Processor Specs and Notes

OpCodes and Instructions:

ADD = 00000101

ADDI = 0101????

ADDU = 00000110

ADDUI = 0110????

ADDC = 00000111

ADDCU = 00000100

ADDCUI = 0001????

ADDCI = 0111????

SUB = 00001001

SUBI = 1001????

CMP = 00001011

CMPI = 1011????

CMPU = 00001000

CMPUI = 0010????

AND = 00000001

ANDI = 1010????

OR = 00000010

XOR = 00000011

NOT = 00001100

LSH = 10000100 Shifts a register amount.

LSHI = 1000000?

ASH = 01001111

ASHI = 1000001?

WAIT = 00000000

MOV = 00001101

MOVI = 0011????

LOAD = 01000000 Rdest Raddr

STORE = 01000100 Rsrc, Raddr.

JAL = 01001000 Rlink, Rdest. Rlink ignored. Compiler to make link = dest. Dest used to case.

RET = 01001001 Returns to address stored in PC memory register + 1.

BRANCH = 1100???? Normal immediate command except Rdest = conditions:

0000 – jump

0001 – JG

0010 – JL

0011 – JE

0100 – JLE

0101 – JGE

0110 - JNE

Default = jump

GET = 10000101

START = 00001111

ENCHECK = 10000111