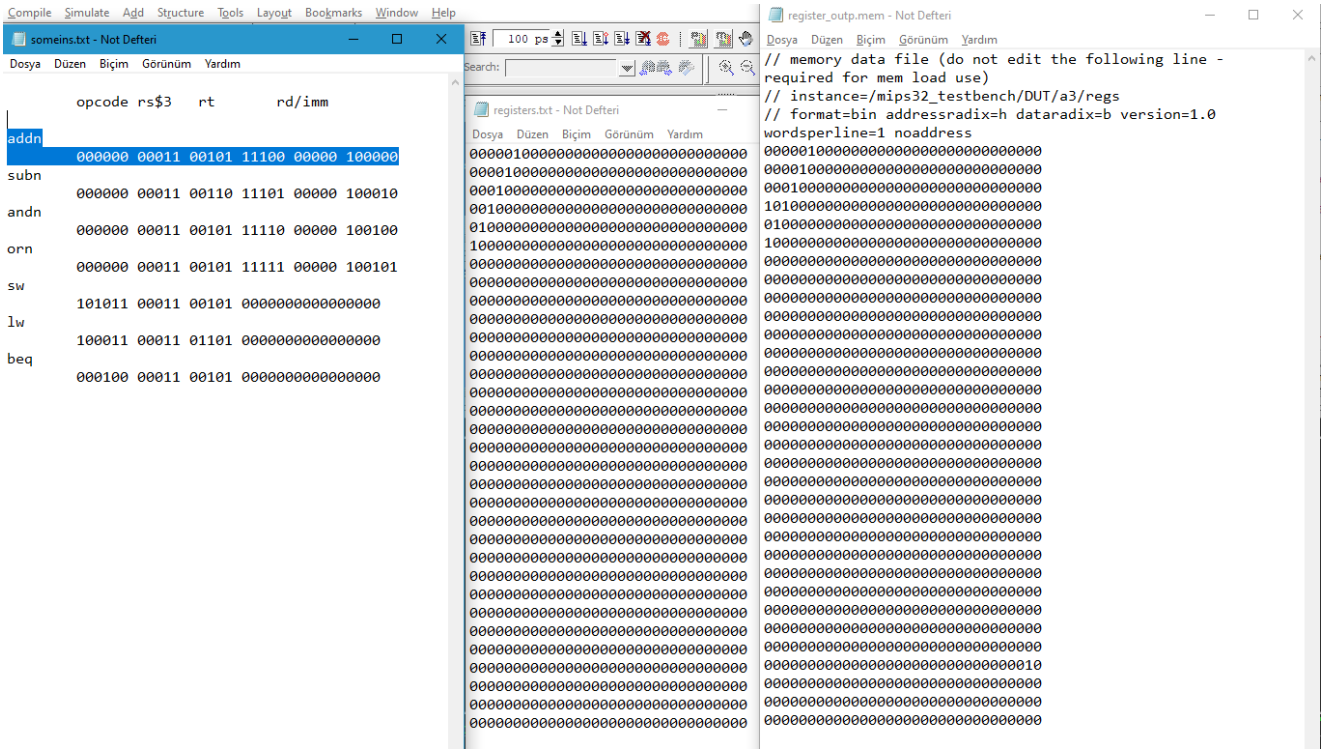
HW4 Report

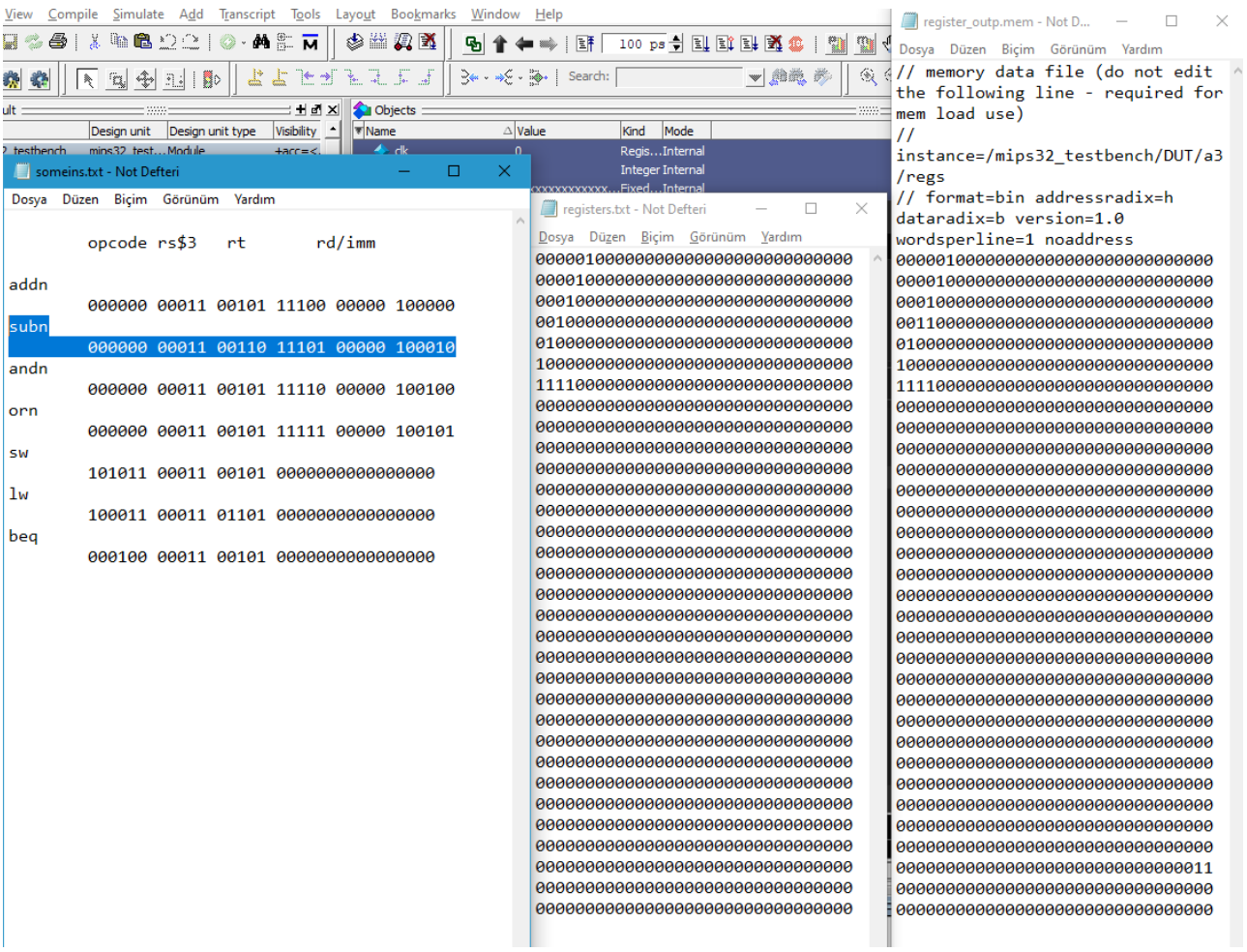
This report includes test runs of instructions in the processor. The simulation results are shown by giving the input files and output files.

