Case Report

noax IPCs as used in a meat processing chain

Industrial PCs

at UAB Utenos Mesa

Completely enclosed – IP65
For extreme environments
Simple touch screen operation

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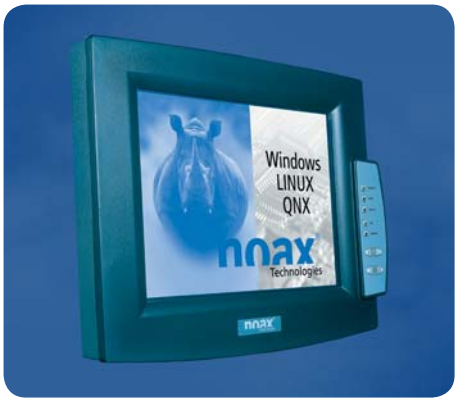
noax Industrial PCs document order allocations and entries for a producer of meat and sausage products in Lithuania, serving all of Europe.

"We almost went broke. That was shortly after we were privatized. But then, thank God, it improved again." The story of Audrius Pučas, IT department manager at UAB Utenos Mėsa, is typical of many state-run companies in post-socialized countries. His colleague, Sergej Makarevič explains: "What finally saved us was new management, private capital and modern automation solutions, which target West-European standards. Sooner or later, we would have had to extend the processes. But from the start we wanted an efficient system which would also be a secure investment in the future." Both IT specialists work at Utenos Mėsa, one of the largest producers of meat and sausage in the Baltic. noax industrial PCs are an important part of their automation.



noax Compact IPC C15

A dream-like rate increase

The UAB Utenos Mėsa Company covers the entire production chain of meat and sausage products. It starts with the slaughtering of animals, meat cutting, processing of the meat to various types of sausage, and finishes with packing and shipping of the individual products. Their customers consist not only of the leading European retail chains, but also large purchasers such as McDonald's.

On the average, 600 to 1,000 animals are slaughtered per week. The company not only processes one type of meat but also pork, beef and even game. Presently, the company's three plants employ about 1,500 workers who process roughly 40 tons of meat daily. In addition to fresh meat, the company also ships a wide variety of sausages. All together, it offers an assortment of 200 different products. The meat processor Utenos Mėsa was established in 1976, at a time when Lithuania still belonged to the Soviet Union. Privatization, which first plunged the company into a deep crisis, came together with the independence of Lithuania. However, the meat processing company recognized its chance to modernize processing according to strong economic criteria, and set up a rigid reorganization program. Previous management had to step down, and a large part of the personnel was replaced. Utenos Mėsa acquired private investors, and consequently new management invested in modern plants and technology, successfully expanded its assortment of products, and produced an appealing marketing design for its products and packaging. The drastic treatment paid off. Currently, the company is not only in the black, but has risen to be the Baltic example of success. Utenos Mėsa was thus able to increase its sales to 350,000.000 Litas (approximately $148,000,000) for 2006, which is a 100 percent increase compared to the previous year.

Overview

Customer:
UAB Utenos Mėsa, a producer of processed meat and sausage products (www.utenosmesa.lt, www.biolvela.lt)

Requirements:
- IPC use for order processing, packaging and shipping of meat and sausage products
- easily accessed by touch
- completely sealed construction
- small dimensions
- resistant to shock and vibration
- interface with various peripheral equipment such as scales, barcode scanners, and label printers
- compatible with Windows XP
- large, bright and easily legible display, at least 15"
- repair-friendly
- professional support and service
- long lifetime
- maximum operational reliability

Used noax product: C15
- noax N8C mother board
- 1,400 MHz Intel Pentium M
- 15" TFT display (1,024 x 768)
- safety standard IP65
- resistive touch screen
- completely sealed enclosure

Product uses:
- automatic customer and delivery allocation
- automatic weighing
- printing of packaging labels with exact weight
- reporting of data to bookkeeping for invoicing


A worker scans the bar code labels, which are attached to pig halves. The data appears on a noax IPC and is entered into the product management system.

New markets through joining the EU

The positive numbers are also due to Lithuania joining the European Union, which opened additional markets for them. Presently, the company is exporting its products to all EU countries. In addition, 20% of its export sales go to its neighbor Russia. However, it is just as important to have a company policy which believes in reliable and modern installations. In addition to IT, transportation systems for animal carcasses, hygiene installations and machines for cutting them up are also essential. Many of these installations and machines come from German companies, which have excellent reputations in this industry. Because of proximity, looking at IT in Germany has also paid off.

At first, Pučas and his colleagues experimented with industrial computers manufactured by a noax competitor. However, the competition's units did not satisfy the IT specialists. The hard drives often failed and the touch screens did not always respond as expected. Bad service and construction, which made maintenance more difficult, did not please Pučas. "Time is money!" stated the IT department manager. "If the computer fails, it causes delays in production, and that not only costs time, but also a lot of money."

