

Commands

help

- **Command Name**
 - help
- **Command Description**
 - Displays a list of commands to the user. These commands, when inputted to the Operating System, will execute that specified process.
- **Command Example:**

```
> help
help
$:Commands:
$:
$: 1) help
$: Displays all available commands to the user.
$: 2) shutdown
$: Prompts the user for the shutdown procedure.
$: 3) version
$: Displays the Windows-9 current version.
$: 4) rtc
$: Displays the realtime clock, and prompts the user for clock changes.
$: 5) timeset
$: Prompts the user to change the time of the real-time clock.
$: 6) dateset
$: Prompts the user to change the date of the real-time clock.
$: 7) joe burrow
$: Gives you a real-life chat with superstar Joe Burrow!
$: 8) pcb create
$: Enters PCB creation mode, where parameters are inputted to create a new PCB.
$: 9) pcb delete
$: Enters PCB deletion mode, where parameters are inputted to delete an existing PCB.
$: 10) pcb suspend
$: Switches the state of a specific PCB to [SUSPENDED] dispatching state.
$: 11) pcb resume
$: Switches the state of a specific PCB to [NOT SUSPENDED] dispatching state.
$: 12) pcb block
$: Switches the state of a specific PCB to [BLOCKED] execution state.
$: 13) pcb unblock
$: Switches the state of a specific PCB to [UNBLOCKED] execution state.
$: 14) pcb priority
$: Switches the priority of a specific PCB.
$: 15) pcb show
$: Will show the specific PCB that the user specifies.
$: 16) pcb show ready
$: Will show all PCBs that are ready.
$: 17) pcb show blocked
$: Will show all PCBs that are blocked.
$: 18) pcb show all
$: Will show all PCBs that exist.
$:
```

shutdown

- **Command Name**
 - shutdown
- **Command Description**
 - Will prompt the user for shutdown. If the user specifies a 'yes', then the shutdown process starts. If not, shutdown will be aborted.
- **Command Example:**

```

> shutdown
shutdown
$:Are you sure you want to shutdown?:
$:      yes
$:      no

>yes
yesklogv: Starting system shutdown procedure...
klogv: Shutdown complete.

```

rtc

- **Command Name**
 - real time clock
- **Command Description**
 - Will display the user with the time and date from the internal real time clock, as specified through the *timeset* and *dataset* commands.
- **Command Example:**

```

> rtc
rtc
$:Real-Time Clock:
$:Current Time: 01:11:03
$:Current Date:02/03/23
> |

```

timeset

- **Command Name**
 - set time
- **Command Description**
 - Will update the real time clock with the specified user input. Has to be inputted in a formatted way (e.g 15 1/2 minutes past 12 noon can be represented as 12:15:30)
- **Command Example:**

```

> timeset
timeset
$:Please enter a new time in the following format:
$:      HH:MM:SS
$:
$:      e.g [Fifteen and a half minutes past noon = 12:15:30]:

>12:15:30
12:15:30
$:Is this the time you'd like to set?
$: 12:15:30
$:      yes

```

dataset

- **Command Name**
 - set date
- **Command Description**
 - Will update the real time clock with the specified user input. Has to be inputted in a formatted way (e.g *May 3rd, 2003* can be represented as *05/03/03*)
- **Command Example:**

```
> dataset
dataset
$:Please enter a new date in the following format:
$:      MM/DD/YY
$:
$:      e.g [February 18, 2008 = 02/18/08]:

>02/18/08
02/18/08
$:Is this the date you'd like to set?
$: 02/18/08
$:      yes
$:      no

>yes
yes
$:Date has been changed to:
$:02/18/08
$:Returning to Menu...:
```

version

- **Command Name**
 - version
- **Command Description**
 - Will display the current version of the Operating System and compilation date to the user.
- **Command Example:**

```
> version
version
$:Version:
== Windows 9 JB Edition ==

<-----+----->
+--+--+--+--+
Version R2.0 2/23/2023
```

pcb create

➤ Command Name

- pcb create

➤ Command Description

- creates a pcb, and gets information from the user such as name of pcb, if its a user or system pcb, and the priority of the pcb

