

Register Transfer Language (RTL): So far we have learnt that registers are nothing but a sequence of well organized D Flip-Flops. It might be SISO or SIPO or whatever but in general, it is all registers.

In this topic we will discuss about Register Transfer Language. RTL is a simple language that has many notations that we use to describe data transfers among registers.

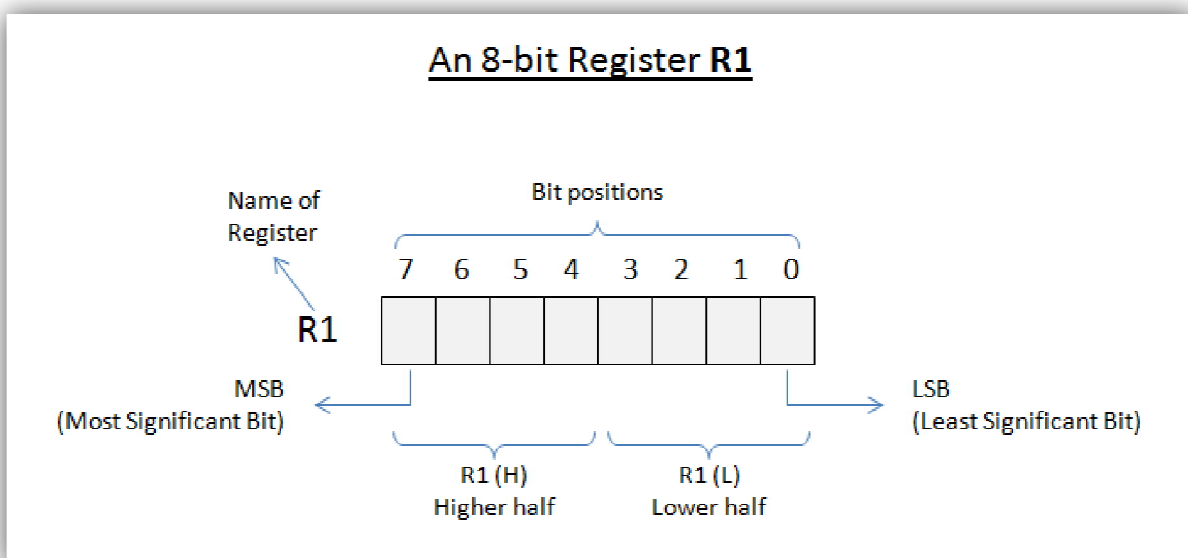
Following are the notations of RTL-

Symbols/Notations	Description	Examples
Letters and numerals	A register	R1, R2, IR
Parenthesis ()	A part of register	R1 (0-3), IR (12-14)
Leftward arrows ←	A data transfer	R1 ← R2, AR ← IR (0-11)
Comma ,	separating two operations	R1 ← R2, AR ← IR (0-11)

A register is diagrammed as a rectangle, having all the following necessary details-



The details of a register are as under-



Assignment:

- 1.** What do you understand by RTL? What are its notations?
- 2.** What do you understand by LSB, MSB, Lower half and Higher half of a register?