Rugged and reliable

For this reason, Pučas and his colleagues searched for a different solution. They found a unit on the noax web site (www.noax.com), which appeared to meet all their requirements. It was the Compact C15 industrial touch panel computer with a 15" diagonal screen, the IT specialists picked out.

Above all, the new industrial PCs had to be stable and resistant, particularly the hard drive and the touch screen. The unit had to be easy to operate and maintain. It had to be able to deal with temperature variations, function at cool temperatures, and have sufficient interfacing and PCI slots. Ultimately, not only bar code scanners, but also scales and printers would be connected to the computer. In regard to connection possibilities, the previously used unit had already reached its limitation, even though it was purchased only three years ago. In addition, the IT experts at the meat processing plant placed great emphasis on good and fast service, in addition to the unit being service-friendly. Simple repairs could be done by the user on location. The first industrial PCs were ordered in April 2006 and put in service. By February 2007, Utenos Mėsa already had 26 noax tough industrial PCs in use.

From routing cards to the industrial computer

The computers use the Windows XP operating system. Meat Master software, which was developed specifically for meat processing companies by the Lithuanian company Pralo is used for the actual tasks during production. The program

A noax IPC controls the label printing, as well as in-house logistics.

accompanies the entire production process, from the arrival of the animals, to delivery of the finished product. It offers modules for slaughtering, processing and logistics, utilizes user management, exchanges data with the product management system (Utenos Mėsa uses MFG by QAD) and has back-tracking features. During the preparation process, each procedure is precisely stored and documented by the software, and reporting functions compile them as reports.

In addition, Meat Master also directs and controls the structure of the individual recipes. And last but not least, the program supports workers in the processing of orders and delivery. It acquires the weight, which the automated scales have determined, and prints the packaging labels, which contain the actual data of the packing unit, such as expiration date, respective weight and also a bar code. By a bar code scanner, the product can then be booked electronically and designated to the respective customer.

Before the company had switched to electronic data acquisition, lists and routing cards were used for each procedure and for every customer, all had to be evaluated by the bookkeeping department. However, this kind of order processing does not correspond to the technical state of the 21st century. Change over to an electronic system was the only logical choice. Traditional office PCs or laptops are not suited for such tasks, because they stop functioning after a short period of time. Companies such as Utenos Mėsa require efficient computers, which are immune to environmental conditions in the meat production industry.

Splashed water and disinfection materials

Cold temperatures in the company's cooling rooms are a major problem for PCs, but it is

The most modern German meat technology supports the workers of Utenos Mėsa during the cutting of animal carcasses

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An object that can't be replaced, despite modern technology: The butcher knife.

the high humidity and constant use of splashed water and disinfection materials which put the most stress on the units. "We regularly clean our computers with water and disinfection materials, mostly because of the stringent hygienic regulations required by the EU. It is extremely important that no fluids can get into the computer, and that no condensation can form inside the enclosure," explains Makarevič. "These are the greatest burdens on the units. However, noax waterproof computers can easily deal with these problems." noax NEMA PCs are designed for use under those kinds of extreme conditions.

The Utenos Mėsa IT specialists have decided in favor of a Compact C15 industrial PC, which is unique due to its rugged, tough and stable type of construction. To start with, it is completely enclosed, according to safety standard IP 65. This means that neither water nor other fluids can penetrate the inside of the computer and cause shorts or corrosion which would cause the computer to fail. Since the tough industrial PC handles essential processes, computer failure would cause enormous costs. That is why Pučas and Makarevič put such a high emphasis on fail-safe reliability.

In addition, the resistive analog touch screen convinced the computer specialists because as the noax computer distinguished itself by its ruggedness, so did the touch screen. The display is protected from external influences by a special touch-sensitive protective film. This film is offered by noax as an option. It is particularly applicable in food production, where not only water, but also fluids such as blood, fat or cleaning materials drip on the panel. The touch screen can be operated easily and, most important of all, it can be operated with gloves, which many of the workers have to wear during production. However, easy operation of the unit and of the software has an additional advantage. It means that workers will accept technology faster, because it lightens their workload and has a recognizable use. All essential components of the industrial computers are produced in-house by noax, instead of purchasing them cheaper from different manufacturers. In this way, noax is not dependent on external suppliers and can guarantee its customers active support for at least five years, and passive support for another five years.

In any case, Pučas and Makarevič are convinced by the noax touch panel PCs. However, Utenos Mėsa does not wish to remain at the level that it has achieved. "The applications we have used so far are just the beginning. We have plans to introduce noax computers in additional areas of the company, such as incoming goods. Of course, the salaries in Lithuania are still relatively low in comparison to other EU countries, but that will change in time. And the noax industrial PCs will help us to be prepared for that."

During in-house logistics, workers can be informed about the processing status of an order, by a noax IPC.

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