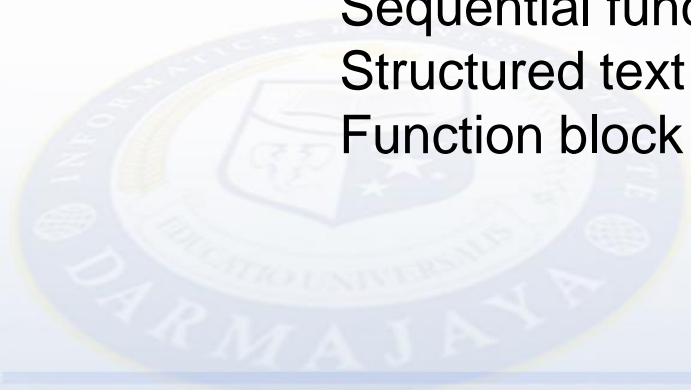


Ladder Programming

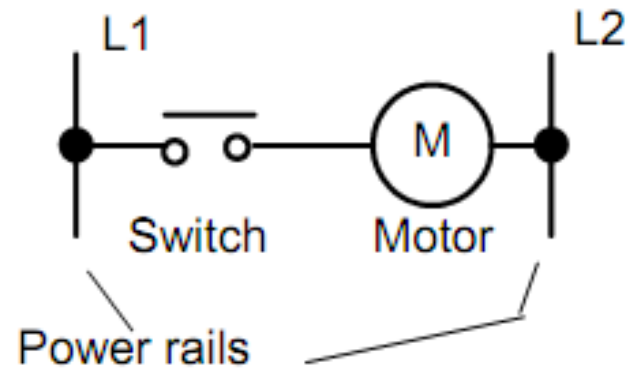
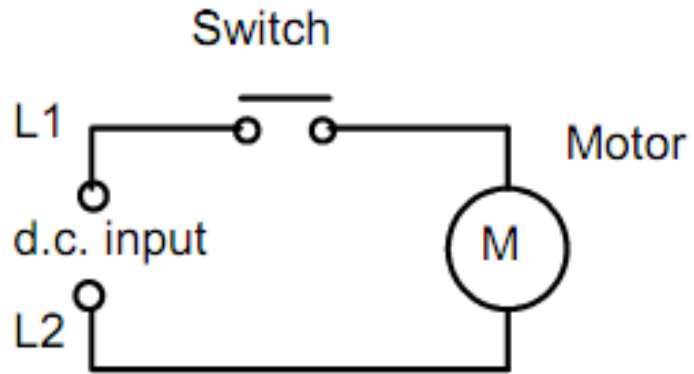
Masing-masing produsen mengembangkan programming PLC sesuai standar internasional

The standard published in 1993, is IEC 1131-3 (International Electrotechnical Commission). The IEC 1131-3 programming languages:

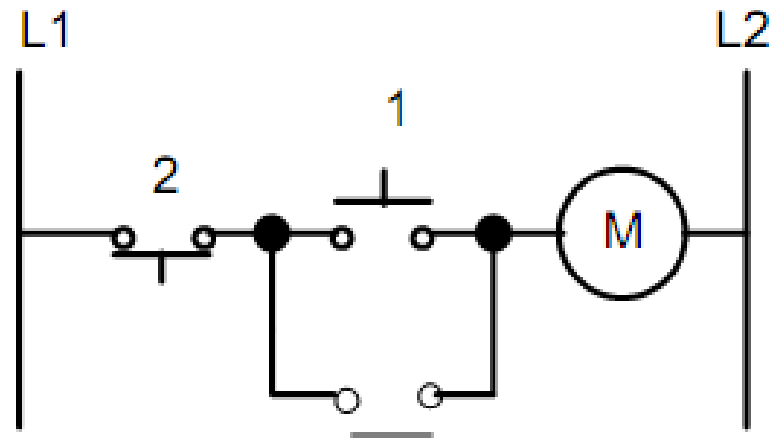
- Ladder diagrams (LAD)
- Instruction list (IL)
- Sequential function charts (SFC)
- Structured text (ST)
- Function block diagrams (FBD)



