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# OPC. Connecting With The Future.

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The future, it appears, will be a place for openness and choice after all—at least in the realm of process control and factory automation. That's the promise that OLE for Process Control (OPC) is bringing to us, a promise that's being fulfilled for an ever-increasing number of companies since the introduction of the OPC Specifications less than 18 months ago. As an industry, we have made great strides—and look forward to the continuing growth and extension of OPC into new and broader applications.

It's a vision that includes the prospect of totally seamless, truly open and easy, enterprise-wide communications—between systems and devices, from plant floor to MIS and beyond. It means finally implementing a real plug-and-play software technology for process control and factory automation applications, where everyone (every system, every device, every driver) can freely connect and communicate. With OPC in place, everything is set to clear away the confusion and high cost of the multiple proprietary servers, drivers and interfaces that were necessary for systems to communicate in the past. OPC will bring the same benefits to industrial hardware and software that standard printer drivers brought to word processing and ODBC brought to database access. The result will be a far greater choice in hardware, software, servers, etc. It's a vision that is coming close to realization through the continuing emergence of OPC as the standard interface for factory control applications.

The first big steps in this direction were taken with the announcement of the OPC specification and the establishment of the Foundation committed to expanding that work and getting the technology to the marketplace. Rockwell Software is one of the companies that has been involved from the inception of the Task Force, working along with Fisher-Rosemount Systems, Opto 22, Intellution and Intuitive Technology to create the code. Built on Microsoft's proven OLE/DCOM (object linking and embedding/distributed component object model) technology, the standard takes advantage of the familiar Windows environment and the newest technology available to enhance inter-process communications.

As a result of the Task Force and Foundation's work—and Microsoft's commitment to continuing technical support—OPC is on the verge of transforming the industry. We're seeing an evolution from DDE to DCOM and now to the DCOM-based OPC, which not only lets you take data anywhere in your enterprise, but also provides more usable, qualified data. That's a big advantage, especially for companies with large, data-intensive MMI systems.

## Growing Acceptance Of A Standard.

We can expect to see a shift from DDE and other existing interfaces to OPC, starting with the larger companies who depend on MMI. For now, there may be companies that will want to stay with DDE because it works for their purposes, and there is no need to change just for the sake of change. But we will see a gradual, inevitable move to the new standard within the next two years, because OPC will have such accepted functionality, such fundamental compatibility that vendors will have to use it—or risk the chance that they won't be listened to once it has full acceptance.

Many manufacturers are ready to embrace the technology and its many benefits such as the ability to run multiple software packages on the same machine and the huge increase in productivity that can result from the standardization.

"Instead of having to learn how to use 100 or more custom toolkits," Ray Walker, a senior consultant at DuPont says, "our people will only have to learn one set of tools—because all OPC drivers will work the same way. If we realize only a one percent productivity increase per user per year—and that's a very conservative estimate—we could save $15 million a year."

The future seems to rest squarely on the shoulders of the OPC Foundation. Continued leadership from Foundation members is vital to the development and acceptance of the new technology. Their commitment to helping the technology grow and evolve in a manageable way and to providing more and more OPC-compliant products is crucial to bringing new companies over to the OPC ranks.

There are plenty of positive signs of acceptance already—with over 135 companies who have joined the Foundation, plus chapters in Europe and Japan, all committed to bringing OPC products to market and to furthering the technology. The list of products grows longer every day.

Rockwell Software, for example, is in the process of converting all of its applicable software products, including OPC-compliant versions of RSLinx Server, which makes it easy to change from DDE to OPC formats with just a few mouse clicks; RSView32, a powerful, off-the-shelf, component-based MMI software; and RSTools, a line of easy-to-use, graphical software development tools that includes seven ActiveX Controls. Rockwell Software's RSServer OPC Toolkit, which helps developers to design data server/drivers, has been enhanced to support OPC interfaces while allowing existing interfaces such as DDE to continue working. Hundreds of these drivers, in fact, have been given away to encourage the switch to OPC.

It's not a stagnant technology. OPC will be an ongoing process, which will continue to evolve as Microsoft's DCOM technology also evolves. That's one reason most of the industry anticipates a bright future for OPC with companies scrambling to bring functional new products to the market.

We expect to see the acceptance rate accelerate as these products prove the functionality of the standard. Companies will start to realize the benefits of truly open communications and software manufacturers will see that converting products to OPC is well worth the up-front cost, because it will greatly reduce the future cost of supporting a wide variety of industrial hardware.

The reality of an OPC world will depend on these products coming to market quickly so that the technology can be used, tested, proved and accepted. And it will depend on the appropriateness of the products in meeting the ever-changing needs of industry, on the quality of the products—their ability to effectively leverage the full power of OPC, plus the continued leadership, product development and support.

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