

Assignment 1 User Manual

Background

1. The process and thread applications were compiled on Linux Fedora 32 running on a Raspberry Pi 3 B+ (Quad Core)

Program Usage

Process

\$./process <number of workers> <number of tasks per worker> <starting number to be factored> -w <filename>

Process Example

\$./process 5 100 1 -w process.txt

The program will evenly distribute 100 numbers to each child process starting from 1

- Process 1 – 1-100
- Process 2 – 101-200
- Process 3 – 201-300
- Process 4 – 301-400
- Process 5 – 401-500

The result of the factorizations along with the individual time and total elapsed time will be written to process.txt

Thread

\$./thread <number of workers> <number of tasks per worker> <starting number to be factored> -w <filename>

Thread Example

\$./thread 5 100 1 -w thread.txt

The program will evenly distribute 100 numbers to each thread worker starting from 1

- Thread 1 – 1-100
- Thread 2 – 101-200
- Thread 3 – 201-300
- Thread 4 – 301-400
- Thread 5 – 401-500

The result of the factorizations along with the individual time and total elapsed time will be written to thread.txt