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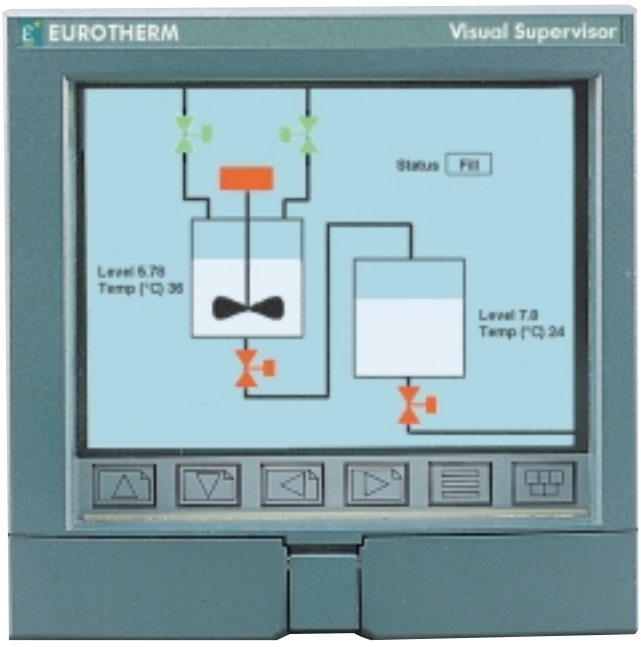
EUROTHERM
PROCESS
AUTOMATION



Combined operator panel and controller

Local historical and alarm data logging

Powerful multi-setpoint programmer

Visual Supervisor

Product Specification

VISUAL SUPERVISOR

Combined controller and operator panel in one package

Powerful multi setpoint programmer

Open communications: PROFIBUS DPVI, MODBUS RTU and ALIN

Touch-screen display

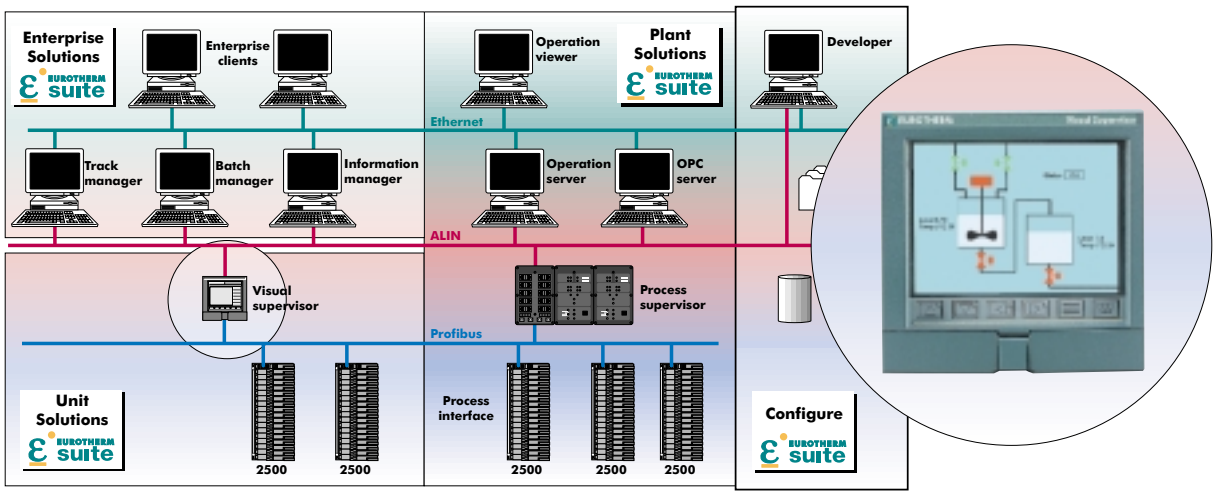
Advanced continuous and sequential control

Distributed I/O reduces wiring costs

Alarm and historical data logging

Comprehensive alarm and event management

Extensive pre-formatted displays and up to 99 user configurable pages



The Visual Supervisor is a combined operator panel and controller capable of performing both continuous and sequential control. It features comprehensive alarm and event management and local data logging facilities. Evolved from a well-established range of LIN products, the Visual Supervisor can be used as a stand-alone system, or as building blocks for a larger system.

