

系統程式設計

Lab5 Stdio Compare

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1. Where is the counter you add?

(請註明在程式碼的第幾行，最好加上截圖)

我加在 while 裡的第一行(第 10 行)，如下圖：

```
#include "apue.h"

int main(void)
{
    int c;
    int counter=0;
    while( (c = getc(stdin)) != EOF )
    {
        counter++;
        if(putc(c,stdout) == EOF)
            err_sys("output error");
    }

    if(ferror(stdin))
        err_sys("input error");
    printf("%d\n",counter);
    exit(0);
}
```

2. Screen shot for Table1

(提供每個執行後的截圖，並說明每張截圖是屬於哪種 function)

fig5_4

```
u06315017@linux[2:08pm]~/lab5> time ./a.out < 100mb_file
104857600
2.560u 0.344s 0:02.90 100.0%    0+0k 0+0io 0pf+0w
```

fig5_5

```
u06315017@linux[2:12pm]~/lab5> time ./a.out < 100mb_file
25607
0.012u 0.024s 0:00.03 100.0%    0+0k 0+0io 0pf+0w
```

3. Screen shot for Table2

(提供每個執行後的截圖，並說明每張截圖是屬於哪種 mode)

fully buffered

```
u06315017@linux[2:30pm]~/lab5> time ./a.out < 100mb_file
0.068u 0.260s 0:00.33 96.9%    0+0k 0+0io 0pf+0w
```

line buffered

```
u06315017@linux[2:30pm]~/lab5> time ./a.out < 100mb_file
0.068u 0.260s 0:00.33 96.9%    0+0k 0+0io 0pf+0w
```

unbuffered

```
u06315017@linux[2:36pm]~/lab5> time ./a.out < 100mb_file
4.980u 21.536s 0:26.53 99.9%    0+0k 0+0io 0pf+0w
```