Run 1:

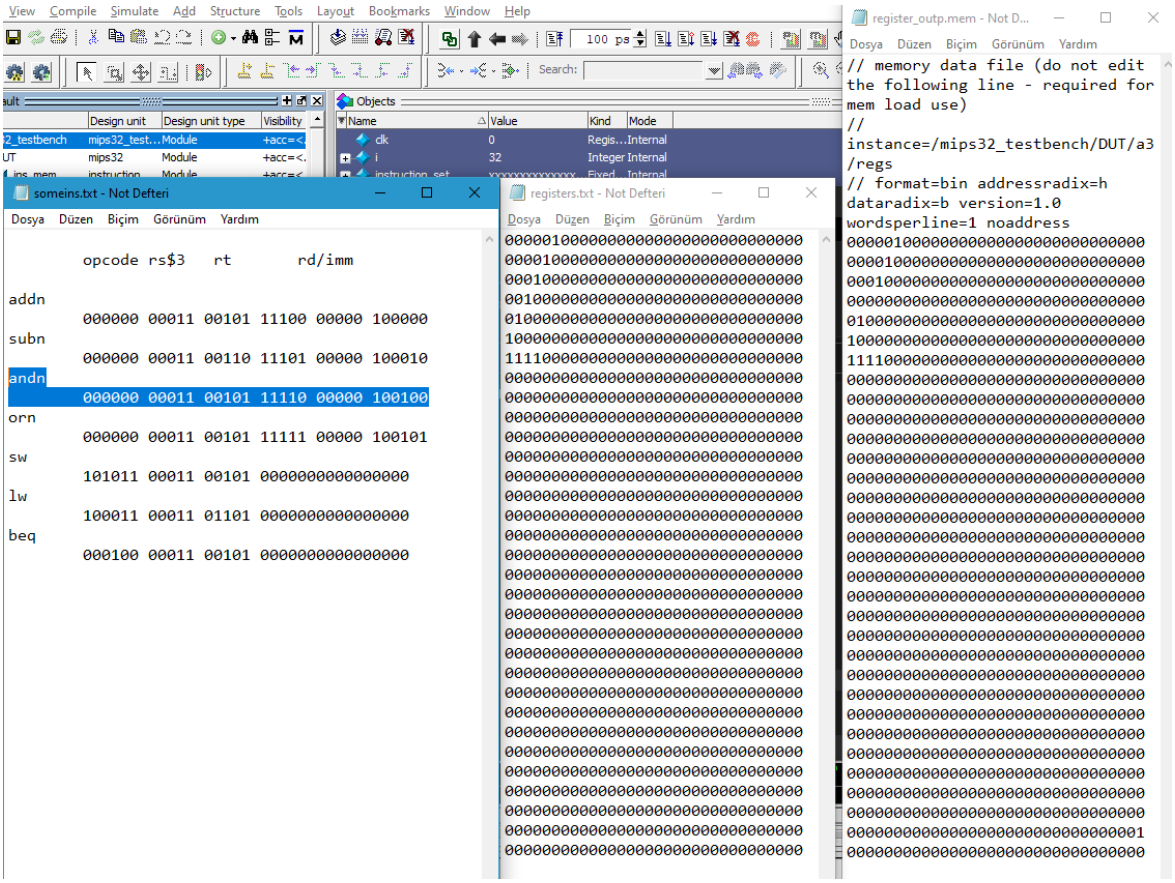
addn: $3 = $3 + $5 $28 = 2



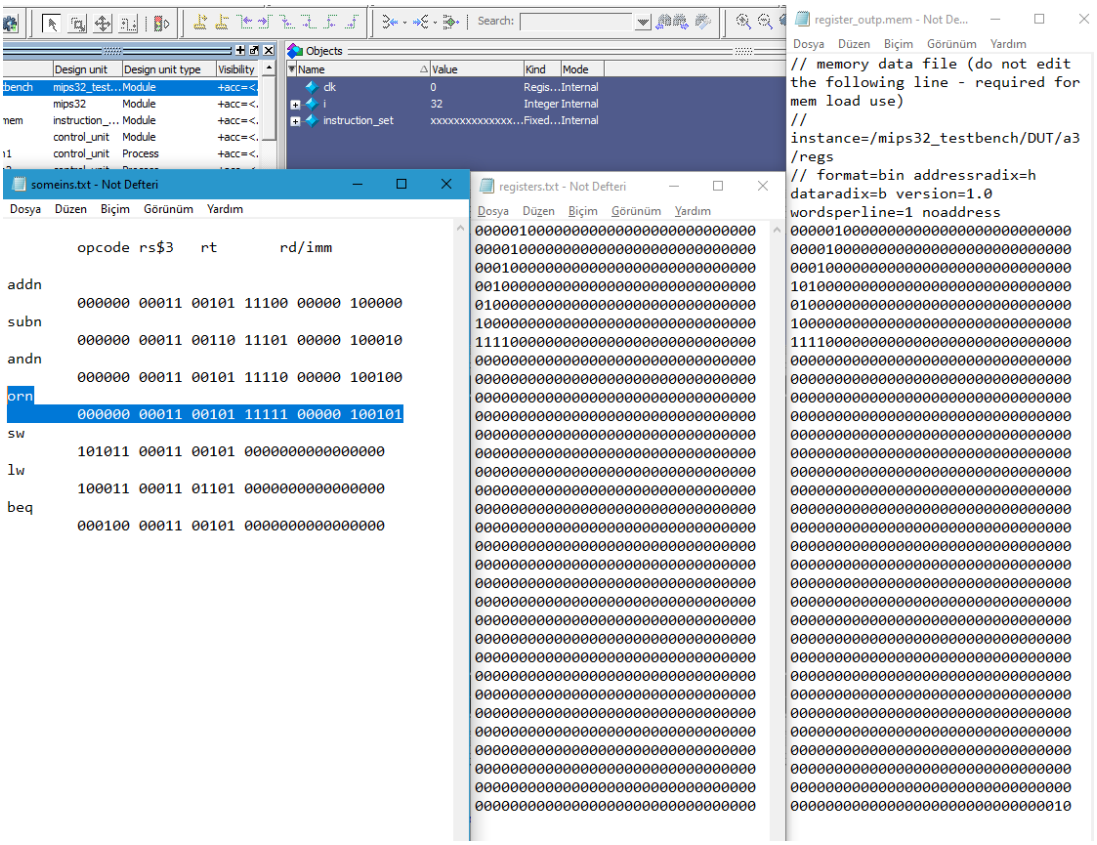
subn: $3 = $3 - $6 $29 = 3


someins.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
opcode rs$3 rt rd/imm
addn
000000 00011 00101 11100 00000 100000
subn
000000 00011 00110 11101 00000 100010
andn
000000 00011 00101 11110 00000 100100
orn
000000 00011 00101 11111 00000 100101
sw
101011 00011 00101 0000000000000000
lw
100011 00011 01101 0000000000000000
beq
000100 00011 00101 0000000000000000
registers.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
register_outp.mem - Not D...
Dosya Düzen Biçim Görünüm Yardım
// memory data file (do not edit the following line - required for mem load use)
//
instance=/mips32_testbench/DUT/a3/regs
