**Usage**

Client

java ds\_client\_test [/path/to/ds-system.xml [options]]

/path/to/ds-system.xml is a mandatory argument if you are providing further options. ds-system.xml will be in the same folder as ds-server.   
If no arguments are passed, the default path will be ./ds-system.xml

Available options:

-v Verbose. Displays full logging, including what messages are sent and received.

-n Newline mode. Appends a \n to each message sent to the server.

-p [arg] Port. One integer argument. Must be the same as the port ds-server is listening on. Default: 50000, the same as   
ds-server’s default.

-a [arg] Algorithm. One string argument. Currently does not do anything, for the individual stage of this project you may want to implement it.

-h Usage. Less informative than this document, but briefer.

Defunct:

-path [arg] The old argument for the path to ds-system.xml. Still exists in the code, but is no longer supported, use at your own risk.

Server

ds-server -c /path/to/config.xml [options]

-c is technically an optional argument. The server is supposed to produce random jobs when this argument is left out, but the server that has been provided is bugged and instead produces no jobs.

In short: Don’t leave out the -c argument.

Available options:

-p [arg] Integer. The value passed to the server must be the same as the value passed to the client. Default 50000.

-h Usage.

**Technical Details**

Algorithm

The implementation of the all-to-largest algorithm is fairly simple. Upon receiving the first job, it polls ds-server for the list of servers and records which is the largest. If there are multiple largest servers, the first server lexicographically is chosen. This job and all subsequent jobs will be sent to this server.