- Electrical circuit



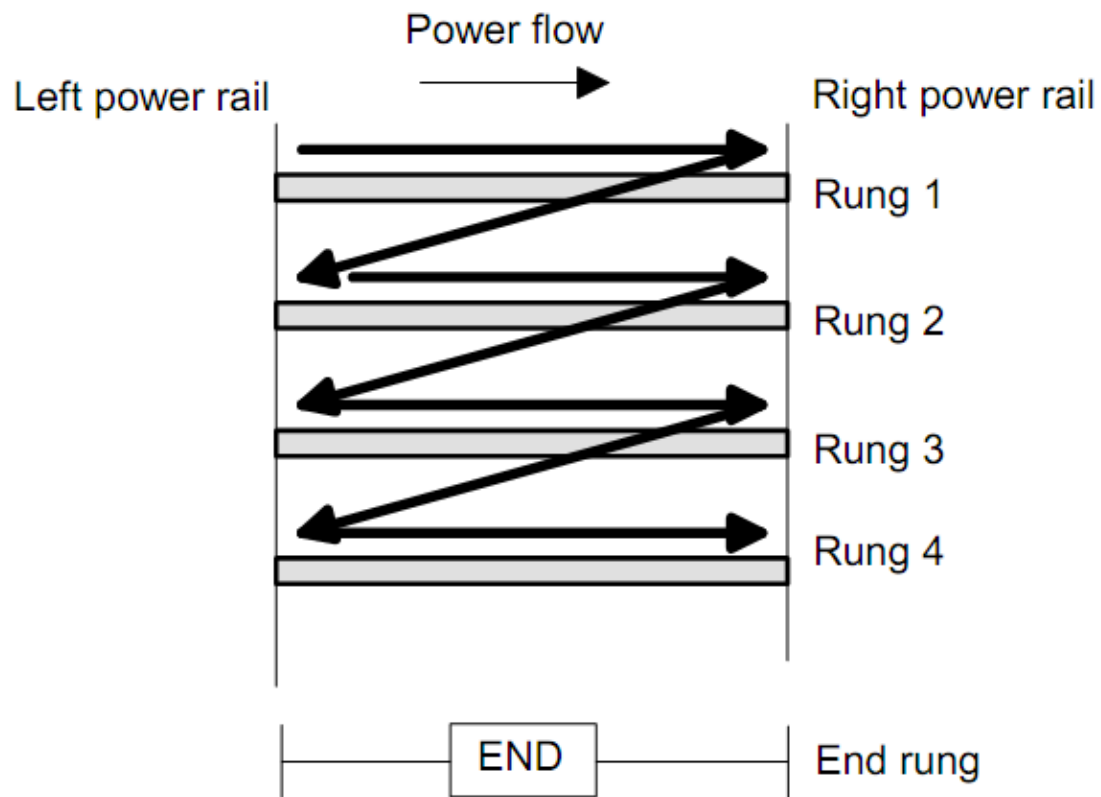
Ladder circuit start stop switch



Holding switch

PLC Ladder Programming

- Based on Ladder circuit.



Basic Symbols

A horizontal link along which power can flow

Interconnection of horizontal and vertical power flows

Left-hand power connection of a ladder rung

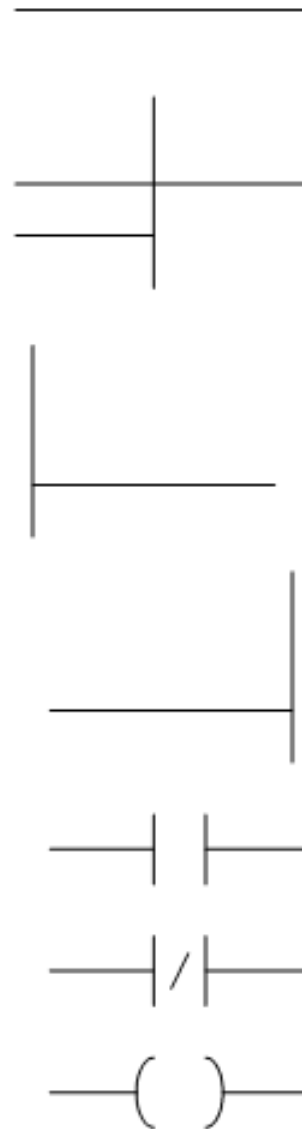
Right-hand power connection of a ladder rung

