## 2.24

- file name : filecopy\_ordinary.c
- output:

```
問題 輸出 信義主控台 終端樓 連接場 SQLCONSOLE SEARCHERROR 註解

[madfater@Madfater:~/o/hw1]-[01:07:39]-[G:main=]
->$ gcc __ffilecopy_ordinary.c _o filecopy
[madfater@Madfater:~/o/hw1]-[01:07:53]-[G:main=]
->$ ls

WrittenExercises/ collatz.c filecopy* filecopy_ordinary.c filecopy_pipeline.c test.txt time.c time_pipe.c time_shm.c
[madfater@Madfater:~/o/hw1]-[01:08:39]-[G:main=]
->$ cat test.txt
123412344

[madfater@Madfater:~/o/hw1]-[01:09:08]-[G:main=]
->$ __$ ls

WrittenExercises/ collatz.c filecopy* filecopy_ordinary.c filecopy_pipeline.c output.txt

[madfater@Madfater:~/o/hw1]-[01:09:25]-[G:main=]
->$ __$ ls

WrittenExercises/ collatz.c filecopy* filecopy_ordinary.c filecopy_pipeline.c output.txt test.txt time.c time_pipe.c time_shm.c

[madfater@Madfater:~/o/hw1]-[01:09:27]-[G:main=]
->$ cat output.txt
123412344
```

trace:

```
問題 輸出
            值錯主控台 終端機
                              連接提
                                      SQL CONSOLE SEARCH ERROR 註解
[madfater@Madfater:~/o/hw1]-[01:12:08]-[G:main=]
  $ strace ./filecopy
execve("./filecopy", ["./filecopy"], 0x7ffd59fd89d0 /* 32 vars */) = 0
brk(NULL)
                                      = 0x55a74073e000
arch_prctl(0x3001 /* ARCH_??? */, 0x7fff83952e10) = -1 EINVAL (Invalid argument)
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0x7f71b34dc000 access("/etc/ld.so.preload", R_OK) = -1 ENOENT (No such file or directory)
access("/etc/ld.so.preload", R_OK) = -1 ENOENT (No such file or directory) openat(AT_FDCWD, "/etc/ld.so.cache", O_RDONLY|O_CLOEXEC) = 3 newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=24007, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 24007, PROT_READ, MAP_PRIVATE, 3, 0) = 0x7f71b34d6000
mmap(NULL, 2264656, PROT_READ, MAP_PRIVATE MAP_DENYWRITE, 3, 0) = 0x7f71b32ad000
mprotect(0x7f71b32d5000, 2023424, PROT_NONE) = 0
mmap(0x7f71b32d5000, 1658880, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x28000) = 0x7f71b32d5000
mmap(0x7f71b346a000, 360448, PROT_READ, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x1bd000) = 0x7f71b346a000
mmap(0x7f71b34c3000, 24576, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x215000) = 0x7f71b34c3000
mmap(0x7f71b34c9000, 52816, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS, -1, 0) = 0x7f71b34c9000
mmap(NULL, 12288, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0x7f71b32aa000
arch prctl(ARCH SET FS, 0x7f71b32aa740) = 0
set_tid_address(0x7f71b32aaa10)
                                     = 63760
set_robust_list(0x7f71b32aaa20, 24)
                                      = 0
rseq(0x7f71b32ab0e0, 0x20, 0, 0x53053053) = 0
mprotect(0x7f71b34c3000, 16384, PROT_READ) = 0
mprotect(0x55a74031c000, 4096, PROT_READ) = 0
mprotect(0x7f71b3516000, 8192, PROT_READ) = 0
prlimit64(0, RLIMIT_STACK, NULL, {rlim_cur=8192*1024, rlim_max=RLIM64_INFINITY}) = 0
munmap(0x7f71b34d6000, 24007)
write(2, "Usage: ./filecopy <source-file> "..., 51Usage: ./filecopy <source-file> <destination-file>
exit_group(1)
+++ exited with 1 +++
```

## 3.19

file name : time\_pipe.c, time\_shm.c

• output:

## 3.21

- file name : collatz.c
- output:

## 3.27

- file name : filecopy.c
- output:

```
問題 輸出 循揮主控台 祭城機 連接地 SQLCONSOLE SEARCHERROR 註解

- [madfater@Madfater:~/o/hw1]-[01:20:24]-[G:main=]
->> gcc _/filecopy_pipeline.c -o time
- [madfater@Madfater:~/o/hw1]-[01:20:41]-[G:main=]
->> ls

WrittenExercises/ collatz* collatz.c filecopy* filecopy_ordinary.c filecopy_pipeline.c output.txt test.txt time* time_pipe.c time_shm.c
- [madfater@Madfater:~/o/hw1]-[01:21:88]-[G:main=]
->> cat test.txt
4124123123-
- [madfater@Madfater:~/o/hw1]-[01:21:13]-[G:main=]
->> ./filecopy_test.txt output.txt
- [madfater@Madfater:~/o/hw1]-[01:21:29]-[G:main=]
->> cat output.txt
4124123123-
- [madfater@Madfater:~/o/hw1]-[01:21:29]-[G:main=]
->> cat output.txt
4124123123-
```