F.R.I.D.A.Y || MPX Project User Manual

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Welcome to MPX. Please select an option
=> help
=> get-time-date
=> set-time HH:mm:SS
=> set-date MM/DD/YY
=> set-timezone
=> version
=> shutdown
=> color
=> clear
>>
```

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1 PREFACE

1.1 Description of Project

Welcome to our CS 450 Group MPX project nicknamed F.R.I.D.A.Y. In this user manual you can find helpful information about each command that has been implemented as well as a look into the mind of the designers to learn more about how each command has been implemented.

1.2 Project Details

In this project, the students must follow the Modules R1 through R6 and implement the functions given in each specific module. Upon completion of each module, the students will continue to work toward a final project that can serve as a demonstration of their working knowledge of OS concepts.

1.3 Overview of Project

In the early phases of this project the students are working toward creating an Interface and implementing a series of commands that can be used in the command line and executed to provide output.

R2 : Updated Later

R3 : Updated Later

R4 : Updated Later

R5 : Updated Later

R6 : Updated Later

2 IMPLEMENTED COMMANDS

2.1 Command Handler

```
Welcome to MPX. Please select an option
=> Help
=> Set-Time
=> Set-Timezone
=> Set-Date
=> Get-Time
=> version
=> shutdown
>>
```

The command handler serves as the primary way users will interact with the operating system. The goal of the command handler is for the user to have a menu of options that they can choose to execute within the operating system. The command handler is set up so the user can set the time, set the date, print the date and time, get the version history, and shutdown the MPX program.

2.2 Version Command

In the Version command, the user will be able to print the current version of MPX as well as the date in which they are executing the command. The version command waits for user input, verifies the user is selecting the version command, and prints the current module of the project as well as the current date and time of compilation.

```
>> version
Module: R1
Jan 23 2023
23:35:51
>>
```

2.3   Help Command

In the Help command, the user will be able to see basic instructions for each command as well as how to execute each of these commands. The help command waits for user input, verifies the user is selecting the help command, and will print out a list of helpful instructions that the user can use in the event of a misunderstanding.

```
>> help
If You want to set the Time for the OS, enter 'help Set-Time'
If You want to set the Time for the OS, enter 'help set-Date'
if You want to get the Time for the OS, enter 'help Get-Time'
If you want to know what the help does, enter 'help help'
If you want to get the version history, enter 'help Version'
If you help to shutdown, enter 'help shutdown' down below
If you need help in a class, dont use Stack Overflow
Hope this helps!
```

2.4   Shutdown Command

In the shutdown command, the user will be able to exit the command handler and return to a baseline terminal. The user will be able to execute the shutdown command from anywhere within the command handler. If the user calls a different command first, they will still be able to execute the shutdown command and will exit the command handler loop from the current command they are executing. As a confirmation step, the user will have to confirm in the command that they in fact do want to shut down the project.

```
>> shutdown
Are you sure you want to shutdown? (y/N): y
klogv: Starting system shutdown procedure...
klogv: Shutdown complete.
```
Successful Shutdown

```
>> shutdown
Are you sure you want to shutdown? (y/N): N
>>
```
Shutdown Command Canceled

2.5   Set Date Command

In the set date command, the user will be able to change the date stored in the OS if it is different from the date that will be automatically generated. The user can call this command by typing set date into the command handler and using this format "Set Date MM/DD/YY" to successfully change the date stored in the OS. This command will check that the user enters the command properly, will save the date that was inputted, and will print a confirmation message upon successful entry.

```
>> Set-Date 09/26/23
Set the date to: 09/26/23
>> █
```

2.6   Set Time Command

In the set time command, the user will be able to change the time stored in the OS if it is different from the date that will be automatically generated. The user can call this command by typing set time into the command handler and using this format "Set Time ##:##:##" to successfully change the time stored in the OS. This command will check that the user enters the command properly, will save the time that was inputted, and will print a confirmation message upon successful entry.

```
>> Set-Time 12:30:23
Set the time to: 12:30:23
>> █
```

2.7   Set Timezone Command

In the set timezone command, the user will be able to choose from a list of time zones and can select their current time zone to be updated in the operating system. Once the user enters "Set Timezone" a list of common time zones will be displayed in the terminal. The user will then be able to enter the abbreviation of any listed time zone and that time zone will be used as the current time saved in the OS. Upon successful selection of a new time zone, the user will be prompted with a message confirming that their time zone has been changed and will reflect their newly selected time zone.

```
>> Set-Timezone
What time zone do you want to be in?
=> ET (Eastern Time - New York)
=> CT (Central Time - Chicago)
=> MT (Mountain Time - Denver)
=> PT (Pacific Time - Los Angeles)
=> AKT (Alaskan Time - Anchorage)
=> HAT (Hawaii-Aleutian Time - Honolulu)
=> UTC (Universal Time Code - London)
=> CET (Central European Time - Paris)
=> AT (Arabian Time - Moscow)
: ET
Set the timezone to 'Eastern Time'!
>>
```

2.8   Get Date/Time Command

In the get date/time command, the user will be able to see the current date, day of the week, and time of day the command is being executed at. The get date/time command will default to the timezone of ET and will display information based on this time zone unless otherwise specified in the set time/date/timezone commands listed above. In the event that the user executes a set command prior, the get time/date command will print the information based off of the input from the commands used prior.

```
>> Get-Time
Friday, 01/27/23 @ 13:37:42 UTC
```
Get Date/Time command with standard time

```
Set the timezone to 'Arabian Time'!
>> Get-Time
Friday, 01/27/23 @ 15:39:39 AT
```
Get Date/Time command after changing system time

2.9   Color Command

In the Color Command, the user will be able to change the color of their font, and will stay that way until it is eventually changed or they shutdown the system. There are various color options given to the user, including black, bright-black, red, bright-red, green, bright-green, yellow, bright-yellow, blue, bright-blue, magenta, bright-magenta, cyan, bright cyan, white, and bright-white. To restore the color back to the default color, the user needs to reprompt the color command, and then hit 'reset'.

```
=> black
=> bright-black
=> red
=> bright-red
=> green
=> bright-green
=> yellow
=> bright-yellow
=> blue
=> bright-blue
=> magenta
=> bright-magenta
=> cyan
=> bright-cyan
=> white
=> bright-white
=> reset
```

All of the Available Color Options Shown

```
Set the color to 'red'!
>> set-timezone
What time zone do you want to be in?
=> ET (Eastern Time - New York)
=> CT (Central Time - Chicago)
=> MT (Mountain Time - Denver)
=> PT (Pacific Time - Los Angeles)
=> AKT (Alaskan Time - Anchorage)
=> HAT (Hawaii-Aleutian Time - Honolulu)
=> UTC (Universal Time Code - London)
=> CET (Central European Time - Paris)
=> AT (Arabian Time - Moscow)
```

The Color Command Working in Action

2.9   Clear Command

The Clear Command Will clear the Terminal, and give the user a fresh screen. The Clear command can be shown in the command handler, and when entered, will clear whatever prompts the user has done recently.

```
Welcome to MPX. Please select an option
=> help
=> set-time HH:mm:SS
=> set-date MM/DD/YY
=> set-timezone
=> clear
=> color
=> get-time
=> version
=> shutdown
>>
```

Clear Being Shown in the Command Handler

```
>>
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```

What The Terminal looks like after the clear command is executed