

JDK8 must be installed to run this program!

To start the GB protocol, both generator and evaluator need to specify the locations of their config(see specification in the following) and data files.

To start the patient linkage algorithm, enter into the dist folder, and start the program as

```
>> java -jar PatientLinkageGC.jar -config <config> -data <data>
```

For example, the generator run the program as

```
>>java -jar PatientLinkageGC.jar -config ./configs/config_gen_100.txt -data ./data/Source14k_a_100.csv
```

You can watch a demo video by clicking the file Demo.mov

If you have any question or bug report, feel free to email me.

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Fields of configure file:

party	The role of the program, it can be either “generator” or “evaluator”.
address	The generator address.
port	The generator port. Note, for multiple threads computation, the same number of consecutive ports starting from this port will be occupied for communications.
threshold	The threshold of the matching algorithm provided by this party. The circuit will sum both thresholds from two parties as the final threshold.
threads	The number of threads. Both party must provide the same thread number.
records	The number of records from the opposite party.
com	A criterion for matching. For example, it can be “3 0 6 -> 1”. Here, the numbers in the left of “->” are the property lengths, and the number in the right “->” is the criterion weight. In this example, the criterion contains 3 characters of 1st property, 6 characters of 3rd property. The criterion weight is 1. If the property length is S, it will be encoded by soundex method. Note, the property lengths (left of “->”) must be equal for both parties, but the weight can be different. The program will automatically sum both weights together as the criterion weight in the program.

filter	open filter 1 or not 0
results_save_path	the result saving file path