High-Performance Computing

Laboratory1:

Generating random numbers

Objective:

- implementation of random number generation in finite intervals
- development results in the form of graphs (eg. gnuplot program)

Tasks:

1. Create a working directory (eg lab_1) .
2. Based on the supplied program write a simple procedure in C for generating 20 random integers from a specified interval and 20 random double precision numbers for a given interval (using the Unix random number generators - srand () , rand ())
3. Run the program and verify the operation of generation.
4. Modify the program so that the drawn numbers were saved to a file.
5. Create a chart with the generated random numbers (the horizontal axis: sequence number, the vertical axis: generated number), add additional horizontal lines that will indicate the upper and lower end of the intervals.