

User Manual

Note: Each command has to begin with a ‘\’ with no spaces between the command and end with the terminating symbol ‘;’, between the command name and the parameter there has to be one space, followed by an ‘=’ followed by another space before the parameter “ = “.

Ex.

```
/settime = 12/34/26;  
command => settime  
parameter =>12/34/26
```

Command: help

Query: /help = *parameter*;

Parameters: version, setdate, settime, getdate, gettime, shutdown

Description: When help is called paired with a valid parameter, it displays information regarding the each command.

Command: settime

Query: /settime = MM/DD/YYYY;

Parameters: MM/DD/YYYY

Description: The command sets the date into the clocked registers, that gets updated based on the time.

Errors: -If the given time is not a valid time.

Command: gettime

Query: /gettime;

Parameters: N/A

Description: Prints a statement showing the current time.

Command: setdate

Query: /setdate = HH/MM/SS;

Parameters: HH/MM/SS

Description: The command sets the time into the clocked registers, that gets updated based on the time.

Errors: -If the given date is not a valid date.

-If the year is not between 2019 and 2022 inclusive.

Command: shutdown

Query: /shutdown;

Parameters: N/A

Description: Prints a statement confirming that you want to shutdown. “/shutdown y;” will confirm the shutdown, “/shutdown n;” will not confirm the shutdown.

Command: getdate

Query: /getdate;

Parameters: N/A

Description: Prints a statement showing the current date.

Command: version

Query: /version;

Parameters: N/A

Description: Prints a statement showing the current version of the MPX.

Command: setpriority

Query: /setpriority = *parameter*;

Parameters: pcbName

Description: Updates the PCB's priority to the user's input value.

Errors: -If the given PCB does not exist.

-If the given PCB can only be altered by an admin.

-If the given priority value is not between 0 and 9 inclusive.

Command: resume

Query: /resume = *parameter*;

Parameters: pcbName

Description: Updates the PCB's suspended state to the resumed.

Errors: -If the given PCB does not exist.

-If the given PCB can only be altered by an admin.

Command: suspend

Query: /suspend = *parameter*;

Parameters: pcbName

Description: Updates the PCB's suspended state to the suspended.

Errors: -If the given PCB does not exist.

-If the given PCB can only be altered by an admin.

Command: showready

Query: /showready;

Parameters: N/A

Description: Prints out the ready queue's contents in order of the queue.

Command: showblocked

Query: /showblocked;

Parameters: N/A

Description: Prints out the blocked queue's contents in order of the queue.

Command: showall

Query: /showall;

Parameters: N/A

Description: Prints out the blocked queue's contents and the ready queue's contents.

Command: showpcb

Query: /showpcb = *parameter*;

Parameters: pcbName

Description: Prints out the information for a given PCB.

Errors: -If the given PCB does not exist.

Command: alarm

Query: /alarm = *parameter*;

Parameters: HH/MM/SS/alarmMessage

Description: Creates an alarm and inserts it into the alarm queue. The alarm message must be greater than 2 characters and less than 50.

Errors: -If the given alarm time is not a valid time.

-If the alarm message is too large.

-If the alarm message is less than or equal to 1 character.

Command: showallalarms

Query: /showallalarms;

Parameters: N/A

Description: Prints out a list of alarm messages from alarms currently in the alarm queue.

Command: infinite

Query: /infinite;

Parameters: N/A

Description: Creates an infinite process that must be suspended to be deleted.

Command: loadr3

Query: /loadr3;

Parameters: N/A

Description: Creates and loads the R3 test processes into the system.

Command: showallocated

Query: /showallocated;

Parameters: N/A

Description: Prints out a list of the allocated memory blocks in the heap.

Command: showfree

Query: /showfree;

Parameters: N/A

Description: Prints out a list of the free memory blocks in the heap.

Command: showmem

Query: /showmem;

Parameters: N/A

Description: Prints out a list of all the memory blocks that exist in the heap regardless of whether it's

freed or allocated.

Command: clear

Query: /clear;

Parameters: N/A

Description: Resets the terminal and moves the cursor to the top left of the terminal.