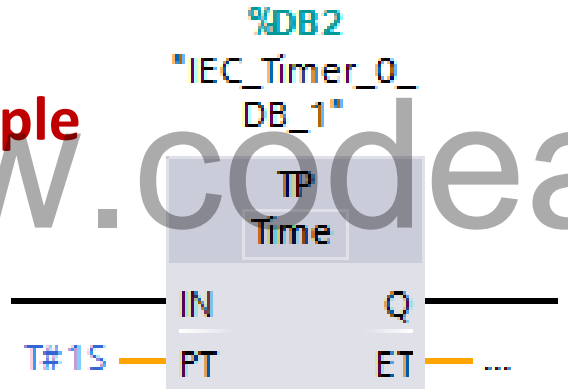
Siemens S7-1200

CPU 1212C AC/DC/Relay

Timer Operations (TP)

- **Pulse Timer**
- **Exercise Example**



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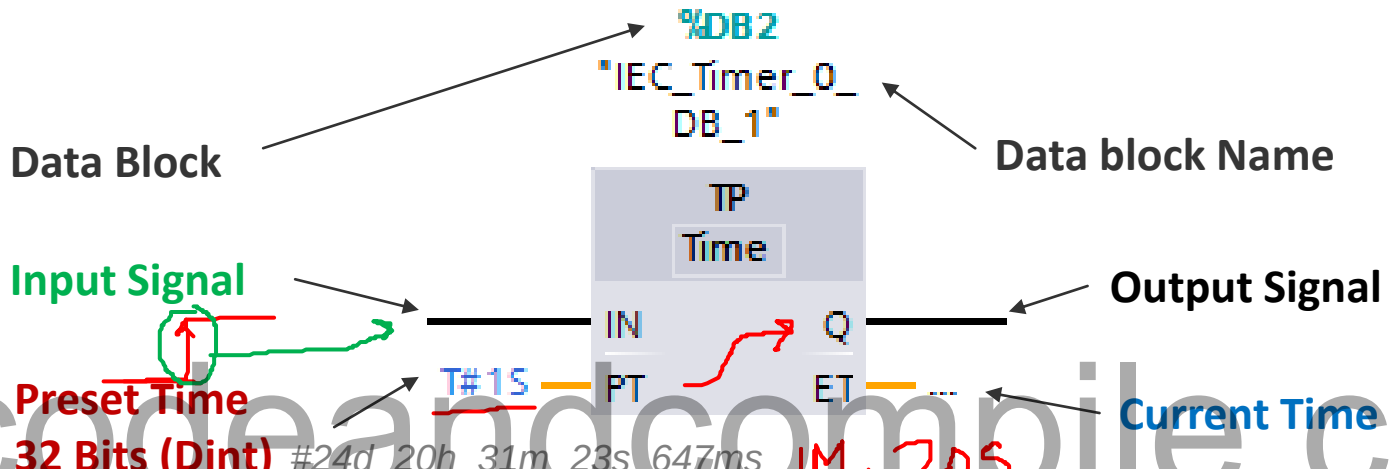
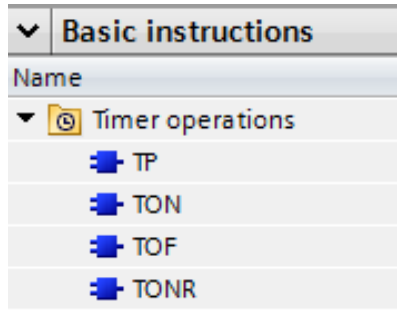
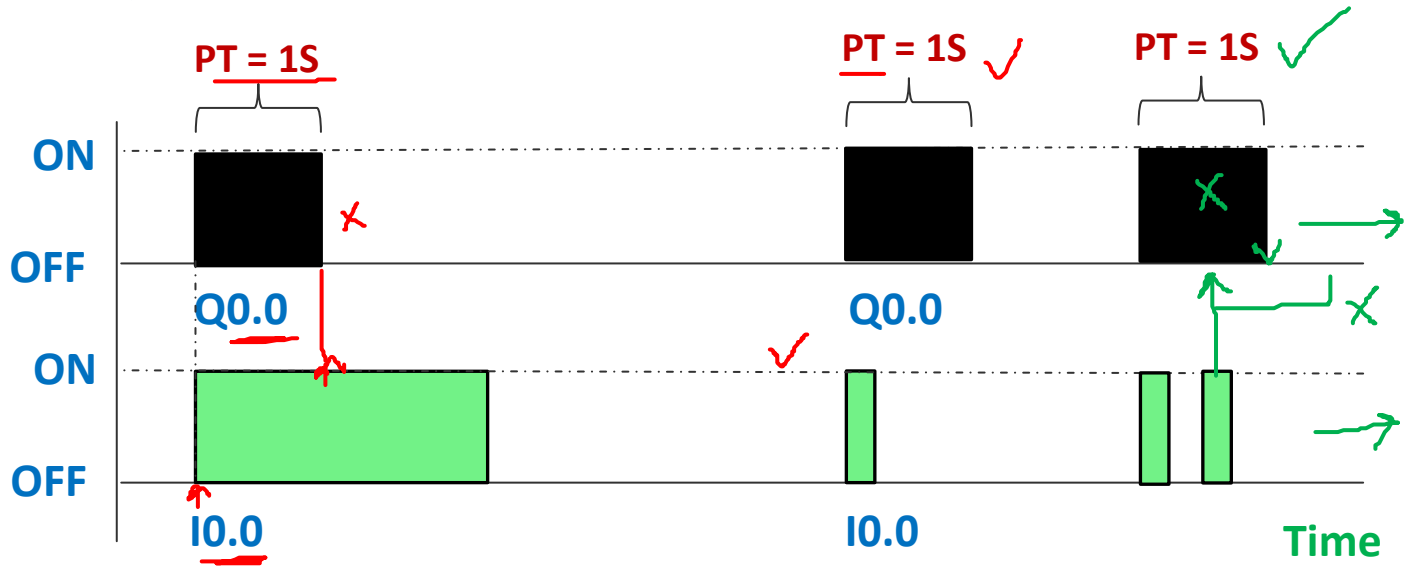
Timer Operations in LAD – **TP (Generate Pulse)**

