



DLoG helps Robert Wiseman Dairies process and distribute a quarter of the UK's fresh milk

DLoG has the bottle for Robert Wiseman Dairies

With the opening of its latest facilities in Taunton, Somerset, Robert Wiseman Dairies now processes and distributes more than one in every four litres of fresh milk produced in Britain, every day. Bottling this volume of milk requires highly automated plant and equipment, which in turn requires a sophisticated monitoring system. Here, robust shopfloor PC terminals from DLoG are providing the solution.

Robert Wiseman Dairies has enjoyed a steady growth in business since it was first established in Scotland in 1947, locating its dairy plants on the west coast of England following pasture land that is ideally suited to dairy herds. Today, the company employs around 4,500 staff. In Taunton, the new Bridgwater site was set up to provide the company with local production coverage for the South of England. Andy Anderson, a Business Project Manager at Wiseman's, explains: "While the new site was being constructed we started an in-house Overall Equipment Efficiency (OEE) project to benchmark the performance of our plant. This originated at our Droitwich site, but the decision was quickly taken to implement an OEE system at Bridgwater as it has the very latest plant available featuring increased levels of automation."

In January 2009, the company began evaluating the best software provider and by May the choice had been narrowed to two suppliers. OEEsystems' PerformOEE software was chosen as the preferred solution by the end of June. At the same time the potential hardware solution was being evaluated. "You can put a PC in a water-tight, stainless steel cabinet with a touch screen anywhere when there is plenty of space, but we had other issues that made this solution unsuitable," says Andy Anderson. "We lacked space at some workstations due to other computers and HMI terminals, this was further compounded by the need for operators to access the machines. The compact design of the DLoG terminals allowed us to fit a computer in these confined work centres." Based on previous positive experience at Droitwich, where the company had used DLoG's MPC-series portable, rugged PC units, DLoG was again selected as the preferred supplier. States Andy Anderson: "We didn't need to review DLoG, just the model required for the project. The DLoG IPC-series we chose fitted the environment and we liked the robust nature of the units. We carried out assessments to ensure suitability and were also impressed by the physical vibration and shock testing carried out by DLoG in Munich, where the units are produced."

At Robert Wiseman Dairies' Droitwich site the DLoG units are used in a chilled environment at 3 to 4°C and the staff using them had no prior experience of computers. The mobile MPC units are located on the trolley packers used to load the milk into the customer trolleys and are regularly hosed down with water and some chemical cleaning agents, but the robust touch screen interface and IP 67 enclosure rating means they continue to

Feature Overview

Customer:

- Robert Wiseman Dairies, Somerset (United Kingdom)

Requirements:

- Mobile terminals with touch screens
- IP67 protection against water and cleaning agents
- Space saving compact design
- Delivery of essential business information direct to operator at point of use

Products used:

- DLoG MPC/IPC with Windows Embedded XP

Benefits:

- Reliable operation in extreme environmental conditions
- Easy to use flexible solutions supported by remote access

Advanced Automation

operate reliably. Andy Anderson confirms: "It's why we chose DLoG. Although the environment at Bridgewater is nothing like as harsh, the cast and machined aluminium body provides an IP67 enclosure which would probably operate under water."

For Robert Wiseman Dairies it was crucial that their OEE system interfaces with the plants' PLC systems, used to automate the equipment. This advanced level of automation makes the site very efficient. However, it also makes it very difficult to see errors occurring, as Andy Anderson says: "You know there is a problem, but you don't know exactly what it is." Designed to monitor the performance of any production equipment, the OEE systems software running on the DLoG shopfloor terminals is highly configurable. OEE systems and DLoG worked together to ensure compatibility and keyboard configuration, so that any keyed in data would be correct. Although most events are collected automatically the system will request more data if, for example, a safety door is opened. As there may be several reasons why the door needs to be opened, the operator will select from a list of potential causes.

By communicating with the sales order processing software the PerformOEE software knows what is happening on each line and can display the progress of production compared with the ordered quantity on each line. DLoG terminals have also been installed at the packing area where they support the delivery of essential business information direct to the operator at the point of use, providing them with a real-time view of what is happening in production. Andy Anderson says: "The operators have taken to the system really well and all shifts have been introduced to the system over the past month."

Working in Partnership

He continues: "Like most projects we had a few worrying moments, but DLoG's business development manager, Sudip Masoji, along with the company's staff in Germany certainly pulled out all the stops for us. We had a tight eight week timeframe and knew that the infrastructure would be the pivotal point, because our plant runs around-the-clock six days per week and any problems during production will result in an additional shift being run on the seventh day to catch back the loss. "We could not order the terminal mounting brackets from DLoG until we knew how we were actually going to mount them in the production area. Sudip Masoji kept tags on the bracket order and ensured they arrived in time for the installation." Sudip Masoji adds: "We also had a last minute request from Robert Wiseman Dairies' IT department. Originally it specified 4 GB of RAM flash memory but subsequently requested an increase to 8 GB. The new compact flash cards were sent directly with the operating system and software pre loaded so the card could be inserted and when the unit was powered up it worked."

Robert Wiseman Dairies also wanted to take the extended warranty offered by DLoG even further. As Andy Anderson explains: "Previously we have supported defective IT equipment via defined procedures; exchanging the faulty hardware for a standby unit. This defective unit is sent to our office in East Kilbride and, following repair, it is returned and re-installed into its correct location. We have arranged for DLoG to repair defective terminals (a rare event) to speed up the repair cycle. DLoG has remote access to the latest version of the PC image for any specific terminal so that it can be 'ghosted' onto the repaired machine."

The company currently has 21 DLoG terminals at its Bridgewater Dairy, 19 are active on the shopfloor and two units are on standby. He continues: "At a convenient point in the production cycle the engineers can go on the shopfloor and very quickly exchange any unit, which all have fixed IP addresses and names, and the standby units will be pre configured by DLoG so the new terminal will immediately handshake with the local Alan Bradley PLC systems to gather the alarm codes and so on. Effectively, we want 100 per cent plug and play and DLoG has agreed to provide us with the support to do it." He concludes: "It's a partnership and there is an onus on both sides to ensure they deliver what has been agreed, but there should also be benefits for both. DLoG's flexible approach and willingness to listen to our needs is important to our future business plans. We know that DLoG is a good company to deal with, and both the MPC- and IPC-series terminals are excellent."



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