SEAFOOD PROCESSING PLANT "FISHES" FOR SCALE INTERFACE TO ENDURE CHALLENGING ENVIRONMENT

It sound simple enough – take the fish off the boat and send it inside the factory to be processed and packaged. But there is important work done in between those simple steps as part of a seafood processing plant's quality control.

For example, fish need to be weighed at different stages of the process. Weight changes may occur due to drying or absorption of water, salts and oils. Gauging the yield of edible product and monitoring efficiency of the process helps seafood plants maximize profit margins.

Often a scale will measure more than just weight and be used for safety checks as well. For example, an industrial scale may have X-ray capabilities to detect decay or harmful contaminants.

Even though some fishing plants also use scales to ensure they are following regulations regarding the catching and preparation of fish, something as simple as just recording the weight a fish or batch is a key component of a food manufacturer's daily procedure.

But in the case of this particular tuna processing plant, the task is not so cut and *(definitely not)* dry.

A Bigger Fish to Fry

The fishing boats arrive at the dock with the tuna they've caught and frozen aboard ship to preserve freshness. The fish are loaded into carts and wheeled up the dock to be weighed on a large floor scale that is recessed into the concrete. The cart number and weight is then recorded, and in some instances, the fish is then segmented into barrels according to size and weight.

Watch a video on canned tuna processing.

These weights have been recorded by hand as pen and paper was the only viable method of documenting and communicating this information. Not for lack of trying, the plant could not get a computer to interface with the scale *and* survive the damaging elements and environmental challenges that surround the *semi*-outdoor scale.

The dock is wet from rain and ocean spray. The air is wet with high humidity. Workers' gloves are wet from handling fish. Water is everywhere – and not just regular water which is harmful enough to electronics, but salt water which corrodes metal. Birds swarm overhead eyeing the catch and making their presence known in droppings and the occasional brave swoop – which can lead to drops, spills and breakage on the dock. The only protection offered to a computer put on the dock is a small awning.

From the dock scale, the tuna is taken inside the facility and reweighed at the start of each process (cleaning, steaming, cooling, fileting, etc.) Inside the plant is a wash-down environment. Terminals have to be hosed off in order to clean them of the ever-present fish guts.

What was needed was a reliable, rugged computer that would interface with the scales and communicate and track information throughout processing.

Solution

thinENGINE Computer brought in full-screen industrial PCs with large keys (for gloved users), waterproof connectors (plastic to resist corrosion), a laser gun and an RS232 port for scale interface. We provided software to read the scales and made a custom cable to transmit data into a keyboard buffer.

The scales now send data directly to the PCs and automatically "type" it up on the screen, emulating input like a keyboard or barcode scanner. These computers continue to be used both on the dock and inside the plant at each processing station. Workers scan the lot number that comes from the ship or dock, put the fish on the scale and the computer records the process and weight.

The more efficient process allows for accurate and speedy tracking, which saves the company time and money, not to mention pens and paper!

Why go fishing for a product that works?
Use a proven, reliable thinENGINE industrial computer.

Call us today and get started on a custom solution to your unique needs!

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About thinENGINE Computer:
Since 1984, thinENGINE Computer by INDUCOMP Corp. has been providing custom hardware and software solutions to industrial markets. Based in Pacific, Missouri, we are one of the largest and only industrial computer manufacturers that design, fabricate and assemble products in the United States. thinENGINE manufactures more than 50 different models of monitors, industrial computers, keyboards and pointing devices. We have the capabilities to design, fabricate, manufacture, assemble and deliver custom products to meet your unique needs. To learn more, visit www.thinengine.com.