



PROFESSIONAL SOLUTION FROM CCV – WAREHOUSE MANAGEMENT FOR ACCOM HOLDING

*Storage and trading processes integration into a uniform environment of complex ERP system
Microsoft Dynamics NAV with putting into service non-stop Warehouse management solution
on top.*



About the customer

Today ACCOM holding s.r.o. represents a group of companies, which all operate in the same field of production, import, export, and distribution of dairy produce. They are purely Czech companies without any foreign capital interest. Their annual turnover is approximately 3 billion CZK. The original ACCOM company was established in 1990. Its contemporary trademark ACCOM holding s.r.o. has a basic capital of 10 billion CZK and operates all companies within that group. For these firms it also manages all export and import operations and expansion into other countries.

The hierarchy of the group is divided into three following levels:

- production plants
- commercially distributive companies
- service companies.

There are two production plants: Bohušovická mlékárna a.s. and Choceňská mlékárna s.r.o. On the market, both of those companies are well-known for their unique production, which is an indispensable part of the market. Distribution and retail on the markets of varied countries (especially the USA and Slovakia) is managed by these very companies. As a part of their business activity, they not only supply produce from their own production plants but also purchase and consequently trade local and other imported products.

Other spheres of activity:

- financial services
- renting of warehouses and other real estates
- sport clubs, marketing.

Starting situation

At the beginning of our partnership ACCOM holding had already had a contract with a different company for implementation of complex **Microsoft Dynamics NAV** solution including functional warehouse management module, for almost two years.

The change of a partner for implementation (i.e. the establishment of a new partnership between CCV and ACCOM holding) came after successful "**CCV Warehouse management**" solution

presentation and because of other positive outside references. The presented solution from CCV fulfilled all customer's requirements.

Further requirements were made to begin with:

- change of pricing method, data organization while adjusting
- product expenses bookkeeping
- elimination of mutual blocking and locking of user accounts
- numerical series control
- SQL server operation optimization
- booking control
- traffic module correction and adjustment
- pallets bookkeeping
- putting DM module into operation
- stocktaking
- transfer
- storing of imported products
- setting product expenses
- adjustment of printed outputs
- putting back-up module into operation
- supervisory invoicing
- finishing purchase planning module
- sales returns evaluation
- pricelists printing
- possibility of sales and retailing evaluation
- factoring

The aims of the solution

ACCOM has chosen CCV as a supplier, because we were able to accomplish following aims:

1. To finish the original implementation of basic modules Microsoft Dynamics NAV

Required target situation – resolving problems mentioned above

2. Implementation of Warehouse Management System (WMS)

Required target situation – the majority of warehouse processes is operated by the IS and all operations information is filed/archived in real time

Utilized technology

Modern system platform – current platform based on MS Windows system offers a possibility of contingent integration of further applications of the information system.

Database environment – warehouse management application is integrated in the environment of MS SQL, and expands existing Microsoft Dynamics NAV solution.

Information security - Microsoft Dynamics NAV system setting in the domain of access privileges, allows only authorized personnel to access warehouse management information and processes.

ERP Microsoft Dynamics NAV system version 3.70 operates on a dual processor rack-server Fujitsu-Siemens PRIMERGY RX200 with sufficient performance and accessibility. Dual processor system is equipped with two processors XEON 3,06GHz with operation memory of 2GB.

The solution is based on current level and possibilities of information and computer technology (ICT). Servers are situated in a central office in Prague. MS SQL server is installed on Windows server 2003 platform. For remote access we have employed the Citrix server farm. To manage radiofrequency (RF) terminals we have used Navision application server. Access and operating of the system is fully manageable on-line.

Mobile RF terminals “Symbol MC3090” have been used to operate in the warehouse. Due to on-line communication all stocking operations and processes are realized in real time.

This was the first time CCV has implemented this type of solution (i.e. Warehouse management solution) into a non-stop operating environment. Experience we have acquired hitherto proves this system functionally capable to deal with non-stop operation.

Description of the solution

Basic project motivation:

Considering the fact that ACCOM holding s.r.o. was planning to expand its sphere of activity and completely enhance the quality of logistics processes, ACCOM was only willing to be implemented with Microsoft Dynamics NAV Warehouse management solution if it supported those activities even if additional IS/IT equipment was required.

However there had already been a partial implementation of Microsoft Dynamics NAV solution based IS which ACCOM desired to bring to a successful end.

In the future ACCOM desires all the companies within the group to function on a single platform – Microsoft Dynamics NAV.

At the beginning of cooperation between CCV and ACCOM, the latter’s IS/IT equipment was substantially inappropriate to support needs of an expanding company.



