News
FROM THE FIELD

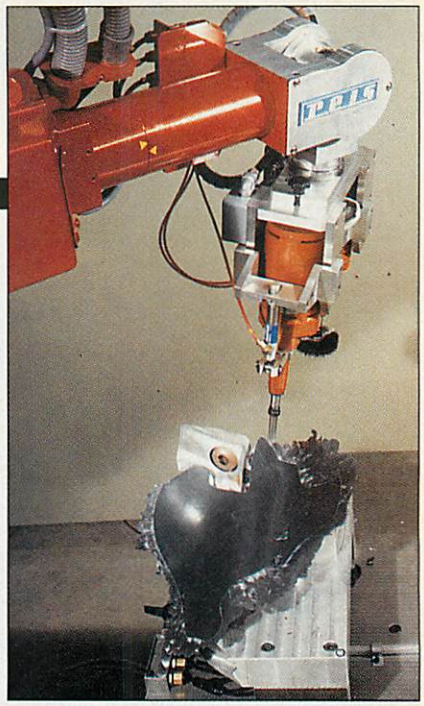
INNOVATIONS REDUCE COST OF OPERATING NEW REIS ROBOT

BY MARTY WEIL

With innovations in robotic technology like automatic program adaptation, programmable control behavior, and integrated process-data acquisition, Reis Machines Inc.'s (Elgin, IL) new six-axis RV6 robot promises to reduce the cost associated with operating factory-floor robots.

"The unveiling of the RV6 opens a new chapter in robotics," stated Walter Reis, president of Reis Machines, at a recently held press briefing. "Since the RV6 offers technology to reduce service and operating expenses, end users no longer have to sacrifice capabilities to afford the cost of a robot."

Reis calculates that the RV6 represents a 53% reduction in operating expenses over conventional 6 kg to



The Reis RV6 robot's innovative features reduce the cost of factory-floor operation.

Photo courtesy: Reis Machines Inc.

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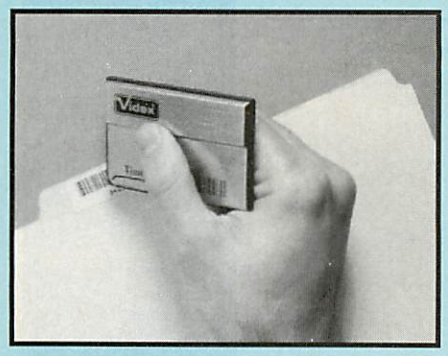

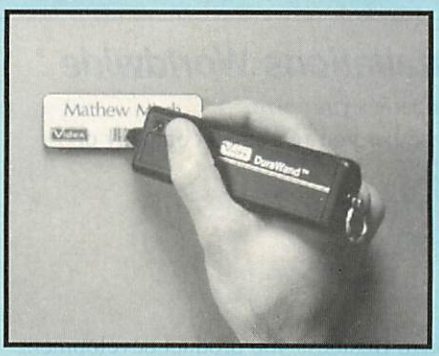

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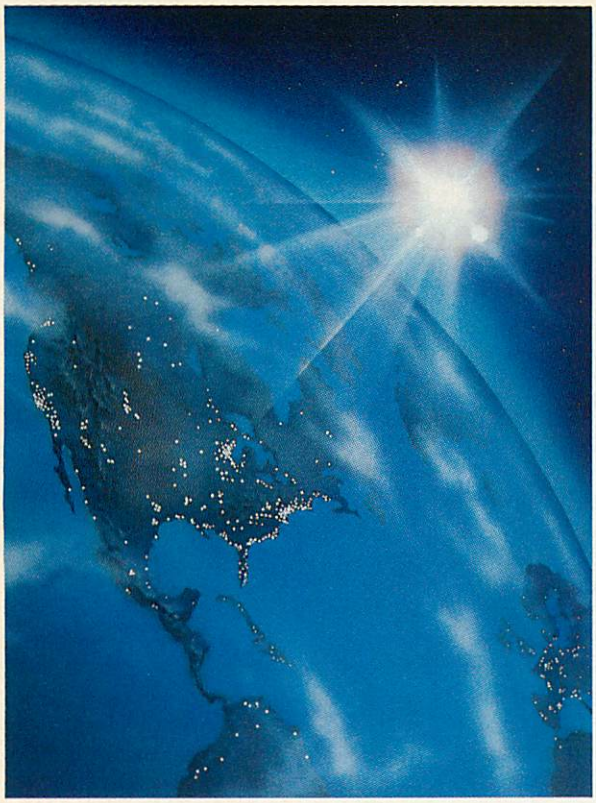

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10 kg robots. Most of this cost saving is due to the RV6's adaptive programming technology, which enables the operator to transfer existing programs to other robots and machining stations with minimum reprogramming.

"The greatest portion of expense for automated systems is created by the downtime required for programming for similar workpieces, or for programs transferred to parallel installations. The adaptive programming technology in the RV6 reduces programming downtime," said Brian Doyle, welding manager for Reis.

The RV6 is also equipped with a digital servo regulator. The servo regulator is easy to service because all operating parameters of the controller are adjusted via the serial interface to the controller, thereby eliminating manual adjustment.

"For the first time, the behavior of the robot is determined completely by the controller," said Dr. Eberhard Kroth, vice president and general manager for Reis' parent company Reis GmbH & Co. Maschinenfabrik (Obernburg, Germany). "Thus, the optimum movement for each respective application can be adjusted in programming. According to our experience, different regulator adjustments are required for each task to be fulfilled by the robot, such as grinding or polishing. With this new control concept, the RV6 can be optimized within a few minutes for various applications."

Integrated directly into the robot controller is another interesting feature for data acquisition. This feature enables the controller to collect, analyze, monitor, and document process data. This is an important innovation for applications like robotic welding, where data such as voltage and amperage already exist within the controller as a measurable signal.

"The RV6 robot is cost-effective even in a hostile manufacturing environment," says Reis. "This was achieved by robust mechanical design which greatly reduced components. The design guarantees the highest degree of uptime, long life, and simple, low-cost maintenance."

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THERE'S PROBABLY A PDA IN YOUR FUTURE

BY JANET ENDRIJONAS

Applications for personal digital assistants (PDA) are still on the horizon, but by 1998 the devices will be on many desks and in many briefcases throughout various industries. So says Link Resources Corp. (New York, NY), a division of International Data Corp. (Framingham, MA), in its recent market study, "Personal Productivity Partners: P-3 Devices." In fact, by 1998, Link expects palmtop and handheld devices to be a $3.5 billion market.

The four key enabling technologies that will spur PDA market growth are pen input, mini-storage devices, microprocessor changes, and communications networks. Handwriting recognition software has become sophisticated enough that it rivals human capability to read another person's handwriting. Solid-state or flash drives have solved the problem of mini-storage without too much power consumption. While to date, most microprocessors have been based on the Intel architecture, expect that to change. And watch for wireless communications to bring lower connectivity prices to the PDA arena.

There are six different types of PDAs, or P-3s, as they are referred to in this report: personal information managers, electronic personal assistants, personal communicators, intelligent electronic books, electronic notebooks, and the still-conceptual electronic-based personal agent. There are four market segments to which these devices will ultimately appeal, of which the mobile/industrial market will be the first to develop.

According to Link Resources' Michael French, who conducted the study, PDAs will be a significant market by 1998, with over 5 million units

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