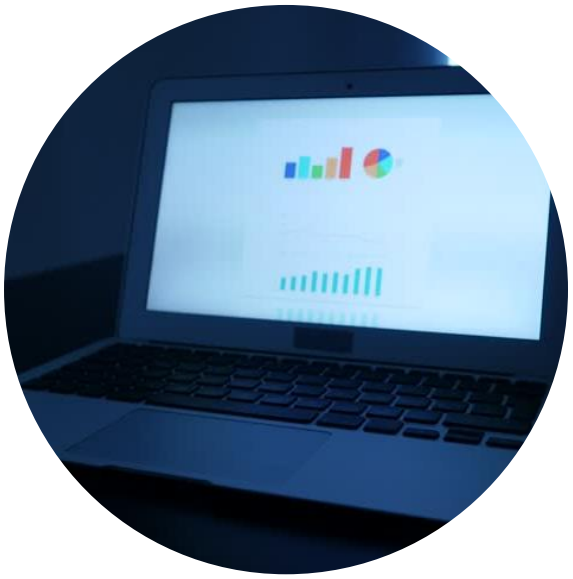
Memory Allocation

User's Guide



ABSTRACT

Mem. Allocation App is a desktop application, that support types of allocation and generate a chart for estimated type of memory allocation.

April 2018

Contents :

How to run:

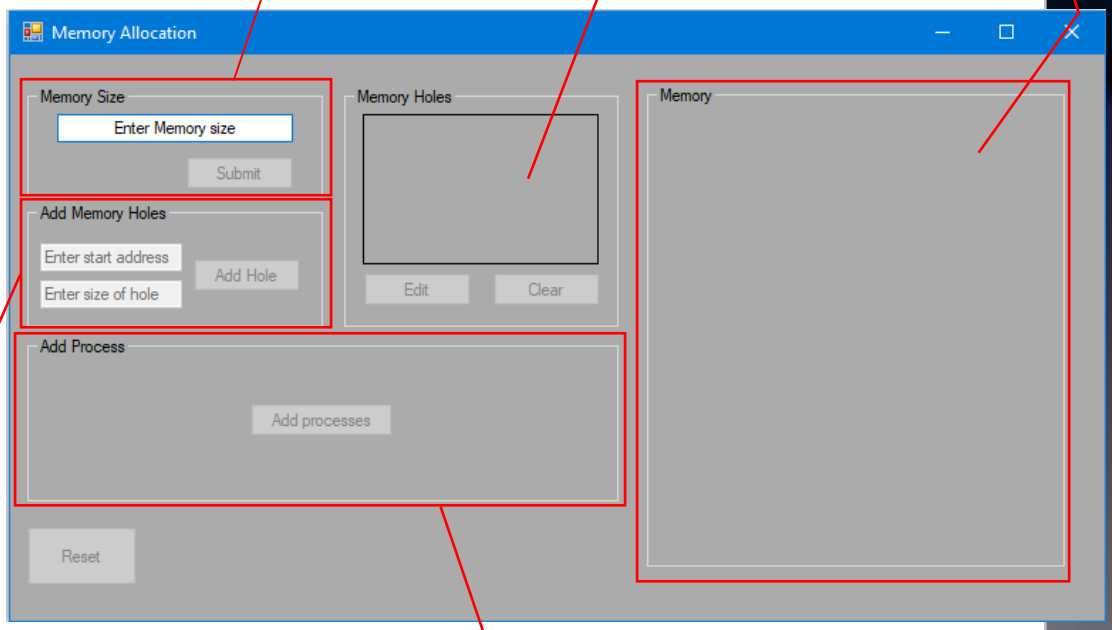
Here enter size of memory

Hint: must be positive interger

This section is a grid view to holes data table.

Edit and deletion is available

Memory section in which memory allocation scheme will appear.