Pulse Timer The TP timer generates a **pulse** with a **preset width time.**





Example If Preset Time is 1000ms = 1 second



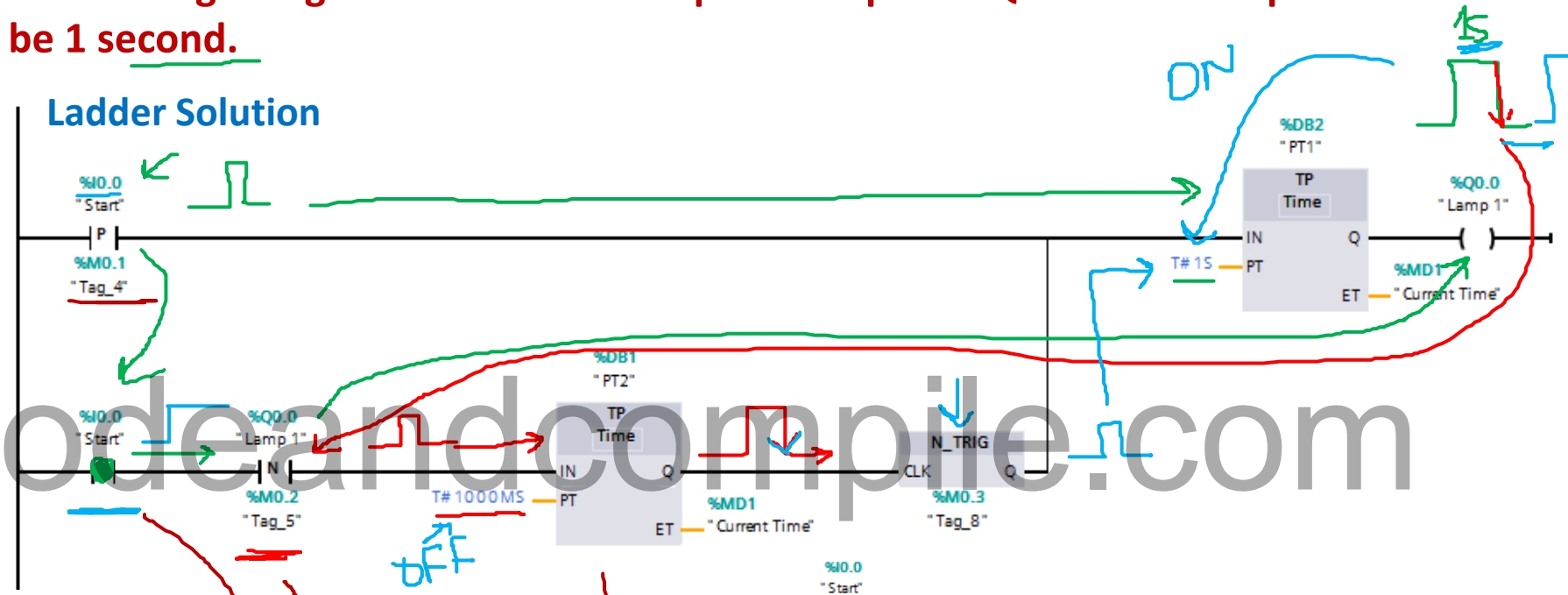
DID YOU KNOW ?

