

# PLC PROGRAMMING, SIMULATION AND SUPERVISION SOFTWARE

## Mod. SW7/EV

Software mod. SW7/EV is a software of configuration, programming, simulation, control and diagnostics; it can be used in OFFLINE mode (PLC simulated via software) or with PLC trainer mod. PLC-V7/EV.

It offers the availability of a lot of standard libraries concerning:

- Logical combination of bits
- Timers
- Counters
- Comparison operations
- Mathematical functions
- Transfer operations
- Conversion operations
- Logical combination by word
- Shiftment and rotation
- PID Control

It includes the following programming languages:

- Instruction list (AWL)
- Contacts (KOP)
- Logic (FUP)
- Graph
- SCL

It complies with standard DIN EN 6.1131-3.

The simulation of PLC is managed by a specific software block included in the program where all the operating modes of an actual PLC are integrated.

This software enables to create some HMI pages with a basic library of objects and elements (line, ellipse, circle, I/O field, pushbutton, bar graph, curves on Cartesian chart, etc...). Installing also the (optional) supervision software of advanced level mod. SV/EV will enrich the library with graphic elements concerning various sectors (Chemistry, Industry, Building, HVAC etc...).

### TRAINING PROGRAM

Software mod. SW7/EV enables students to learn the programming of PLCs by explaining the theoretical and experimental analysis of the following exercises:

- Architecture of a PLC, synchronous cycles, asynchronous cycles and cycles with priority
- Run-time, cycle time and response time
- Boolean algebra (NO and NC contact, logical functions)
- Programming in AWL, KOP, FUP, GRAPH, SCL languages
- Functions of combinational and sequential logic
- Addressing operations



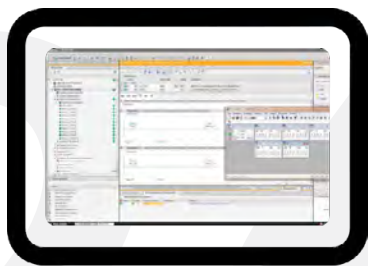
- Timers & counters
- PID control
- Creation of HMI pages

The software block of PLC simulation enables to test the program (OFFLINE) before it is transferred onto the actual device. The software is also provided with the following examples of exercises carried out:

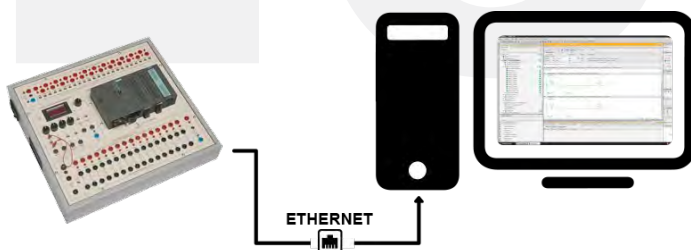
- Logic gates
- Function modules
- Starting an asynchronous motor
- Reversal of rotation in an asynchronous motor
- Star/delta starting of an asynchronous motor
- Star/delta reversal of rotation
- Linear position control
- Starting a Dahlander motor
- Motor with two separate coils
- Starting an asynchronous wound-rotor motor

### PC SYSTEM REQUIREMENTS

- Processor: Core i5, 2.4 GHz, or equivalent
- Working storage:
  - 3 GB for 32-bit operating system
  - 8 GB for 64-bit operating system
- Hard disk: 250 GB S-ATA HDD
- Graphics: min. 1280 x 1024
- Screen: 15" SXGA + display (1400 x 1050)
- USB port
- Ethernet port
- O.S.: Windows 7 SP1 (32-bit or 64-bit)



*Offline mode: the PLC is simulated via software*



*Online mode: the software is connected with the  
PLC training panel mod. PLC-V7/EV*

#### SUPPLIED WITH

SOFTWARE PROGRAMMING HANDBOOK ON DVD-ROM AND  
CD-ROM WITH EXAMPLES OF PROGRAMMING

#### OPTIONAL

PLC TRAINING PANEL  
Mod. PLC-V7/EV



PLC SUPERVISION SOFTWARE  
ADVANCED LEVEL Mod. SV/EV