

### UNIX Project

ft\_strace

42 staff staff@42.fr

Summary: This project aims to recode the strace command.

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Submission and peer correction

#### Chapter I

#### Foreword

Strace is a debugging tool under Linux to monitor system calls use by a program, and all the signals it receives, similar to the tool truss on other Unix systems. It was made possible through a feature of the Linux kernel called ptrace.

## Chapter II Subject

You must recode the strace command (without option)

\\$> man strace
\\$> man ptrace

- This project will be corrected by humans only. You're allowed to organise and name your files as you see fit, but you must follow the following rules.
- You must be on a VM with a linux kernel > 3.4, for your information the scale was made with a Ubuntu 14.10
- As a bonus, you can make the -c option and the PATH management, these are the only valid bonuses.
- The executable file must be named ft\_strace
- You must code in C and render a Makefile (respecting the usual rules)
- For this subject no norm and you have the right of the libc, on the other hand avoid the abuses on the norm! This is an advice for the correction.
- You have to handle errors carefully. In no way can your program quit in an unexpected manner (Segmentation fault, bus error, double free, etc).

- $\bullet$  You are not allowed to use the following options :
  - PTRACE\_TRACEME
  - PTRACE\_ATTACH
- You must handle 64 AND 32 bit binaries
- You can ask your questions on the forum, on slack...



Be very careful with signal management  $\dots$  Really  $\dots$ 



For the smart ones (or not)... Of course you can't call the real strace.

# Chapter III Submission and peer correction

Submit your work on your GiT repository as usual. Only the work on your repository will be graded.