

MCL Technologies Success Story



750,000 Cases of Daily Stock Levels Managed in Real-Time

Background

Diageo, with brand origins dating back to 1749, is the world's leading premium drinks company. As the owner of world class labels Smirnoff®, Johnnie Walker®, Guinness®, Baileys®, J&B®, Captain Morgan®, Cuervo®, Tanqueray®, Crown Royal®, and Sterling Vineyards®, Diageo offers an exceptional selection of alcoholic beverages ranging from beer to wine and spirits.

Trading in over 180 markets and employing over 22,000 people in 80 countries around the world, Diageo has a global vision with local market focus. With headquarters in London; and with three main production and bottling sites and a major distribution hub in Scotland; and manufacturing facilities in Ireland, United States, Canada, Spain, Italy, Africa, Latin America, Australia, India and the Caribbean, Diageo continues to grow and reach new markets.

“Although MCL is a major international software provider, they pulled out all the stops to get this new version developed, tested, and released well before the upgrade date. They understood the significance of Diageo’s problem and liaised with ourselves, Accenture in Spain, SAP in Germany, and Diageo in London and Scotland, to produce the solution when other third party suppliers would have failed or taken much longer timeframes”

Alan Johnstone, Technical Project Manager for Codemove

Previous System

The existing system was a warehouse data capture “RF Manager” system running a custom software application. Used by forklift drivers, the system collected data in real time using Symbol® PDT3140 portable terminals and long-range scanners. Originally installed by Symbol Technologies, the RF Manager was deployed in three of the Diageo sites in Central Scotland. The collected data was transferred from each site via FTP to an elderly DEC mainframe running Diageo’s palletized stock database in Maidstone, England.

In 2001, Diageo engaged mobile and bar code application specialists, Codemove Ltd, to support the existing system.

Case Summary

End User

Diageo

Systems Integrator

Codemove

Application

Stock Management; Warehouse Operations

Solution

MCL application running on Symbol wireless terminals handling warehouse functions with real-time end-to-end integration with SAP

MCL-Collection

The Codemove solution uses the following MCL-Collection components:

- MCL-Designer
- MCL-Client
- MCL-Link
- MCL-NetS24
- MCL-R/3 Bridge

Benefits

- No change to legacy front-end functions
- Seamless upgrade to new hardware
- Certified integration with SAP
- Low cost
- Flexible on-going development and support
- Future proofed applications
- Real time, wireless warehouse operations
- Electronic data accuracy
- Rapid data capture
- Real time visibility and validation for order picking and stock movements

Strategic Change: Challenges

In 2004, as part of a global SAP® strategy, Diageo deployed a SAP stock control module for tracking finished bottled products and pallets. Diageo also upgraded and relocated its business server hardware to the IBM® supported data centre in Warwick England. Diageo's warehouse management systems needed to migrate from the old custom application to a new system which could integrate with SAP. The new system also required real time validation of stock movement, pallet splitting, and re-labeling which the old application could not readily provide.

Diageo approached Codemove to consider the best way forward. It wanted to:

- Maintain the existing front-end operator functions
- Upgrade the warehouse system to new hardware
- Create a live bridge to the SAP database functions
- Validate stock movement, pallet splitting, and re-labeling in real-time



Solution

Codemove provided Diageo with a number of alternatives. The most beneficial proved to be a solution using MCL-Collection by MCL Technologies. MCL's development tools allowed Codemove to create, as required, handheld applications with user menus similar to those of the existing operator functions. Furthermore, MCL's modular architecture provided the necessary deployment software – a communications server and a certified SAP interface bridge – that handled end-to-end real time transactions with SAP. Each Diageo site would have a local dedicated server running the MCL bridge. The local server would also provide archive database functions and redundancy functionality to continue collecting data if the SAP connection or corporate WAN network went off-line for any reason.

The new applications were tested in a SAP 'sand-pit' test bed well before the live date. The operators at one site verified the system on new Symbol hardware. The three main Scottish sites were upgraded during the weekend before the SAP move. The switch over proved so successful that the operators continued working without any downtime on the Monday morning. Following the SAP migration, Codemove implemented several additional applications for third-party suppliers that provided Diageo with re-packaging and ancillary storage services.

Codemove used MCL-Collection to provide remote data capture systems for the third-party suppliers and link these remote sites to the SAP system through the MCL bridges.

In 2007, Diageo planned a global SAP upgrade with Unicode capability. However, the existing MCL software did not support Unicode. Diageo discovered the incompatibility just two weeks prior to the scheduled roll-out. Diageo immediately informed Codemove and MCL of the issue. MCL and Codemove worked daily, on-site, to understand the Unicode requirements and produce a new version of the MCL bridge that was compatible with the new version of SAP. A beta version was fully tested on-site, and a new fully supported production release was installed at each site prior to Diageo's scheduled SAP upgrade date.

Benefits

Diageo chose Codemove's MCL proposal over a number of other providers' proposals, not because it was the lowest cost option, which it was by far, but because of the flexibility it offered regarding on-going development and support of the complete solution – software, hardware and network infrastructure. In fact, Codemove quickly took advantage of the flexibility of the MCL solution to integrate new Zebra® pallet label printers into the wireless system to produce new labels on demand for Diageo's stock management.

The MCL choice also provides a future proof benefit to Diageo. It allows Codemove to upgrade operator hardware to the latest Symbol portable devices and wireless infrastructure without change to methods or data capture menus.

"Electronic data accuracy is critical to both operation and Custom & Excise control. Daily stock levels average 19,000 pallets which represent around 750,000 cases and record intake/dispatch volume has been 1.1 million cases in one month. The Codemove/MCL system provides the operators with necessary rapid data capture together with real time visibility and validation for order picking and stock movements."

David Gordon, Site Manager, Diageo distribution centre

Codemove's warehouse system is sophisticated, tailored to Diageo's specific requirements, easily modified, and highly maintainable – changes are introduced without production downtime. Stock taking, which is only one of the ten main warehouse functions handled by the Codemove solution, is completely electronic, and therefore much more efficient and rapid than any previous paper-based system.

The Future

Codemove has recently introduced a pallet-labeling system in Cognac, France for new Diageo brand products, Ciroc Vodka and G'Vine gin – both high value spirits made from grapes.

Projects are also underway to deploy the Codemove/MCL warehouse systems into two more well-known Irish spirit facilities, including Baileys, to further integrate Diageo's production sites into the global SAP system.

The old Symbol wireless system and hardware is being replaced with newer equipment such as the Symbol MC9090G industrial terminal. MCL-Collection also has many more features and benefits to offer Diageo, such as voice recognition and RFID capability, to leverage the advances in technology and safeguard Diageo's technology investments for future projects and expansion.

MCL Technologies acknowledges with thanks the permission granted by Codemove Ltd and Diageo to use this success story.

Codemove was formed in 2001 as a spin-off from a large UK software house to focus on supplying mobile and bar code applications. It provides mobile data capture software and hardware solutions that form critical solutions in production, warehousing, logistics and transportation. With today's emphasis on JIT, Lean manufacturing, web-based stock ordering and POD requirements, real time data, such as that provided by Codemove's solutions, is essential for most companies' supply chains.



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MCL-R/3 Bridge is an SAP certified interface for SAP R/3: CA-ADC Advanced Data Collection (includes MM-MOB and WM-LSR). This certificate confirms the existence of product functionality in accordance with SAP's Certification procedure. The certification test is documented in report: 1208/01-2001/wdf from June 01, 2001.



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