Details of the solution:

It is based on **ERP Microsoft Dynamics NAV system version 3.70**. The 2nd phase of implementation of Microsoft Dynamics NAV system – the implementation of CCV Warehouse management solution into ACCOM holding – was to begin on 10th June 2006. In the first phase CCV had finished implementing Microsoft Dynamics NAV system excluding warehouse management which had been started by another supplier before. It included consolidation of the application and preparation for **Warehouse Management System** (WMS) implementation.

Detailed analysis of current customer’s processes and needs was made possible due to cooperation between experts from CCV (who had had experience from previous projects) and the investor’s own experts (who provided experience from a very specific domain of food production). Later radiofrequency terminals (RF) have been applied as a best solution for stocking operation management, based on the result of this analysis. RF terminals “Symbol MC3090” have been chosen as the most suitable ones for this type of solution.

The entire “**CCV warehouse management**” solution enables warehouse operation management in real time. The solution is now ready for implementation in other logistics centres of the customer.

System implementation

The system implementation was carried out in two consecutive phases. In the first phase we have examined the situation of previous implementation. Amongst other things in this phase we had to change pricing methods from Average pricing to “FIFO” and adjust it for the system under close supervision of the customer. Mutual blocking and locking of access privileges has been restricted substantially. Factoring agenda of back-up modules and long-term property and transport was put in operation.

Our aim in the first phase was therefore to get rid off all inconvenience to managing the customer’s warehouse and administration processes caused by “unfinished” implementation of the system by the previous supplier, which was only possible thanks to intense cooperation between ACCOM and CCV representatives.

Perhaps the finest achievement of CCV representatives was gaining trust of the other company as they were very reluctant to believe in the successful accomplishment of this project,

having experienced the incompetence of the previous supplier. Moreover the project was also under supervision of Microsoft ČR.

Thus we have eliminated fundamental operation problems and were ready for the 2nd phase - **implementation of “CCV Warehouse management” solution.**

Amongst other things the 2nd phase included following requirements/parameters/criteria:

- **Integration with the production line**, i.e. automatic connection between warehouse, dispatch and production system.
- **Two storage zones with different storage conditions:** refrigerated and non-refrigerated. Products not requiring refrigerating can be stored in the refrigerated area but not vice versa. There are other allocations in the system apart from the warehouse management regime.
- **Veterinary control results for each pallet need to be examined.** Pallets with different results than “ready to dispatch” cannot be transported to the customers but may be shifted around the warehouse and made ready for MIX production. Veterinary control must be made possible before the pallet is actually physically received. Products are labelled depending on whether veterinary control is necessary or not. Even imported products are subject to veterinary control.
- **MIXes are made by re-numbering the original products** (peace by peace). Each box of MIXes has its own EAN. MIXes need to have varied “best-before” dates, varied veterinary control specifications and need to be refrigerated. The “de-MIXing” of the pallets must always remain possible.
- **Stock receipt** (from production, purchased or transported) **is facilitated with bar coding and RF terminals.**
- **Stocking** – after reading the bar code (on the label) containing the pallet number the system will reserve a space in the warehouse for each pallet, with the help of RF terminals.
- **Booking and stocking** – goods are assigned “best-before” dates for individual customers. There are 3 types of customers A – everyone with the exception of B and C; B – customers tolerating two “best-before” dates; C – customer tolerating only one date.
- **All products are stored on one pallet for dispatching;** however their position on the pallet is very important (as they vary in weight, strength of packaging etc.). Piece goods will be typically put on top of the pallet, or alternatively in to the box itself.
- **Up to three dispatching compartments have to be reserved for stocking,** so that parallel dispatching of products with different “best-before” dates is made possible. If there is a demand for the original pallet, stocking will be taken from the dispatching compartment. RF terminals will manage warehouse stocking.
- **Each executed stocking operation** (cargo unloading, loading, stocking and stocks replenishment) **will be saved into the system.** Information about these processes will then be further used to evaluate their efficiency, work out benefits for workers based on their productivity and other statistical data.

RF terminals will carry out following operations:

- replenishment of stock
 - replenishment from cargo unload
 - replenishment from stock defragmentation
- unloading of a pallet
- product stocking
- uploading a pallet
- division of labour
- disconnection

- EAN control
- stocktaking
- intake
- intake from production

Menus can have different forms, depending on the connected user.

RF terminals can **Assign work**, which will automatically chose and initiate the highest-priority process for a given department from the “warehouse operation demands” database.

Due to non-stop operation of the warehouse restricting possibilities of “technology breaks”, individual activities in both phases of the implementation, especially warehouse management solution, proved to be difficult to organize and coordinate. These technology breaks are however essential for implementation of new functions into the system.

Together with the installation of this Warehouse management solution we installed parallel systems for “non-managed” warehouses elsewhere.

Integration of the “**CCV Warehouse management**” module into the original version of the application in ACCOM brought priceless experience for future partnership development and also for other projects.