// format=bin addressradix=h dataradix=b version=1.0
wordsperline=1 noaddress

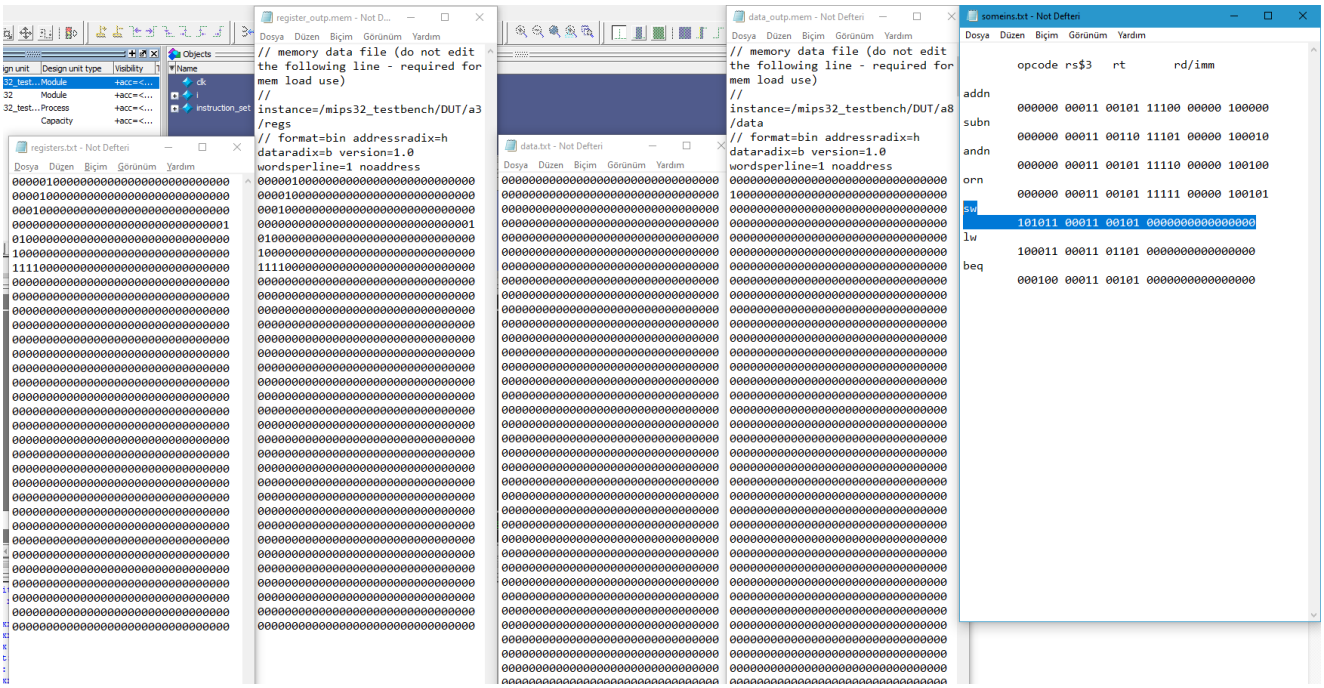
andn: $3 = $3 & $5 $30 = 1


someins.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
opcode rs$3 rt rd/imm
addn
000000 00011 00101 11100 00000 100000
subn
000000 00011 00110 11101 00000 100010
andn
000000 00011 00101 11110 00000 100100
orn
000000 00011 00101 11111 00000 100101
sw
101011 00011 00101 0000000000000000
lw
100011 00011 01101 0000000000000000
beq
000100 00011 00101 0000000000000000
registers.txt - Not Defteri
register_outp.mem - Not D...
// memory data file (do not edit the following line - required for mem load use)
// instance=/mips32_testbench/DUT/a3/regs
// format=bin addressradix=h dataradix=b version=1.0
wordsperline=1 noaddress

