The commissioning of MERCURY at Jesuman S.A. in Santa Cruz, Tenerife

Manual and fully automatic order picking in parallel operation, zero-error order picking, the highest level of flexibility in the range of goods as well as reduced logistics costs have contributed to Jesuman S.A.'s decision to use the new automated order picking system by Salomon Automation. Jesuman S. A. operates a central goods distribution centre in Santa Cruz, Tenerife, which supplies its own supermarkets (Altezas) and shopping centres (Hipertrebol). The MERCURY system is built in an existing order picking warehouse for the automatic order picking of dry goods product lines and is integrated in the logistics cycle.

After a test setup and intensive performance tests, the MERCURY System was shipped to Tenerife at the end of June. Several teams have since worked on the installation of the fully automatic order picking solution - storage bay and platform systems have been constructed, four rows of automated small parts warehouse shelves, handling equipment, workstations and pallet storage racks for the BPM system (batch picking mobile) have been erected, and container handling equipment and storage bay access devices have been installed.

Installation under difficult general conditions
The Salomon project management team had to allow for difficult structural factors when planning the solution. Individual components had to be positioned and installed in accordance with a precise strategy in order to ensure that the right material for the respective step of the construction work was always available in sufficient quantities, at the appropriate time.

In order to integrate the automatic order picking system into the WAMAS warehouse management system, WAMAS LVS, which had been used for a number of years, was replaced by the up-to-date version of WAMAS, the WAMAS control system for optimising and controlling handling equipment and BPM systems were implemented and a new hardware platform was installed.

The individual components are currently being tested and the WAMAS material flow system for optimising the flow of goods is being implemented. This means there is no longer anything standing in the way of the successful commissioning of the first MERCURY system!

Facts and figures on the project
- MERCURY 2 modules, automatic tray storage with sorting function
- BPM (Batch Picking Mobile) 3 modules aisle device with moving order picker and continuous product removal
- Automatic depaletting
- 4 paletting spaces, 1 depaletting space
- Tray handling equipment, stacking and un-stacking machines
- Logistics software, WAMAS warehouse management, order picking and control system
In 2003, Berglandmilch erected a 5-aisle, fully automatic high bay warehouse for handling equipment at the Aschbach site in Lower Austria. May 2008 should see the completion of an expansion by a further three aisles. Salomon Automation is taking over the project management for system technology and software.

Since 2005, several optimisation measures and modifications to existing high bay warehouses have been carried out in order to meet the constantly increasing demands regarding capacity, performance and availability. Since the commissioning of the system, performance at the goods entrance has tripled and at the goods exit has doubled.

The development of the three-aisle high bay warehouse is being carried out without any downtime. The existing control technology will remain in operation and will be extended to one. Conversions in the goods exit area, designed for an output of 150 pallets an hour, are made possible via the use of channels and new storage technology are all measures aimed at further increasing storage performance.

The WAMAS logistics system meets Berglandmilch’s industry-specific requirements for production regarding automatic and manual storage right through to paperless order picking and control of loading. Salomon Automation’s range of services starts in the production hall. The WAMAS system takes production orders from the ERP system, approves them and assigns them to a production line. Special label printers print packaging and trays, and the palletiser is provided with the necessary data. The packaging material passes an additional inspection point and is checked once more via an EAN code scan.

After filling, the WAMAS system takes over the fully automatic control of the pallets. Paletted goods and/or empty pallets are transferred by six AGVs (automated guided vehicles) and are transported either directly or to the high bay warehouse. The goods are stored and transported on EURO or Düsseldorf pallets without under-floor pallets. The storage areas are administered entirely automatically using storage bay access devices or BCVs (battery channel vehicles) with servo drives.

In the course of outfeed to the supply channels, the pallets are wrapped and then labelled on a total of three wrapping lines.

