Report Lab 10
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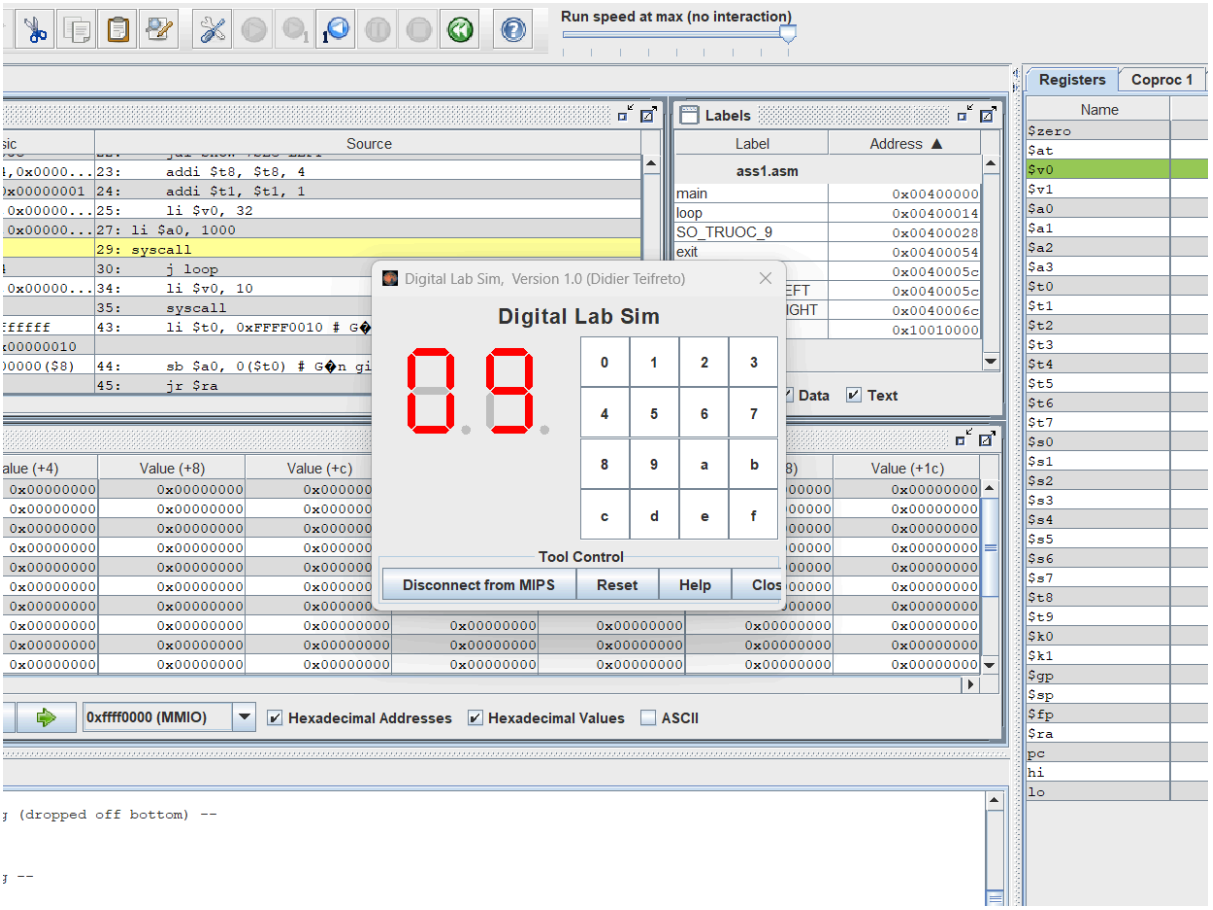
Assignment 1
Code:

```
.eqv SEVENSEG_LEFT 0xFFFF0010 # ??a ch? c?a ?�n LED 7 ?o?n tr�i. # Bit 0 = ?o?n a; # Bit 1 = ?o?n b; ... # Bit 7 = d?u .
.eqv SEVENSEG_RIGHT 0xFFFF0011 # ??a ch? c?a ?�n LED 7 ?o?n ph?i
.data
arr: .word 0x3F, 0x06, 0x5B, 0x4F, 0x66, 0x6D, 0x7D, 0x07, 0x7F, 0x6F, 0x77, 0x7C, 0x39, 0x5E, 0x79, 0x71
.text
main:
    # L?p t? 0 ??n 15
    la $t7, arr
    add $t8, $0, $t7
    add $t9, $0, $t7
    li $t1, 0 # Kh?i t?o bi?n ??m
loop:
    subi $t3, $t1, 10
    slt $t4, $t3, $0
    beq $t4, 0, exit
SO_TRUOC_9:
    lw $t2, 0($t8)
    addi $a0, $0, 0x3F
    jal SHOW_7SEG_RIGHT # Hi?n th?

    add $a0, $0, $t2
    jal SHOW_7SEG_LEFT
    addi $t8, $t8, 4
    addi $t1, $t1, 1
    li $v0, 32
# ??t gi� tr? cho $a0 l� 1000 ?? ch? ??nh th?i gian ng? l� 1000 milliseconds (1 gi�y)
li $a0, 1000
# G?i syscall ?? th?c hi?n ?? tr?
syscall
```

```
    j loop

    # Ki?m tra n?u bi?n ??m v?n nh? h?n 16, ti?p t?c v�ng l?p
exit:
    li $v0, 10
    syscall
endmain:
#---------------------------------------------------------------
# Function SHOW_7SEG_LEFT: B?t/t?t ?�n LED 7 ?o?n tr�i
# param[in] $a0 gi� tr? c?n hi?n th?
# remark $t0 thay ??i
#---------------------------------------------------------------
SHOW_7SEG_LEFT:
    li $t0, SEVENSEG_LEFT # G�n ??a ch? c?ng
    sb $a0, 0($t0) # G�n gi� tr? m?i
    jr $ra
#---------------------------------------------------------------
# Function SHOW_7SEG_RIGHT: B?t/t?t ?�n LED 7 ?o?n ph?i
# param[in] $a0 gi� tr? c?n hi?n th?
# remark $t0 thay ??i
#---------------------------------------------------------------
SHOW_7SEG_RIGHT:
    li $t0, SEVENSEG_RIGHT # G�n ??a ch? c?ng
    sb $a0, 0($t0) # G�n gi� tr? m?i
    jr $ra
```

