

# OS 作業系統

資工碩一

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呂聖文

環境:Ubuntu 18.4

語言:C++

## 2.5(Copy File):

程式碼:HW1-1-CopyFile

執行檔:HW1-1.out

strace 檔:HW1-1.strace

被複製檔:hello.txt

執行結果:

```
bigdata@master:~/Desktop/OSPlace$ strace -o ./HW1-1.strace ./HW1-1.out
please input source file name:
hello.txt
please input target file name:
output.txt
```

strace:

```
bigdata@master:~/Desktop/OSPlace$ cat ./HW1-1.strace
execve("./HW1-1.out", ["/HW1-1.out"], [/* 68 vars */]) = 0
brk(NULL)                               = 0x1fae000
access("/etc/ld.so.nohwcap", F_OK)      = -1 ENOENT (No such file or directory)
access("/etc/ld.so.preload", R_OK)     = -1 ENOENT (No such file or directory)
open("/etc/ld.so.cache", O_RDONLY|O_CLOEXEC) = 3
fstat(3, {st_mode=S_IFREG|0644, st_size=89874, ...}) = 0
mmap(NULL, 89874, PROT_READ, MAP_PRIVATE, 3, 0) = 0x7f7ed143e000
close(3)                                = 0
access("/etc/ld.so.nohwcap", F_OK)      = -1 ENOENT (No such file or directory)
open("/usr/lib/x86_64-linux-gnu/libstdc++.so.6", O_RDONLY|O_CLOEXEC) = 3
read(3, "\177ELF\2\1\1\3\0\0\0\0\0\0\0\3\0>\0\1\0\0\0 \235\10\0\0\0\0"... , 832) = 832
fstat(3, {st_mode=S_IFREG|0644, st_size=1566440, ...}) = 0
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0x7f7ed143d000
mmap(NULL, 3675136, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_DENYWRITE, 3, 0) = 0x7f7ed0ead000
mprotect(0x7f7ed101f000, 2097152, PROT_NONE) = 0
mmap(0x7f7ed121f000, 49152, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENY
```

### 3.19(ordinary pipes):

程式碼:HW1- pipes

執行檔:HW1-3.out

strace 檔:HW1-3.strace

執行結果:

```
bigdata@master:~/Desktop/OSPlace/HW1-3_19$ strace -o ./HW1-3.strace ./HW1-3.out
input: Hi TheRe I am HerE
output: hI tHERe i AM hERe
```

strace:

```
bigdata@master:~/Desktop/OSPlace/HW1-3_19$ cat ./HW1-3.strace
execve("./HW1-3.out", ["./HW1-3.out"], [/* 68 vars */]) = 0
brk(NULL) = 0x226a000
access("/etc/ld.so.nohwcap", F_OK) = -1 ENOENT (No such file or directory)
access("/etc/ld.so.preload", R_OK) = -1 ENOENT (No such file or directory)
open("/etc/ld.so.cache", O_RDONLY|O_CLOEXEC) = 3
fstat(3, {st_mode=S_IFREG|0644, st_size=89874, ...}) = 0
mmap(NULL, 89874, PROT_READ, MAP_PRIVATE, 3, 0) = 0x7f25987cd000
close(3) = 0
access("/etc/ld.so.nohwcap", F_OK) = -1 ENOENT (No such file or directory)
open("/usr/lib/x86_64-linux-gnu/libstdc++.so.6", O_RDONLY|O_CLOEXEC) = 3
read(3, "\177ELF\2\1\1\3\0\0\0\0\0\0\0\3\0>\0\1\0\0\0 \235\10\0\0\0\0"... , 832) = 832
fstat(3, {st_mode=S_IFREG|0644, st_size=1566440, ...}) = 0
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0x7f25987cc000
mmap(NULL, 3675136, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_DENYWRITE, 3, 0) = 0x7f259823c000
mprotect(0x7f25983ae000, 2097152, PROT_NONE) = 0
```