

# Traceability.

Does It **Really** Matter to the Seafood Industry?



A WHITEPAPER FROM SEASOFT SOFTWARE

A Computer Associates Whitepaper

# Traceability: Does it Matter to the Seafood Industry?

A Computer Associates and Seasoft ERP Software Whitepaper

During the past year, we have seen many headlines in trade journals and newspapers highlighting seafood fraud, sustainable fisheries, Illegal, Unreported and Unregulated (IUU) fishing and ethical fishery practices. Each topic is being brought increasingly into focus for those in the seafood industry as each garners more scrutiny from the press, the general public and government. The topics have become so prevalent that in the last 30 days, *Seafood Source* has listed 30 headlines under the banner of "Environment and Sustainability" in their news archive (Seafood Source, 2014).

Just two years ago, the American consumer push to "buy local" and be aware of the origin of their food could be shrugged off as a fad that would soon go away. The fad has not gone away and consumers are demanding more information about the food that on their plates. Seafood fraud, adulteration and sustainability continue to gain national newspaper headlines and it is safe to say that food awareness is not a fad but rather, a new trend that is here to stay.

Seafood fraud is a practice that is sometimes intentional and sometimes not. It ranges from misidentifying species to misstating the invoiced weight of the product (NOAA, 2014). Fraud has the potential to inflict negative economic consequences upon any party in the supply chain. These impacts can be felt by the seafood consumer as well as every honest fisherman and seafood vendor in the supply chain (Warner, Timme, & Lowell, 2013).

Seafood mislabeling occurs frequently and it is often very hard to identify at which point in the supply chain the infraction occurred. The US imports more than 90% of the seafood that we consume as a nation and mislabeling is rampant. The Associated Press recently ran an article highlighting several states that have pushed legislation to make intentional mislabeling of seafood a punishable offense (Smith, 2014).

Sustainable fisheries are slowly entering the conscience of the American consumer. The Monterey Bay Aquarium, back in 1999, with the advent of its Seafood Watch program was one of the first organizations educating the public about sustainable seafood. Seafood Watch has developed a list of sustainable seafoods to advise consumers about their fish choices. The Marine Stewardship Council (MSC) is an international organization with a strict process for a fishery to be certified as sustainable. MSC certified fisheries and their distributors can display an MSC eco label on their product. The eco label is recognized in more than 100 countries (Marine Stewardship Council, 2014).

Last June, the US State Department held an "ocean conference" to address Illegal, Unreported and Unregulated fishing. The conference was attended by state leaders and industry representatives from around the world (Kerry, 2014). At that conference, President Obama announced the creation of a task force to combat IUU fishing and seafood fraud. This month, the task force came back with 15 recommendations to address the problems and is now setting into motion a process to develop and implementation plan (John Podesta, 2014).

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The US has pursued ethical issues with seafood as far back as 2000, with 188 countries currently tracked for human trafficking in seafood harvesting and processing (The NY Times, 2014). Fisheries ethics have been addressed by the United Nations in a publication dating from 2005. The UN sites ethics issues concerning the working conditions of the fishermen themselves, their rights and to the rights for foreign vessels to fish in coastal waters of other countries (Food and Agricultural Organization of the UN, 2005). Fishing practice ethics have been a more recent addition to the headlines in seafood trade publications, only becoming common over the past year.

### **Traceability as a Vehicle to Compliance**

Government regulation of seafood will force the supply chain to demonstrate that there is no fraud in the representation of products. The seafood industry already has to comply with health regulations regarding harvest areas of shellfish and management regulations with harvest sectors and landed quantities. Retailers of all fresh and frozen unprocessed seafood are required to label the product with Country of Origin and Method of Production. With the State Department and the White House involving themselves with IUU fishing, how far behind can the regulations be?

Several major retailers, including Whole Foods, Wegmans, Walmart and others, have made major campaigns to stock only seafood from certified sustainable fisheries (Greenpeace USA, 2014). These retailers are committed to selling seafood products that are harvested in an ethical, legal and sustainable fashion. Restaurants such as Red Lobster are joining these retailers in advertising that their product meet similar criteria in an effort to conform with consumer demands.

Part of the Marine Stewardship Council protocol for a distributor to be certified as a reliable source for sustainable seafood requires demonstration of a system to trace product through the supply chain (Marine Stewardship Council, 2014). Some of the retailers wanting to demonstrate their sustainability efforts take the traceability a step farther by requiring utilization of Trace Register, a web based, third party database for recording product source and traceability information (Trace Register, 2014). There are other, regional traceability databases including Gulf Trace in the Gulf of Mexico and the branding efforts of the Gulf of Maine Research Institute that are built around traceability.

