



LINKFresh: Food Supply Chain Business Management Solutions

“Accelerating the
Food Supply Chain”



Business Mobility Applications



Financial Management

Sales & Purchase

Warehouse Management

Manufacturing

Analysis & Reporting

LINKFresh®: Foundation Granules

LINKFresh: Supply Chain

- Supply Chain Granules
- Forecasting & Budgeting
- Category Management
- Planning Board
- Customer Service

LINKFresh: Operations

- Operations Granules
- Produce Grading
- Label Room
- Live Factory Performance
- Contract Packing
- Device Integration

LINKFresh: Logistics

- Logistics Granules
- Repack Orders
- Pallet Builder
- Optimizer
- Pallet Tracking
- Haulage Ledger
- Distribution Packaging

- Foundation Granules
- Consignment Tracking
- Produce Costing
- EDI
- Advanced Pricing
- Proof of Delivery
- 3rd Party Inventory
- Grower Returns & Self Billing
- Quality Control
- Market Trading

Inter-Company Transactions

Mobility Manager

Web Interface

Anglia's powerful LINKFresh package uses its business mobility application suite to provide full visibility of inventory, labour and packaging costs throughout the entire supply chain. By integrating mobility with order processing, purchasing, production, distribution, logistics and finance, the system enables management teams to monitor profitability in real time. This helps to reduce waste, labour, transport and packaging costs while improving customer service. It enables customers to improve profitability and compete effectively in the marketplace using dynamic information as a vital business aid.

Microsoft Dynamics™ NAV Overview

LINKFresh® is a Certified for Dynamics packaged solution designed and developed to seamlessly integrate with Microsoft Dynamics™ NAV. Over 80,000 global companies use Microsoft Dynamics NAV to manage their businesses making it the software giant's flagship ERP product. This fully featured business management suite is fast to implement, easy to configure and simple to use. The product is

widely used within the food sector. The Microsoft Dynamics NAV inbuilt development environment provides the ideal technology base to deal with the changing requirements of this challenging industry. The operational flexibility it provides is a key differentiator in enabling companies in the food sector to accelerate the velocity of their supply chains. Adding the LINKFresh advanced food specific

functionality together with the LINKFresh mobility suite provides management with full visibility of product and processes throughout the entire supply chain.

The Microsoft Dynamics NAV product is available in 42 different country versions and is supported by a Microsoft Certified Partner Community of over 4,000 solution centres.

Business Mobility Manager

Behind the growing demand for integrated mobility applications is the need to speed up business. The pressure to do more with less is relentless while still meeting demanding customer expectations. The food sector faces specific challenges due to the velocity of low cost products through the supply chain. The need is to provide a hard pressed mobile workforce with accurate and timely information to enable them to worker smarter.

The LINKFresh mobility application suite is designed to help by extending vital business information to people at the sharp end where it is most needed. Using Anglia's unique Microsoft .NET based development aids, the company has created an integrated suite of powerful easy to use mobile applications. Capable of operating anywhere, these offer real time access to LINKFresh data through extensive use of Web Services. As a result of dynamic systems operating together, management are provided with full visibility of product throughout the supply process.

The LINKFresh Microsoft .NET framework based mobility systems tackle a wide variety of tasks. These

powerful user friendly programs help to manage product, packaging, plant and labour elements in real time as they move through the supply chain. They include applications covering the following business processes: Secure Log On, Product Intake, Quality Control, Pallet Management, Inventory Management, Despatch, Transport, Device Management and Business Intelligence.



Fig. 1. Mobile Device showing LINKFresh Mobility Suite Main Menu.

Secure Log On:

Scanning a barcode or typing a PIN provides user access to the application based on role and location. Clear menu driven screens designed to work intuitively and with gloved hands guide the user through clear steps to efficiently operate their system. On logging on, the system checks that the latest software version is present. If not, a new version is automatically downloaded in the background with minimal disruption.

Mobile Product Intake:

This application is seamlessly linked to the order processing and warehouse management systems within LINKFresh to manage all aspects of incoming goods. On receipt, the product details are scanned to verify the order details. The goods are booked in allowing under or over deliveries. A put away facility directs goods to the appropriate storage location or production unit dependent on planning instructions. Once delivered, the central system is automatically updated in real time allowing the rest of the production process to be scheduled with minimal delay.

Anglia's Unique Development Aids

Since 2004, Anglia has made significant investments into the design and development of tools aimed at exploiting the power of Microsoft's .NET Framework technologies. These were targeted at sharing and using the data locked up in ERP systems as an aid to customer competitiveness by using web services. The development and refinement of three key technologies were instrumental in the successes achieved. Called DataMaker, Drizzle and Auto Update, they formed the foundation of the powerful mobile applications subsequently developed and now widely used within the food industry.