➤ Command Example

```
> pcb create
pcb create
$:Would you like to create a new PCB?:
$:    yes
$:    no
> yes
○ yes
$:Entering PCB creation...:

$:Please enter the desired name of your new PCB:
> example
example

$:Please enter the desired class of your new PCB:
$:    user
$:    system
> user
user

$:Your new PCB has been given the [user] class

$:Please enter the desired priority of your new PCB:
$:This number must range from [0-9].
> 0
0

$:Your new PCB has been given the priority  :

$:New PCB's parameters:
$:Name: example
$:Class: USER
$:Priority:

$:Confirm creation of PCB with these parameters?
$:    yes
$:    no
> yes
yes

$:Creation of PCB example was successful:

○ $:Returning to menu...:
```

pcb delete

➤ Command Name

- pcb delete

➤ Command Description

- pcb delete takes name of the pcb to delete, then will delete it if the pcb exists

➤ Command Example

```
> pcb delete
pcb delete
$:Please enter the name of the PCB you would like to delete:
> example
example
$:PCB deleted:
$:Returning to menu...:
```

pcb suspend

- **Command Name**
 - pcb suspend
- **Command Description**
 - takes the name of the pcb to suspend and switches it to the suspend dispatching state
- **Command Example**

```
> pcb suspend
pcb suspend
$:Please enter the name of the PCB you would like to switch to the [SUSPENDED] dispatching state:
> example
example
$:PCB example has been given the [SUSPENDED] dispatching state
```

pcb resume

- **Command Name**
 - pcb resume
- **Command Description**
 - takes the name of the pcb to resume and switches it to the not suspended dispatching state
- **Command Example**

```
> pcb resume
pcb resume
$:Please enter the name of the PCB you would like to switch to the [NOT SUSPENDED] dispatching state:
> example
example
$:PCB example has been given the [NOT SUSPENDED] dispatching state
```

pcb block

- **Command Name**
 - pcb block
- **Command Description**
 - takes the name of the pcb to block and switches it to the blocked state
- **Command Example**

```
> pcb block
pcb block
$:Please enter the name of the PCB you would like to switch to the [BLOCKED] execution state:
> example
example
$:PCB example has been given the [BLOCKED] execution state
```

pcb unblock

- **Command Name**
 - Pcb unblock
- **Command Description**
 - takes name of the pcb to unblock, then will unblock it if the pcb exists
- **Command Example**

```

> pcb unblock
pcb unblock
$:Please enter the name of the PCB you would like to switch to the [UNBLOCKED] execution state:
> ex
ex
$:PCB ex has been given the [UNBLOCKED] execution state
$:Returning to menu...

```

pcb priority

- **Command Name**
 - Pcb priority
- **Command Description**
 - takes name of the pcb to change the priority of, then will take the priority it is to be changed to. If the PCB exists and the priority is a valid value it changes the priority of the PCB to the one entered.
- **Command Example**

```

> pcb priority
pcb priority
$:Please enter the name of the PCB you would like to change priority:
> ex
ex
$:PCB ex currently has priority 3:
$:Please enter the new desired priority of PCB ex:
$:This number must range from [0-9].
> 2
2
$:PCB ex's priority set to 2 :
$:Returning to menu...

```

pcb show

- **Command Name**
 - Pcb show
- **Command Description**
 - takes name of the pcb to show, then will show it if the pcb exists.
- **Command Example**

```

> pcb show
pcb show
$:Please enter the name of the PCB you would like to show:
> ex
ex

$:PCB Name: ex
$:Priority: 2
$:Class Level: USER
$:Execution State: READY
$:Dispatching State: NOT_SUSPENDED
$:Returning to menu...

```

pcb show ready

- **Command Name**

- Pcb show ready
- **Command Description**
 - Shows all the pcbs that are ready.
- **Command Example**

```
> pcb show ready
pcb show ready

$:PCB Name: a
$:Priority: 3
$:Class Level: USER
$:Execution State: READY
$:Dispatching State: NOT_SUSPENDED

$:Returning to menu...
```

pcb show blocked

- **Command Name**
 - Pcb show blocked
- **Command Description**
 - Shows all the pcbs that are blocked.
- **Command Example**

```
○ > pcb show blocked
pcb show blocked

$:PCB Name: a
$:Priority: 3
$:Class Level: USER
$:Execution State: BLOCKED
$:Dispatching State: NOT_SUSPENDED

$:Returning to menu...
```

pcb show all

- **Command Name**
 - Pcb show all
- **Command Description**
 - Shows all the pcbs.
- **Command Example**

```
> pcb show all
pcb show all

$:PCB Name: example1
$:Priority: 1
$:Class Level: USER
$:Execution State: READY
$:Dispatching State: NOT_SUSPENDED

$:PCB Name: example2
$:Priority: 2
$:Class Level: ADMIN
$:Execution State: READY
$:Dispatching State: NOT_SUSPENDED

$:All PCBs are shown above:
$:If you see no PCBs, no PCBs currently exist.
```