

HW #4 CS3340.501

1. MIPS Instruction

lui \$t1, 0x03aa

\$t1 = 0x03aa

ori \$t1, \$t1, 0xcdef

\$t1 = 0x03aa0000
+ 0x0000cdef
⇒ \$t1 = 0x03aacdef

andi \$t1, \$t1, 0xffffcfe

0x03aacdef → 0000 0011 1010 1010 1100 1101 1110 1111 and
0xffffcfe → 1111 1111 1111 1111 1100 1010 1111 1110
0000 0011 1010 1010 1100 1000 1110 1110
0 3 a a c 8 e e

\$t1 = 0x03aac8ee

sll \$t1, \$t1, 4

\$t1 = 0x03aac8ee

= 0000 0011 1010 1010 1100 1000 1110 1110 shift 4
= << 4 = 0011 1010 1010 1100 1000 1110 1110 0000
= 3 a a c 8 e e 0
= 0x3aac8ee0

MIPS Instruction	\$t1 value
lui \$t1, 0x03aa	0x03aa
ori \$t1, \$t1, 0xcdef	0x03aacdef
andi \$t1, \$t1, 0xffffcfe	0x03aac8ee
sll \$t1, \$t1, 4	0x3aac8ee0