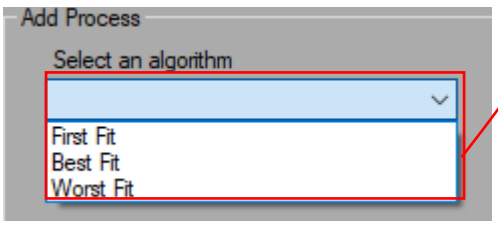
Here enter a memory hole data

(start address & it's size)

Hint: must be positive interger

Here enter a process to allocate

- Allocation algorithms:



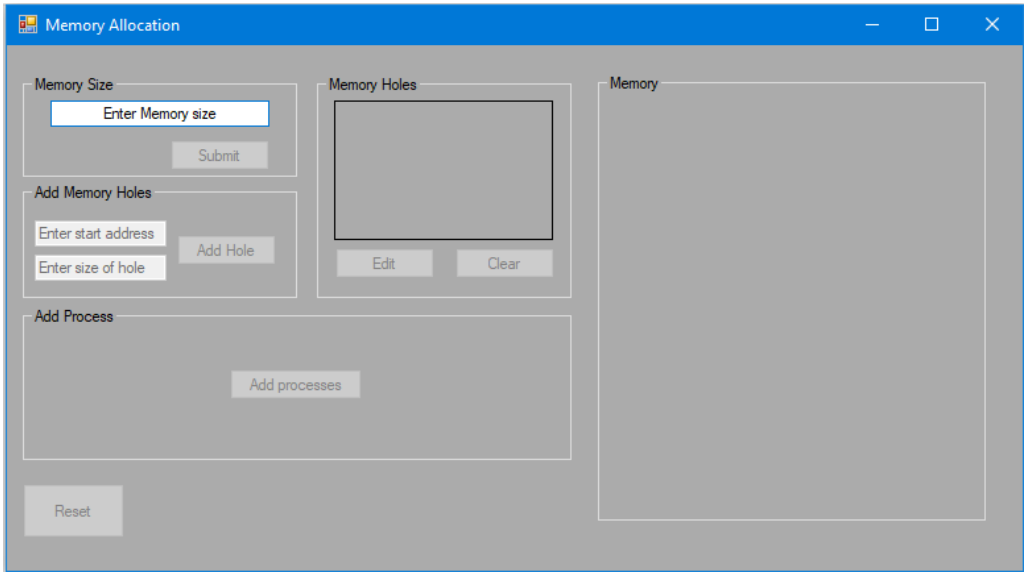
Algorithms can be used:

First fit allocation
Best fit allocation
Worst fit allocation

Trivial Example in steps :

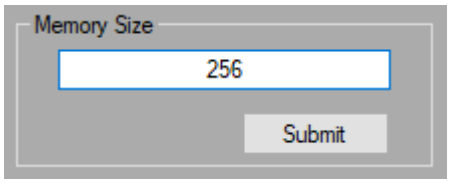
1. Double click to open

2. Main form will open



3. Enter size of memory.

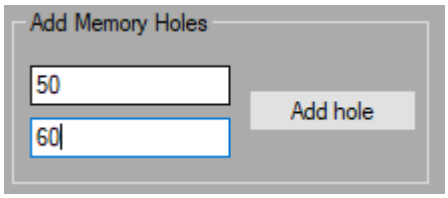
   "Must be a positive integer value."



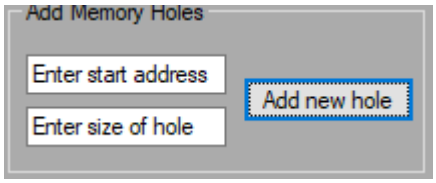
4. Click submit

5. Enter required data for each hole.

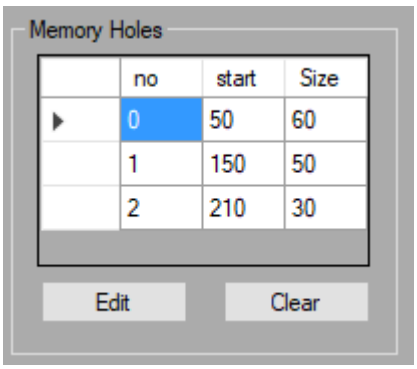
   "here we Entered data as shown in screenshot below and press add hole"



And press "add new hole" button to add more.

