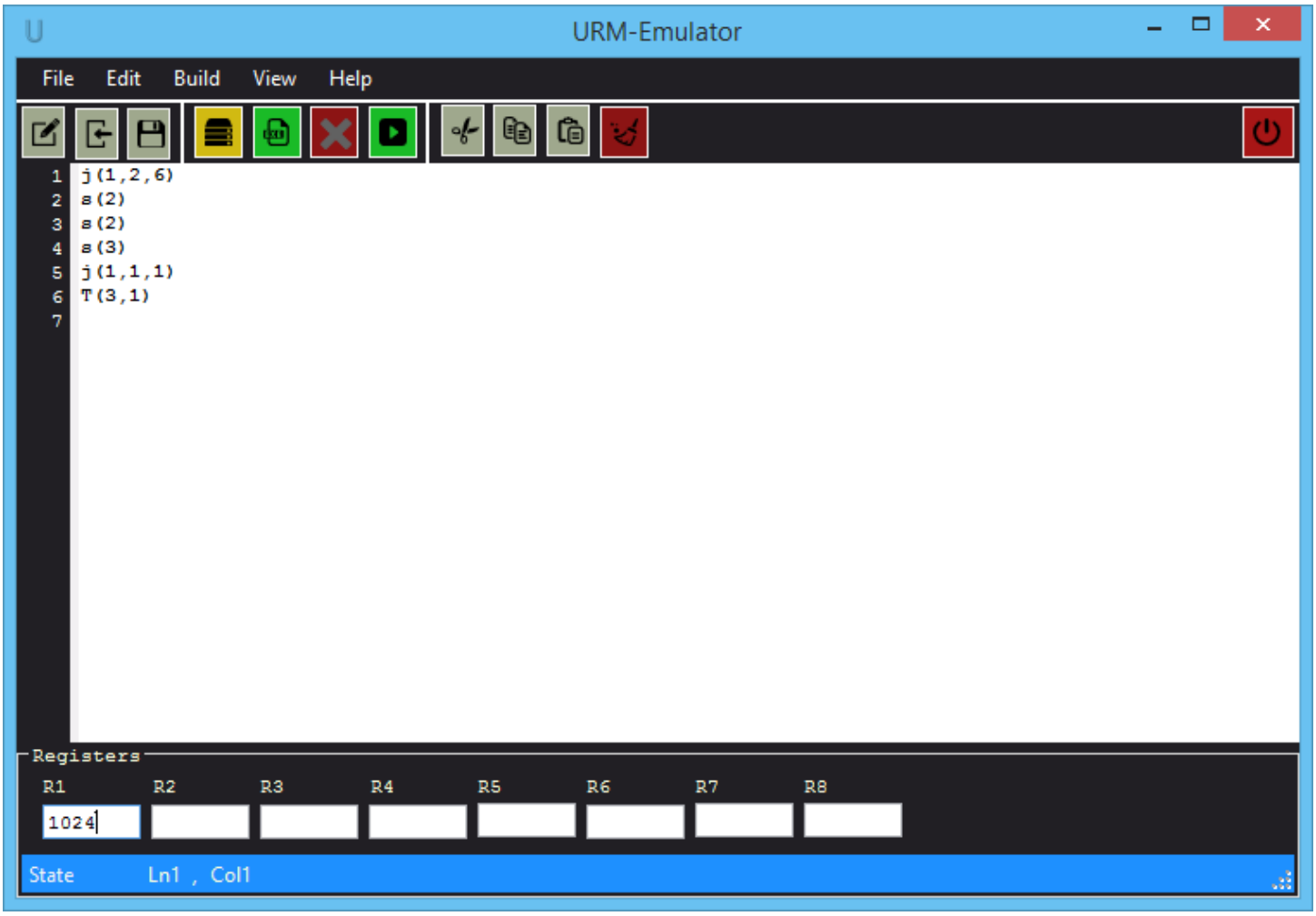
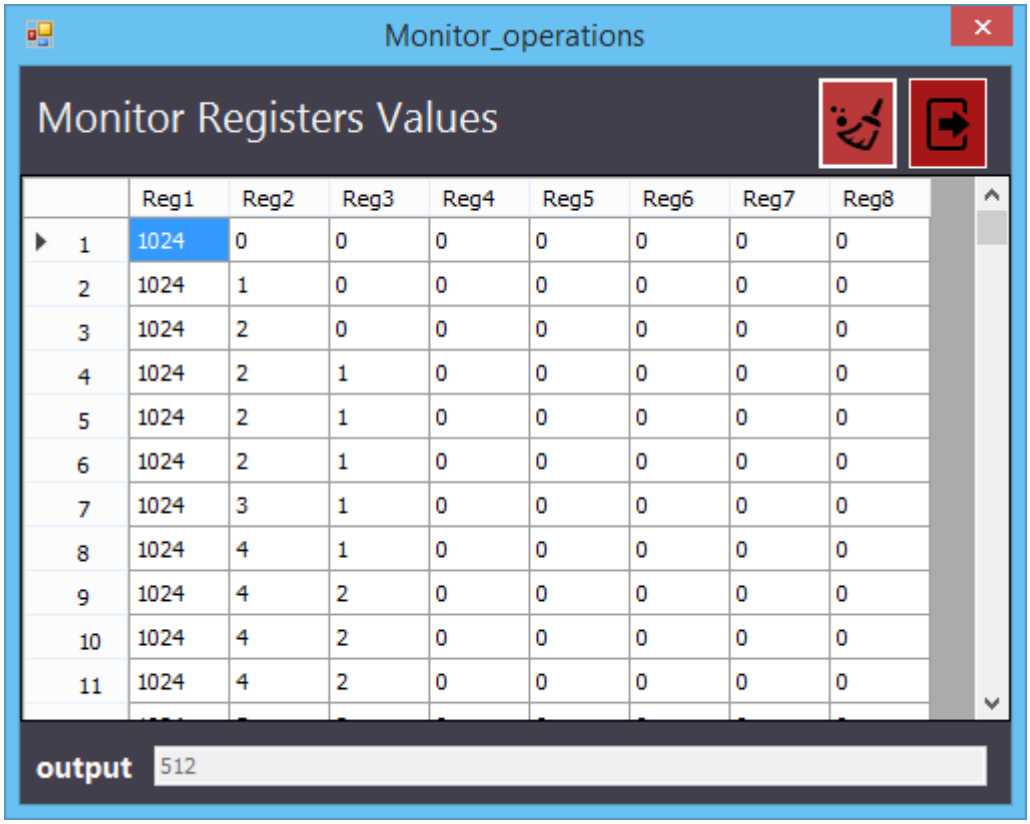
# Urm-Emulator