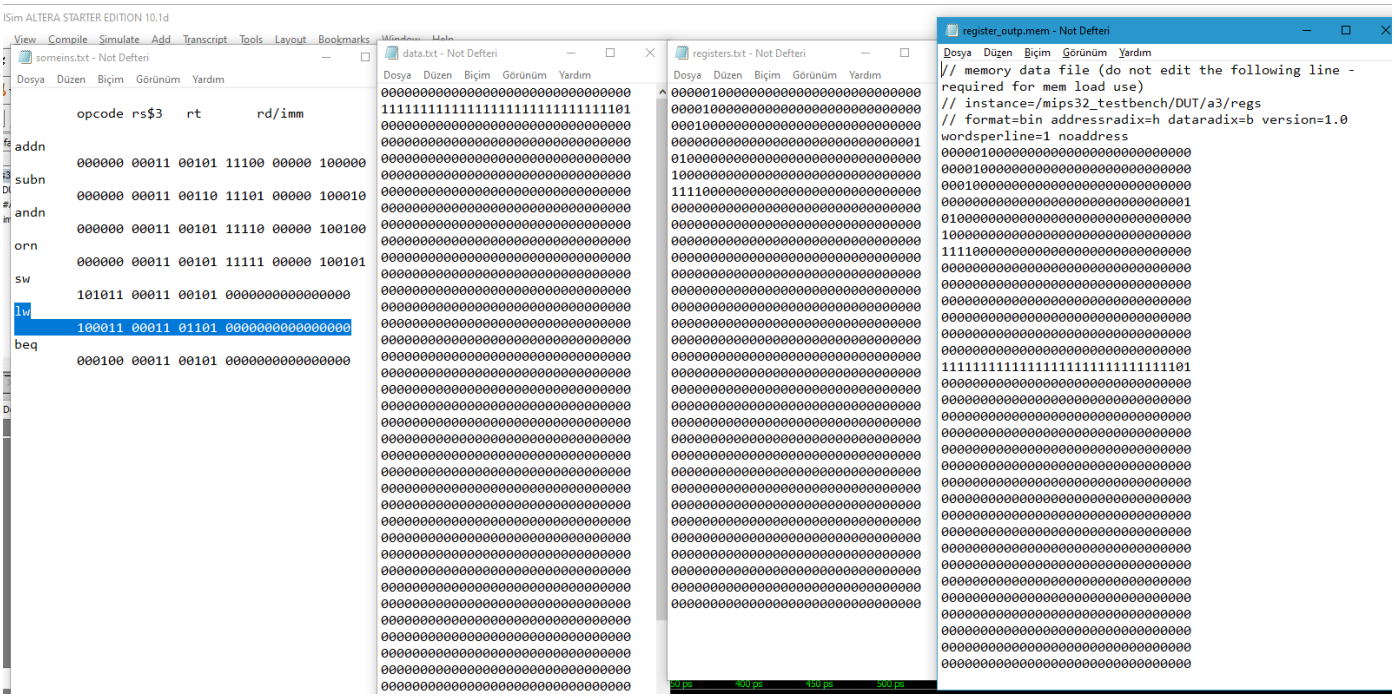
orn: $3 = $3 | $5 $31 = 2



sw: M[$3 + SignExtImm(0)] = $5 (content of $3 is 1'b1)