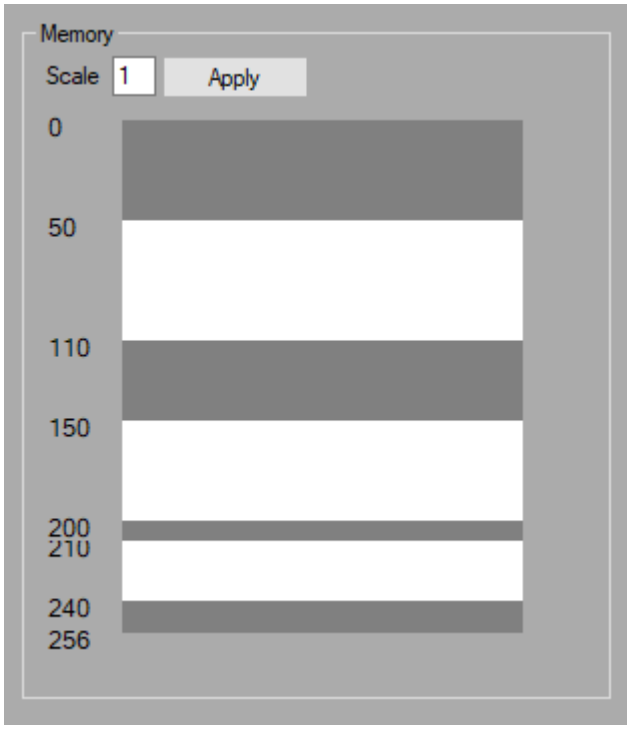


"here data entered as shown in screenshot below , you can edit or clear all data"

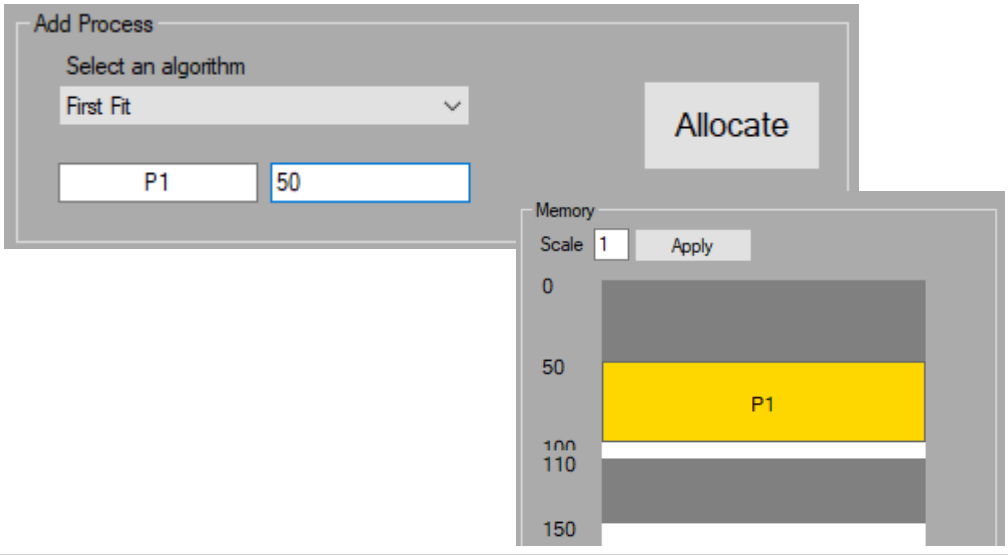


6. After finish entering holes data click "add processes" button to continue.

7. you can see the memory visualization as shown in screenshot. "you can change the scale from 1 to 10"

