

SCADA vol 2 (ISS0089)

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Homework

Task

Homework description

Design a SCADA operator interface (HMI) on PC for two PLC system using InTouch or some other industrial HMI design software.

Add TWO windows:

- for combined data.
- for individual tanks.

Subtasks

See 'Practical Task 2' for additional methods and tasks that can and should be used when preparing the homework.

Deadlines

Schedule

Week 16!

Specification

Description of PLCs

Names and IP addresses

- JACK12: 193.40.240.66
- JACK13: 193.40.240.67

The programs on both PLCs are identical.

Data (MB & MI)

- MI0: current amount of liquid in the tank
- MB0: SWITCH mode between auto/manual (toggle)
- MB1: SWITCH open/close PUMP (manual)
- MB2: SWITCH open/close OUT VALVE (manual)
- MB10: display current mode: auto/manual
- MB11: display pump state
- MB12: display valve state
- MB13: display liquid level: FULL
- MB14: display liquid level: EMPTY
- MB40: WARNING: almost FULL
- MB41: WARNING: almost EMPTY
- MB42: DANGER: almost FULL
- MB43: DANGER: almost EMPTY

DO NOT use other MBs, they might be used for internal calculation in the PLC.

Data (values and operation)

- MI0: 0—50
- MI0: warning if $MI0 \leq 10$ or $MI0 \geq 40$
- MI0: danger if $MI0 \leq 5$ or $MI0 \geq 45$
- O0: PUMP is ON
- O1: OUT VALVE is OPEN
- O2: warning: full
- O3: danger: full
- O4: warning: empty
- O5: danger: empty

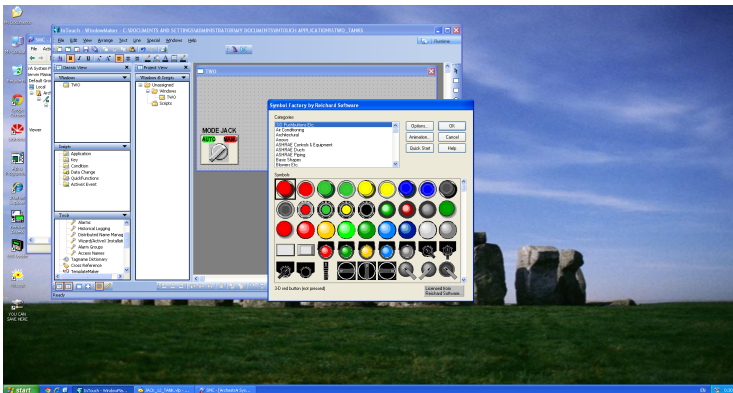
PLC buttons (do not use)

- F1: restart IP socket
- F2: toggle operation mode: auto/manual
- F4: toggle pump: ON/OFF
- F5: toggle out valve: OPEN/CLOSE

