

Project Configuration

Configuration

- Windows® based configuration software
- Copy protection against unauthorized access to the process controller
- Import of existing S5®-PLC programs
- Online-Debug function for test
- Integrated help functions
- Configuration software free of charge
- Individual training courses

Control via integrated PLC

The internal PLC offers all modern functions of a PLC and has an instruction set compatible with the S5®-155U. For special applications extended instructions are available. The PLC will be programmed in the well-known AWL structure. An online debugger shows the state of the currently running PLC program. Process variables may be inspected and modified.

I/O configuration

Any analog input may be of type voltage, current or resistance in any combination. Input signal ranges are software configurable. The configuration will be programmed in an AWL-like language. That means modifications and extensions are possible at any time at low cost.

Block configuration

The controller configuration is built by pre-defined mathematical function blocks. These function blocks directly communicate with the integrated PLC. Integrated check functions serve the fault location and the optimizing.

Visualization

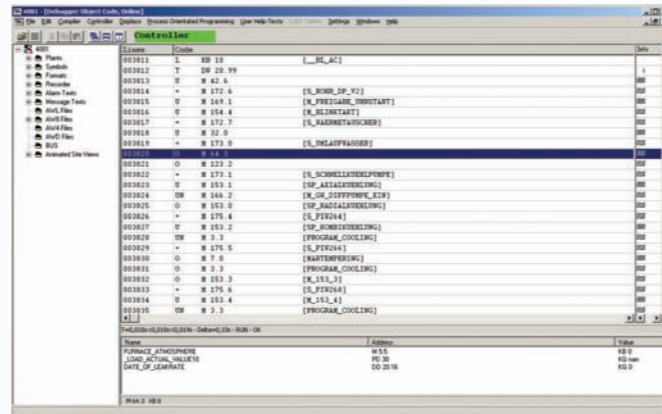
For a better supervision of the process presentations like line diagrams or trend diagrams may be configured. The current process state is displayed by means of process and site views where numeric displays, trend displays, fault lamps or colored marks may be integrated.

Alarm- and message system

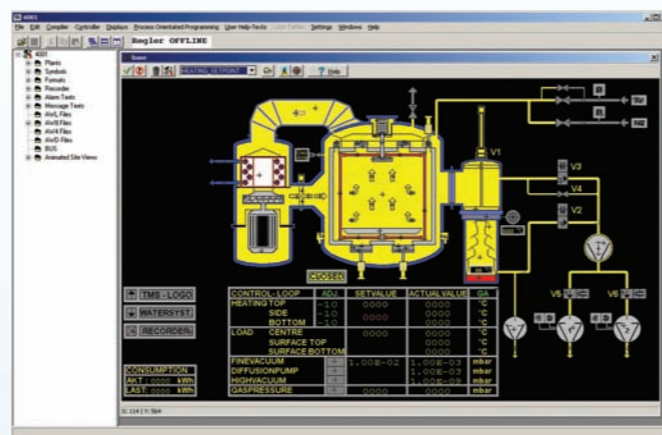
Error messages and alarms may be configured for the display in the process system. Extended help texts may be generated in order to support the user in current situations. Combined with PLC-instructions an automatic reaction of the system may be installed.

Process orientated programming

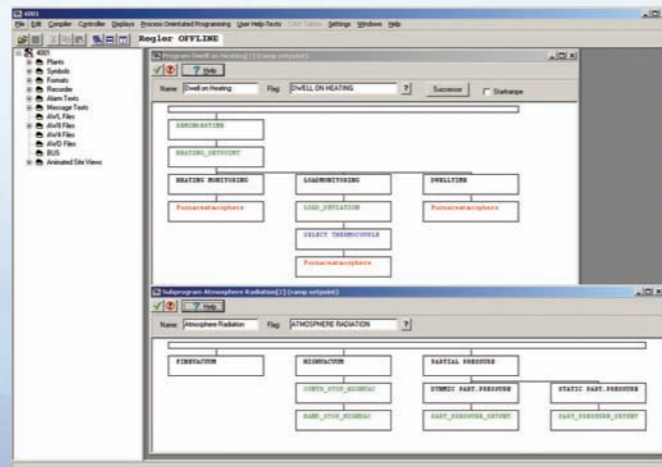
By means of the configuration of process phases the manufacturer offers the special know-how - including an individual and optimized control and regulation system - to the end-user. All necessary control functions are generated automatically. Illogic entries by the user are avoided by the decision tree principle.



