LAB EXPERIMENT #6

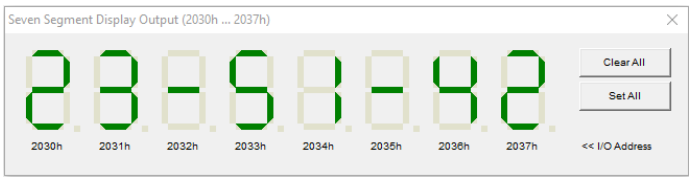
Objective(s)

- Become familiar with using I/O devices.

Lab Work

Write an assembly program which is able to display current time on Seven Segment Display Output in Emulation Kit.

1. You must get the current system time as hour, minute and second. Then separate them into digits (Separation algorithm is up to you. You can use your Lab5 work).
2. Each digit must be displayed on corresponding segment on Seven Segment Display. You must separate hours, minutes and seconds by '-'. For example, if hour=23, minute=51, second=42, then your output must be 23-51-42.
3. You must do all your work in an infinite loop to make it look like a live digital clock. So if your output is 23-51-42 now, then it must be 23-51-43 one second later. Your output should look like this:



Hint 1: You can get the current system time by INT 21h / AH=2Ch (See Interrupts section under the emulator documentation).

Hint 2: Using Emulation Kit

1. You must download Emulation Kit on the course web page and copy the Emulation Kit.exe file to DEVICES directory under the path where emu8086 is installed.
2. You can start the kit by using "#start=Emulation Kit.exe#" instruction in your code.
3. For further explanation on using seven segment displays, please see Seven Segment Output section on Emulation Kit Help.pdf.

Evaluation: You must complete your work until lab hour. You will be evaluated on the lab session.