Result:



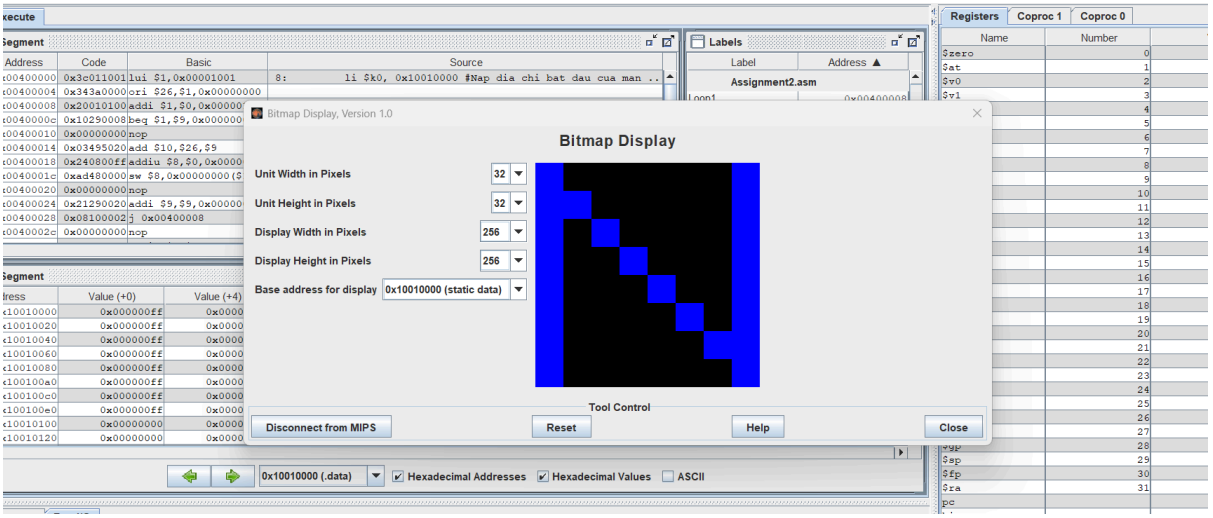
Assignment 2

Code:

```
.eqv MONITOR_SCREEN 0x10010000 #Dia chi bat dau cua bo nho man hinh
.eqv RED 0x00FF0000 #Cac gia tri mau thuong su dung
.eqv GREEN 0x0000FF00
.eqv BLUE 0x000000FF
.eqv WHITE 0x00FFFFFF
.eqv YELLOW 0x00FFFF00
.text
        li $k0, MONITOR_SCREEN #Nap dia chi bat dau cua man hin


        Loop1:

        beq $t1, 256, end_loop1
        nop
        add $t2, $k0, $t1
        li $t0, BLUE
        sw $t0, 0($t2)
        nop
```

```
        addi $t1, $t1, 32
        j Loop1
        nop
end_loop1:

        li $t1, 28

        Loop2:
        beq $t1, 284, end_loop2
        nop
        add $t2, $k0, $t1

        li $t0, BLUE
        sw $t0, 0($t2)
        nop

        addi $t1, $t1, 32
        j Loop2
        nop
end_loop2:


        li $t1, 36

        Loop3:
        beq $t1, 252, end_loop3
        nop
        add $t2, $k0, $t1

        li $t0, BLUE
        sw $t0, 0($t2)
        nop

        addi $t1, $t1, 36
        j Loop3
        nop

end_loop3:
```

Result:


Bitmap Display, Version 1.0
Bitmap Display
Unit Width in Pixels
32
Unit Height in Pixels
32
Display Width in Pixels
256
Display Height in Pixels
256
Base address for display
0x10010000 (static data)
Tool Control
Disconnect from MIPS
Reset
Help
Close
Registers
Coproc 1
Coproc 0
Name
Number
Labels
Label
Address
Assignment2.asm
Hexadecimal Addresses
Hexadecimal Values
ASCII