

References

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Appendix A

User Interface

The following figure illustrates all user interface screens generated from the program.

1. Main Menu
2. Directory Operation Menu
3. File Operation Menu
4. Create New Directory
5. Delete/Remove Directory
6. Search/Find Directory
7. Change Permission of Directory
8. Latest Access Time of Directory
9. Copy File
10. Delete/Remove File
11. Rename File
12. Search/Find File
13. View File
14. Create/Edit Text File(s)
15. Change Permission of File
16. Compress/Uncompress Menu
17. compress, gzip, uncompress, gunzip, unzip screen
18. zip screen
19. Disk Monitor

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Main Menu Screen

MAIN MENU

- 1 - Directory Operation
- 2 - File Operation
- 3 - Disk Monitor
- 4 - Shell Escape
- 5 - Quit

[[SELECT MENU NUMBER OR USE ARROW KEY]]

Press ENTER to continue

Main Menu Instructions

- If user chooses "1", the next menu will display "Directory Operation Menu".
- If user chooses "2", the next menu will display "File Operation Menu".
- If user chooses "3", the next menu will show "Disk Monitor" screen.
- If user chooses "4", the next menu will temporary exit from program to shell prompt.

The Shell Escape screen will show the "Use 'exit' to leave shell mode & Back to Menu" message to tell users that if they would like to go back to the "File Utilities Program" menu, they should type exit.

- If user chooses "5", the user will exit from program.

Directory Operation Screen

<< Directory Operation >>

- 1 - Create
- 2 - Delete/Remove
- 3 - Rename
- 4 - Search/Find
- 5 - Change Permission
- 6 - Latest Access Time

[Q]uit from Program Esc - Back to MAIN MENU

[[SELECT MENU NUMBER OR USE ARROW KEY]]

Press ENTER to continue

Users have to enter a menu number or select the desired menu. After that, the program will process the operation related to the selected choice. Moreover, the user can press "q" or "Q" to quit from program or press "Esc" to back to MAIN MENU.

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File Operation Screen

<< File Operation >>

- 1 - Copy
- 2 - Delete/Remove
- 3 - Rename
- 4 - Search/Find
- 5 - View
- 6 - Create/Edit Text File(s)
- 7 - Change Permission
- 8 - Compress/Uncompress

[Q]uit from Program Esc - Back to MAIN MENU

[[SELECT MENU NUMBER OR USE ARROW KEY]]

Press ENTER to continue

Like the Directory Operation screen, users have to enter menu number or select the desired menu. After that, the program will process the operation related to the selected choice. Moreover, the user can press "q" or "Q" to quit from program or press "Esc" to back to MAIN MENU.

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Create New Directory Screen

<< Create New Directory >>

Current Directory :

Directory Name :

!! Warning/Error/Instruction Message !!

Enter Directory Name

Press ENTER to continue

Creating Directory Instructions

This screen is an Operation Screen for creating a new directory. The user should enter the working directory which is a parent directory for new directory. If no directory is typed, the program will use the current working directory as the default directory. Next, the program will prompt for the new directory name. If no directory is typed, it will show a warning message ("No Directory Specific --Can't process") on the screen.

If everything is completed successfully, the screen will ask to confirm the process by showing the following message:

"Will create 'show absolute pathname' --Continue? [Y/n]"

- Press "y" or "Y" or ENTER to continue.
- Press "n" or "N" to cancel this operation and go back to previous page.

If users confirm the process, all values entered into the screen will be used to invoke the selected process. After the process finishes successfully, the program will show success message "Success!!!". If it fails, the program will show the failure message :

"Failure!! --Pattern does not match or Directory Exists or Permission denied".
Then, the user can press any key to go back to the calling program.

The rest of the user interface demonstrated in this appendix have the same operation as the "create directory screen" instruction.

Delete/Remove Directory Screen

<< Delete/Remove Directory >>

Current Directory :

Delete Directory :

!! Warning/Error/Instruction Message !!

Enter Directory Name

Press ENTER to continue

The use of this screen is similar to the create directory screen as mentioned above. However, its purpose is to delete or remove the specific directory, if the process fails, the screen will show the failure message :
"Failure!! --Directory doesn't Exist or Permission denied"

Rename Directory Screen

<< Rename Directory >>

Current Directory :

From :

To :

!! Warning/Error/Instruction Message !!

Enter Directory Name

Press ENTER to continue

This screen waits for three input values, users have to enter the working directory (current working directory by default), the old name and finally the new directory name. The purpose of this screen is to rename the old directory to the new one which users enter on screen.