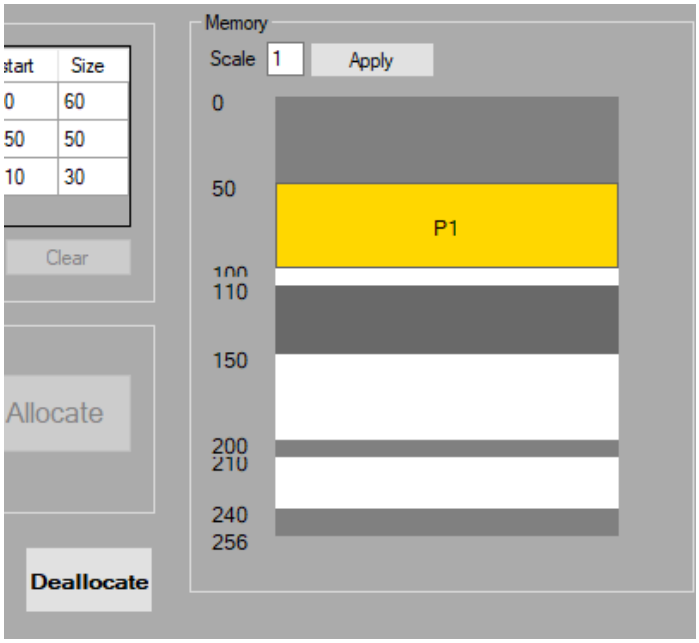


8. then we Entered data of process as shown in screenshot below and select the needing algorithm then press allocate .

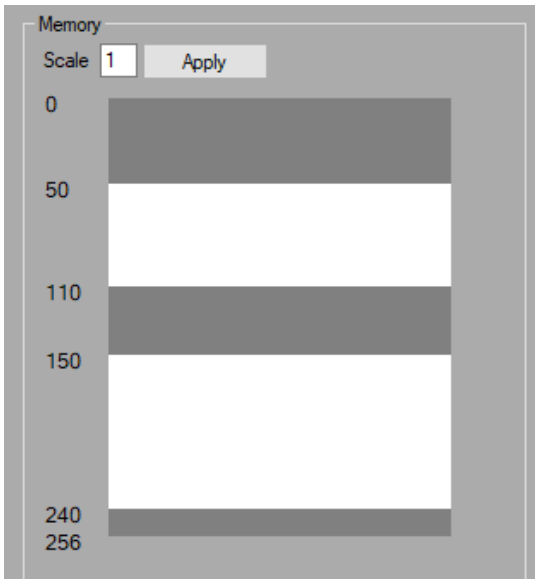


9. then you can deallocate any process either golden or grey section of memory visualization.

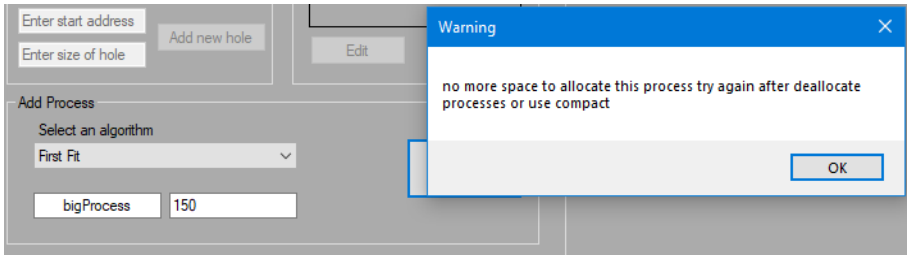
   “select a section to deallocate an press Deallocate button , to cancel selection click again on the section required”



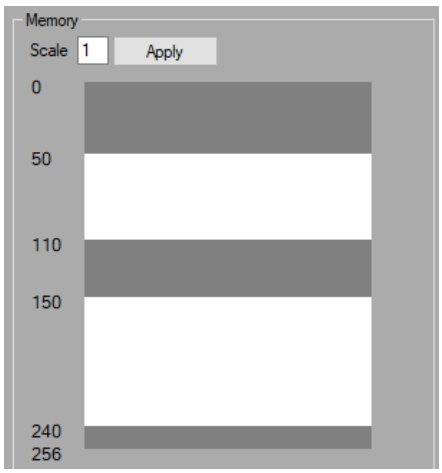
“after deallocating the third grey section and P1”