Normally open contact

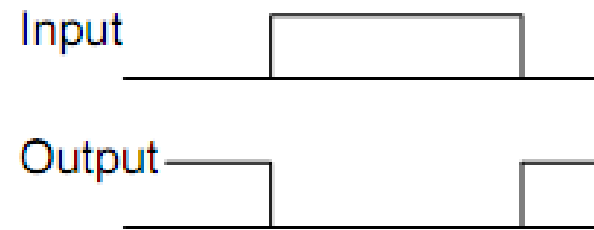
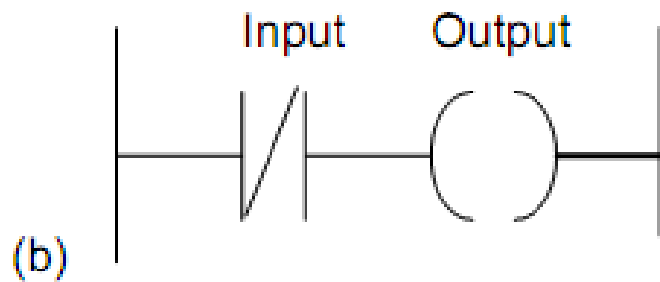
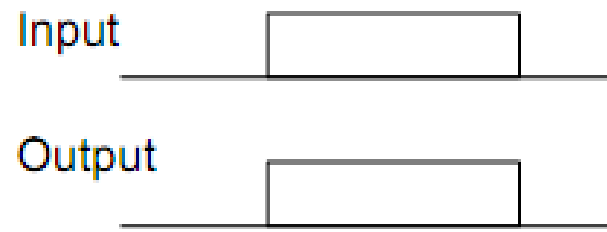
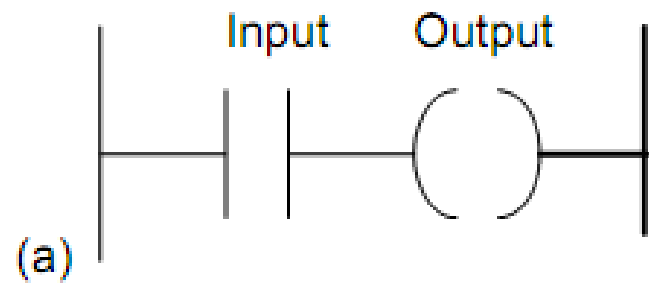
Normally closed contact

Output coil: if the power flow to it is on then the coil state is on

Full graphic form



Energizing of an output device.



Addresses of elements

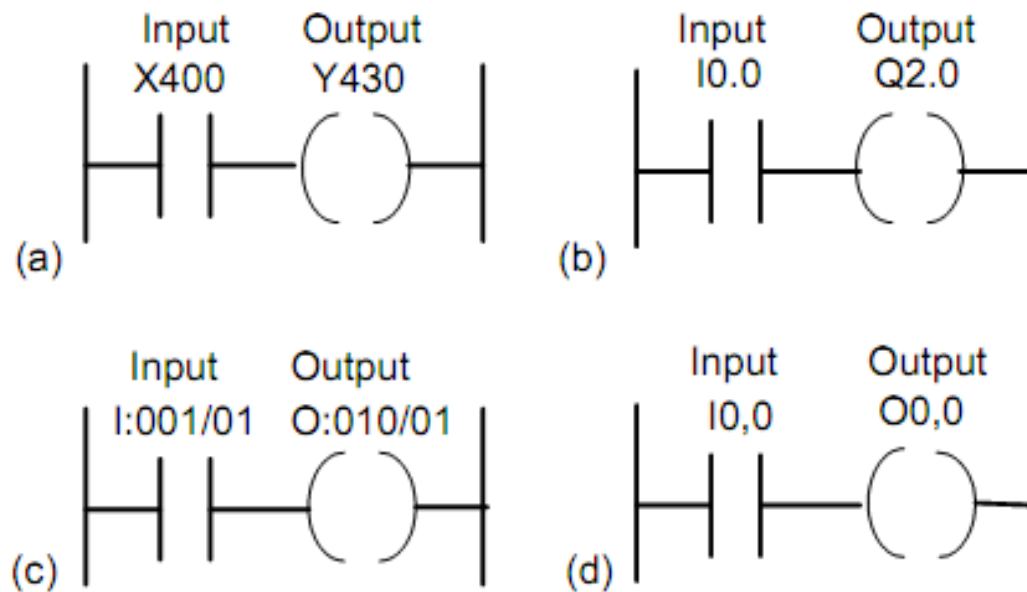


Figure 5.6 Notation: (a) Mitsubishi, (b) Siemens, (c) Allen-Bradley, (d) Telemecanique