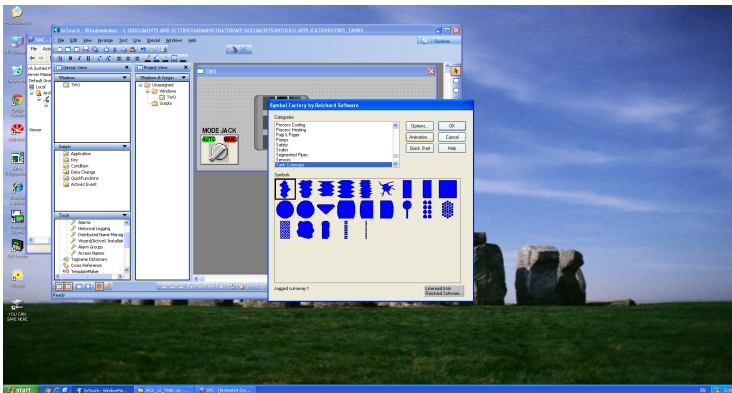
Practical tasks 2

Symbol Factory

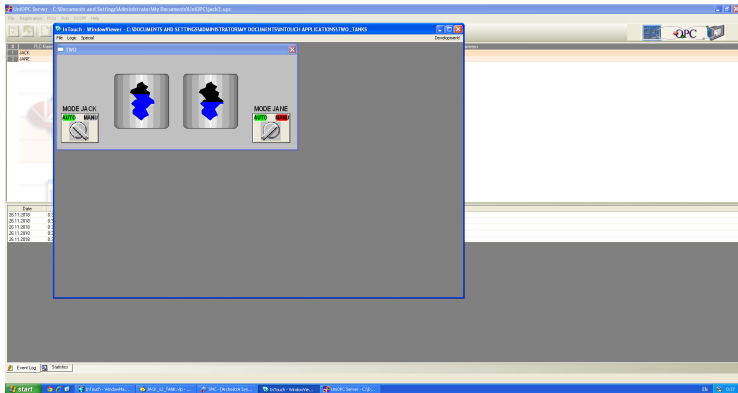
From 'Wizard' launch Symbol Factory



On a 'tank' add 'tankoverlay'

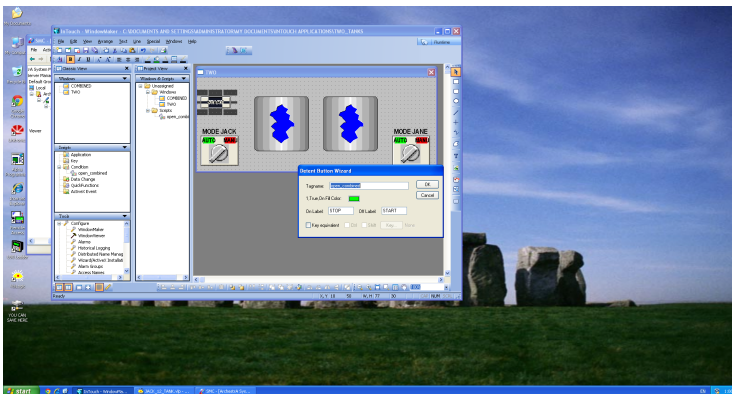


Runtime view

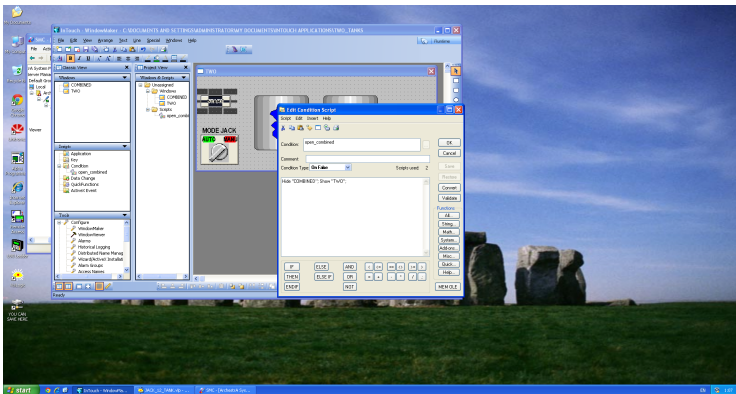


Scripting

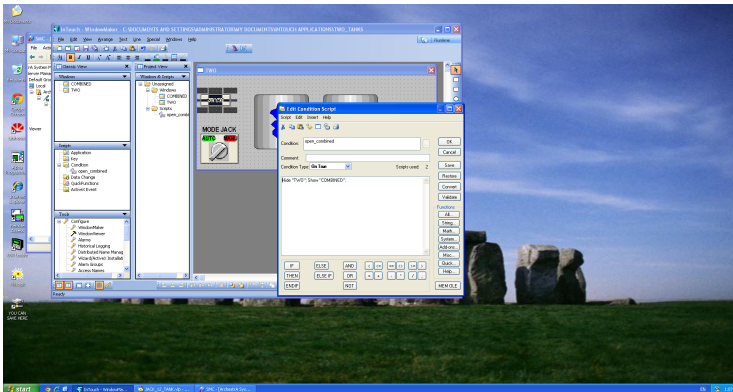
Add tag to abutton



Scripts window: add 'Condition' script – 'On False'



Scripts window: add 'Condition' script – 'On True'



Connect the same tag to a button on the second window

