

easyHMI / easy Relay goes OPC



THE COMPANY

For Elcoma GmbH, based in Mönstheim near Stuttgart, customer satisfaction has been top priority for over thirty years. Elcoma has specialised in non-standard solutions and offers support services as a competent partner in the following areas: flexible automation, laser safety technology, software development, instrumentation and control technology, engineering/project design and planning, documentation with EPLAN and other CAD systems, including special housings, special lighting construction and materials handling.

The client, Elcoma GmbH, is a major pharmaceutical company that is operating a logistics centre with a high-bay warehouse and order picking areas. These areas are organised in different priority levels according to urgency, thus enabling emergency medicine to be processed quickly. A central coordination was required for the order picking areas, which are distributed in several halls and mostly cannot be seen from the access areas. Moeller's networkable *easy* 800 & MFD-Titan devices with an OPC interface provide the solution.

MOELLER 

We keep power under control.



The order picking areas of the pharmaceutical company are distributed in several halls and can hardly be seen from the access areas. Previously, the foreman had to find the warehouse workers by bicycle to distribute instructions for coordinating employees to dynamically changing order requirements. The foreman therefore had to continuously call the current order data from the server in order to deploy staff accordingly.

The objective of the modernisation measures was on the one hand to record the number of employees in the different order picking areas, and to make this data accessible to employees on site. On the other hand, the solution was required to send this information to a central location for a general overview. The pharmaceutical company was interested in different suggestions regarding the type and method of data transfer as well as the data format.

easy800 & MFD-Titan networked

Elcoma decided to use Moeller's easy and MFD-Titan for the solution. Every area entrance is fitted with a housing containing an MFD-Titan device and a double pushbutton actuator in the device front. Each employee logs in and out by pressing a button when entering or leaving an area. A total of eleven display housings are used, and these are all networked together in 2 groups via easyNet. Two easy822 devices that could be connected simply to the existing Ethernet network already in place via an Ethernet converter are used as head end stations.

The recorded data is transferred using the OPC technology via TCP/IP and is evaluated and visualised directly in Microsoft Excel. All order data from a database and the data of the easy800 and MFD-Titan devices is collated on the server and displayed graphically in a bar graph. A beamer is used to project the graph

onto a wall of the factory so that the collected data is directly accessible to all employees. The foreman now calls employees via a mobile phone and thus uses this system to plan schedules for the individual areas.

The writing of a log file is being considered as an optional extension. This would be accessible everywhere in the factory for further processing via Ethernet.

OPC server integrated at no extra charge

After they had made a thorough market research, the benefits of easy800 and MFD-Titan were obvious for Elcoma: easy800 and MFD-Titan offer an outstanding price performance ratio and are astonishingly simple to configure. Up to eight devices can be incorporated on an easyNet network with a maximum expansion of up to 1000 metres per line. Moeller also offers an optional Ethernet interface easy209-SE. The free OPC server integrated in easySoft PRO V6.xx was also a critical factor for Elcoma since a wide range of OPC clients are now available on the market that support this universal interface.

OPC stands originally for OLE for Process Control (today Openness, Productivity, Collaboration) and puts an end to the plethora of drivers usually required. Ten to fifteen years ago PLCs, visualization systems and process control systems required the use of a corresponding driver that had to be written for each PLC type and each visualization system on the market. This resulted in the need for

a large number of drivers which often contained several bugs. With OPC as a standard software interface, data can be exchanged by the applications of different manufacturers via a single interface. Each PLC or control relay manufacturer now only has to produce one driver – the OPC server. Manufacturers of visualization systems and process control systems also only have to write one single driver – the OPC client. OPC primarily uses Microsoft's DCOM (Distributed Component Object Model) technology for the communication between the applications. OPC applications thus have the transparency required to know whether the data exchanged via OPC comes from an application in its own address space, from an external local process or from a computer connected via TCP/IP. Virtually all systems have this standard interface. Even Microsoft Excel is provided with an appropriate client which is used in the project presented.

The free OPC server for easy800 / MFD-Titan firstly supports serial connections (via EASY PC-CAB), secondly modem connections (industrial transparent mode), and thirdly Ethernet connections (via easy209-SE). A single access point thus provides read and write access for all connected easyNet stations.

CONCLUSION

Andreas Hilß, managing director at Elcoma GmbH had this to say: "Thanks to the high degree of flexibility and extraordinary versatility of easy800 & MFD-Titan, we were able to offer our customer an impressive solution for a low investment cost. The price/performance ratio was the key reason for our customer giving us the order. What was particularly pleasing was the fact that our customer was able to confirm the high efficiency of the system even after a very short operating period."

Quicklink ID:

MS1411

Moeller GmbH
Hein-Moeller-Str. 7-11
53115 Bonn
Fax: +49 (0)228 602-2275
E-Mail: info@moeller.net
Internet: www.moeller.net

MOELLER

We keep power under control.