User Manual for

MPX Core

Version: R3 & R4

Group 9

3/19/2021

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R1

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getdate

Purpose- returns the stored date in the form:

dayOfWeek day month year (4 digits)

Usage- getdate

Example-

input getdate

output- Mon 8 Feb 2021

gettime

Purpose- returns the stored time in 24 hour form:

hours:minutes:seconds

Usage- gettime

Example-

input- gettime

output- 13:27:56

help

Purpose- returns usage assistance for a specified command

Usage- help [command]

Example-

input- help gettime

output- GETTIME HELP PAGE

Usage: gettime

Description: Displays the current time in 24hr format [hour:minute:seconds]

setdate

Purpose- change the stored date in the form of:

dayOfWeek day month year (4 digits)

Usage- setdate [dayOfWeek] [day] [month] [year]

Example-

input- setdate Mon 8 Feb 2021

output (when getdate is used)- Mon 8 Feb 2021

settime

Purpose- change the stored time in 24 hour form:

hours:minutes:seconds

Usage- settime [hours]:[minutes]:[seconds]

Example-

Input- settime 12:20:45

output (when gettime is used)- 12:20:45

shutdown

Purpose- exits the program

Usage- shutdown

Example-

input- shutdown

output- Are you sure you want to shutdown? Y N

input- Y

output- Starting system shutdown procedure…

version

Purpose- displays the current version of the program

Usage- version

Example-

input-version

output- Version R2

suspend

Purpose- places the PCB into the suspended state and reinserts into the appropriate queue

Usage- suspend [process name]

Example-

input- suspend

example result- (Changes PCB’s state to suspended)

resume

Purpose- Places PCB into the not suspended state and reinserts it into the appropriate queue

Usage- resume [process name]

Example-

input- resume

example result- (Changes PCB’s state to not suspended)

set priority

Purpose- Sets a PCB's priority (range 0-9) and reinserts the process into the correct place in the correct queue

Usage- set priority [process name] [priority value]

Example-

input- set priority example 5

result – (Changes PCB’s priority and reinserts the process into the correct place in the correct queue)

show

Purpose- displays the attributes for a PCB

Usage- show [process name]

Example-

input- show example

output-
Process name: example
Class: System
Priority: 4
State: Ready
Suspended Status: Not Suspended ---------- 5

show all

Purpose- shows all of the PCB's in all queues

Usage- show all

Example-

input show all
output- (will print the attributes of all PCB's)

show ready

Purpose- displays all PCB's in the ready queue

Usage- show ready

Example-

input- show ready

output-

READY NOT SUSPENDED

****

(PRINTS READY NOT SUSPENDED PCB LIST)

****

READY SUSPENDED

****

(PRINTS READY SUSPENDED PCB LIST)

****

show blocked

Purpose- display all PCB's is the blocked queue

Usage- show blocked

Example-

input- show blocked

output-

BLOCKED NOT SUSPENDED
****
(PRINTS BLOCKED NOT SUSPENDED PCB LIST)
****

BLOCK SUSPENDED
****
(PRINTS BLOCK SUSPENDED PCB LIST)
****

create PCB

Purpose- creates a PCB and by default inserts it into the ready, not suspended queue.

Usage- create PCB [class] [process name] [priority value]

Example-

input- create PCB system example 5
result- (creates PCB and inserts it into the ready, not suspended queue)

delete PCB

Purpose- removes PCB from the appropriate queue and frees all associated memory

Usage- delete PCB [process name]

Example- input- delete PCB
example
result- (deletes PCB and frees all associated memory)

block

Purpose- finds PCB and sets it state to blocked and reinserts it into the appropriate queue

Usage- block [process name]

Example-

input- block example
result- (sets the PCB state to blocked and reinserts it into the appropriate queue)

unblock

Purpose- finds PCB and sets it state to unblocked and reinserts it into the appropriate queue

Usage- unblock [process name]

Example-

input- unblock example
result- (sets the PCB state to unblocked and reinserts it into the appropriate queue)

alarm

Sets an alarm on the system that will display the message at or after the specific time.

Usage- alarm “[message]” hh:mm:ss

Example-

input- alarm hello 10:20:00
result- (a new alarm is created with the specified message)

loadr3

Loads 5 test processes (only in R3)

Usage- loadr3

Example-

input- loadr3
result- (5 processes are suspended in a suspended state)