Abstract
Comparing two files is a common activity carried out by forensic investigators in the process of analyzing evidence data. The tool used to compare two files currently has incomplete features, thus affecting the efficiency of the data analysis process. Therefore we need an efficient two file comparison tool without reducing effectiveness when analyzing evidence data. Longest Common Subsequence Algorithm is a string matching algorithm which has a working method of finding matching characters in two string sets and combining the search results into a new string. LCS algorithm has the worst time and space complexity O (mn). This study provides a solution that is by using the dwAllocationGranularity function in the Win32 API C ++ framework, without reducing the accuracy value that is 100%, with an average value of performance value that is 25MB RAM usage, 25% CPU usage, and the average execution time has 14.6 seconds.