## Assignment4

**Conclusion:**

With the different value of cutoffs and array-size, we found that no matter how big the array is, the most efficient cutoff value is around **50%** percent of the size of array, with degree of parallelism:3.

**Evidence:**

Figure 1 The relationship between runtime and cutoff for different Array-Size

As we can see from the Figure 1, it shows relationships between sorting time and the value of cut-off(in percentage). We could see the trend with different size of array that the algorithm could achieve its best performance when it reaches a cut-off value at 50% of its size of array. Before the best cutoff, the time consumed is increasing, and after the best cutoff, the consuming time is also increasing.