A truly open I/O network is possible, as the Visual Supervisor provides support for both PROFIBUS DPVI and MODBUS RTU. It can also be connected to the ALIN local network, allowing both peer-to-peer and system communications.

The graphical setpoint program of the Visual Supervisor offers between one and 16 analogue setpoint profiles, and between one and 32 digital output profiles from a single time base.

CONTROL ENVIRONMENT

The Visual Supervisor is capable of both continuous and sequential control. Its open network architecture allows connection to the Process Interface (2500) I/O modules and other third party devices. Separating the processing from the I/O allows physical distribution of the modules which saves on wiring costs.

Continuous control

The continuous control strategy is created by the inter-connection of function blocks from a large library of analogue and logic elements. The function block library includes control, timing, logic, maths, etc. There is also a set of control module blocks based on the ISA-S88 standard which represent physical plant equipment such as valves and pumps etc. These include all the functionality required to control a device in a single block.

In addition to fixed function blocks ACTION blocks support user algorithms written in ST (Structured Text).

Sequential control

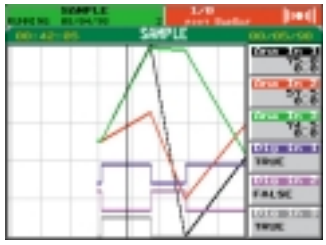
Sequential strategies are built using the powerful and intuitive SFC configurator. Sequential control follows the IEC-1131 standard. Sequences act in a supervisory role relative to the continuous control and may be loaded and unloaded as required.

The sequence control capability of the Visual Supervisor allows configuration phases for a batch process, as defined by the ISA-S88 process model.

MULTI-SETPOINT PROGRAM

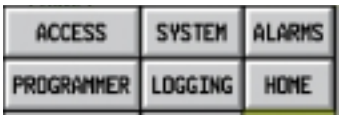
The Visual Supervisor includes a graphical programmer providing between one and 16 analogue setpoint profiles and between one and 32 digital output profiles on a single time base.

Programmes are configured from a PC using the setpoint programme editor provided with Eurotherm Project Studio. Setpoint programme editor provides multiple views of programmes, including graphical (time or segment based) and spreadsheet. Programmes can also be directly configured and edited from the Visual Supervisor. Expected and actual data can be viewed on the same display.



With the preview facility of the Visual Supervisor an operator can view the programme before running it. Once the programme is running, the pre-plot of the programme and the achieved values can be viewed on the same display.

USER SCREENS



The Visual Supervisor offers a simple configurable 'pop-up' navigation menu, which enables users to access its wide range of functionality. The operator interacts with the Visual Supervisor using the touch-screen. The Visual Supervisor can be configured to show a hierarchical view of plant using area/group/point displays.

Up to 99 user-screens can be configured with the user-screen editor provided with Eurotherm Project Studio. The user-screen editor has a library of pre-defined graphical objects.

A user-screen or any other page may be selected as the 'home' screen.

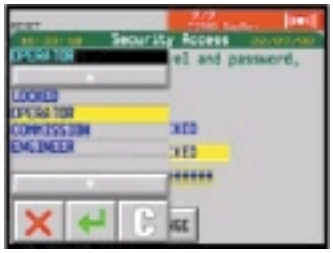
ALARM AND EVENT MANAGEMENT

During the execution of a control strategy, the comprehensive alarm and event management system of the Visual Supervisor will date/time stamp all alarms and events then store them in the alarm history log. For alarms which require auto acknowledgment, the alarm history log records the activated and de-activated times. The information in the alarm history log is accessed using the alarm history page. The alarm management system allows users to enter comments on to the alarm history log, which can then be archived to floppy disk.

HISTORICAL DATA LOGGING

The local data logging facility of the Visual Supervisor allows data to be automatically logged in either hourly or daily files. Data can also be logged in a continuous file which can be started and stopped manually. A data collection group can read up to 16 data points and groups can be read simultaneously or individually with different logging rates. Logged data can be archived to floppy disk in either ASCII or Binary format.