Having installed all functions of the solution and evaluated its benefits we enabled its further development e.g. production process integration into universal IS and integration of other ACCOM holding group members into an integrated environment of **Microsoft Dynamics NAV**.

We have reached this cornerstone only thanks to rigorous approach of the project team members on both sides, active and responsible communication and continuous effort to reach a common goal.

General schedule of the project

Period	Description
October - November 2005	Initial meeting, strategy planning, determination of business and realization conditions
November 2005	Signing of implementation contract and initiation of the first project phase
January 2006	Elimination of major operation problems
February 2006	Initiation of 2 nd project phase
March 2006	System analysis and planning – Warehouse management solution
April 2006	Integration of customer’s specifications into CCV Warehouse management solution (WMS)
May 2006	Integration of WMS to the original application in ACCOM
June 2006	Initiation of full operation of WMS module
August 2006	The end of supervision over the system testing operation and project implementation – routine operation
2006 and later	Implementation of WMS into other warehouses – Choceň dairy farm – and integration of other ACCOM holding group members into Microsoft Dynamics NAV environment

Benefits of the solution

Benefits of new IS/IT solution – Warehouse management from the technological and business point of view, are following:

- **Universal user environment in all company processes:** training of new workforce is quicker
- **Elimination of wasteful duplication of data management, error checks, and consolidation of data – easier to operate than the original system:** Storage operations are more labour-efficient – it is possible to hire less qualified and cheaper workforce.

- **Audit and controlling support in the company, business conditions supervision:** Clearer overview of stocks resulting in less frequent stock shortages and consequent forced clearances – lower penalties and lower losses from those clearances...
- **On-line access to information and secure access to data:** Significantly clearer overview of stocks resulting in less frequent stock shortages and consequent forced clearances – lower penalties and lower losses from clearances ...
- **Productivity of labour:** it is no longer necessary to perform daily checks of workers' presence at compartments, or short guarantees - "vulnerable goods"; manual filling-in of guarantee certificates is also eliminated...
- **Accounting and business procedures become easier, entry bookkeeping of all stock transitions including user identification:** Considerably lower losses resulting from increased transparency of individual operations.

Some objectively measurable values prove process and service improvement after project implementation:

- Forced clearances for JUN-JUL/2006 are **44%** lower compared to same period previous year
- Results from JUN-AUG/2006 show that needed stocks have decreased in real terms by **4%**
- Annual interest savings of circa **133 000 CZK**
- It is no longer necessary to perform daily checks of workers' presence at the compartments = 2 hours/day minimum
- it is no longer necessary to check short guarantees – on "vulnerable goods" = 1 hour/day minimum
- Aggregate annual wage expenses for Královice and Bohušovice centres were cut by approximately **391.000 CZK**

ACCOM's reference:

Motto: "Veni, vidi, vici!"

That is how one could summarize our first experience with a finished project – localized to Czech: "We have come, we have seen, we have accomplished."

Having seen the operation of a modern, managed, foodstuffs wholesale warehouse in Opava cooperative, our management has decided within 14 days to commence cooperation with CCV demanding a contract on implementation of Warehouse management system using RF terminals. We felt encouraged having regarded high professionalism of their employees, quick business negotiation and tested modern solution in stocking and distribution of foodstuffs.

Today we are able to fulfil demanding criteria for foodstuffs stocking and retailing set by the EU, with maximal efficiency, delivering goods even to foreign customers quickly and without undue expenses on prolonged stocking. The economical effects of the project were equally important to us – stock turnover is faster, employees are more efficient while system allows us to pay benefits directly according to the quality and amount of dispatched pallets.

The solution eliminates the impact of human errors in individual commissions (prevents dispatching of inappropriate assortment and lowers the guarantee period demanded by customers) optimizes stocking by different products. Warehouse management is an essential part of Microsoft Dynamics NAV IS. Its outputs are interconnected with distribution and dispatching lines and allow for easy evaluation of the admission, stocking, dispatching and distribution processes including goods transportation in between individual warehouses.

In foreseeable future we would like to realize similar solution in our second central warehouse in Choceň.

Why would you use carrier pigeons when you can use an airplane?

Ing. Marie Fejfarová
Financial director
ACCOM Czech, a.s.

Contact

Supplier

CCV, s.r.o.

Libušina třída 23
623 00 Brno

tel. +420 541 212 199
fax +420 541 217 969
email: ccvbrno@ccv.cz
<http://www.ccv.cz/en>

Mgr. Roman Fuchs
Project coordinator
e-mail: roman.fuchs@ccv.cz



Customer

Accom holding s.r.o.

Na Pláni 41
150 00 Praha 5

tel.: +420 235 364 871
fax: +420 235 364 993

<http://www.accom.cz>

Mgr. Petr Král, M.B.A.,
Customer's project coordinator
pkral@accom.cz