Control via integrated PLC



Visualization



Process orientated programming



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DE-VX

4100 4110 4115

High-powered control systems for process engineering tasks

regulation · control · recording · visualization · easy to use

freely configurable · integrated PLC · telemaintenance · TCP/IP network protocol



Process control systems type DE-VX 4100

We put our experience of more than 25 years of developing process control systems to the new controller family. The networkable universal control systems may be flexibly equipped with I/O boards or with external I/O modules. The configuration software which is shipped with the controller allows the adoption to nearly all individual control problems of all system types.

By means of the Pentium processor the systems are able to regulate even fast processes and complex calculations. Up to eight systems may be controlled parallel.

The high resolution of up to 1024 x 768, a color depth of 65536 colors - for the both display types 10" and 15" - together with the high-performance CPU enable a fast screen refresh and a comfortable user interface. A complex and graphical presentation of schematic diagrams is possible.

The combination with the integrated PLC allows the application in all cases where sophisticated and complex problems of control and automation call for a solution, e.g. in the heat treatment of metals, glass and ceramics and in the chemical and foodstuff industries.

Operation

- Easy menu-driven operation by keyboard, touchscreen or by industry-suitable mouse
- Process orientated programming
- Menu selectable operating language
- Individual configuration possibilities for the OEM

Technical facts

- Comfortable process visualization by means of the high-resolution 10" and 15" displays
- Fast regulation and reaction time for screen refresh by Pentium processor
- TCP/IP network protocol
- Industrial protocols CAN-Bus and Profibus (Slave/Master)
- Telemaintenance via modem for supervisory functions and maintenance
- Hardware watchdog for digital and analog outputs

Data recording

- Recording of all process variables
- Integrated recording functions
- Graphic and numeric data output
- Print functions
- Quality proof according to DIN ISO 9000

Regulation

- Multi-system regulation
- All standard regulation algorithms with parameter switch-over and set point correction
- Special functions (e.g. diffusion control, F-value calculation)

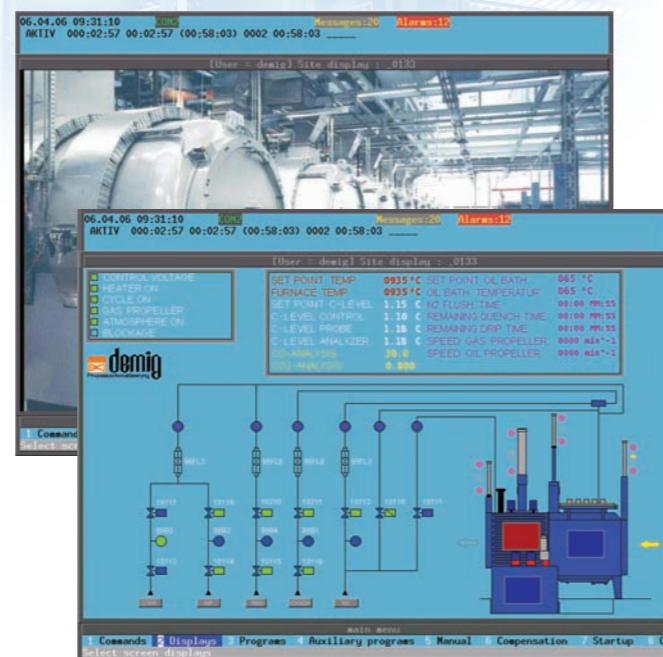
Control

- Integrated PLC (S5® compatible)
- Manual operation mode
- Step sequence control
- Special functions (e.g. impulse firing system)

Visualization

- Animated site view
- Alarms and messages
- Online presentation of process variables

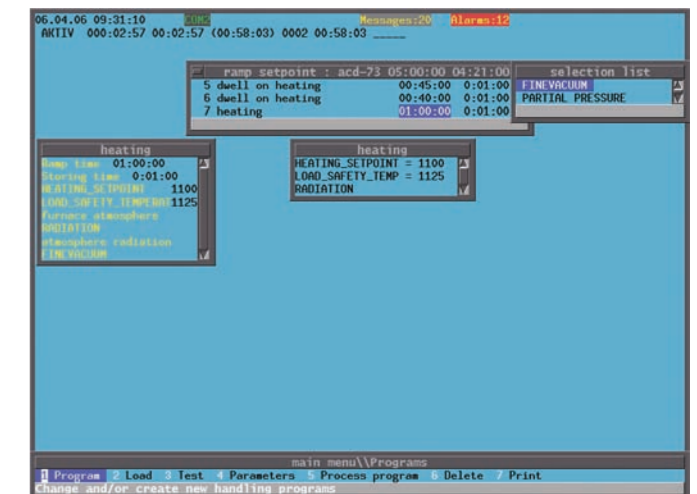
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System visualization

