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## Lab 4 README

java version "1.8.0\_144"

Java(TM) SE Runtime Environment (build 1.8.0\_144-b01)

Java HotSpot(TM) Client VM (build 25.144-b01, mixed mode)

IDE: Version: Oxygen.1 Release (4.7.1)

This program was written and compiled using a Windows machine.

Command Line arguments:

Output file (first argument), followed by any number of input files are expected. The results of all input files entered in the command line will be aggregated and produced in the output file. Any output will be appended to the file, it will not overwrite previous text. The program will create a file for the output if it does not already exist.

Input files must contain numbers delimited by new spaces. The first entry must be a reference to the length of the input file, followed by a single space. The program will check for an entry that contains a space and will assign that to the inputSize variable, used to determine the length of the input array.

Each sort for file size 50 will print out:

1. All possible gap values stored (not all will be used).
2. The original array
3. The sorted array

For all other file sizes, no data will be printed.

Max Sizes for Shell Sort input data:

Knuth sequence: 1743392200 elements

Prime sequence: 272999 elements

Even sequence: 262440 elements

Hibbard sequence: 1048575 elements

Inputs beyond these sizes will need additional gap values calculated.