DataMaker is the key technology that tackled the problem of keeping data across different databases synchronised. To meet the changing demands of the supermarkets, or to tackle new business models, business management systems have to be flexible. This usually means changing the underlying tables of the core system

Mobile Quality Control (QC):

The mobile QC is seamlessly linked to the product attributes, supplier accreditations, packaging and quality standards held in the LINKFresh ERP system. The application is configured to reflect the preferred operating practices of the business. The QC system validates the product against a wide range of checks against which the results are recorded. It also manages the process of decanting goods from inventory into a high care environment. A powerful label checking feature provides the last vital verification of the labelling process. Product failures can be immediately notified using alerts such as SMS or e-mail to trigger prompt remedial action.



Fig. 2: Mobile Device showing Mobile QC application with RAG (Red/Amber/Green) Status.

Mobile Quality Inspection

Remote working outside the confines of production is enabled via Anglia's unique Drizzle technology. The Quality Inspection module works completely offline

allowing work to continue remotely. It allows the mobile workforce to carry out a series of tests and checks and to record the data in LINKFresh once communication links are restored. Quality Inspection can be used for a wide variety of applications. As with the Quality Control module, a full range of tests are defined centrally within LINKFresh. This facilitates the remote capture of text, photos, signatures, checks and measures.

The system works securely over the public phone network, via cradling devices or using a Wi-Fi connection.



Fig. 3: A picture tells a thousand words. Pallet damage is captured and immediately distributed via the Mobile Quality Inspections Module.

Mobile Pallet Management:

The mobile pallet management system is integrated with the Pallet Management, warehouse and inventory applications within LINKFresh. This enables shop floor operatives to efficiently manage the storage facilities within the operating environment. Facilities include scan, build, move or adjust pallets as well as enquiry facilities on pallet contents.

Mobile Inventory Management:

The mobile inventory management system provides users with secure access to all stock movements in real time from any location. Items are scanned as they move and change through the supply chain and the central LINKFresh system dynamically updated. The system provides full traceability throughout as well as reducing the workload involved in managing inventory.

Mobile Despatch:

The last chance to get it right before the customer receives the goods. The despatch builder manages all activities associated with despatching orders. As the system is fully integrated with ordering, QC and inventory, the application will

when for instance a rebate is changed. When this happens with a real time system, the tables on dependent systems have to be rebuilt to reflect the core ERP file structures.

DataMaker works by copying and pasting the underlying ERP file structures and creating perfect .NET code typically for deployment on mobile devices or web sites. This allows the developer to concentrate on building the user interface rather than on table recreation. It also means that customer delays are avoided while the changes are made and the new software installed.

Drizzle was developed to facilitate on-line and off-line working with mobile applications. The reality is that within the global food sector, sources of supply do not have access to high quality communications facilities.

only allow appropriate goods to be despatched. The application includes a positive release mechanism triggered by an authorised person as a final check.



Fig. 4: Mobile device showing part of Mobile Despatch Application.

Mobile Transport Management:

The mobile transport management system is fully integrated with the LINKFresh Logistics module. This allows despatch operatives to efficiently plan and execute the transport of goods while complying with the loading and temperature requirements specified by the customer.

Mobile Device Management:

Would a photograph help confirm the details of your damaged goods claim? Providing that the Windows mobile device incorporates a camera, it can immediately be sent from the handheld and shared with the affected audience. Want to print from a printer close to where the paperwork is needed? Once set up, scanning a printer barcode and

pressing a button gets your label or reports where you want them. The mobile device management module is designed to save time and make the organisation more agile.

Mobile Business Intelligence:

Key Performance Indicators (KPI's) provide updates on the health of the business. However, it usually means ploughing through reams of forms to find out what went on historically. With a dynamic real time system, it is possible to keep your finger on the pulse as things happen. Furthermore, the information can be published on your phone or laptop as you travel. Timely and accurate information on profitability, service levels or alerts on issues while on the move could provide a vital edge in today's competitive trading environment



Fig. 5: i-phone mobile device showing KPI information on the move.

Technical Specification

Software Components

LINKFresh® Foundation Module
Microsoft Dynamics™ NAV
Microsoft Windows Server 2003 or higher, running Internet Information Server (IIS)

Supported LINKFresh Mobile Hardware

Microsoft Windows Mobile Devices
Microsoft Windows CE 5.0 Devices

Supported Mobile KPI Hardware

Microsoft Windows Mobile
Apple iOS devices
Blackberry devices
Google Android devices

Hardware

Separate Windows Server recommended as a wireless server

Infrastructure

SSL certificate required for Quality Inspection and Mobile Business Intelligence Modules

People working in fields or in ships holds still need to continue to work with their information even when off line. Drizzle, together with Anglia's mobile applications solves this issue. Users can continue to work with and gather data using applications designed to continue to operate in both on and offline mode. Moreover, while working with large volumes of data, the facilities within Drizzle only transmit changes that have occurred since the last update. This improves the speed of system response while keeping the cost of ownership low. Within the LINKFresh Mobility Suite the Drizzle technology is used to facilitate the Quality Inspections Module.

Auto Update ensures that mobile devices are always loaded with the latest software version. Moreover, the update happens in the background when the user logs on and the system checks and compares version numbers. Updates can be delivered over any type of data network thus removing the need to return mobile units for upgrade purposes.

For detail, demonstration or discussion:
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