



# UNIX Project

ft\_strace

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*Summary: This project aims to recode the strace command.*

*Version: 3*

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# 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).

- You are only allowed to use the following options :
  - PTRACE\_SYSCALL
  - PTRACE\_GETREGSET
  - PTRACE\_SETOPTIONS
  - PTRACE\_GETSIGINFO
  - PTRACE\_SEIZE
  - PTRACE\_INTERRUPT
  - PTRACE\_LISTEN
- You must handle 64 AND 32 bit binaries



Be very careful with signal management ... Really ...



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

# Chapter III

## Submission and peer-evaluation

Turn in your assignment in your `Git` repository as usual. Only the work inside your repository will be evaluated during the defense. Don't hesitate to double check the names of your folders and files to ensure they are correct.