Next Level Processing Floor Computing

What’s for dinner? In Canada, the star of the meal is quite likely one of the many products from the Quebec-based processor Olymel LP, Canada’s leading pork and poultry producer. Quality conscious consumers can find Olymel products in grocery meat departments and self-serve coolers; and outside the home in hotels, restaurants and institutions throughout Canada and in the US, Australia, Japan and 60 other countries.

The company, based in Saint-Hyacinthe, QC, slaughters and processes roughly 122,000 hogs and 1.4 million birds weekly at its 26 facilities in Quebec, Ontario and Alberta.

Meeting government standards and their own strict level of safety, Olymel has gone on to carve out a reputation for quality with a variety of products that include bacon, deli meats, hams, sausages and microwaveable dishes sold under the Olymel, Lafleur Flamingo, Prince and Galco Foods brands.

Traceability key to success in the market Product recalls are deadly to the hard-earned market share of any meat processor. To stay on top of this issue Olymel management is eagerly open to using the most up-to-date equipment combined with a close eye on their process.

To ensure that all of the links in this chain are safe for the consumer, traceability – being able to track a piece of meat from the farm to when it reaches the plate – is important. At Olymel, noax is the tool on the plant floor that enables them to compile and process the massive detail that verifies their processes. Should a safety breakdown in their processing and handling system occur, Olymel can determine where it happened, why it happened and what to do to fix the problem; including withdrawing affected products before putting consumers’ health at risk.

Time for a change: from paper to computer to noax Olymel management was way ahead in terms of technology, recognizing the value of accurately acquiring, storing and analyzing product data. The clipboard has long been retired and replaced by computers, “going back to 1984,” notes Michel Lord, the company’s sector director for equipment and technology.

A meat processing plant is a punishing environment requiring frequent plant washdowns and sanitation with disinfectant chemicals and high-pressure water streams. Temperatures can run extremes from sub-freezing cold storage to high heat that cause the moist air to fog up the computer screens and make them unreadable. “The problem was that our computers were not responding to our demands, basically homemade and often broken,” says Michel.

These conditions are brutal on electronic equipment but this is the type of environment in which noax computers thrive. The noax Steel Series PCs use food-grade V2A polished stainless steel enclosures that are seamlessly sealed to IP65 (NEMA 4) standards. Computer components, which include a high contrast and durable industrial TFT display with integrated resistive analog touch panel, are protected against the invasion of water, chemicals and food debris.

“We depend on recording data using these computers, data that we need to help ensure the safety of our process. So when the computer cannot do its job we have to stop the line, and that is costly to our operation.”

Punishment was exactly what Michel doled out to prove the noax computer would work in his world. He didn’t hold back. First Michel connected the computer to the network and put a big hose on it. “No seepage between the window,” related Michel. “This is a typically a big problem with computers.”

Michel notes, “when the area gets hot you can’t see the screen and the mist fogs up the display. The noax computer does not have that problem.”

In a meat packing plant, cold temperatures can knock a computer out of action. “I meant to leave the noax computer in the freezer for an hour,” says Michel, “but after forgetting about it for over a day I hooked up the noax computer and it worked!”

Finally, he dropped the computer into a pool for ten seconds. The immersion failed to impede the noax computer’s operation. Olymel acquired their first units in 2001 and many of these rugged computers are still being used today, 24/7.

noax user-friendly touch screens are prime inspection tool The Olymel facility in Saint-Esprit, QC is typical of the other processing plants within the company. Out of the 16 noax computers throughout this plant, four noax computers are stationed along the inspection line to receive data on the carcass before it is processed.

The computers, equipped with the plant-rugged N8B motherboard developed in-house by noax, enable plant employees to feed data to the company’s mainframe system using the responsive and user-friendly touch screen as product moves along the process. Their 40 person in-house IT staff developed the software management system for product tracking and other duties.

The carcass makes its way along the process, attached through the foot by a hook to the overhead rail conveyor. First pass is the evisceration station. The pig is slit open and its organs tumble into a tray. An inspector sitting at a noax computer checks over each batch for irregularities and taps that information onto the touch screen, which is easily read despite the extreme heat and steam. All of the equipment in this area, as other places in the plant, has to be sanitized using high-pressure water streams and heavy-duty chemicals and the noax IP65 computers are no exception.

The farm where the pig was raised is stamped on each carcass by a tattoo that identifies the animal. A sequence number entered into the system matches up with the tattoo, indicating the date of the kill that just took place. Along with that information, the system knows the identity of the employee doing the data entry. Each time employees log on they identify themselves to the system using their assigned password.

Next stop the carcass is automatically weighed and an employee enters the tattoo number into the computer. At the classification station equipment specially designed for Olymel measures the carcasses' fat content. Before the carcass is cut up or ground a veterinarian stands at the final inspection station to verify the health of the carcass. All of that information goes into the nearby noax PC.

Easily accessible interfaces allow various functions The carcass is next processed and packaged. Box contents and weight are entered into the noax computer and at each point matched up with the information. Up until this point the computers have been used for data collection only. During meat processing noax computers help traffic cartons to their final destination and perform other functions.

When the boxed up pork is about to go out the door, the conveyor leads it up to a motion scale. The weight is captured and the noax IPC, through one of its many easily accessible interfaces, directs a printer to apply a label to the box. This label has a unibar code, which indicates its eventual destination as determined by the computer. In less than five minutes the box will be scanned and directed to a palletizer, ready to be shipped out one of the shipping dock's ten doors onto a waiting truck trailer.

While preventing problems in the Olymel supply chain, the computers avoid interruptions in production. "Since we started using noax computers," maintains Michel Lord, "we have seen our computer downtime drop by 80%".

Michel Lord looks forward to noax computer upgrades that will enable Olymel to stay competitive in the future.

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