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Search/Find Directory Screen

<< Search/Find Directory >>

Start From :

Search For :

!! Warning/Error/Instruction Message !!

Enter Directory Name

Press ENTER to continue

This operation will find or search the target directory. When the process is working, the screen will show "Please Wait" message. After the process finishes, users can view the output following this message :
"Press RETURN to continue/Press 'q' --Quit"

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Change Permission of Directory

<< Change Permission of Directory >>

Current Directory :

Current Mode :

Mode ---->	Read	Write	Execute
Owner	[]
Group	[]
Other	[]

Enter Directory Name

Press ENTER to continue

Change the Permission of Directory Instruction

The operation of this screen is to change the permission mode of the specified directory. After users enter the specified directory, the program will retrieve the current mode of that directory and display it on screen. Next, users can change the permission ; r-read, w-write, x-execute; for owner, group and other user.

Users can follow the instruction on the screen --suggestion message : "Use ARROW KEY and PRESS ENTER to toggle ADD/DELETE mode --[G]o to process" to change the permission mode which they wish. When everything is ready, users should press "g" or "G" to pass all value for change mode process and message "Please wait!!" will show on the screen. After it finished, the program will show message "Success", otherwise "Failure -Try again".

On the other hand, if users change their mind, they can cancel this process by pressing "c" or "C" to cancel it. The cancel message : "[C]ancel" shows on the bottom of the screen.

Latest Access Time Screen

<< Latest Access Time >>

Current Directory :

!! Warning/Error/Instruction Message !!

Enter Directory Name

Press ENTER to continue

The operation will display the latest date and time of specified directory, which can be seen like this :

"Latest Access Time : { Date : Time }

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Copy File Screen

<< Copy File >>

Current Directory :

From :

To :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

This screen will copy the specified file on the screen. If no file is specific, the program will show message "No File Specific --Can't Process" on the screen. The rest process and the message shown on screen is the same procedure as mentioned above.

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Delete/Remove File Screen

<< Delete/Remove File(s) >>

Current Directory :

Delete :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

This screen is for inputting the specified file which will be deleted from the specified working directory (current directory by default).

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Rename File Screen

<< Rename File >>

Current Directory :

From :

To :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

The operation of this screen is to rename the specified old file to the new one.

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Search/Find File Screen

<< Search/Find File >>

Start From :

Search For :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

This operation does the same as "Find/Search Directory", but this program search the specified file name.

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View Text file Screen

<< View Text File >>

Current Directory :

File Name :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

This screen is wait for the file name which users would like to view its content. If file doesn't exist, the program will automatically return to previous page "File Operation Menu".

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Create and Edit Text File Screen

<< Create/Edit Text File >>

Current Directory :

File Name :

Editor [1. PICO (default) 2. vi] :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

After users enter the file name, they should specify the familiar editor by pressing the number "1" or "2". Then, the screen display "PICO" or "vi" text. If no editor is specified, the program will display text --"PICO" and invoke "PICO" editor by default. If the specified file doesn't exist, the program automatically creates new file for user.

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Change Permission of File Screen

<< Change Permission of File >>

Current Directory :

File :

Current Mode :

Mode ----> Read Write Execute

owner []

group []

other []

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

All operation in this screen the same as "Change Permission of Directory Screen", but it interacts with file.

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Compress & Uncompress Menu Screen

<< Compress/Uncompress File >>

1 - Compress

2 - Uncompress

[Q]uit from Program Esc - Back to Previous Page

[[SELECT MENU NUMBER OR USE ARROW KEY]]

Press ENTER to continue

This is the compress and uncompress file(s) menu which can operate as same as the others menu screen.

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Compress File Menu

<< Compress File(s) >>

1 - compress

2 - gzip

3 - zip (PCware)

[Q]uit from Program Esc - Back to Previous Page

[[SELECT MENU NUMBER OR USE ARROW KEY]]

Press ENTER to continue

This screen show the compress utilities choice. User can select the familiar utilities by select a menu number or user ARROW KEY like the others menu.

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Uncompress File Menu

<< Uncompress File(s) >>

1 - uncompress

2 - gunzip

3 - unzip (PCware)

[Q]uit from Program Esc - Back to Previous Page

[[SELECT MENU NUMBER OR USE ARROW KEY]]

Press ENTER to continue

This screen show the uncompress utilities choice. User can select the familiar utilities by select a menu number or user ARROW KEY like the others menu.

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Compress Screen

<< compress >>

Current Directory :

From :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

This screen is a representative of the "gzip", "uncompress", "gunzip" and "unzip" operation screen. It waits for specified file which will be compressed or packed by using the given utilities. After process finished, it will back to the previous screen. Whether the process is error/failure or success, the program will display message and output from shell program.