Marktkauf Logistik modernises 9-aisle high bay warehouse

Since 1998, Marktkauf Logistik GmbH has been operating a nine-aisle, fully automated high bay warehouse at their site in Bielefeld, Germany, which in the last few years has repeatedly been expanded and technologically advanced. The logistics centre in Bielefeld is divided up into the following sections:- dry foods, high bay warehouses for “fast-moving items”, fruit and vegetables and frozen foods. The high bay warehouse has a width of 82 m, a height of 45 m and a height of 18 m has a storage capacity of approx. 12,000 Euro pallet spaces.

Extensive warehouse refurbishment

A lack of efficiency and stability in the outdated logistics system was being faced with increasing logistics demands which prompted the extensive refurbishment of the warehouse. Marktkauf Logistik commissioned Salomon Automation Deutschland as prime contractor in August 2006 for the renovation of the high bay warehouse. The scope of supply and services for the refurbishment included analysis, proposal and planning, project management with detailed restructuring scenarios, replacement of the control technology, implementation of the material flow and control system, the commissioning of the whole system and the handover of the system. The aims of the refurbishment were to considerably improve system availability, system controllability, operational safety and to reduce operational costs. The demands of the customer on the Salomon team: implementation of the system modernisation project within the planned timeframe and during operation, no system downtime during the 3-shift operation from Sunday 22:00 to Friday 22:00.

From 0 to 100 In order to also guarantee maximum system availability during the Retrofit project, a restructuring scenario was developed and defined together with the customer, providing a step-by-step implementation plan. In the first step, the outdated control technology of the storage bay access devices and the handling equipment were replaced by Simatic S7. Tests were carried out during those weekends in which there was no parallel operation. Parallel to this, the material flow computer was adapted and the existing warehouse process control system was replaced by the WAMAS material flow and control system. Optimum planning and comprehensive tests in the run-up meant the system could be operated from 0 to 100 metaphorically speaking, without a hitch.

Subsequently, mechanical and electrical modifications to the storage bay access devices were made. To improve acceleration and for a quick and precise positioning of the storage bay access devices, the existing traction/lift drive was replaced with a frequency regulated four-phase current/driver motor with speed reduction. The existing telescopics were all replaced with new telescopic equipment and sensor technology.

Improved transportation performance

The WAMAS project presented a great challenge for the Marktkauf and Salomon project team. Under no circumstances could the day-to-day business be disrupted or shut down altogether. All main activities, modifications and tests had to be concentrated during the allocated weekends.

Marktkauf Logistik appears to be very happy with Salomon Automation’s performance, approach to the project and implementation. “All project goals were achieved within the agreed time frames and with excellent quality. Day-to-day business was not disrupted in any way. A competent Salomon team on site and extensive training of our employees further contributed to the safe operation of the system”.

Marktkauf

Marktkauf Holding GmbH in Bielefeld, Germany, is a 100% sister company of EDEKA Zentrale AG & Co. KG in Hamburg, Germany. With approximately 27,000 employees, 2006 saw an annual turnover of around 4.8 billion euros. There are 186 Marktkauf SB warehouses and consumer markets throughout Germany.

Marktkauf Logistik GmbH administers the logistics service functions for the sales area in the Marktkauf Group. There are around 817 employees working for the company; in 2006 the inventory turnover amounted to approx. 1.4 billion euros.

When implementing enterprise resource planning, the bio-supermarket chain Basic AG trusts x-trade by maxess

With a central enterprise resource planning system shortly to be implemented, the Basic limited company (Basic AG) is counting on the maxess team and their x-trade standard solution.

Basic AG is the second largest bio chain, currently with 27 outlets and approx. 25,000 goods in their product line. The branches are currently only supplied via road and use the systems Dewsaw and dStore from the MoveRetail partners POS Systemhaus und Superdata. By virtue of the current development, in the future Basic will also supply goods to the branches via a central warehouse.

