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Supervision Ermaflex

Supervised operation of all or part of the line

Ermaflex supervision at a glance

> Highlights & Key Activities

- ü Control and operation from a control screen, monitoring on an animated synoptic, historicisation of rates and monitoring of alarms
- ü Preventive maintenance management
- ü Dynamic visualization of a grafcet by machine
- ü Recording of different events during production

Specific components

- ü 32 MB PENTIUM PC server with ETHERNET card
- ü PCVUE 32 software (development key with 1000 variables)
- ü Network connection accessories
- > Option: Siemens Wincc Flexible version, consult us

Features

- ü Electrical power: 230V single phase
- > This system is accompanied by a technical and educational file

References

- ✓ UC20: Supervision containing a PC server station and a PC Vue 32 license open to multi-user licensing
- IP10: IP Camera & Industrial Supervision (Over PoE)
- ✓ UC13: Supervision Mini: Supervision control including: PC Vue 32 Educ Mini Development+Runtime software (250 variables) For one machine

Functional description

- ✓ The monitoring station is connected to the various modules of the Ermaflex line via an Ethernet network
- It receives information and transmits orders to the PLCs via the networks implemented in the installation.

Educational activities

- Control and drive all or part of the line from a control screen
- ✓ Diagnose
- Manage preventive maintenance, alarm history and archiving
- Study on Grafcet with active steps in dynamics
- Record the various events that occur during production
- Maintain a log of rates, running time
- ✓ Visualise on screen the complete line by a global synoptic or each part of the line by a detailed animated synoptic of the selected module
- ✓ Study the student's responsiveness to a problem (introduction of defects)

Examples of practical work

<u>TP integration of a new asset: Commissioning of the supervision and verification of its operation.</u>

- ✓ Analysis of the Ethernet network and its addressing / justification of addresses and mask
- ✓ Checking the address of the supervisory PC
- ✓ Checking the presence of the various devices on the network (pinging)
- ✓ Commissioning of the supervisor and verification of its correct operation
- ✓ Search for network malfunctions (simulation of a failure on the connector)

<u>TP preventive maintenance: program an indicator used to trigger preventive maintenance and program the feedback to the supervisor.</u>

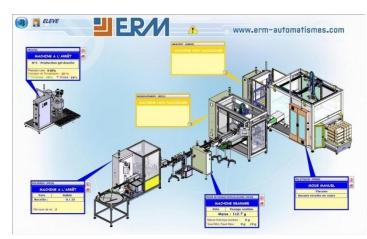
✓ Choice of indicator (counting, time,...)

 \checkmark From a variable in reserve in the supervisor and the PLC, proposal and validation of the modification of the PLC program

- ✓ Programming the PLC and checking the operation of the indicator
- ✓ From a variable (in reserve in the supervisor and the PLC) and a procedure: display of the indicator in the window of the considered machine

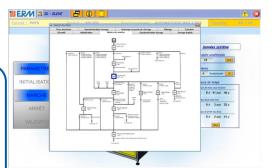
Bac PRO PLP - MSPC BTS MS - IUT Universities - Engineering schools

Examples of supervision screens





Overview by machine



Task synchronisation flowchart



Examples of supervision screens



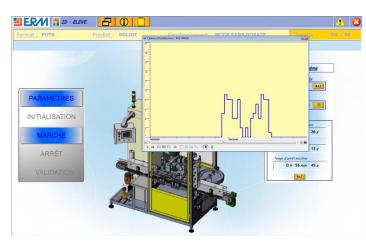
Alarm management

Consignment list



Setting up the operator console

Maintenance



Trend line