

## Irish Dairy Board Integrates to 14 Sites Using In-DEX WMS For Real-time Supply Chain Traceability and Efficiency.

### The Company



**Irish Dairy Board HQ.**

The Irish Dairy Board, originally established in 1961 under its Irish name An Bórd Bainne, is today a major international exporter of Irish dairy products servicing the needs and quality demands of customers in 98 countries worldwide. With an annual turnover of over €2 billion it is one of Ireland's biggest exporters and owns major distribution companies in Europe and the USA.

The Board is a commercial co-operative, tasked to market and export the Irish dairy products produced by its member dairy processing co-operatives and dairy companies and so generate the maximum return for the primary producers.

IDB owns the internationally established Kerrygold brand, the Irish dairy industry's most important marketing asset. It operates through three divisions:

- Consumer Foods has a portfolio that includes a variety of butters, cheeses and milk powders marketed under the Kerrygold brand.
- Commercial and Food Ingredients markets a wide range of specialised dairy ingredients including, powdered and skimmed milk, full cream milk, buttermilk and a variety of dairy proteins.
- DPI Specialty Foods is a leading national food distributor in the US with five strategically located distribution centres specialising in perishable products including delicatessen and gourmet products.
- In 2009 the IDB received international recognition from Sterling Commerce, an AT&T company, winning its annual award under the heading '**Managing Diverse Partner Communities**' for innovative development of an electronic real-time system streamlining its national and international B2B business.

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### The Business

IDB owns and holds large stocks of butter, cheese and milk powders at any one time, for example on 2 January 2010 the total value was €334 million. It has some storage and logistics facilities of its own in Europe but operates largely through established business partnerships with refrigerated storage companies in Ireland and the UK and other service providers on the European mainland. Currently it utilises over 80 refrigerated storage locations across Europe. Sales orders and stock movements are fully controlled from IDB head office, with direct instructions being sent at any time 24/7 to the various sites holding stock on its behalf. Pallet movements could total up to 7,000 a day with an average of about 2,500.

All stock movement is controlled from IDB head office, to the extent that even the pallets to pick are specified. "It might surprise people outside the industry to know that dairy products can actually be very complex with up to 150 attributes for a pallet load," explained Kevin Woods, Business Analyst in the IT department in IDB. "Apart from cheese types and other varying attributes such as fat content, some cheeses are matured gourmet products while others are essentially commodity foods. All are tightly regulated and quality controlled. Unlike other food items, the significance of the original production date varies greatly in the storage and distribution."

This also illustrates why it is essential to the IDB to have complete, real time visibility of all of its product stocks and locations.



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## The Systems Challenge

The mission critical task of the business systems controlling sales and product movement is to maintain real-time visibility of the detailed stock position of IDB, across its portfolio and all locations. Over and above the controls essential for business efficiency, there are mandatory requirements for complete product traceability by the US FDA, the EU and other food safety authorities worldwide. The ERP system deployed in IDB since early 2005 is Lawson Movex/M3 and it was imperative that the warehouse management systems in the various independent cold stores would interface automatically and in real time with the Movex database.

"We approached our business partners, the storage providers and their warehouse management systems vendors," said Kevin Woods, Business Analyst in the IT department in IDB. "We gave them all the detailed specifications of what we wanted and were prepared to accept the automated stock movement reporting from their systems in any format that our own Movex ERP could accept through an API interface, from EDI to XML to flat files." IDB also mandated adherence to the AS2 protocol, now gaining wide acceptance in supply chain and distribution worldwide. "It gives secure Internet transmission, compressed and certified, with no value added network costs for any of the parties."

The overall brief was to give each warehouse controlled access to the Movex system. Instructions from IDB and stock movement reports from the warehouse management systems could then be exchanged automatically and in real time or close to it. The system now in place surpasses the original brief and is based on real-time integration between IDB and the warehouse management systems in the partner facility.

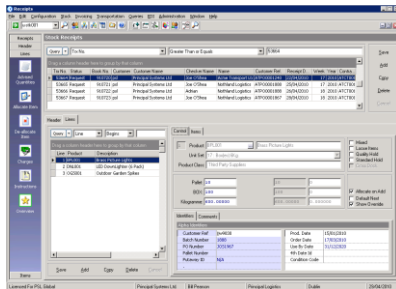
An important additional benefit of the system is that it helps to almost eliminate paper in the supply chain, a corporate objective of the IDB and of the food distribution and supply chain sector internationally.