SECURITY/AUTHORISATION



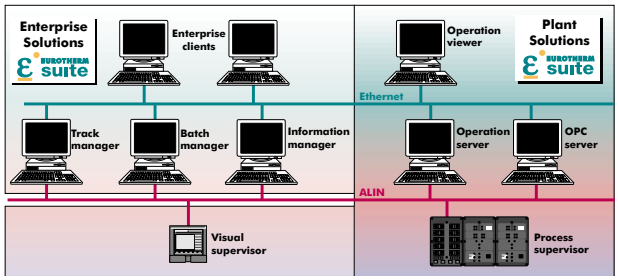
The Visual Supervisor offers user based security which controls access to the instrument. Four password protected access levels are available: locked; operator; commission engineer; and engineer.

COMMUNICATION

The Visual Supervisor communicates with other supervisory systems via Arcnet using ALIN protocol, and with the I/O via PROFIBUS DPVI or MODBUS RTU. It also includes serial interface, ALIN, which can be used for configuration.

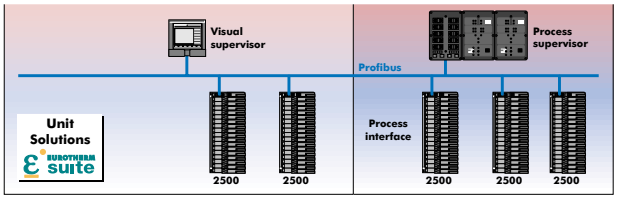
ALIN communications

The ALIN control network enables the Visual Supervisor to communicate with the other nodes in the control layer as well as with the supervisory system. The ALIN control network allows peer-to-peer communications between nodes via a daisy-chain configuration, or via a central ALIN hub. All ALIN nodes appear as a part of a coherent distributed database. The database in any element is accessible to any other network element, allowing complete flexibility in strategy interconnection.



Profibus communications

The Visual Supervisor supports PROFIBUS DPVI, an industrial standard open network. This enables communication with the Process interface (2500) units and the receipt of both cyclic and acyclic data. The Visual Supervisor can communicate with any third party which supports PROFIBUS DPVI to provide an open network.



Modbus communications

The Visual Supervisor supports MODBUS RTU serial communication as either a master or a slave and they can both be operated simultaneously. It can be readily integrated with third party I/O devices and other instrument types such as PLCs.

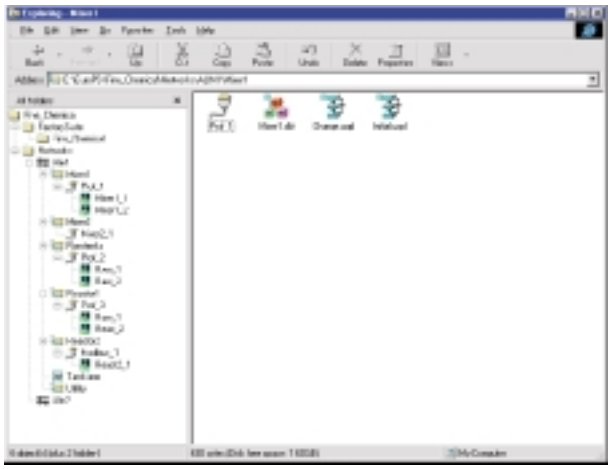
TOUCH-SCREEN DISPLAY

The Visual Supervisor display is a VGA active matrix colour LCD monitor with cold cathode backlight. It has a durable and resistive analogue panel which extends below the display area to give six extra function keys.

FLOPPY DISK

A standard 3.5" floppy disk is fitted behind an IP65 standard door and can be used for loading and saving programs, logging running data, or for updating the application programs (e.g. user screens, foreign language files etc.).

CONFIGURATION



Eurotherm Project Studio runs on Windows 95/NT and can be used to create continuous and sequential control strategies, user screens and setpoint programs.

CLONING/BACK-UP UTILITY

The Visual Supervisor's powerful cloning facility enables the copying of instrument characteristics and application to floppy disk. This feature can be used for instrument back-up, or to replicate the instrument or application characteristics.

REMOTE I/O

The Visual Supervisor is designed to work with the Eurotherm Suite Process Interface (2500) units. Eurotherm Suite Process Interface units can be multi-dropped off the Visual Supervisor. The Visual Supervisor can also work with any third party I/O which supports PROFIBUS DPVI, and MODBUS RTU.

INTERNATIONALISATION

The working language of the Visual Supervisor can be changed simply by selecting the appropriate text file containing the required language, or the industry specific words used on all standard displays. European, US or Japanese date and time formats are also available.

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