- **Changing PT** has **no effect** while the **timer runs.**
- **Changing IN** has **no effect** while the **timer runs.**

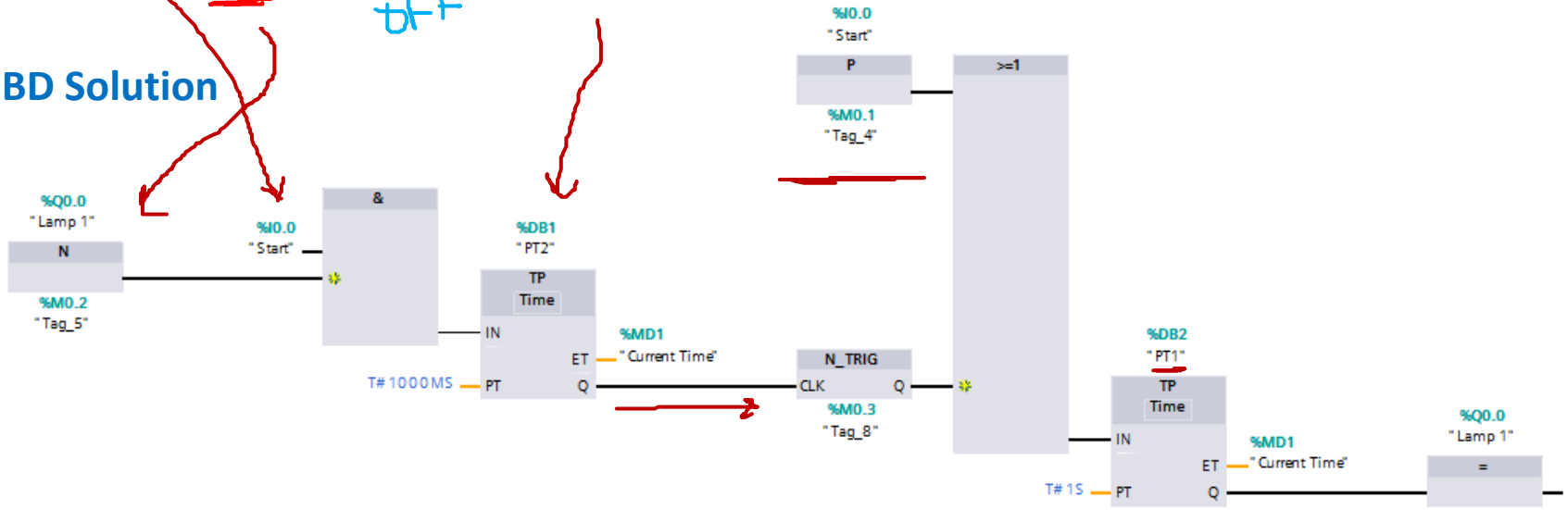
Exercise Example

Write a Logic to generate continuous pulse output at Q0.0. Consider pulse time to be 1 second.

