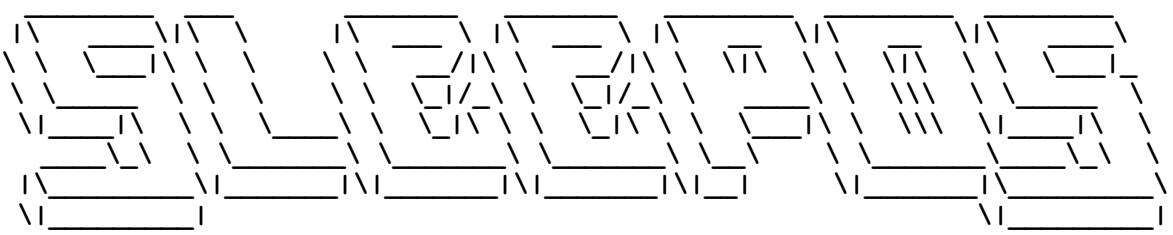

User Manual

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1. Introduction to the MPX

Welcome to the SleepOS User Manual! Thank you for using a premier operating system created by a group of young developers. This user manual is a comprehensive guide to using all features and commands effectively. Whether you are a customer, student, developer, or teacher, SleepOS is meticulously crafted to meet the needs of all users and provide a seamless user experience.

About SleepOS

The developers have dedicated countless hours of time, collaboration, research, and passion to bring you this operating system. With the focus centered on simplicity and efficiency, we hope you find SleepOS effective and comfortable using the many features developed.

This manual will introduce you to the basics, explain to you the complexities, and provide you with everything you need to enhance your experience with SleepOS.

2. MPX System Commands

Note: The user must press enter to activate commands in the console

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Help

Help is a command that will lay out what commands are in the mpx. To run this command type help in the mpx box and a list of commands will be presented to you.

Available Syntax: Help: help
Case Sensitive

Get Date

This command will grab the date from the computer and return this date to the user in the following syntax: mm/dd/yyyy

Available Syntax: Get Date: get date : getdate: GetDate
Case Sensitive

Set Date

The set date command allows the user to set a new date in the operating system. When called, a prompt will appear which prompts the user to enter a new date. The user will be prompted three times for the year, month, and day. It is required that the user press enter after each entry. Users must only enter numbers!

Available Syntax: Set Date: set date: set date: SetDate
Case Sensitive

Get time

This command sends a signal to the computer to grab the current time and return it to the user in the following format: hh:mm: ss

Available Syntax: Get Time: get time: get time: GetTime
Case Sensitive

Set time

This command allows the user to set a new time for the operating system. After the user calls this command, the terminal will prompt the user to enter the time (hour, then minute, then second)
The user will be required to press enter after each entry of HOUR, MINUTE, and SECOND.

Available Syntax: Set Time: set time: settime: SetTime
Case Sensitive

Version

This command will return to the user the currently used version of SleepOS in the following format: `Version R3`

Available Syntax: Version: version
Case Sensitive

Shutdown

This command will immediately shut down all running operations and end the user's experience in SleepOS. The user will be prompted to confirm a shutdown.

Available Syntax: Shutdown : shutdown : quit
Case Sensitive

3. MPX PCB Commands

Note: The user must press enter to activate commands in the console

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Delete PCB

This command will remove the provided PCB from its queue and free all associated memory. The user will be prompted for the name of the PCB to delete. The PCB provided by the user cannot be a system-level process. The name must be an exact match to an existing PCB.

Available Syntax: Delete PCB : delete PCB : DeletePCB : deletePCB
Case Sensitive

Block PCB

This command will put the provided PCB into the blocked state. The user will be prompted for the name of the PCB to block. The PCB provided by the user cannot be a system-level process. The name must be an exact match to an existing PCB.

Available Syntax: Block PCB : block PCB
Case Sensitive

Suspend PCB

This command will put the provided PCB into the suspended state. The user will be prompted for the name of the PCB to suspend. The PCB provided by the user cannot be a system-level process. The name must be an exact match to an existing PCB.

Available Syntax: Suspend PCB : suspend PCB
Case Sensitive

Resume PCB

This command will put the provided PCB into the ready state. The user will be prompted for the name of the PCB to resume. The PCB provided by the user cannot be a system-level process. The name must be an exact match to an existing PCB.

Available Syntax: Suspend PCB : suspend PCB
Case Sensitive

Set PCB Priority

This command will set the provided PCB's priority to the value given by the user. The user will be prompted for the name of the PCB and what priority to set. The priority must be a number between **0** and **9**. The PCB provided by the user cannot be a system-level process. The name must be an exact match to an existing PCB.

Available Syntax: Set PCB Priority : SetPCBPriority : setPCBpriority
Case Sensitive

Show PCB

This command will show the information of a PCB designated by the user. The user will be prompted for the name of the PCB and using that name displays the name, class, state, suspended status, and priority of the indicated PCB.

Available Syntax: ShowPCB : showPCB : Show PCB : show PCB
Case Sensitive

Show Ready

This command will display the name, class, state, suspended status, and priority of every process contained in the ready queue.

Available Syntax: Showready: showready : Show ready : show ready
Case Sensitive

Show Blocked

This command will display the name, class, state, suspended status, and priority of every process contained in the blocked queue.

Available Syntax: Showblocked: showblocked : Showblocked : show blocked
Case Sensitive

Show All

This command will display the name, class, state, suspended status, and priority of every process regardless of state.

Available Syntax: Showall: showall : Show al l: show all
Case Sensitive

4. MPX Process Commands

Alarm (9)
Note: The user must press enter to activate commands in the console

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Alarm

The alarm command prompts the user to enter a name for the alarm, a message to display, the hour and the minute that the alarm will be set. This command will spawn an alarm process. Alarms will not trigger early but can trigger late.

Available Syntax: Alarm : alarm
Case Sensitive

5. MPX Memory Management Commands

Note: The user must press enter to activate commands in the console

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Allocate Memory

The allocate memory command allows the user to allocate a specified amount of memory. The user will be prompted to enter the size of the memory block they wish to allocate. If the allocation is successful, the starting address of the allocated memory block will be displayed.

Available Syntax: AM : Allocate Memory : allocate memory : AllocateMemory : allocateMemory
Case Sensitive

Free Memory

The free memory command allows the user to free a previously allocated memory block. The user will be prompted to enter the starting address of the memory block they wish to free. If the operation is successful, a confirmation message will be displayed.

Available Syntax: FM : Free Memory : free memory : FreeMemory : freeMemory
Case Sensitive

Show Allocated Memory

The show allocated memory command displays a list of all currently allocated memory blocks, including their starting addresses and sizes.

Available Syntax: SAM : Show Allocated Memory : show allocated memory : ShowAllocatedMemory : showAllocatedMemory
Case Sensitive

Show Free Memory

The show free memory command displays a list of all currently free memory blocks, including their starting addresses and sizes.

Available Syntax: SFM : Show Free Memory : show free memory : ShowFreeMemory : showFreeMemory
Case Sensitive

Show All Memory

The show all memory command displays a comprehensive view of the memory, including both allocated and free memory blocks. It provides information about the starting address, size, and status (allocated or free) of each memory block.

Available Syntax: SA : Show All Memory : show all memory : ShowAllMemory : showAllMemory
Case Sensitive