Part B write-up

Machine used for obtaining execution times:

I used an Itel I5 Dekstop with an Ubuntu 14.04 LTS Virtual box running inside of it in order to execute the script.

Chat:

Explanation of Results:

The results of Insertion sort compared to Quickselect were startling, but after researching the complexity I realized everything made sense. Insertion sort became extremely inefficient at even 100000 elements, while quickselect barley became worse over time. The complexity of Insertion sort is O(n^2) which is horrific, while quickselect only has a complexity of O(n).

Use of Recursion:

I personally am a big fan of recursion. Recursion gives the average c++ user a new look at solving problems and really opens up a wide range of possible solutions. While iterative is clean and nice, some instances, like quickselect, have an invaluable advantage over algorithms such as insertion sort.