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Thesis Title             Fractal Encoding and Decoding of Images

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## Abstract

In fractal image compression, image data are grouped into domain classes according to brightness orderings.  When an empty class is encountered where data cannot be well defined, data of the last created domain, which is actually of a different class, are used to fill in the empty class.  This results in insufficient detail of the image when decompressed and displayed.  In this study, an improvement of algorithm to ameliorate this drawback is presented.  When an empty class is found, data of the least adjacent domain class is used to fill the empty class. It is shown that by using this method, the result gives better detail of the image, and in some cases, the image files are also reduced in sizes.  It is hoped that the proposed method will pave way for better improvement of fractal image compression algorithm.