ABSTRACT

SMS (*Short Message Service*) is an interested application of mobile phone until now. Its cost is counted in a cost unit called pulse. People usually use more than one pulse unit when they write a message. On the other hand, they want to send more message with lower pulse unit. For this reason, SMS-compression application is expected to have a high compression ratio intended to minimize pulse usage, short in time, and can be implemented in a limited-resource mobile device. This final project used a dictionary-based compression method as its compression algorithm.

The dictonary is build by using record Store in J2ME. Its contents are 781 words collected from SMS user, and then will be coded to 781 codes. Its size is 9024 Bytes consisted of 27 records, i.e 26 records for characters, and 1 record for other symbols. This application is 122 Kbytes. To minimize memory usage, the words storing to record is conducted with different way from the usual.

The compression ratio resulted is 09.40%, this performance can be increased if the database in dictionary is increased too. The compression time is bigger than decompression time in general. The RAM needed when the application is being processed is 2.85 Kbytes.

Compression method dynamic huffman codes can't be implemented in system because it is suitably implemented in real time system.

Keywords : Compression, SMS, dictionary-based, *dynamic huffman code*, performance, J2ME