

Farlo – Supplier to McDonald's

McDonald's beef – 100% quality, guaranteed



There are few people in the world that do not know McDonalds, or recognize the famous Golden Arches. The success of the McDonald's corporation is founded not only on its marketing, but also on the consistent quality of its hamburgers. Have you ever wondered why McDonald's hot, fresh products taste the same everywhere in the world? It's McDonald's unique purchasing system and the relationship McDonalds shares with its dedicated suppliers that ensure the quality of products in every restaurant.

At McDonald's they have a saying, "One Taste Worldwide", which is only possible because McDonalds sets strict requirements, which are the foundation of the production standards for the entire

McDonald's supply chain. Consistency of product quality is one of the top priorities for McDonald's and they are on the leading edge of research and development in order to set new standards in quality. In addition because the McDonalds delivery program is so highly developed, they can trace any individual beef pattie back to the supplier's specific batch. To become one of the suppliers to McDonald's restaurants, a company has to supply proof of its high operation standards. Cleanliness, consistency and traceability are three key factors that a supplier is judged on.

Located in Linkoping, Sweden, Farlo was founded ten years ago for the sole purpose of making McDonalds hamburgers. Farlo produces roughly one million hamburgers per day exclusively for

McDonald's in both Sweden and Finland. For Farlo, the need for quality, consistency and traceability influences each level of production.

System Objectives

The overall objectives of the system were to improve production quality and capacity while lowering operating costs by streamlining and integrating plant monitoring and business systems.

Farlo is required to prove that it meets McDonald's high quality requirements by documenting the quality and traceability of each item produced. In the past this has proven to be costly and inefficient using the existing manual systems.

The challenge was to implement a business solution that was totally inte-



The Production Lines at Farlo

Farlo has linked the production process to the administration system in a completely new way.

“As we wanted to use two systems in parallel, compatibility was very important,” says Bengtsson. “The two systems and their suppliers are communicating efficiently and smoothly with each other... everything has worked very well so far.”

Real-time Performance through-out the business

Data acquisition rates from the controllers are less than 1 second, as are the data transfers to the MES, effectively delivering real time data to the enterprise. Citect communicates using stored procedures – a fast and secure process that ensures the integrity of the MES database. The Citect Server enables other applications to trigger events in Citect through standardized interfaces. When an event is triggered, Citect takes a snapshot of the process data and logs it to the MES database.

By using Citect to link production processes to the administration system, Farlo has achieved a very high level of traceability.

grated, with zero risk of lost or compromised data storage. Farlo also wanted to replace the manual system with a solution that would improve efficiency and provide a direct interface for employees, all the while ensuring the consistent quality of their hamburgers.

Traceability is a Priority

Traceability was the most important requirement of the new system. Extensive quality measures and systems require that each box of hamburgers could be traced through a complex supply chain to component sources.

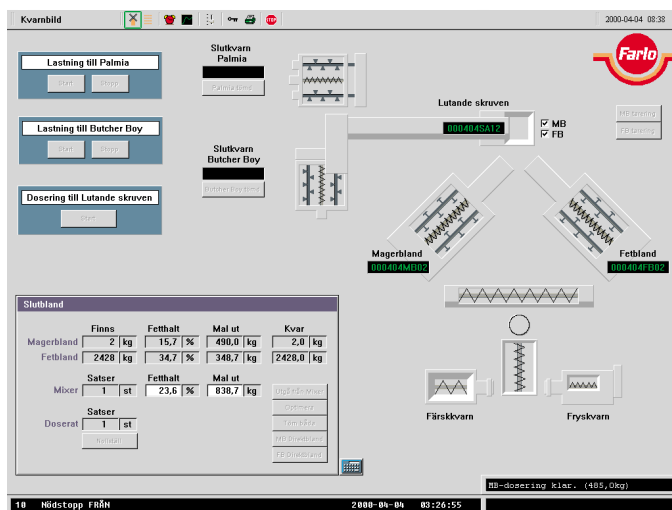
“In our business, traceability is very important,” says Barbro Bengtsson, project leader at Farlo. “If something should happen, we need to trace all source components to ensure that only the highest quality beef reaches our customers.”

An Integrated Solution

Citect integrates data from a Mitsubishi PLC controlling the production process and a Jeeves Manufacturing Execution

System (MES). Elcontrol AB, a Swedish Citect Integration Partner, presented the Citect solution.

One of the reasons Citect was chosen is because it allows updates to the latest version without risk to production or quality. Citect was also very straightforward to use, and everything Farlo needed could be integrated in the Citect package. Citect and the MES work together in the same network-domain, and on the client side, they run side by side in several workstations.



The Farlo System Overview

Project Statistics

Item	Statistic
Contract Sum	No fixed price
Citect version	5.20
Operating system	WinNT4.0 Server & WS
Network Equipment	TCP/IP network (<i>mostly 3COM hardware</i>)
Number of Citect tags	500
Number of Citect Digital Alarms	50
Number of Citect Trend Tags	40
Number of Citect Graphics Pages	15
Number of Citect Display Nodes	11
Number of Citect IO, Trend and Alarm Servers	1
Number of Windows NT File Servers	1
Number of Windows SQL File Servers (<i>Dual Pentium 200, 128MB RAM</i>)	1 cluster (<i>768MB RAM</i>)
Number of IO Devices	1
Average response time as measured by Citect	0.035 sec
Observed time to call up a graphic page (<i>with all display data</i>)	< 0.5 sec
Observed time to call up an historical trend page (<i>with all display data</i>)	< 1 sec
IO, Trend, Alarm and Report Server CPU Usage	5 %

System Integrator ELCONTROL i Söderköping AB www.elcontrol.se

Citect Distributor Autic System AB www.autic.com



Ci Technologies Regional Headquarters

AMERICAN

Tel 1 704 329 3838
Fax 1 704 329 3839
www.citect.com

ASIA/PACIFIC

Tel 61 2 9855 1000
Fax 61 2 9488 9164
www.cit.com.au

EUROPEAN

Tel 31 71 576 1550
Fax 31 71 576 6842