For a seafood distributor to assure their customers of the integrity of the product being sold, there must be a method in place to demonstrate where the product originated, how it was labeled and what additives are in it. This is somewhat easier for the operation that is selling fish that are caught locally, unloaded at the dock, filleted and shipped out to the customer. The seafood distributor that sources product from distant areas and from overseas, then processes it before selling and shipping it out, faces a much greater challenge.

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## Maintaining Seafood Supply Chain Traceability

Traceability has been defined as “the ability to identify and trace the history, distribution, location, and application of products, parts, materials, and services. A traceability system records and follows the trail as products, parts, materials, and services come from suppliers and are processed and ultimately distributed as final products and services” (Praxiom, 2014).

In seafood, the key components of this definition are “the ability to identify and trace the history” and “a traceability system records and follows the trail.” If a seafood distribution company can achieve these two components, it is able to demonstrate the supply chain integrity of its products.

The first component, tracing the history of a product, begins with lot control, an inventory method of identifying a specific batch and documenting the history of that batch. A batch may consist of the run of fish received from one boat, a pallet or several pallets of product received in a shipment or similar combinations. The crucial component of categorizing a lot is that there are identifiers that allow it to be distinguished from other lots. This is often achieved by assigning a “lot number” to a batch of product as the key identifier.

Once a lot has been identified and assigned a number, its history must be documented throughout the inventory and production process. The lot history can be as simple as receiving a lot into inventory and later shipping that entire lot out to a customer. Conversely, it can be more complicated when a lot of whole fish is received and goes through several product transformations before being shipped out. An example would be whole fish being received into inventory that are first cut into fillets and the fillets are later combined with other ingredients to manufacture a finished product of batter dipped and breaded fish fillet. Any added ingredients also have their own, unique lot numbers that must be documented during the production cycle.

The second component of the ISO definition of traceability is maintaining a system to record and follow the trail of the products. The systems for documenting the product history range from written records to spreadsheets that are manually updated to automated inventory control systems that allow for bar code scanning of lot numbers every time inventory is moved or transferred. The important thing is that the lot history is maintained from the time it is received into inventory, through all of the production steps and is completed when product is shipped to a customer.

## Bar Code Labelling to Facilitate Traceability

Lot tracking and the associated paperwork involved to document product history can become a burden to growing businesses. The requirements for recording simple handwritten lot numbers and spreadsheets that sufficed when a business started grow exponentially as volume and production expand. Automated systems to manage the reams of data that lot tracking generates offer a more manageable solution.

Barcode scanning offers a solution for keeping track of large amounts of data in a quick and efficient manner. Barcode scanning has been in commercial use for about 40 years. Not only does it register the amount that we’re going to pay for an item at the store, but it is also tracking specific information about that item. The barcode imprinted on the label may include the item description, lot information, expiration dates and more.

The information contained in the barcode is gathered and put to use with a computer system. The data can simply be used to track inventory movement or it can be combined with other business operations such as triggering reorder points.

For the seafood distributor, a barcode can capture not only the lot tracking information that will facilitate traceability, but also information about the country of origin, method of production and other key information. Using a scanning device, a worker can record product as it is received into inventory, transfer it to production or assign it to a customer order. The capture of information from the barcode is efficient and generally error free, attributes that loan itself to any business operation. The following quote sums up the value of barcoding to the seafood industry very succinctly: "The barcode continues to play a critical role in improving efficiencies, increasing productivity ... across a variety of industries ... enabling goods to be tracked throughout their lifetime ..." (Food Processing, 2014).



Increased productivity and efficiency are some of the key side benefits to utilizing barcode scanning to facilitate traceability. In addition to being able to more easily comply with government regulations, customer demands and recall situations, having an automated enterprise resource planning software to manage the captured data allows companies to identify product trends. Barcoding holds so much potential for improving business productivity that a large corporation has hedged its position to reap the benefits. Honeywell International recently purchased Datamax, a company that builds specialty printers for generating barcode labels. Honeywell views the acquisition of Datamax as a move to bolster their position in mobility and scanning, a potential \$1.5 billion global business (Smith R. , 2014).

Traceability is already a requirement for the seafood industry. Demands for product information, whether driven by regulation, customer demand or consumer interest, is indicating that traceability will become more important as the industry moves forward. It is no longer an annoyance that can be overlooked; rather, it is an issue that must be addressed. As the information demand continues to grow, it is important for seafood businesses to implement the tools that they will need to maintain a system to record and follow the trail of the products that it sells.



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