Widespread Industrial Automation Applications Foreseen for New Wireless Networking Technologies

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CLEVELAND, Dec. 6 /PRNewswire/ -- Powerful new wireless networking technologies have recently become available and are likely to find widespread use in a range of industrial applications, according to Parker Hannifin Corporation, the world's leading diversified supplier of motion and control technologies and systems.

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http://www.newscom.com/cgi-bin/prnh/20011205/CLTH002-a
http://www.newscom.com/cgi-bin/prnh/20011205/CLTH002-b)

The company foresees significant applications for the Bluetooth(TM) and IEEE 802.11b wireless standards in climate and industrial controls, industrial automation and in a variety of mobile systems and equipment. Parker was the first to demonstrate Bluetooth-enabled industrial products this spring at the 2001 Hannover Fair and has since demonstrated the prototypes in the U.S., Brazil, Sweden and Finland. Parker expects to bring the first such products to market in early 2002.

Bluetooth is a new industry standard for short-range wireless communications and networking that combines robustness, small size, low power consumption and low cost. IEEE 802.11b (also known as Wi-Fi) offers wireless networking at higher speed than Bluetooth but without Bluetooth's size, cost and power advantages. Although the two networking standards may be similar, they are not incompatible, and both are expected to find broad application in the marketplace.

The first 802.11b networks and Bluetooth-enabled telecommunications and computer products are now coming to market. Cahners In-Stat Group expects worldwide revenues from 802.11b equipment to surpass $2 billion by 2004. It forecasts the market for Bluetooth-enabled equipment to hit $5 billion by 2005. These forecasts assume the bulk of the opportunities in telecommunications, personal computing, and office and retail environments. But Parker and several other companies see potential demand that is as great or even greater in industrial markets.

"The possibilities of these wireless technologies to add value in monitoring, control and industrial-system configuration are tremendous," said Parker's Sandy Harper, senior R&D project engineer and the company's wireless solutions project manager. "One of the key benefits is the elimination of cables and connectors from the manufacturing floor. This, in turn, speeds installation and reduces maintenance and troubleshooting headaches."

The new wireless technologies will enable machines to be programmed, actuated and automatically report their status back to a central controller or to an operator with a pocket PC or other valid wireless device, even a cell phone, she said. The new wireless protocols also could possibly enable manufacturers to greatly reduce the inventories of multiple protocol platforms they now must maintain.

"We believe Bluetooth and Wi-Fi represent the next big productivity leap in industrial automation and 'lean' manufacturing," said Harper. "We see these wireless technologies first being deployed in new systems and equipment and later penetrating the current installed base. Even at $10 or more for a Bluetooth sensor, the cost savings to industrial users from going wireless would be significant."

Parker's research teams have been exploring potential industrial applications for both Bluetooth and 802.11b. Although there are currently only a handful of approved Bluetooth communication profiles that can be applied to industrial automation products, Parker's teams have installed Bluetooth electronics in two pneumatic products to demonstrate wireless applications to customers. The company looks to partner with customers to develop other products that incorporate wireless technology with advanced systems designed by Parker.

The typical industrial environment has thousands of access points for potential replacement with low-cost wireless sensors. For example, in one industrial valve control system under development at Parker, 14 tiny Bluetooth wireless sensors will replace 14 cables, 28 connectors and eight input-output modules.

Eliminating miles of cables and wiring should prove particularly attractive to industries such as food and pharmaceuticals, which require an ultra-clean environment. Moreover, in some other industries, it has not even been possible to use wires because of

harsh operating conditions or other restrictions. The new wireless technologies will eliminate many of these limitations and permit cost-effective, low-hazard data collection and equipment control.

With annual sales of $6 billion, Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems. The company employs 45,000 people in 46 countries around the world. For more information, visit the company's web site at www.parker.com , or its investor information site at www.phstock.com .

Parker is a member of the Bluetooth Industrial Automation Study Group. BLUETOOTH SIG, INC., U.S.A, owns the Bluetooth trademarks.

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