Ladder Solution



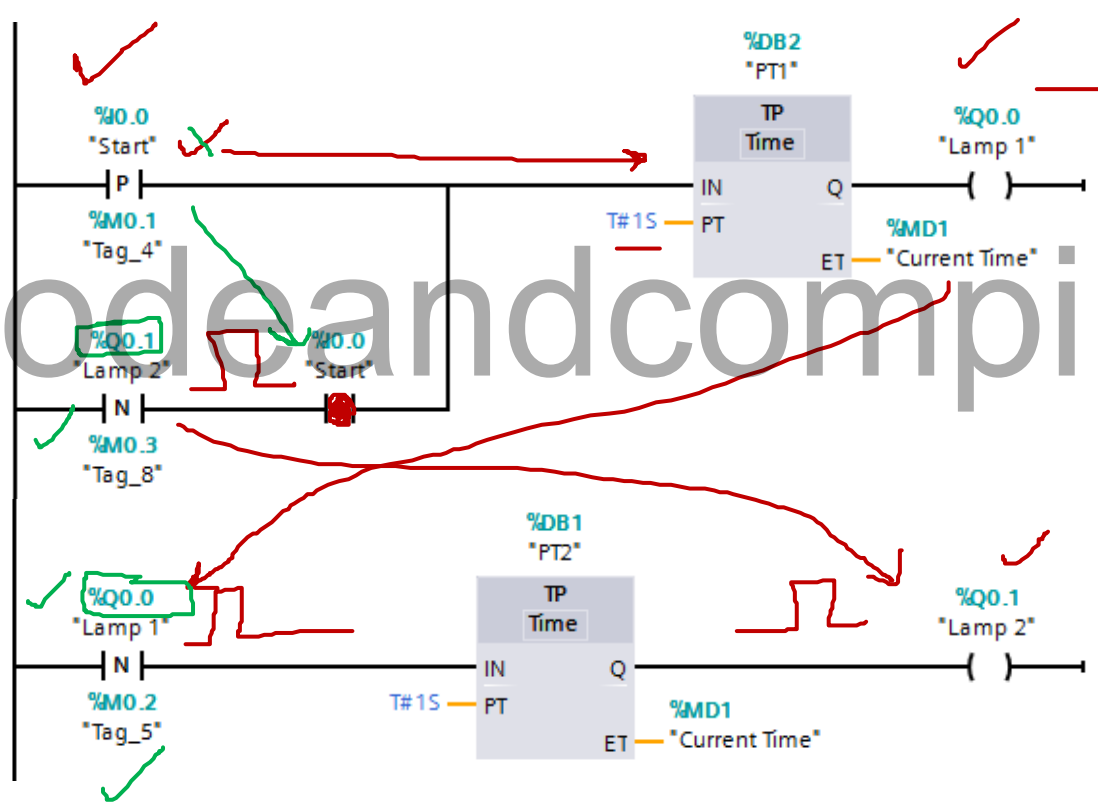
FBD Solution



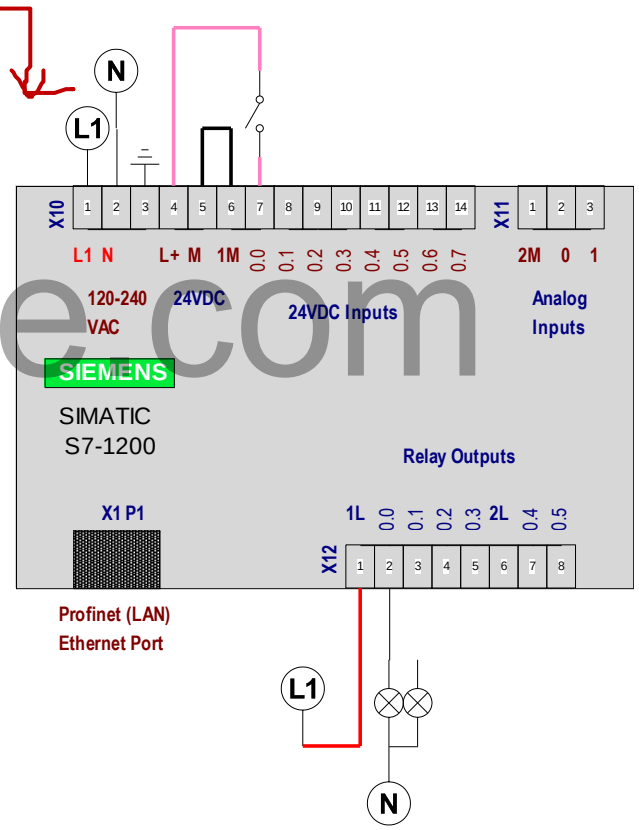
Exercise Example

Write a Logic to generate continuous pulse output at Q0.0 and Q0.1 with I0.0. Consider pulse time to be 1 second.