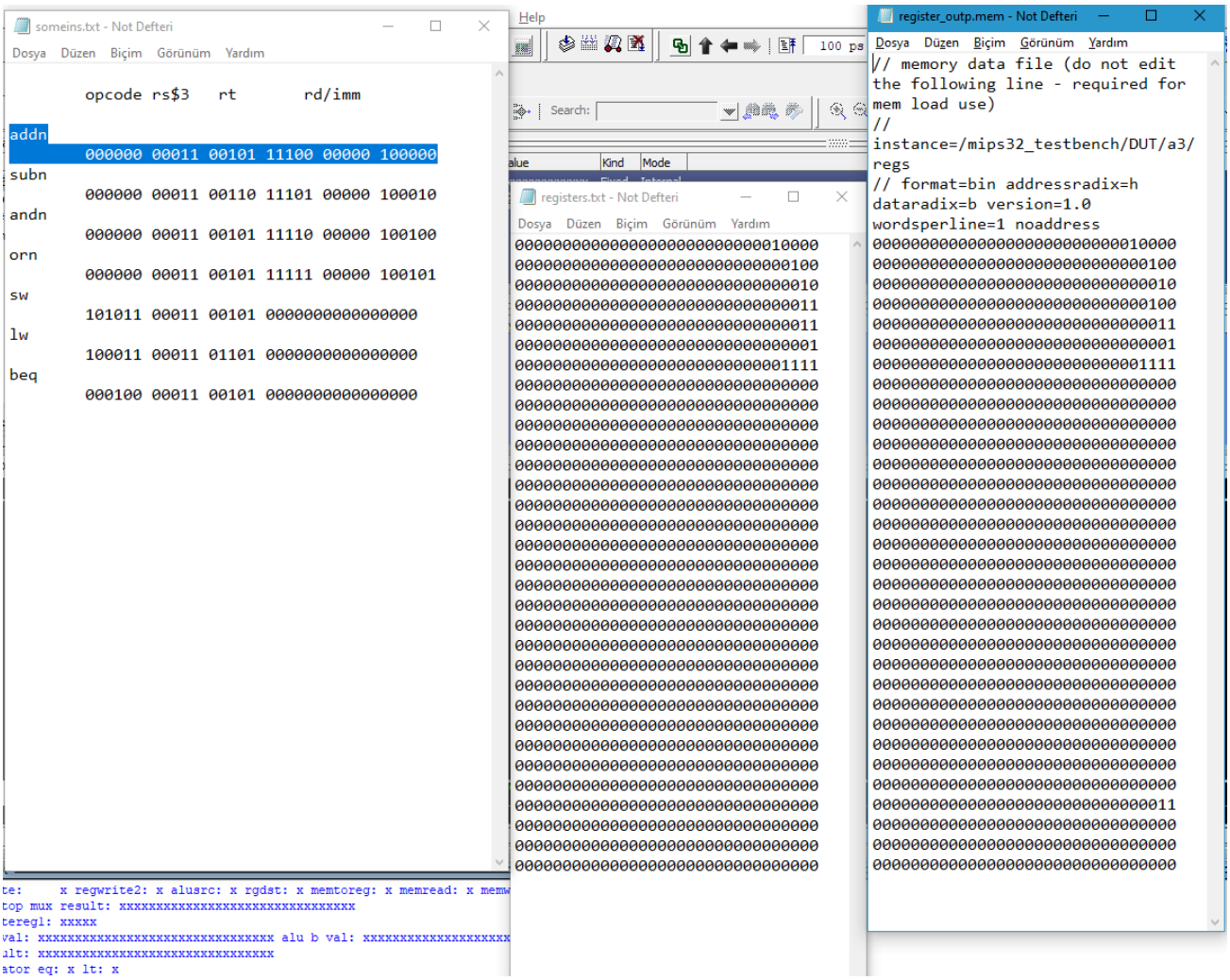


lw: $13 = M[$3 + SignExtImm(0)] (content of $3 is 1’b1)

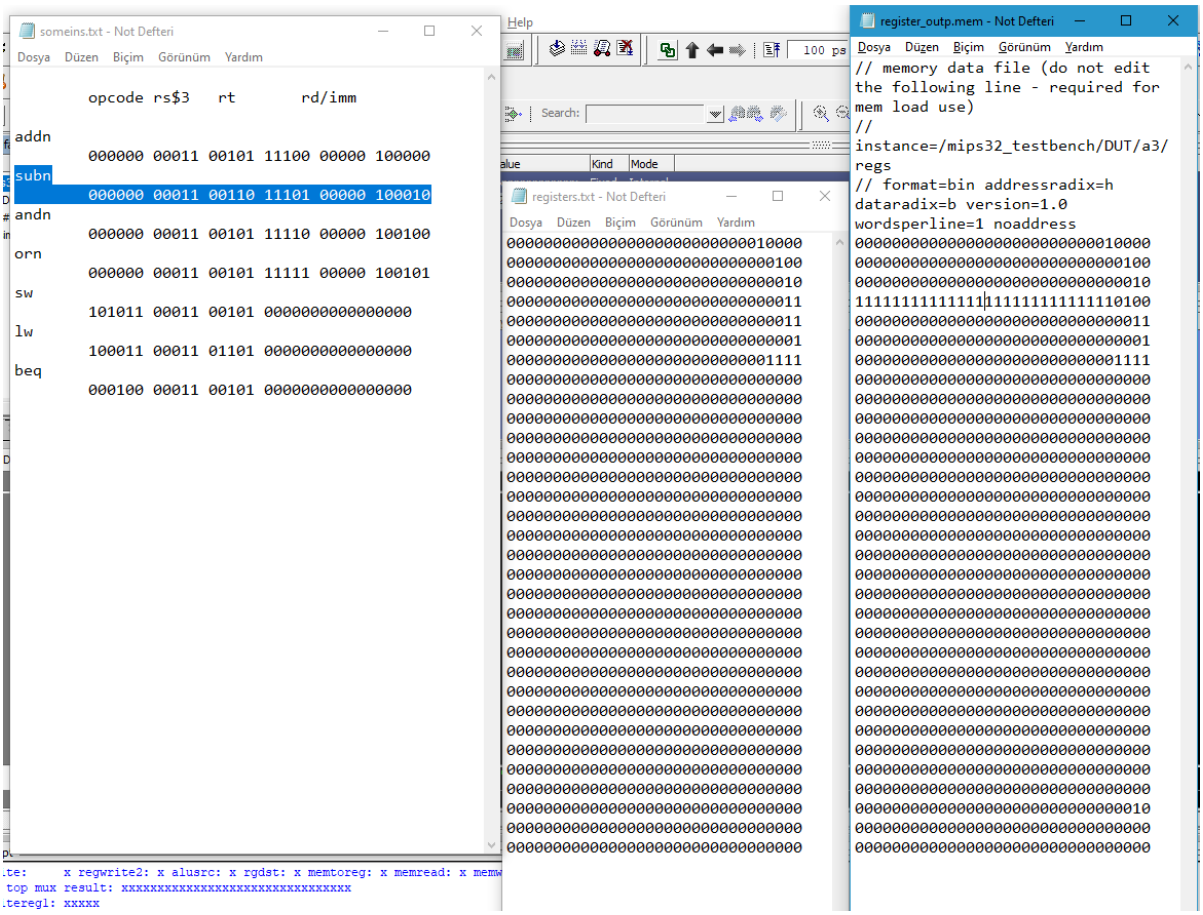


Run 2:

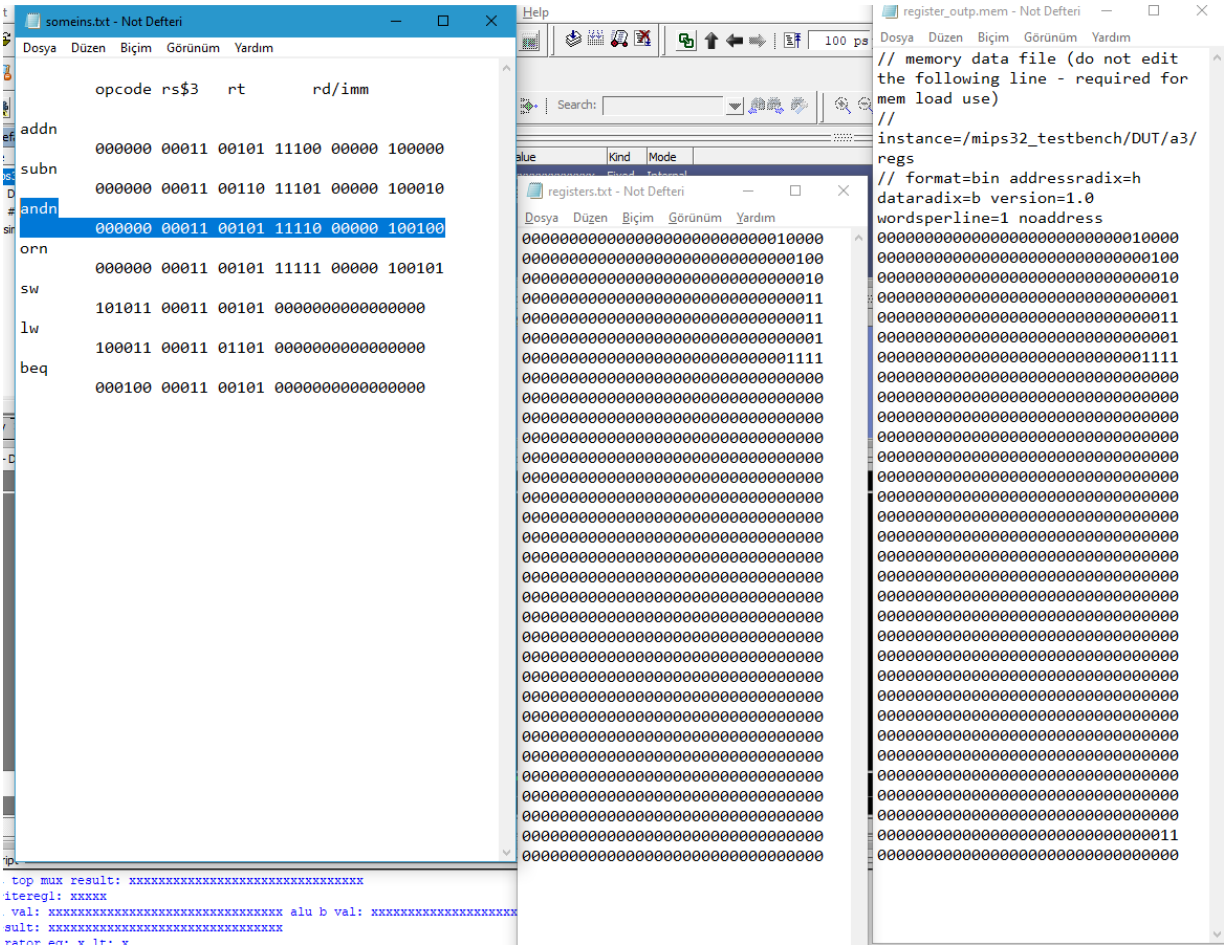
addn: $3 = $3 + $5 $28 = 3


someins.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
opcode rs$3 rt rd/imm
addn
000000 00011 00101 11100 00000 100000
subn
000000 00011 00110 11101 00000 100010
andn
000000 00011 00101 11110 00000 100100
orn
000000 00011 00101 11111 00000 100101
sw
101011 00011 00101 0000000000000000
lw
100011 00011 01101 0000000000000000
beq
000100 00011 00101 0000000000000000
Help
100 ps
Search:
alue
Kind
Mode
registers.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
register_outp.mem - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
// memory data file (do not edit the following line - required for mem load use)
//
instance=/mips32_testbench/DUT/a3/regs
// format=bin addressradix=h dataradix=b version=1.0
wordsperline=1 noaddress
te: x regwrite2: x alusrc: x rgdst: x memtoreg: x memread: x memw
top mux result: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
teregl: xxxxx
val: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx alu b val: xxxxxxxxxxxxxxxxxx
ılt: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
ator eq: x lt: x