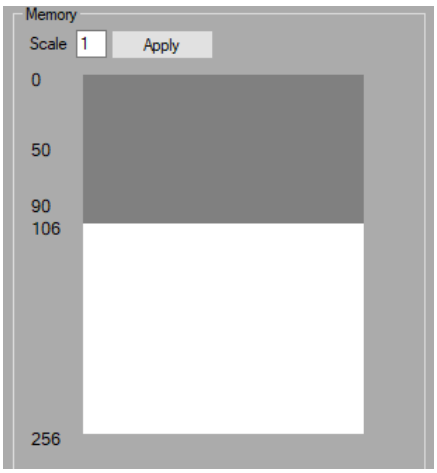
10. If you need a free block of memory large than the largest but less than all , you can use compact button.



Before compact:



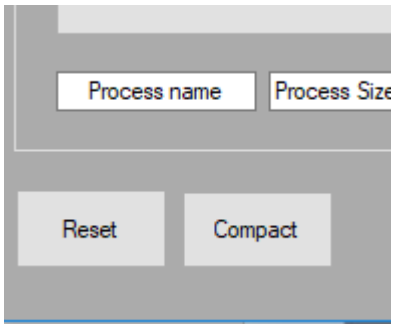
after compact:



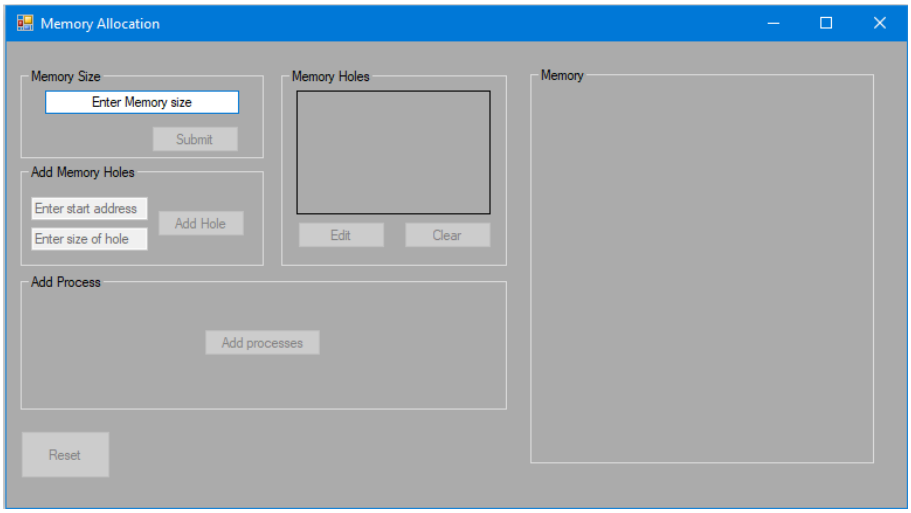
“the previous process allocation succeed after compact”

11. The continue with another data.

"you can click on reset to clean your data and return to the main page"



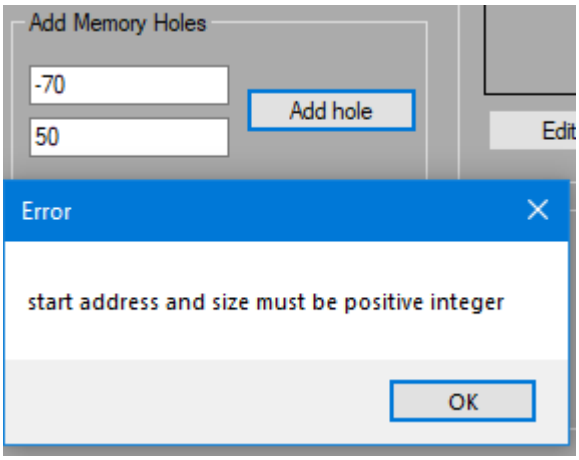
And return again to [step2]



