



Andhra Pradesh State Skill Development Corporation



Basics of PLC

Set & Reset concept with an example



Assignment, set, Reset,Not

Assignment

With an assignment, the specified operand is always assigned the current RLO as status. The assigned RLO remains available after the assignment and can be assigned to a further operand or it can be further logically linked.

Set

If RLO = "1", the specified operand is assigned Status '1'; if RLO = "0", the status of the operand remains unchanged.

Reset

If RLO = "1", the specified operand is assigned Status ' 0'; if RLO = "0", the status of the operand remains unchanged.

NOT

The NOT instruction inverts the result of logic operation (RLO). If, in the example shown, the RLO of the AND logic operation = '1', the NOT instruction inverts it to RLO '0' and the Set instruction is not executed (the status of "Tag_3" (Q20.0) then remains unchanged).

If the RLO of the AND logic operation = '0', the NOT instruction inverts it to RLO '1' and the Set instruction is executed ("Tag_3" (Q20.0) is assigned Status '1').\

EXAMPLE:

One switch is inside the field and another switch is on the operator panel to start motor1. One common stop is already there which is used for the stopping purpose of the motor.

Different ways to explain it is given below.

