OREO OS

User Manual | Version 1.0

Course Information

- *28th April 2020*
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- *CS 450 - Operating Systems Structure*

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Introduction

Oreo OS is a software project that is responsible for Memory Protection Extension (MPX) featuring. The team handled designing a user interface to let the user communicate with the system via using virtual serial port and to let the user accomplish some basic tasks. In this module, Oreo OS will have a standalone interface that is responsible for the operation of file system.

Command Handler

The OREO OS starts the system by having a command handler that would make the user to type in the command they would like to run, and they can use help function in order to get some description on how to run as which shortcut to use and description of the function.

```
Welcome to Module 6 Interface
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Please type a command:
>>help
```

HELP

```
Welcome to Module 6 Interface
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Please type a command:
>>help

 HELP:
 type 'cd' to change directory.
 type 'help' to view help.
 type 'mv' to rename a file
 type 'pbs' to print boot sector
 type 'ls' to list directory
 type 'prd' to print root directory
 type 'type' for type command
>>
```

Print Boot Sector

Print Boot Sector can be launched by typing pbs in the command handler, its purpose is to validate whether the software is correctly accessing the boot sector information.

```
>>pbs
Bytes per sector: 512
Sectores per Cluster: 1
number of reserved sectors : 1
number of FAT copies : 2
maximum number of root directory entries : 224
total # of secotrs in file system : 2880
number of sectors per FAT : 9
sectors per track : 18
number of heads : 2
total sector count for FAT32 : 0
boot signature : 41
volume ID: 236391907
volume label : CS450_2
File system type: FAT12
>>
```

Print Root Directory

Print Root Directory can be launched by typing prd in the command handler, its purpose is to list all of the files and directories contained within the root directory.

```
>>prd
Name:  CS450_2
Extension:  .
First Logical Cluster: 0
File size: 0

Name:  1984       TXT
Extension:  .TXT
First Logical Cluster: 258
File size: 598367

Name:  WVU        JPG
Extension:  .JPG
First Logical Cluster: 1282
File size: 244721

Name:  SUBDIR
Extension:  .
First Logical Cluster: 1905
File size: 0

>>
```

Change Directory

Change Directory can be launched by typing cd in the command handler, its purpose is to change the current directory. The current directory will be the root directory.

```
Welcome to Module 6 Interface
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Please type a command:
>>cd SUBDIR
SUBDIR      4
Directory changed.
>>
```

List Directory

List Directory can be launched by typing ls in the command handler, its purpose is to print the entire contents of the current directory.

```
>>ls
Do you want to specify a file name or type? (y or n)
n

Printing current directory
Name:  CS450_2
Extension:  .
First Logical Cluster:  0
File size:  0

Name:  1984     TXT
Extension:  .TXT
First Logical Cluster:  258
File size:  598367

Name:  WVU      JPG
Extension:  .JPG
First Logical Cluster:  1282
File size:  244721

Name:  SUBDIR
Extension:  .
First Logical Cluster:  1905
File size:  0
```

Type

Type can be launched by typing type in the command handler, its purpose is to print the contents of the file with their extensions.

```
>>type
r:        George Orwell (pseudonym of Eric Blair) (1903-1950)


PART ONE


Chapter 1


It was a bright cold day in April, and the clocks were striking thirteen.
Winston Smith, his chin nuzzled into his breast in an effort to escape the
vile wind, slipped quickly through the glass doors of Victory Mansions,
though not quickly enough to prevent a swirl of gritty dust from entering
along with him.

The hallway smelt of boiled cabbage and old rag mats. At one end of it a
coloured poster, too large for indoor display, had been tacked to the wall.
It depicted simply an enormous face, more than a metre wide: the face of a
man of about forty-five, with a heavy black moustache and ruggedly handsome
features. Winston made for the stairs. It was no use trying the lift. Even
at the best of times it was seldom working, and at present the electric
current was cut off during daylight hours. It was part of the economy drive
in preparation for Hate Week. The flat was seven flights up, and Winston,
```

Rename

Rename can be launched by typing mv in the command handler, its purpose is to rename a file or a directory. User input will include the new and the old filename.

```
Welcome to Module 6 Interface
------------------------------------------------------
Please type a command:
>>mv
What is the name of the file you want to change?1984
What is the new name you'd like to change it to?cs
>>
```