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Project Title

The HTH File Format

Abstract

Objectives/Goals
To create a simplistic file format for storing two dimensional images that supports compression, encryption, color mapping, and is easy to interpret.

Methods/Materials
Materials: 1 gigihurtz computer, Microsoft Visual C++ 6.0

Method: Design the file format and write out the specification, write the demo application showcasing a use of the hth file format, benchmark the file format, and publish the results and source code on my school's webserver. The method for writing the demo application is somewhat complex and will not be discussed here (as it would easily pass the 2400 character limit).

Public/private domain header files that were use include stdio.h, stdlib.h, iostream.h, gl.h, glu.h, windows.h, and math.h.

Results
The HTH File Format stores images using much less space than other formats, has encryption and color mapping, and is easy to read. It is also not computationally expensive to encode the images or read them. This is very beneficial when you are comparing it to other formats like JPEG which are extremely expensive in processing power.

Conclusions/Discussion
The HTH File Format is an excellent imaging solution, mainly for clip art images. RLE (Run-length) encryption is a proven technique for saving space in images, and caesar encryption supports a simple, effective, and scaleable encryption solution. Overall the HTH File Format is oftentimes, the best file format for the job.

Summary Statement

Producing the ultimate file format for storing two dimensional images.

Help Received

Jared Schiffman advised me on several theoretical topics concerning programming.