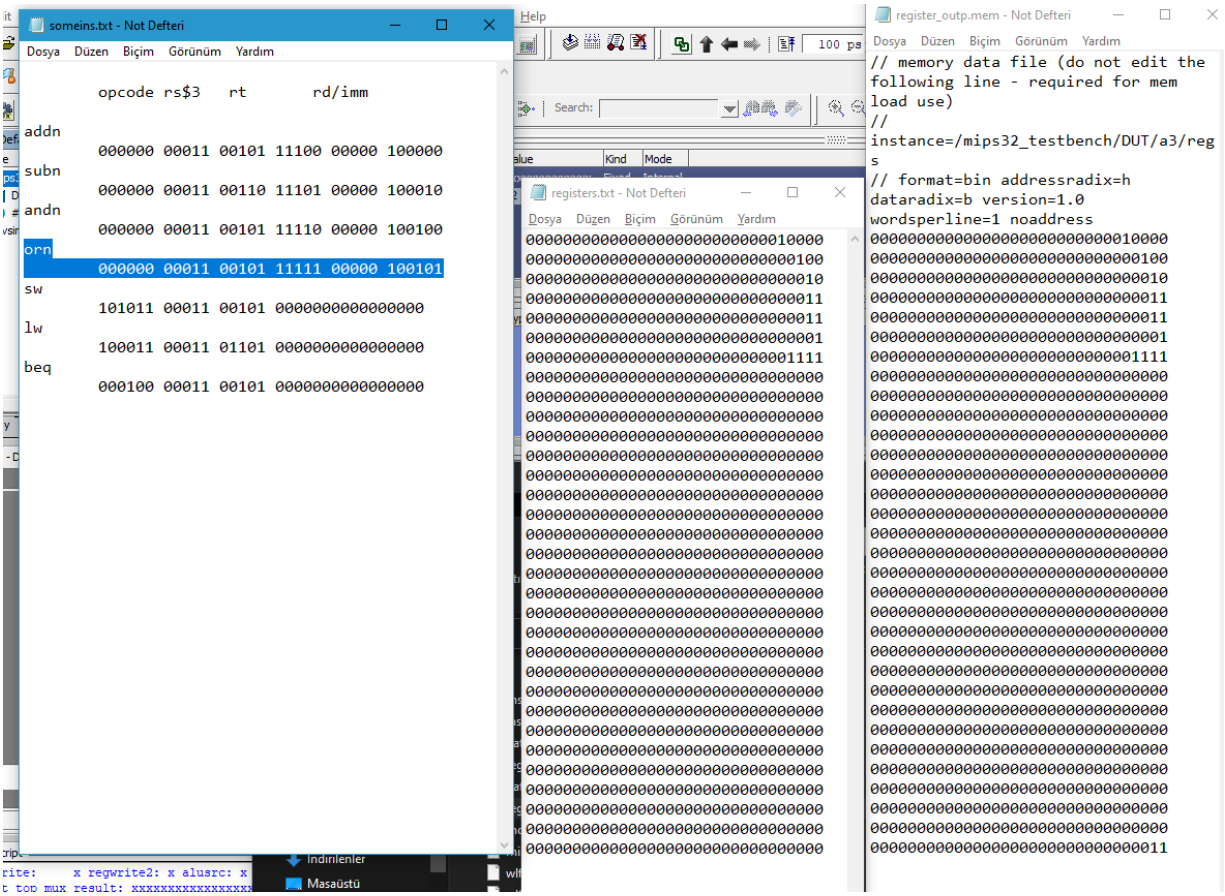
subn: $3 = $3 - $6 $29 = 2


someins.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
opcode rs$3 rt rd/imm
addn
000000 00011 00101 11100 00000 100000
subn
000000 00011 00110 11101 00000 100010
andn
000000 00011 00101 11110 00000 100100
orn
000000 00011 00101 11111 00000 100101
sw
101011 00011 00101 0000000000000000
lw
100011 00011 01101 0000000000000000
beq
000100 00011 00101 0000000000000000
registers.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
register_outp.mem - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
// memory data file (do not edit the following line - required for mem load use)
//
instance=/mips32_testbench/DUT/a3/regs
// format=bin addressradix=h dataradix=b version=1.0
wordsperline=1 noaddress