In our cooperation with maxess, we have taken an experienced partner on board. In the past few years, this company from the town of Kaiserslautern has not only processed several major projects, e.g. with coop eG. Lupus familari, Rewe Dortmund eG and Wasgau Produktionen and Handels AG. It has also been proven that the x-trade solution can even be successfully implemented in medium-sized companies in the shortest space of time. This shows that maxess possesses the necessary project experience and competence in the industry sector to be able make a success of a project of this scope, in such a small space of time.
EDEKA opens new cool storage warehouse in Heddesheim

WAMAS® logistics software controls storage processes

**The company EDEKA Handels-gesellschaft Südwest GmbH has replaced the existing cool storage warehouse with a new building and has invested approx. 22 million euros in the logistics infrastructure. The refrigeration centre serves as a model plant within EDEKA. With the enlargement of the Heddesheim storage site, the regional subsidiary is the best primed for expansion in the Frankfurt Rhine-Main Region and for the supply of Marketkauf outlets.**

Over a total storage area of 50,000 m², a range of fresh and dry foods, drinks and deep-frozen foods are stored at the Heddesheim storage site. The new building, with an area of 19,000 m², offers space for 4,000 goods from the range of fresh foods, fruit and vegetables. Warehouse management, order picking and outfeed are optimised by Salomon Automation’s WAMAS warehouse management system.

EDEKA Südwest operates the warehouse in 2-shift operation. An average of 61 order pickers and 14 forklift drivers are employed per shift. The forklift control and order picking system guide the warehouse employees through the order picking process in the best possible way: in addition to online order picking via terminals, Pick by Voice is being operated. The WAMAS systems process up to 74,000 order rows a day, handle up to 1,000 transport units (pallets) of delicatessen and 900 transport units of fruit and vegetables at the goods entrance and ensure the timely delivery of the goods in the region.

**Successful commissioning by the EDEKA Südwest and Salomon team**

The EDEKA Südwest business area covers 1,451 outlets in Baden-Württemberg, Hesse, Northern Bavaria, Rhineland-Palatinate and Saarland. In order to keep transportation distances to a minimum, the EDEKA loading network is supplied by the St. Ingbert, Ellhofen, Offenburg, Balingen and Heddesheim warehouses. A uniform WAMAS software standard is used at all storage sites.

**EDEKA Südwest**

The company EDEKA Südwest, with its headquarters in Offenburg, Germany, employs more than 22,000 workers. The company is therefore one of the largest employers in the region and with regard to consolidated sales and the number of employees, in the corporate group as well as among the independent retailers and in terms of storage area, they have really hit the big-time in German food trade.

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Emmi Schweiz AG manages ice cream products using WAMAS®

Batch tracing and continuous inventory control from production right through to the ramp.

*Emmi Schweiz AG, the leading Swiss milk processing plant, uses the WAMAS warehouse management system in the deep-freeze area at their production site in Ostermundigen, Switzerland, for the management and order picking of their ice cream products. Main requirements of the customer: batch tracing and inventory control from production right through to loading onto the ramp in order to satisfy Emmi’s high quality standards on the one hand, and to fulfill the legal requirements of food producers on the other.*

Since its launch in April 2007, the ice cream product line has been controlled, optimised and managed on 1,500 pallets in 5 aisles from the production stage right through to loading onto the ramp using the WAMAS warehouse management and order picking system. The manual order picking warehouse is operated at -28 degrees and has a total warehouse capacity of approx. 9,000 pallets.

**Connecting to the host system**

An interface between the new ERP system Enterprise 1, E1 for short, by JD Edwards and WAMAS ensures data communication. The key part is a two-level goods exit confirmation. After order picking (“Pick Confirm”), when loading takes place (“Ship Confirm”), a second confirmation is sent to the host system. This means it is also possible to trace the flow of goods right through to loading at the ERP level. The goods inventory is reconciled on a daily basis.

**From production to quarantine**

Straight after production, each pallet is registered in WAMAS and put into storage in a special quarantine warehouse, designed to fit 300 pallets. Ice cream may only be used for outfeed after a certain period of quarantine and is inaccessible until that time. Goods are released in the ERP system and this is communicated to WAMAS automatically. Once released, the goods can be used for the compilation of orders.

