

# Track and trace at Portsmouth International Port

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Behind the simplicity of internet shopping lies a complex system of tracking software that allows customers to easily follow the whereabouts of their purchases. Managers at Portsmouth International Port wanted to deliver a similar experience to their customers who grow, ship and buy fruit all over the world.

Portsmouth International Port is the gateway for much of the fresh fruit eaten in the UK, with 60 percent of all bananas sold in the country having come through the port. Mainland Market Deliveries Ltd (MMD) is a specialist importer and handler based at Portsmouth. The company provides shippers with a fully integrated turnkey service, including stevedoring, ship and customs agency, handling, storage and onward distribution. MMD realised that new distribution software could bring big benefits to not only the company, but also its clients all over the world.

## The development of a solution

In 2006 MMD made the decision to upgrade its distribution software. At that point it was using two systems - 'Manpack' for straightforward distribution of produce and 'Wizdom' for scanned pallet tracking. Following a selection process, MMD invited consultants Anglia Business Solutions to implement a new system, and their specialist 'LinkFresh' software was deployed.

'LinkFresh' is a bespoke adaptation of Microsoft's 'Dynamics NAV' software, combining scanned and non-scanned items into one system. Its arrival provided the foundation blocks for subsequent development, with MMD encouraging all customers to increase the amount of scanned items coming through the port. For the first time there was now full traceability throughout the supply, shipping, handling and delivery chain.

The next stage was to develop a web portal to allow customers to fully track their shipments.

The idea behind the system is simple. Barcodes are attached to products the moment they start to make the journey from field to supermarket, and are scanned at every new stage of the process. That means the fruit will be scanned at the port of origin, with shippers doing the same as it moves through warehouses, and onto and off cargo vessels. The web portal allows everyone involved in the supply chain to monitor the progress of each shipment.

Work on the development of the internet-based technology began in 2010, with the system fully released in 2012 after a year of testing. It allowed customers direct access to filtered data on the 'LinkFresh' system. Before this web portal became available a series of



Geest Line Benguela Stream.

international telephone calls had to be made or faxes of stock sheets sent. Now live data of stocks and dispatched loads could be viewed online from anywhere in the world; dramatically reducing the amount of time, cost and effort that had previously been required in getting the information.

### Realising further benefits

The installation of the 'Linkfresh/Microsoft Dynamics NAV' system was initially very much a port-focused project. However, in early testing it soon became clear that the addition of the web portal brought major benefits to customers too.

Mark Phippen is the distribution manager at MMD Shipping Services Ltd. He explains the added value that clients have gained from the system: "The advantages are numerous, smoothing out the entire supply chain. The tracking system gives shippers real-time information about where their fruit is. This reduces waste by making sure the shipments can be collected at exactly the right time, helping to keep fresh produce in perfect condition. There is a reduction on wasted journeys, with HGVs only being dispatched when produce is ready for collection; this ultimately means a reduction in Co2. It also helps to ensure full advantage is made of empty space in trailers, reducing the overall number of lorries on the roads allowing the whole process to run more efficiently."

Mr Phippen continues: "There is also the benefit of traceability - something the industry now demands. The system gives growers the certainty that their fruit has left MMD and is travelling to the ripening centre, and it allows the supermarket to trace the fruit back to the farm of origin, which can be important if there is a problem with the produce."

Portsmouth International Port understands it is the only UK maritime destination for fresh fruit and vegetables to offer such a system. This is a major consideration for large global companies who rely on the efficient supply chain. All have been impressed when shown the live information available directly to them. As well as encouraging new business it has also helped MMD maintain current customers, attracted by the bespoke technology.

The system has been used by growers and companies shipping fruit from all over the planet. Whether it is grapes grown in Chile, oranges from South Africa or bananas from Central America and the Caribbean, practically every pallet that arrives at Portsmouth International Port now carries the barcode that allows full traceability throughout the

journey. The major suppliers to British supermarkets rely heavily on it, such as well-known companies Del Monte, Fyffes and Geest Line.

### Sharing the experience

Mark Phippen believes the development of the system has been an entirely positive experience, one that he has been happy to share. Recently delegates from six countries in Europe came to the port to investigate the benefits it has brought. The 40-strong delegation was made up of members of Westflows (West and East Freight Flows). Westflows is an Interreg IVB North West Europe project funded by the European Regional Development Fund (ERDF) that aims to encourage a shift towards greener freight transport in the NWE region. As part of Westflows, Portsmouth

International Port received European match funding for the development of the track and trace technology, and at a conference held in Portsmouth, experiences gained from the implementation of the bespoke system were shared.

Mark feels this particular success story is unlikely to be the last: "We have several projects on the go at the moment. First is a new container control system which, like the portal, is web-based, accessible by all internal parties with the aim to eventually open this up to customers much like the current web portal. Customers will see all containers onsite, off site and loaded back to vessels. We are also working with customers, initially Del Monte, on a two way electronic exchange of orders. For instance, Del Monte will send a collection order directly to our system, pallets will

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Top: NYKcool Crown Garnet calls Portsmouth's docks; Left to right, MMD Scanner, Fruit storage, Pallet loading at Portsmouth International Port.

be scanned onto the load on our system, and pallet/load details sent directly back to populate Del Monte's system. This cuts down on handling time and potential human error, and provides parallel real time information on customers' own systems. Thirdly we are developing a transport module to control the booking and flow of transport into and around the port, making more efficient use of time and space in the port. This will have a dramatic positive impact on waiting times and congestion."

The container control and electronic ordering systems are nearing completion, and should be available for testing and use towards the end of this year. The transport module is currently in the early stage of planning.

### Lessons learned

Mark Phippen agrees that lessons are being learnt all the time through the development of new port technologies. He said: "We are driven by the needs of the customer, and

it is essential to involve them as soon as possible in the development of IT projects. This is because sometimes unexpected synergies and efficiencies can develop. An example of this happening in practice is the electronic ordering system, which developed organically from the web portal work with Del Monte. A clear goal is essential, but flexibility and adaptability is key too. Importantly, any IT project must benefit all parties and never be for the benefit of just the port or a customer alone."

Achieving that balance has always been the goal of the management team. The port is owned by the City Council and all expenditure has to demonstrate value not only to the end user, but also to local residents. They rely on the port for profits ploughed back into local services, as well as providing jobs in the area. There is confidence at the port that ongoing IT projects will deliver benefits that bring advantages to everyone who has a vested interest in the continued success of Portsmouth International Port.

### About the author



Mark Phippen is the MMD Shipping Services Ltd, distribution manager, a commercial facing role, responsible for handling customer's distribution needs, stocks control, outward cargo and container movements. Mark has been with MMD since January 2005. He was previously with Fyffes from 1993-2004, so has 20 years experience in the fruit business.

### About the company

MMD (Shipping Services) Ltd is based at Portsmouth International Port on the south coast of England, providing cargo shippers with a fully-integrated turnkey service, including stevedoring, ship and customs agency, handling, storage and onward distribution. MMD's experience, expertise and state-of-the-art facilities allow them to handle a wide range of cargo. The specialist fruit and vegetable importing facility has secured Portsmouth as one of the largest fruit-handling ports in the UK, with produce from the Caribbean, Central and South America and Morocco.

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