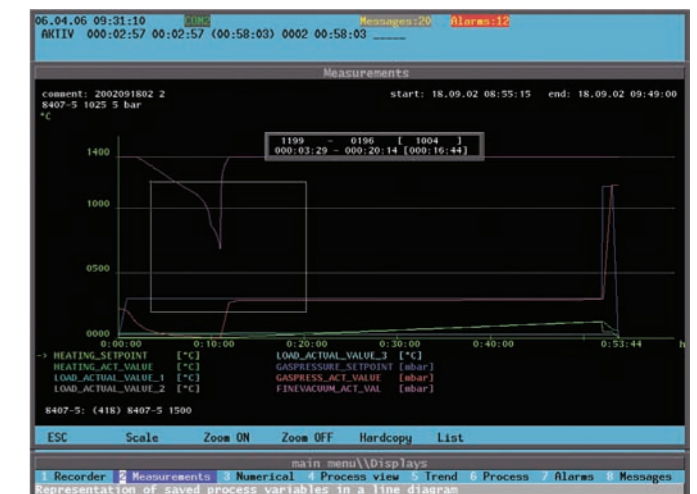
A great number of site views may be integrated in order to display the process progress and the process state. By the configuration of display elements and function objects (to modify by the user) the user has a general and current view of the system.

Functions



Process orientated programming

Handling programs may be constructed by using configurable process phases. The user is forced to only enter correct data. The basic and phase-dependent settings e.g. supervisory or safety functions are fixed in the system configuration. Hereby misentries are reduced and illogical combinations are not possible.



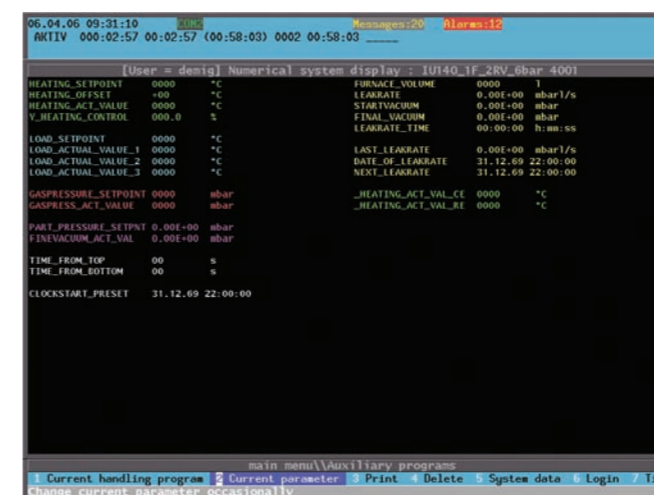
Measurement display

Finished processes are archived and may be displayed in a zoomable line chart. The measurement files may be printed numerically as a quality proof and they may be converted in a list to be read in Excel®.



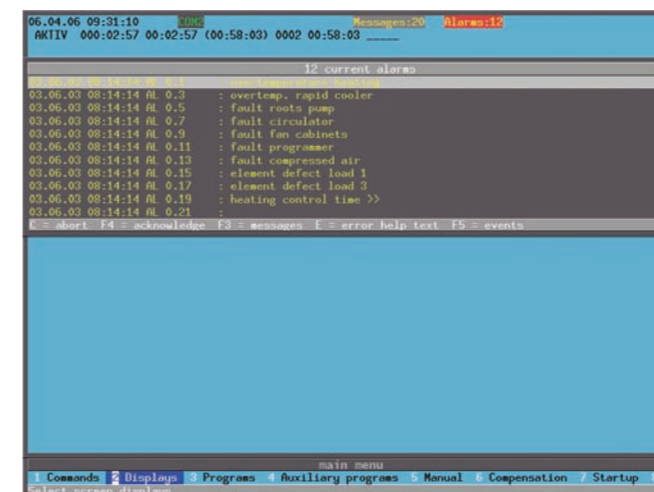
Program display

Progress of the handling programs (process set points) created by the user and displayed in a time diagram.



Numeric display

Numeric display of selected current process variables in tabular form.



Alarm display

Certain situations according to the process or to the system lead to alarms or messages triggered by the internal PLC. Alarms which are relevant for the system are to be confirmed. Messages are automatically deleted.