## User guide

Table of Contents




(Urm-Emulator)




(Monitor Screen)

Monitor_Screen: where the output will be shown .

# About Urm-Emulator

**Urm-Emulator** is an easy program that simulate "Unlimited Registers Machine" commands.

- there is only 4 commands in urm:

1. Successor(Register number)
2. Zero(Register number)
3. Jumb(RegN1,RegN2,LineN)
4. Transfere(RegN1,RegN2)

Command 1 : increase the value stored in Register n by 1  (RegN=RegN+1)
Command 2: Reset the value stored in Register n to 0 (RegN=0)
Command 3: checks if (value in RegisterN1 equal to value in RegisterN2)
if true ?
it jumbs to the lineN and execute it and Continue in Sequence.
if false ?
it ignores the current line of Jumb and Continue the current Sequence of executing .
Command 4: Takes a Copy of value stored in RegN1 and paste it in RegN2.(Replace the value in Reg N1 with value in RegN2).

**Q:How to implement these functions in this program?**
**A: just write the first char of each Command**
**for example:**
**j(1,2,3) is equal to jumb(1,2,3)**
**so j(1,2,3) is the program Command.**
**and so the rest of commands .....**

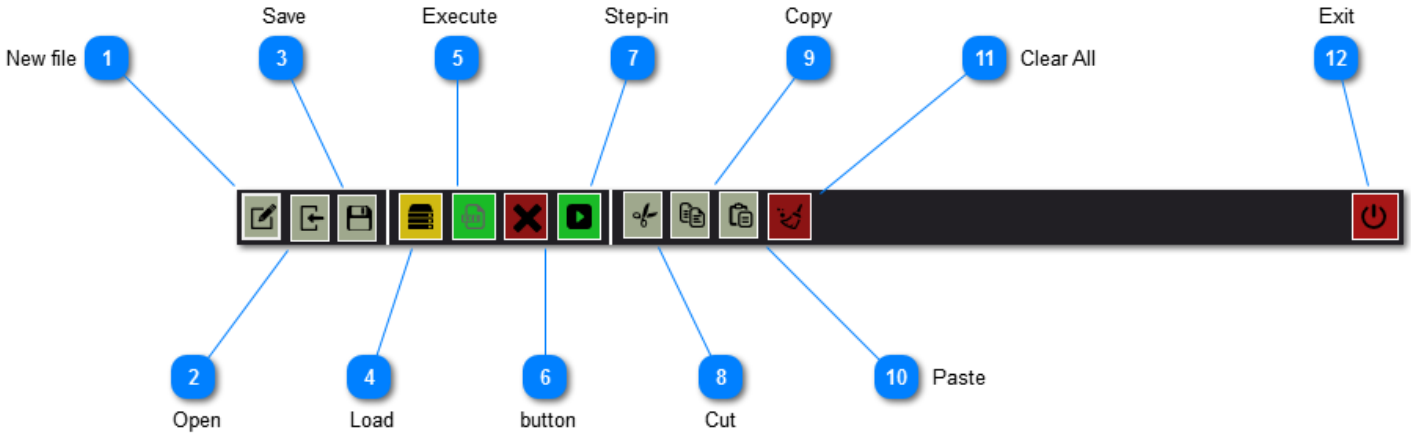
**Note:**
**Unmanaged** Code may lead the program to Hang (it will not Response) because of Infinite loop caused by the Command 3
in this case you will have to terminate the program from the TaskManager or just stop Running if you run the Code .
Although i have provided an option for you that you can **Expect** the **maximum** number of loops that program can make
so if it exceeds the limits you gave it will break that loop.
So becareful ! since not enough timees of loops won't give you any output .

**Q:How to execute my Code?**
**A:** you have to follow 3 steps

1. write your code and entry values in Registers
2. Load your code by pressing that yellow button 
3. execute the code either

- either step by step using next button so you can trace the execution flow .. 
- or by executing it automatically using this button 

## Client area




### 1 New file


Create a new  file

### 2 Open


Open existing project

### 3 Save


Save the current file

### 4 Load


Load the Code/Registers values into Urm virtual memory

### 5 Execute


auto-execute the Code (Get the Result by one Click).

### 6 button


Stop-Executing
avaliable only with auto-execute

### 7 Step-in

 execute the Code step by step

8 **Cut**

 Cut the Selected Text to Clipboard

9 **Copy**

 Copy the selected text to Clipboard

10 **Paste**

 Paste the(Copied/Cut) form the Clipboard to the Editor

11 **Clear All**

 Clear any Control that used to I/O data + clearing the monitor screen

12 **Exit**

 Exit from the program