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Zip Screen

<< zip >>

Current Directory :

From :

To :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

This screen is for "zip" operation, which works the same operation as "compress" screen. On the contrary, it waits for three argument before invoke "zip" command.

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Disk Monitor Screen

<< Disk Monitor >>

Current Directory :

!! Warning/Error/Instruction Message !!

Enter File Name

Press ENTER to continue

The operation of this screen is for monitor the summary of disk space used by the specific directory. After process investigated, it will show the output on screen.

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Appendix B

Program Description

According to the development of this program, there are many functions implemented for it. All functions developed were linked together to construct the executed program. The following lists will describe the functions created in this thesis from main program to the others called function respectively.

Function Name	Description
main()	Main function.
main_menu()	Display MAIN MENU.
win_dir_menu()	Display Directory Operation Menu.
win_fle_menu()	Display File Operation Menu.
win_disk_monitor()	Disk Monitor screen.
shell_du_menu()	Invoke 'du' process.
shell_escape()	Exit to shell.
win_mkdir_dmenu()	Make/Create directory screen.
shell_mkdir_dmenu()	Invoke 'mkdir' process.
win_rmdir_dmenu()	Remove or Delete directory screen.
shell_rmdir_dmenu()	Invoke 'rmdir' process.
win_renme_dmenu()	Rename the Directory screen.
shell_mv_dmenu()	Invoke 'mv' process.
win_find_dmenu()	Find or Search the directory screen.
shell_find_dmenu()	Invoke 'find' process.
win_chmod_dmenu()	Change directory permissions.
dir_mode()	Get current permissions mode of the specified directory.
shell_chmod_dmenu()	Invoke 'chmod' process.
win_time_dmenu()	Latest access time screen.
shell_time_dmenu()	Get the latest access date and time of directory.
win_cp_fmenu()	Copy the file screen.
shell_cp_fmenu()	Invoke 'cp' process.
win_rm_fmenu()	Remove or Delete the file screen.
shell_rm_fmenu()	Invoke 'rm' process.

Function Name	Description
win_renme_fmenu()	Rename the file name.
shell_renme_fmenu()	Invoke 'mv' process.
win_find_fmenu()	Find or Search the target file screen.
shell_find_fmenu()	Invoke 'find' process.
win_view_fmenu()	View the content of text file screen.
shell_view_fmenu()	Invoke 'less' process.
win_credt_fmenu()	Create or Edit the text file screen.
shell_pico_fmenu()	Invoke 'PICO' process.
shell_vi_fmenu()	Invoke 'vi' process.
win_chmod_fmenu()	Change File Permissions screen.
file_mode()	Get current permission mode of file.
shell_chmod_fmenu()	Invoke 'chmod' process
win_cmunprss_fmenu()	Display Compress/Uncompress menu.
win_cmprss_fmenu()	Display Compress menu.
shell_compress_fmenu()	Invoke 'compress' process.
shell_gzip_fmenu()	Invoke 'gzip' process.
shell_zip_fmenu()	Invoke 'zip' process.
win_uncmprss_fmenu()	Display Uncompress menu.
shell_uncompress_fmenu()	Invoke 'uncompress' process.
shell_gunzip_fmenu()	Invoke 'gunzip' process.
shell_unzip_fmenu()	Invoke 'unzip' process.

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Miscellaneous functions

Function Name	Description
initialize()	Initialize all variable in this program.
display_menu()	Display Menu choice on calling screen.
show_win_title()	Display screen tittle on calling screen.
show_win_status()	Display instruction message on screen.
highlight()	Apply standout on the selected choice.
display_scr()	Display operation screen.
ls_fle()	List file and directory in the current working directory
show_middle_message()	Display warning/error/success message.
get_dir()	Get current working directory.
get_anykey()	Get any key to continue.
get_enter()	Get ENTER to continue.

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BIOGRAPHY

Miss Priyakorn Pusawiro was born on November 5, 1970 in Bangkok. She earned her Bachelor of Science degree in Statistics with a concentration on Electronic Data Processing from the department of Statistics, faculty of Commerce and Accountancy of Chulalongkorn University in 1991. After that, in 1992, she continued her study towards a Master of Science degree with concentration on Computer Science at department of Computer Engineering, faculty of Engineering, Chulalongkorn University. She began her career as a lecturer at Bangkok Business College in 1993 and Huachiew Chalermprakiet University in 1995. In 1994, she was a system analyst at Plan Estate Co.,Ltd.



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