

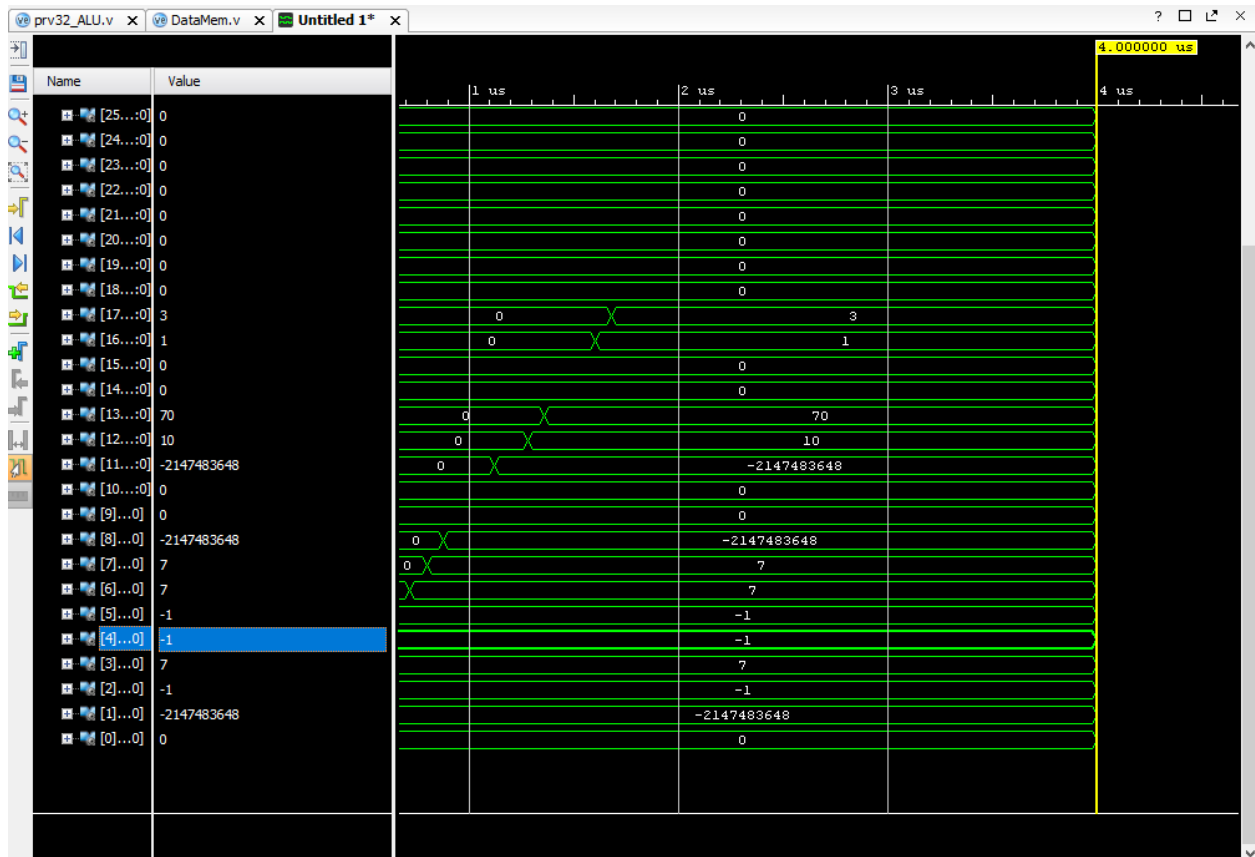
The Program:

Machine Code	Basic Code	Original Code
0x00000033	add x0 x0 x0	add x0, x0, x0
0x800000b7	lui x1 524288	li x1, -2147483648
0x00008093	addi x1 x1 0	li x1, -2147483648
0xffff00113	addi x2 x0 -1	li x2, -1
0x00700193	addi x3 x0 7	li x3, 7
0x0201c233	div x4 x3 x0	div x4, x3, x0
0x0201d2b3	divu x5 x3 x0	divu x5, x3, x0
0x0201e333	rem x6 x3 x0	rem x6, x3, x0
0x0201f3b3	remu x7 x3 x0	remu x7, x3, x0
0x0220c433	div x8 x1 x2	div x8, x1, x2
0x0220d4b3	divu x9 x1 x2	divu x9, x1, x2
0x0220e533	rem x10 x1 x2	rem x10, x1, x2
0x0220f5b3	remu x11 x1 x2	remu x11, x1, x2
0xffff00293	addi x5 x0 -1	li x5, -1
0x00a00613	addi x12 x0 10	li x12, 10
0x023606b3	mul x13 x12 x3	mul x13, x12, x3
0x02361733	mulh x14 x12 x3	mulh x14, x12, x3
0x023637b3	mulhu x15 x12 x3	mulhu x15, x12, x3

0x02364833 div x16 x12 x3 div x16, x12, x3

0x023668b3 rem x17 x12 x3 rem x17, x12, x3

Register File Testing Results:



Register File from Venus Simulator:

zero	0
ra (x1)	-2147483648
sp (x2)	-1
gp (x3)	7
tp (x4)	-1
t0 (x5)	-1
t1 (x6)	7
t2 (x7)	7
s0 (x8)	-2147483648
s1 (x9)	0
a0 (x10)	0
a1 (x11)	-2147483648
a2 (x12)	10
a3 (x13)	70
a4 (x14)	0
a5 (x15)	0
a6 (x16)	1
a7 (x17)	3

Display Settings Decimal ▼

Initialization Code:

initial begin

```
{mem[3],mem[2],mem[1],mem[0]}=32'h00000033;  
{mem[7],mem[6],mem[5],mem[4]}=32'h800000b7;  
{mem[11],mem[10],mem[9],mem[8]}=32'h00008093;  
{mem[15],mem[14],mem[13],mem[12]}=32'hfff00113;  
{mem[19],mem[18],mem[17],mem[16]}=32'h00700193;  
{mem[23],mem[22],mem[21],mem[20]}=32'h0201c233;  
{mem[27],mem[26],mem[25],mem[24]}=32'h0201d2b3;  
{mem[31],mem[30],mem[29],mem[28]}=32'h0201e333;  
{mem[35],mem[34],mem[33],mem[32]}=32'h0201f3b3;  
{mem[39],mem[38],mem[37],mem[36]}=32'h0220c433;  
{mem[43],mem[42],mem[41],mem[40]}=32'h0220d4b3;  
{mem[47],mem[46],mem[45],mem[44]}=32'h0220e533;  
{mem[51],mem[50],mem[49],mem[48]}=32'h0220f5b3;  
{mem[55],mem[54],mem[53],mem[52]}=32'hfff00293;  
{mem[59],mem[58],mem[57],mem[56]}=32'h00a00613;  
{mem[63],mem[62],mem[61],mem[60]}=32'h023606b3;  
{mem[67],mem[66],mem[65],mem[64]}=32'h02361733;  
{mem[71],mem[70],mem[69],mem[68]}=32'h023637b3;  
{mem[75],mem[74],mem[73],mem[72]}=32'h02364833;  
{mem[79],mem[78],mem[77],mem[76]}=32'h023668b3;
```

end