

# MX7s Help Pro-Tec Keep its Coated Steel Coils Rolling.

## CASE STUDY

**PRO-TEC.** More than a million tons of newly coated steel coils roll off the production line annually at Pro-Tec Coating Company, bound for production lines of automotive and large appliance factories. Pro-Tec was established as a joint venture in 1990 by two global leaders in steel technology and production, U.S. Steel Corporation and Kobe Steel, Ltd., of Japan, and has set production records while earning rigorous TS 16949 certification, an automotive-specific supplement ISO 9000 certification, and a 2007 Malcolm Baldrige National Quality Award. Pro-Tec's success is a result of their ability to excel in areas of product quality and customer service as well as timely delivery, employee satisfaction and continued product development.



*Every coil entering and exiting Pro-Tec's 730,000-square-foot plant, located on a 1,200-acre site near Leipsic, Ohio, must be coated to specific customer requirements. So accurate tracking of those high-value coils is essential to avoid costly errors and to get shipments out quickly. Pro-Tec has been using LXE computers in its shipping area since 1992, having historically used the reliable MX1. But, anticipating upgrades to its home-grown host application, Pro-Tec wanted its next handheld computer upgrade to include a graphical user interface (GUI) and an 801.11 b/g wireless network. After doing their due diligence, Pro-Tec re-affirmed their confidence in LXE and purchased LXE's flagship rugged handheld computer, the MX7.*

### An Eye Toward the Future

"Right now, we're running a terminal emulation interface, but in the future we want to do a graphical user interface," says Jeff Meyer, process control engineer. Pro-Tec's host supervisory control system, dubbed Level Two, manages orders throughout the processing and handling of each coil, from the production bay, to the warehouse bay, to the shipping and receiving bay. Bar coded paper labels identify each coil, and the MX1s have been used to scan those bar codes for shipping, receiving and to execute moves within the automated warehouse system. Future enhancements to Level Two will include the use of a graphical user interface with the handhelds. "A graphical interface will allow us to implement more functionality," says Meyer. "Right now it's all text." The upgrade will also tighten the interfaces among various components of the solution, including stationary RFID readers positioned on the two rail sidings that run past the Pro-Tec plant.

As a satisfied LXE customer, Pro-Tec was already well aware of the quality of LXE products and support. But to ensure they were finding the best next-genera-

tion computer, Meyer and his colleagues surveyed the market, ultimately considering both Intermec and LXE computers.

### Distinguished Design

Among the first features distinguishing LXE's MX7 was the long-range scanner. "The Intermec was short-range, but the MX7 gives us several feet of range," says Meyer. "That's safer, because in some cases operators have to lean over coils to scan the bar code."

Battery life was also a key difference. "The LXE battery seemed to last longer," says Meyer. "The MX7 is running Windows CE, and Intermec runs Windows Mobile, so it takes a bit more power. It's quite a difference." With two 12-hour shifts each day, long battery life is important to keep operators going without a lot of interruptions to swap out battery packs.



LXE also had the hard-won endorsement of those who had been using the MX1s for years. "When I showed people the LXE and the Intermec, just about everybody picked LXE," says Meyer. "The scanner works well, and the MX7 is more contoured and more comfortable to hold." The MX7's rugged design holds up well to the rigors of an industrial warehouse operation.

Pro-Tec purchased their MX7s to handle shipping and receiving. When a coil is needed for shipment, the operator enters a "bulletin" number, or shipping order, to request the appropriate coils, and the automated warehouse system delivers those coils to transfer cars. When the transfer cars receive the coils, they move to the shipping area, where operators scan the bar code and generate shipping documents. Coils are then



moved to rail cars or loaded onto trucks.

With the success of the LXE computers in shipping and receiving, Pro-Tec also began using MX7s at the entry point of each of its two galvanizing lines, to verify that each coil is identified correctly by their supervisory control system, avoiding costly production errors. "They scan the coil and enter its physical location, and the system makes sure the two match up," Meyer says.

As a part of the MX7 upgrade, Pro-Tec replaced its 900 MHz wireless network with a Cisco 802.11 b/g compliant network. With the new network and planned additional purchases of MX7s in the near future, Pro-Tec also chose to deploy Wavelink's Avalanche Mobility Center, which enables comprehensive management of each element of a wireless system, provisioning and maintaining the MX7s. "The initial set-up was in-depth, but after that, all we have to do is plug in a new MX7, and it automatically configures it for us," says Meyer.

No software changes or training were required to move from the MX1s to the MX7s, making the upgrade seamless for Pro-Tec. LXE's long track record of outstanding service has continued, Meyer says. "We send the device in, and it comes back very quickly, always fixed."

With the security of a reliable warehouse tool in place, coated steel coils move smoothly through production and warehouse processes to meet their destiny as car hoods, trim, structural support parts or appliance housing. And Pro-Tec can continue to meet the rigorous shipping requirements of its automotive customers, a record that has won numerous accolades from its clients.



**About LXE Inc.** LXE Inc. improves supply chain performance by applying over 37 years' experience developing wireless products and solutions. From wireless computers, advanced auto-ID technologies, and wireless network infrastructure, to our award-winning customer support - LXE's easy-to-use products are as reliable as the people who install and support them.

Based in Norcross, Georgia, LXE also offers a full range of turnkey services, including radio integration, project and installation management, network design, technical support, and repair services. LXE is a wholly-owned subsidiary of EMS Technologies, Inc. (NASDAQ: ELMG), and has offices worldwide. For more information, visit [www.lxe.com](http://www.lxe.com).