

系統程式 HW13

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1. 請參考pipe4-3的寫法，設計應用程式『fileCount/YYY』讓你的應用程式可以自動執行『ls-R/YYY | wc-l』計算/YYY目錄下大約有多少字元
-

```
❏ ❏ ~/De/homework/SystemProgramming/hw13 > ./fileCount /home
parent's group id is 9924
1st child's pid = 9925
1st child's group id is 9924
1st child's new group id is 9925
2nd child's pid = 9926
2nd child's group id is 9924
2nd child's new group id is 9925
ls: cannot open directory '/home/lost+found': Permission denied
41056
child 9925
child 9926
❏ ❏ ~/De/homework/SystemProgramming/hw13 > ls -R | wc -l
5
```

2. 請確保你的主程式『fileCount』收到ctr+c以後，可已讓『ls-R/YYY | wc-l』立即中止
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```

~/De/h/SystemProgramming/hw13 > ./fileCount /
parent's group id is 10279
1st child's pid = 10280
1st child's group id is 10279
2nd child's pid = 10281
1st child's new group id is 10280
2nd child's group id is 10279
2nd child's new group id is 10280
ls: cannot open directory '/etc/audit/plugins.d': Permission denied
ls: cannot open directory '/etc/credstore': Permission denied
ls: cannot open directory '/etc/credstore.encrypted': Permission denied
ls: cannot open directory '/etc/NetworkManager/system-connections': Permission denied
ls: cannot open directory '/etc/pacman.d/gnupg/crls.d': Permission denied
ls: cannot open directory '/etc/pacman.d/gnupg/openpgp-revocs.d': Permission denied
ls: cannot open directory '/etc/pacman.d/gnupg/private-keys-v1.d': Permission denied
ls: cannot open directory '/etc/polkit-1/rules.d': Permission denied
ls: cannot open directory '/etc/sudoers.d': Permission denied
ls: cannot open directory '/home/lost+found': Permission denied
ls: cannot open directory '/lost+found': Permission denied
^C142568

```

3. 你是否可以在不修改SIGINT的signal handler的情況下完成第二小題呢？

```

// setpgid(0, 0); //將第一個child設定為新的group

61 // setpgid(0, pid1); //第二個child加入第一個child的group

72 // parent註冊signal handler
73 // signal(SIGINT, signal_ctr_c);

ls: cannot open directory '/proc/20/task/20/td': Permission denied
ls: cannot open directory '/proc/20/task/20/fdinfo': Permission denied
ls: cannot open directory '/proc/20/task/20/ns': Permission denied
^C
~/De/h/SystemProgramming/hw13 >

```

4. 撰寫報告，說明你完成了哪些部分（例如：1及2）。如果能立即中止所有相關的應用程式（例如你能做到2或者2, 3），請說明方法

1, 2, 3 完成

註解掉 setpgid 使 children 和 parent 在同一個 group，按下 ctrl+c 都會倍中止