**系統程式設計**

**Lab4 File Attributes**

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1. **How do you modify fig4\_22.c?**
2. **Chang mode of file which access deny :**

char path1[256] , path2[256];

sprintf(path1, "%s/Test1", argv[1]);

sprintf(path2, "%s/Test2", argv[1]);

if (chmod(path1, S\_IRWXU | S\_IRWXG | S\_IRWXO) < 0)

err\_quit("can't chmod");

if (chmod(path2, S\_IRWXU | S\_IRWXG | S\_IRWXO) < 0)

err\_quit("can't chmod");

1. **Count the size :**

Case FTW\_F、FTW\_D :

add total\_size += statptr->st\_size; to count size

1. **Count the valid and invalid :**

void check\_valid(const char \*pathname) {

char buf[1024];

int res = readlink(pathname, buf, sizeof(buf));

if(res == -1) invalid++;

else {

buf[res] = '\0';

if(access(buf, F\_OK) == 0) valid++;

else invalid++;

}

}

1. **Print the size, valid, invalid**

printf("valid = %d\n", valid);

printf("invalid = %d\n", invalid);

printf("Total size = %ld\n", (long)total\_size);

1. **The count of the various types of files?**

regular files = 53, 80.30 %

directories = 5, 7.58 %

block special = 0, 0.00 %

char special = 0, 0.00 %

FIFOs = 5, 7.58 %

symbolic links = 3, 4.55 %

sockets = 0, 0.00 %

1. **The count of total files size?**

Total size = 20570

1. **(Bonus) The count of valid and invalid link?**

valid = 2

invalid = 1