**Batch order picking**

In the course of online order picking the batch number is recorded to ensure complete tracing of the ice cream product line.

Through WAMAS online order picking, additional costs and time could be minimised at the order compilation stage, also due to the fact that the deep-freeze area is operated at -28 degrees. This is because in the case of 90% of the goods to be picked for orders, the batch number is already given by WAMAS and no longer needs to be recorded.

**Inventory control right through to the ramp**

Quality assurance through total control of loading. Control of loading is regulated by WAMAS and ensures that any “changes in state” of the highly sensitive ice cream products in the time between order picking and loading are reported. Each pallet is scanned during loading and WAMAS checks whether the goods, based on their material qualification, can or cannot be delivered.

The basis for this is the WAMAS software quarantine function, which registers any qualification change in the state of the goods and therefore guarantees that only those goods that meet Emmi’s high quality standards are delivered to the customers. Approximately 3,000,000 trade units are processed using WAMAS in the division of ice cream products every year.
GT-IV First Job Challenge

The race for 10,000 euros is over! On 14th October, over 1,000 runners competed in the First Job Challenge for the much sought after prize money and the attractive prizes of the Styrian company GT-IV. Salomon Automation was able to hand over the company prize, a weekend at the Hamburg marathon, to Josef Rattenberger from Kärnten. The 4 fastest winners in the different categories shared the prize money of 10,000 euros. We wish to congratulate them!

Marathon:

Half marathon:
The victor among the women, Marie Steinhäler, won with a time of 1:40:21.53. Matthias Müller from Switzerland came first among the men, with a time of 1:10:52.39.

Recruiting goes INTERNATIONAL

In order to be able to meet the demand for high quality employees in a timely manner in the future and to use the most suitable people for the job, we are increasingly looking to our neighbouring countries. At the beginning of November, Salomon Automation presented itself at the Konaktilva recruitment fair in Dortmund, Germany. In numerous one-to-one interviews we were able to meet interesting candidates for our branch in Dortmund and for the other locations in Europe. Furthermore, at KARIERA 07 in Ljubljana, Slovenia, in which we were participating for the second time, we once again had the chance to interview the best qualified interested candidates.

GT-IV First Job Challenge was able to take exciting discussions, well prepared candidates, and dozens of good applications back home with us.

Salomon scholarship - software engineering training course

And the winners are....

… Daniela Begusch and Andreas Ortner. Both were chosen through a careful selection procedure for the two scholarships awarded by Salomon Automation, amounting to a total of 3,000 euro. Once they have completed their theoretical training at Campus 02, the candidates will start their three month placements at Salomon Automation.

Both recipients of the scholarship will be used in fields relevant to their training and shall therefore gain practical experience. In autumn 2007 a new software engineering training course was created in close cooperation with the state of Styria, the Industrial Association and other Styrian control cooperation. The training cooperation has been running both schools, the “Salomon class” training cooperation has been running successfully for a number of years and in order to give those participating the chance to see one of the largest fully automatic pallet warehouses in Austria, we set off for Sattledt with 28 pupils and two teachers. The responsible project manager was able to provide those taking part with a very practically-oriented insight into the XXX warehouse and the employees of tomorrow appeared very impressed by the size and complexity of the system.

Excursion for both SALOMON classes to the LUTZ central warehouse in Sattledt, Austria

This year, for the first time, we managed to organise a joint excursion to one of Salomon Automation’s realised warehouses, with both Salomon classes of the vocational education and training colleges in Weiz and Graz-Gösting. At both schools, the “Salomon class” training cooperation has been running successfully for a number of years and in order to give those participating the chance to see one of the largest fully automatic pallet warehouses in Austria, we set off for Sattledt with 28 pupils and two teachers. The responsible project manager was able to provide those taking part with a very practically-oriented insight into the XXX warehouse and the employees of tomorrow appeared very impressed by the size and complexity of the system.