text files or programs.

Here, in this project, we have successfully carried out the compression of an image making use of Java programming language. We also tried to ensure its feasibility, portability and user-friendliness, based on the concepts of software engineering.