Ladder Solution



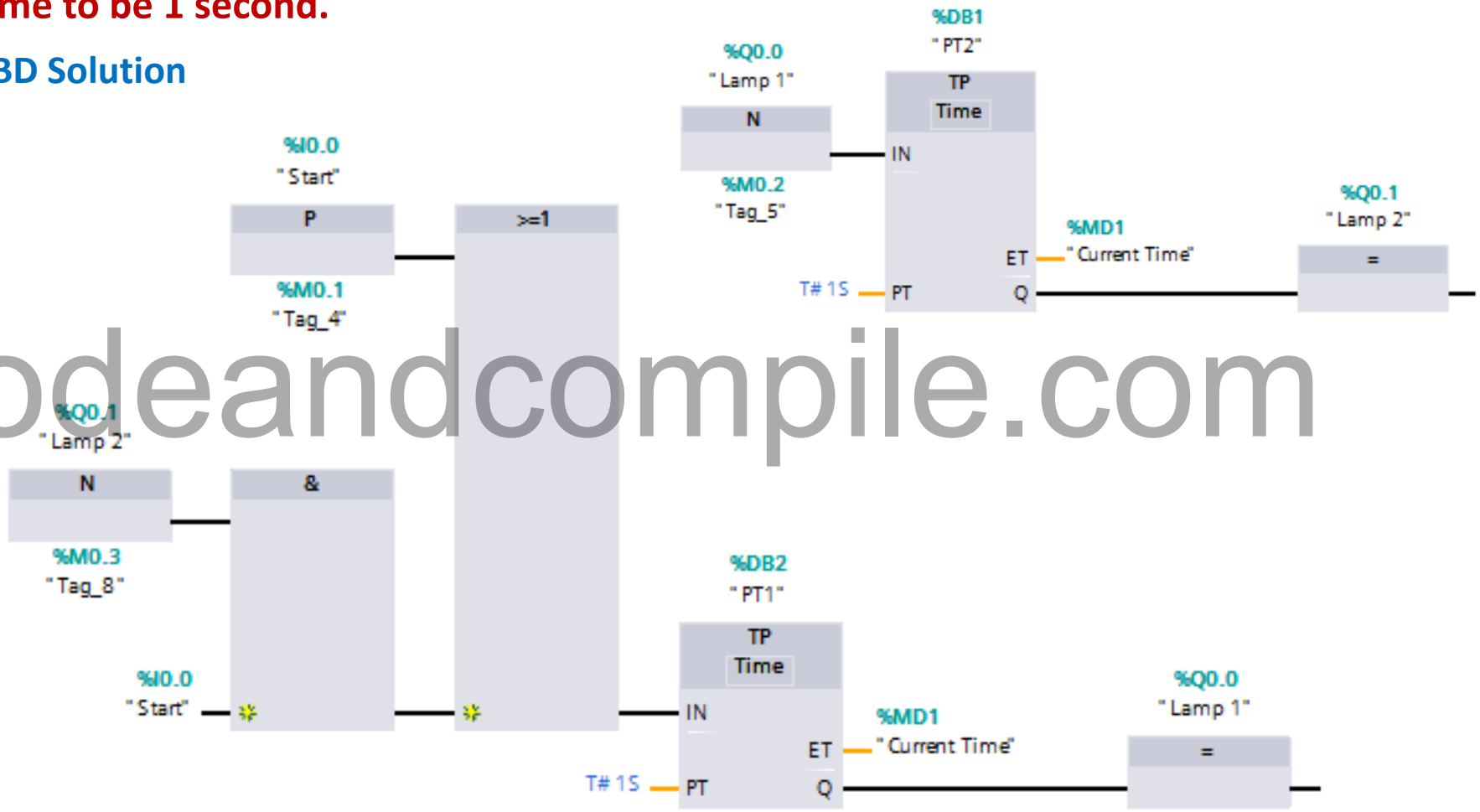
PLC Wiring



Exercise Example

Write a Logic to generate pulse output at Q0.0 and Q0.1 with I0.0. Consider pulse time to be 1 second.

FBD Solution



What did we learn in this lesson?

- You can use the "**Generate pulse**" instruction to set the output **Q for a programmed duration**.
- The instruction is **started** when the result of **logic operation (RLO)** at input IN changes from **"0" to "1" (positive signal edge).**
- The programmed time PT begins when the instruction starts. Output Q is set for the duration PT, regardless of the subsequent course of the input signal
- When the duration PT is reached and the signal state at **input IN** is "**0**", **the ET output is reset.**

Thank you

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