

# **USER'S MANUAL**

*References for commands up to R6*

Team Runtime Terror

CS 450 @ WVU

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## Commands

### alarm

- Description: Creates a message to be displayed at a chosen time
- Syntax: All values must be inputted as alarm-message-hour-minute-second

### alloc

- Description: Allocates memory from the heap with a certain size
- Syntax: All values must be inputted as "alloc-size"
- Example: To allocate 500 bytes, the command would be written as "alloc-500"

### clear

- Description: Removes all text from the terminal

### com\_close

- Description: Ends the session of using serial port

### com\_open

- Description: Initializes the serial port

### com\_read

- Description: Takes the input into the requestor's buffer

### com\_write

- Description: Transfers data to serial port

### deletePCB

- Description: Removes PCB from appropriate queue and frees all associated memory.

### empty

- Description: Returns "true" if heap is empty or returns "false" if heap has something in it

### free

- Description: Frees a block of memory from allocation at an address
- Syntax: All values must be inputted as "free-[address]"
- Example: To free memory at 500, the command would be written as "free-500"

### getDate

- Description: Returns the full date back to the user in decimal form.

### getTime

- Description: Retrieves and returns the time values for hours, minutes, and seconds from the clock register. This is in 24 Hour time.

### heap

- Description: Initializes a heap that is used for all memory allocation

## help

- Description: If Help is typed alone, it prints a list of other commands able to be called. If Help is followed by another command, there is helpful information about that command.
- Example: For help with setTime, "help-setTime"

## infinite

- Description: Loads the infinite process

## loadr3

- Description: Loads the test processes for R3

## resume

- Description: Places a PCB in the not suspended state and reinserts it into the appropriate queue.

## setDate

- Description: Sets the date register to the new values that the user inputted
- Syntax: All values must be inputted as setDate-Day-Month-Millennium-Year
- Example: For December 14, 1990 you should input, "setDate-14-12-19-90"

## setPriority

- Description: Sets PCB priority and reinserts the process into the correct place in the correct queue.

## setTime

- Description: Sets the time register to the new values that the user inputted. This is in 24 Hour time.
- Syntax: All values must be inputted as setTime-Hours-Minutes-Seconds
- Example: For 6:35:51PM you should input, "setTime-18-35-51"

## showAll

- Description: Displays the process name, class, state, suspended status, and priority of all PCB in the ready and blocked queues.

## showAlloc

- Description: Shows a list of allocated blocks in the heap and their addresses

## showBlocked

- Description: Displays the process name, class, state, suspended status, and priority of all PCB in the blocked queue.

## showFree

- Description: Shows a list of free blocks in the heap and their addresses

### showPCB

- Description: Brief Description: Displays the process name, class, state, suspended status, and priority of a PCB.

### showReady

- Description: Displays the process name, class, state, suspended status, and priority of all PCB in the ready queue.

### shutdown

- Description: Turns the terminal off

### suspend

- Description: Places a PCB in the suspended state and reinserts it into the appropriate queue.

### version

- Description: Returns the version of the operating system