User Manual

An informational guide to using MPX

help()
The help command calls a function that briefly informs the user of the other commands available and what they are for.

Example of when the ‘help’ command is run.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : help

'version' command prints the current version of MPX and the compilation date.
'getdate' command retrieves the date.
'setdate' command allows user to set the date.
'gettime' command retrieves the time.
'settime' command allows the user to set the time.
'shutdown' command exits to the main function and requires confirmation.
```

version()
Informs the user of what version of MPX is running.

Example of what happens when the ‘version’ command is run.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : version

The current version of MPX is: R1
```

getdate()
Allows the user to retrieve the date that is currently stored.

Example of when the ‘getdate’ command is run.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : getdate

08/09/23
```

setdate()
Allows the user to change the date stored.

Example of when the ‘setdate’ command is run. When the ‘getdate’ command is run after, the changes made in ‘setdate’ are saved.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : setdate

Enter date (DD/MM/YY): 04/03/23

Date set successfully
```

gettime()
Allows the user to retrieve the time that is currently stored.

Example of when the ‘gettime’ command is run.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : gettime

18:19:46
```

settime()
Allows the user to change the time stored.

Example of when the ‘settime’ command is run. When the ‘gettime’ command is run after, the changes made in ‘settime’ are saved.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : settime

Enter time (HH:MM): 21:56

Time set successfully
```

shutdown()
Once the user inserts the command and confirms it, the program does not allow the user to insert commands.

Example of when the ‘shutdown’ command is run, along with the confirmation of ‘yes’ is typed.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : shutdown

Would you like to shutdown? (yes/no): yes

Shutting down...
klogv: Starting system shutdown procedure...
klogv: Halting CPU...
```

Example of when the ‘shutdown’ command is run, along with the confirmation of ‘no’ is typed.

```
Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here : shutdown

Would you like to shutdown? (yes/no): no

Shutdown canceled or invalid input.


Hello! Please type one of the following from the menu.
Type 'help'
Type 'version'
Type 'getdate'
Type 'setdate'
Type 'gettime'
Type 'settime'
Type 'shutdown'
Please enter a command here :
```

create_pcb()
Creates a new process and places it in the appropriate queue.

delete_pcb()

Finds the requested process and removes it from the queue.

block_pcb()
Puts the requested process into a blocked state and moves it to a blocked queue.

unblock _pcb()
Removes the requested process from the blocked queue and places it into the ready queue.

suspend_pcb()
Suspends the requested process by placing it into the suspended queue and updating a state number to match the placement.

resume_pcb()
Removes the requested process from the suspended queue and adds it to the ready queue.

set_pcb_priority()
Allows the user to set the priority level for a specified process, the range is from 0 to 9.

show_pcb()
Displays the requested process's name, class, state, suspended status and priority.

show_ready()
Displays the following information of all the processes in the ready state: name, class, state, suspended status and priority.

show_blocked()
Displays the following information of all the processes in the blocked state: name, class, state, suspended status and priority.

show_all()
Displays the following information about all of the created processes, no matter their state: name, class, state, suspended status and priority.

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