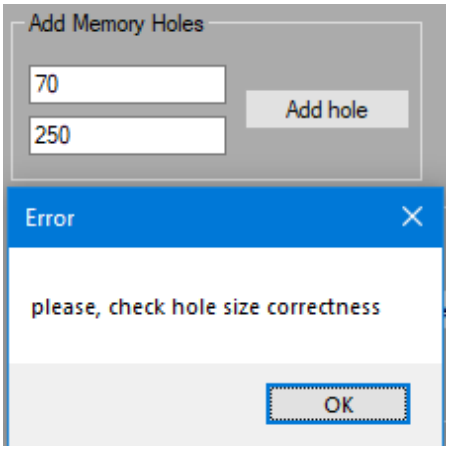
Data Validation:

1. Memory size is positive integer.

2. Hole start address must be positive integer or zero , Hole size must be positive integer.

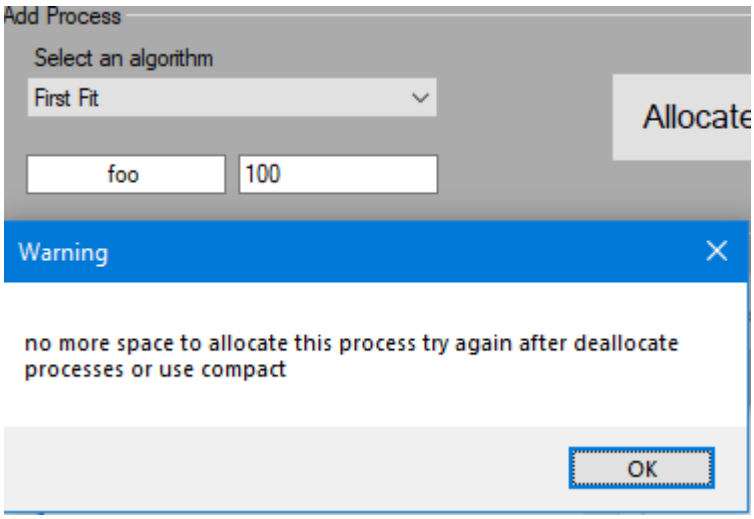


3. Hole size must be less than free memory size.

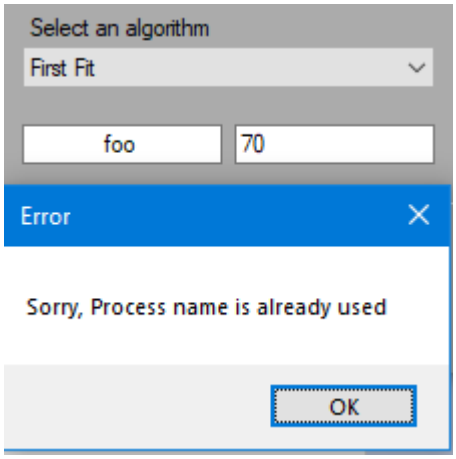


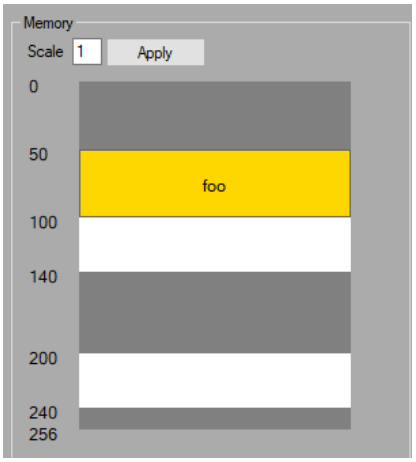
"hint : memory size is 256"

4. process size must be less than any of the free blocks or it will not be allocated .



5. You can't use different processes with the same name.





6. Scale of Memory must be from 1 to 10