

Assembler User Guide

An assembler is a program that takes basic computer instructions and converts them into a pattern of bits that the computer's processor can use to perform its basic operations.

Instructions Supported		
R-Type	I-Type	J-Type
<ul style="list-style-type: none">- add- sub- and- or- nor- sll- jr- slt	<ul style="list-style-type: none">- lw- sw- addi- andi- ori- beq	<ul style="list-style-type: none">- Jal- J

The Expected Output :

The translated assembly code into machine code .

Assembler Standards :

- ONLY supported instructions and 32 registers are used
- ONLY one instruction is written per line .
- Instruction general form :
 - **R-Type** :
- Instruction name - space –register-comma-register-comma-register
Exception for jr : jr-space-register

- **I-Type:**

- Instruction name-space-register-comma-register-comma-immediate
- (loads/stores/beq)Instruction name-space-register-offset(register)

- **J-Type:**

- Instruction name-space-label
- Label name should be written in the same line of the first instruction in which it jumps/branches to .

ex: label : add \$s1,\$s2,\$s1