**Kevin Woods,  
Business Analyst  
Irish Dairy Board.**



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## The Solution

As the leading vendor of warehouse management systems for temperature-controlled environments and regulated sectors (food, pharmaceuticals), Principal Systems worked closely with the IDB's IT staff to develop the real time integration module for its In-DEX product. "As far as we are concerned they did an excellent job in a short time scale," Kevin Woods said. "The warehouses using In-DEX were very easily and smoothly integrated into our Movex ERP system. After the first short period of testing and familiarisation there have simply been no software issues."

There was a significant software development effort involved in creating the integration module for In-DEX, according to Principal Systems General Manager John O'Malley. "The IDB business requirement and the technical brief were very clear and in fact very much along the lines of business functionality that our existing customers find valuable. Automated transactions and avoidance of re-keying are what we are all aiming for. Working with the Lawson Movex ERP software and AS2 for the first time was something of a challenge but with the expert assistance of our IDB colleagues it all went quite smoothly in the end."

From the point of view of In-DEX users, the system benefits are absolutely clear. The cold stores can now work directly online with IDB with reduced data entry, real time stock information shared with IDB and improved product traceability throughout the supply chain. Some of the previous reporting requirements from the warehouses have been eliminated by being automated and the platform is in place for better electronic communications in any future business developments. In addition, speedier and automatic payment is underpinned because any transaction queries or discrepancies are flagged in real time for immediate resolution. There is no extra data input by the stores and in fact the In-DEX users are largely unaware of the automated transactions between the systems other than items like new pick lists that are directly related to their working roles.

General feedback from warehouses and logistics companies confirms that average truck turnaround time is reduced because the relevant data is usually on the In-DEX system in the warehouse even before a truck arrives. There is minimal paper involved and many supply chain partners have been enabled to go completely paperless using hand scanners and digital signature and date/time capture.

"No paper, no faxes, the whole operation is streamlined," said Eoin Hennessy, Managing Director of Orchard Warehousing & Cold Storage in Carrigtwohill, Co. Cork. "Errors are almost eliminated compared to the tedious chore of transcribing information from masses of documents, which in fact was a bit of a nightmare at peak periods. We hold up to 6,000 pallets for IDB at any time with maybe 200 or so moving in or out daily. So the automated links between the IDB and our In-DEX system, which in turn is integrated with our Sage Line 50 ERP, have significantly reduced the clerical working hours needed."

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**Eoin Hennessy**  
**Managing Director**  
**Orchard Warehousing & Cold Storage**



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In the Lough Egish warehouse in Castleblayney of Castlecool, one of Ireland's leading warehousing and logistics service providers in temperature controlled food distribution, there has been the same experience of administration time saved and errors minimised. "IDB is now fully integrated with our In-DEX warehouse management and through it to our financial system," said Catherine McAvinney, the warehouse office manager. Similar real time integration is in place for other Castlecool customers, notably with the SAP system in H.J. Heinz.

"The real time link with IDB was set up over a year ago and really involved very little initial work for us. There was a one-off exercise in synchronising the stock position between IDB and ourselves, rather like stocktaking, after which the automated system took over. We used to have to update stocks manually and produce a weekly report. Now the systems talk to each other and all that happens sometime in the middle of the night!"

Another error-reduction feature she pointed to is that it is no longer possible to despatch the wrong pallet because the IDB-generated orders to the In-DEX system are what feed through to the pick list. Similarly, the on-screen display of IDB stock in the warehouse system is filtered and now displays only the items involved in the current transactions, so the operator does not have to scroll down to find each one.

There were some small teething problems in the first few days, Catherine McAvinney recalls, and a modest amount of training: "People were used to doing things a certain way for years, so it took a bit of readjustment at first. But the benefits were clear to everyone from the first day."

#### **Principal Systems In-DEX Users with real time IDB links**

IDB business partners providing temperature controlled storage services and linked in real time through their In-DEX systems include :

**Castlecool**, Monaghan

**CGI**, Cork

**Colso**, Cork

**Grocontinental**, Shropshire, UK

**Lyonara**, Portlaoise

**Molloy Sherry**, Dublin

**Orchard Warehousing**, Cork

**QK**, Waterford and Lincolnshire, UK

**Transtock**, Waterford

**TrailerCare**, Dublin

**VF Coldstore**, Dublin

**Some In-DEX WMS users with full integration to the Irish Dairy Board**



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For more information on In-DEX WMS please visit our web site:

[www.principalsystems.com](http://www.principalsystems.com)