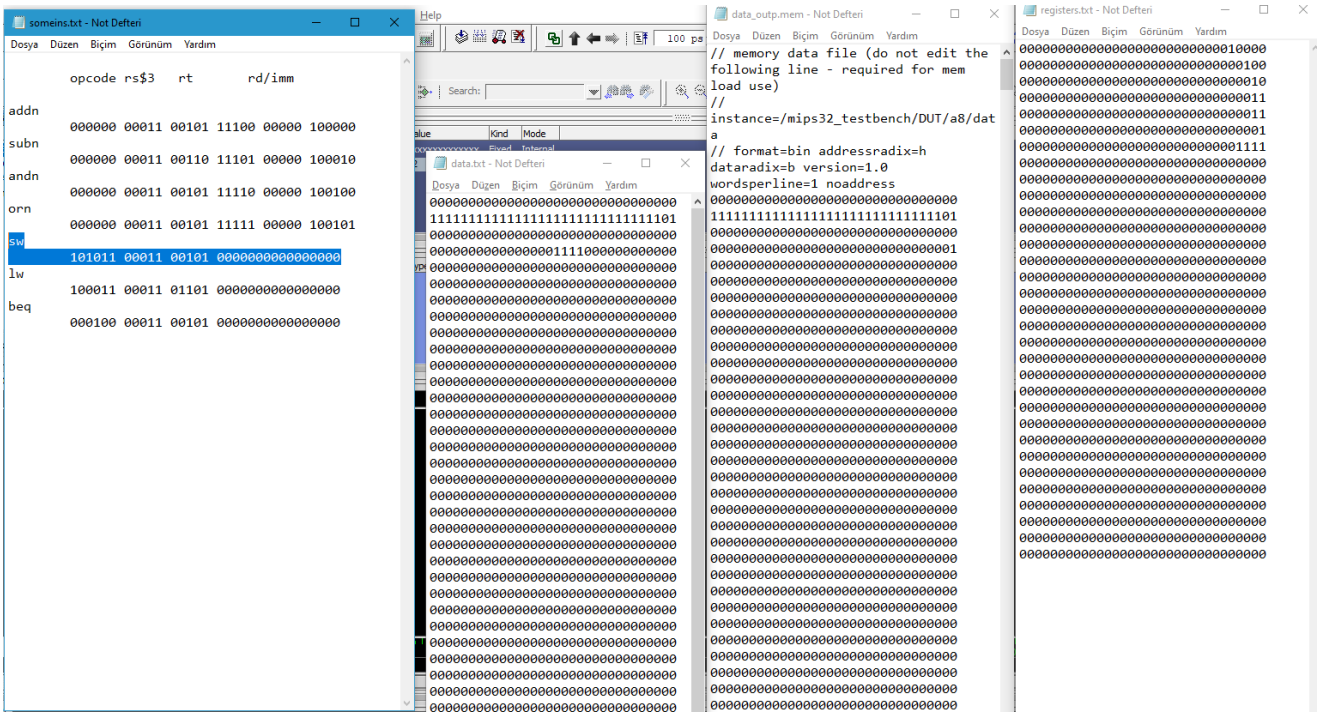
andn: $3 = $3 & $5 $30 = 3


someins.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
opcode rs$3 rt rd/imm
addn
000000 00011 00101 11100 00000 100000
subn
000000 00011 00110 11101 00000 100010
andn
000000 00011 00101 11110 00000 100100
orn
000000 00011 00101 11111 00000 100101
sw
101011 00011 00101 0000000000000000
lw
100011 00011 01101 0000000000000000
beq
000100 00011 00101 0000000000000000
Help
100 ps
Search:
registers.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
register_outp.mem - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
// memory data file (do not edit the following line - required for mem load use)
//
instance=/mips32_testbench/DUT/a3/regs
// format=bin addressradix=h dataradix=b version=1.0
wordsperline=1 noaddress

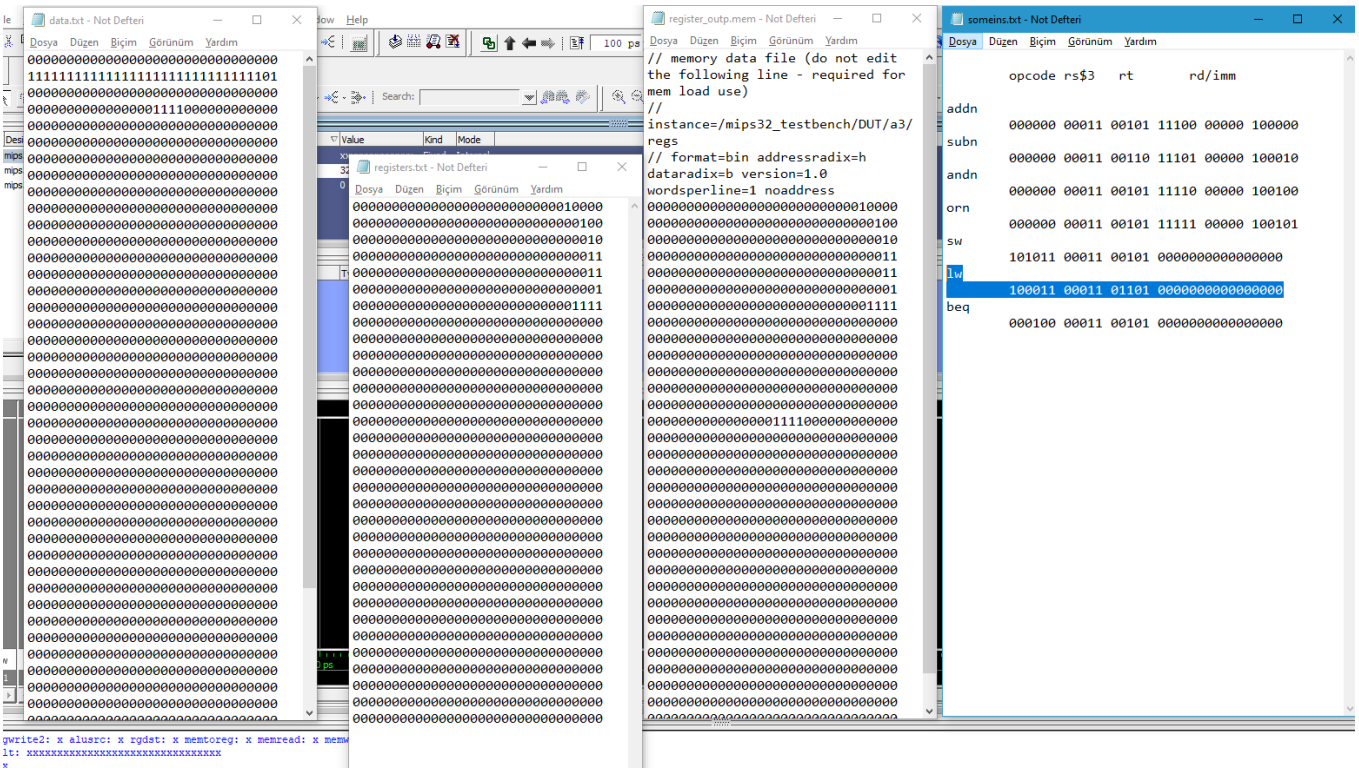
orn: $3 = $3 | $5 $31 = 3


someins.txt - Not Defteri
Dosya Düzen Biçim Görünüm Yardım
opcode rs$3 rt rd/imm
addn
000000 00011 00101 11100 00000 100000
subn
000000 00011 00110 11101 00000 100010
andn
000000 00011 00101 11110 00000 100100
orn
000000 00011 00101 11111 00000 100101
sw
101011 00011 00101 0000000000000000
lw
100011 00011 01101 0000000000000000
beq
000100 00011 00101 0000000000000000
registers.txt - Not Defteri
register_outp.mem - Not Defteri
// memory data file (do not edit the following line - required for mem load use)
//
instance=/mips32_testbench/DUT/a3/regs
// format=bin addressradix=h
dataradix=b version=1.0
wordsperline=1 noaddress

sw: M[$3 + SignExtImm(0)] = $5 (content of $3 is 2’b11)



lw: $13 = M[$3 + SignExtImm(0)] (content of $3 is 2'b11)



How the new R-Type instructions were implemented:

(Sorry for the bad drawing)