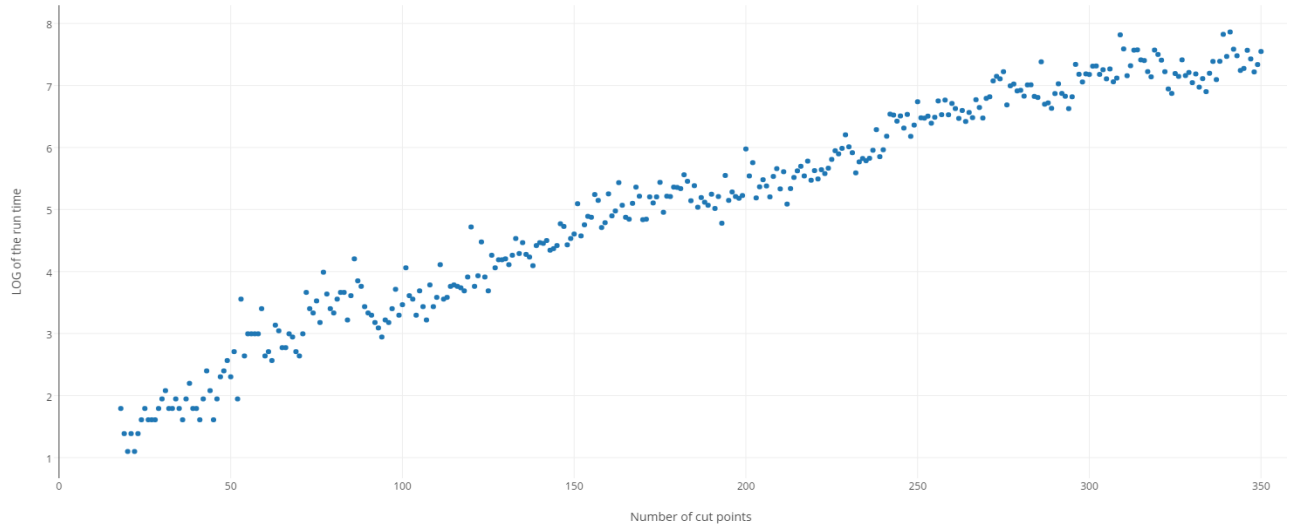
Report

Plot:



Time Complexity:

- Time complexity of the algorithm is quadratic/exponential as seen from the plot above. The plot forms a straight line of slope 1, indicating that the time complexity is exponential. The time complexity is equation form is:

$$T(n) = 2T(n-1) + O(n)$$

Algorithm Performance:

- The algorithm performs reasonably well for up to 400 cuts, after that the algorithms slows down significantly, taking too much time to execute. This is apt from the fact that the time complexity of the algorithm is exponential.
- E.g. For 250 cuts the algorithm takes around 500 milliseconds, and for 500 cuts it takes around 10000 milliseconds