Case Study
Rugged Tablet / Manufacturing

DT Research

Murray Equipment

The switch to DT Research Rugged Tablets as the central controlling unit for portable truck payloaders is viewed as a saving grace for vehicle operators and upper level management at Murray Equipment Inc. (MEI), which specializes in the manufacturing and distribution of fertilizer handling products for a multitude of entities in agriculture, chemical development, and other industrialized applications.

The Challenge

The Rugged Tablets serve as 'remote controls' as a means of increasing efficiency and productivity in automated fertilizing blending facilities, primarily because they expedite the manual process of drivers constantly exiting and re-entering trucks, while responding to manufacturing alerts at opposite ends of the facilities.

"The old-fashioned way would be to get in a piece of equipment, start bringing scoops in, keep watching a light on the wall, maybe get to the end of the building and get back with that bin full so you've got to take it and dump it off, then you realize there's an alarm and all the equipment's stopped," said MEI Director of Engineering Marty Phillips.

Such delays are unacceptable in the seasonal commodity-driven industry for fertilizer. However, MEI's initial experience with tablets yielded far too many of them, mainly because of the demanding environment in which they were deployed.

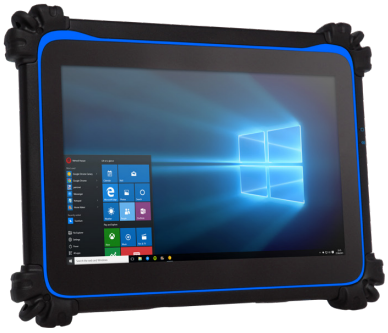
"We tried iPads, but they were not suited for our environment," said Phillips. "Our customers do millions of dollars of fertilizer loading within an 8-week window in a broad range of weather conditions. If a remote control tablet is down for even an hour, it's a significant revenue loss."

The Solution

The solution for the payloaders' vibration and the rugged environment in which operators function proved to be DT Research's 395 series of Rugged Tablets. Unlike consumer-grade tablets, DT Research's ruggedized tablets are designed to be used in a variety of indoor and outdoor environments with full HD anti-reflection outdoor viewable displays.

The tablets are IP65 and MIL-STD810G rated to withstand 4-foot drops, broad temperatures (-4°F to 140°F) and resist water, dust and humidity. Built to resist water leaks commonly found on the manufacturing floor, the DT Research Rugged Tablets provided the durability to account for all the demands of this environment.

In addition, the rugged tablets provide precise on-screen functionality with touchscreen-enabled alerts generated via a secure browser, increasing efficiency to optimize productivity. "The tablets display various pieces of equipment, let them know when a bin is full or not, so they can turn equipment on and off and change the destination of where product is going," Phillips said. "If anything goes wrong or there's an alarm they can look right at the tablet and see the problem."



DT395CR

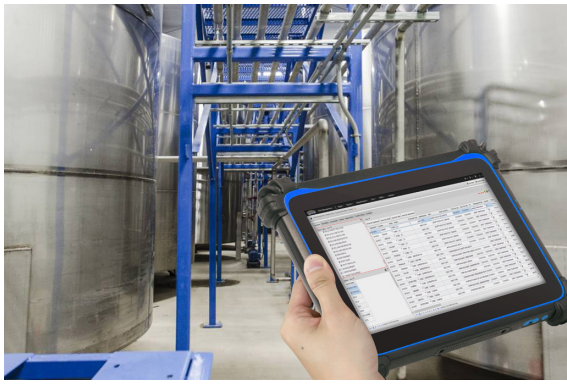
The units' operational reliability was enhanced by built-in Wi-Fi capabilities and extended battery life that enabled continuous computing in time-sensitive conditions in which users "might move 70 percent of their product inside a four to six-week window while working around the weather," said Phillips.

Results

The results directly impact profit margins, which are typically quantified by the ton. For example, if lengthy manual processes or tablet malfunctions cause Murray Equipment to only clear 100 tons a day during the 300-500-ton-per-day peak season, the difference is felt in "thousands of dollars a day" Phillips explained.

"We have used DT Research rugged tablets in our automated fertilizer handling facilities across the U.S. for more than three years with no downtime or repair/replacement costs. The reliability of DT Research's rugged tablets is unmatched."

For more information regarding DT Research Rugged Tablets, visit http://www.dtresearch.com



About DT Research

DT Research™ develops and manufactures web-enabled information appliances for vertical applications. The DT Research family of products is based on embedded computing platforms for secure, reliable, and cost-effective computing. The products include digital signage solutions, wireless tablets, point-of-service handhelds, compact modular systems, and display-integrated information systems. These systems emphasize mobility, wireless connectivity and touch displays. Powered by Windows® operating systems, the devices offer durability and ease in integration, leading to solutions that can be remotely managed with the comprehensive WebDT Content Manager and Device Manager software. For more information, visit http://www.dtresearch.com

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