Abstract

This paper describes the modification of the method by applying Golomb LZW Quotient where the objective is to analyze the application of Golomb Quotient to cover a limited number of LZW dictionary and analyze the performance of both methods Quotient LZW and LZW compression of time and compression ratio.

Lempel Ziv Welch (LZW) method using the techniques of doing compression dictionary, the process of using a dictionary reference to store a variety of combinations of characters. Character combinations are stored in the dictionary. LZW dictionary has limited the amount of which depends on the number of bits used. In doing a compression length of the user must determine the most appropriate bit to get better compression.

To overcome the above problems, the authors modified the LZW by applying the golomb Quotient. LZW Quotient is a modification of LZW, this method takes the principle of the two methods ie LZW and Golomb. Golomb has the advantage of unlimited amount, while the LZW code has limitations on the amount of code. Golomb has a quotient as information. This quotient will LZW as Applied to the character information is used.

From the test results indicate that the LZW Quotient shown to cover the limited number of dictionary. From the results of time Quotient LZW compression has a compression of time is longer than using LZW compression. And from the results of the LZW compression ratio with the election of the best bits have a compression ratio better than using LZW Quotient.

Keywords: Compression, LZW, Golomb, Ratio, Code word