
Choosing the Right Partner for Your Enterprise Integration Project

White Paper

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Introduction

Enterprise resource planning systems are essential for efficient business operation. But even the newest technology does not guarantee the best results. The real value comes through integration — connecting that new or existing ERP system with the plant floor in order to gain enterprise-wide insight. The question becomes, What data will you integrate and who will you use to do the integration?

The first step toward integration is identifying the types of information needed for making better business decisions. Real-time, actionable information allows a plant to make prompt adjustments for improvement — affecting everything from equipment utilization and quality control to schedules and accounting. As a result, an integrated enterprise experiences far-reaching benefits, including cost reduction, increased efficiency, ensured compliance in regulated industries and a greater competitive edge.

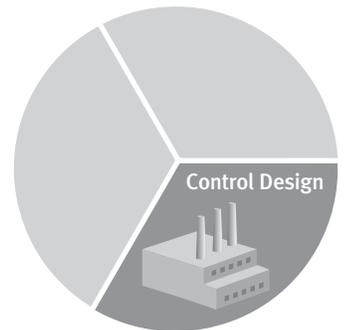
The second step is selecting the right partner to implement the new ERP system and perform the enterprise integration. Options range from internal staff to outside vendors. The ideal partner must understand and add value to the three pieces of the integration puzzle: ERP design, control system design and how to translate data between the two.

Internal Staff

Plant employees offer a unique advantage over external options, in that employees know the business intimately, and are familiar with how their organization works. Unfortunately, their experience is limited to the organization's projects, so using internal staff for enterprise integration is not a best-practice approach. Plus, the staff's top priority is their regular work. They may not always be able to focus dedicated time on the integration project.

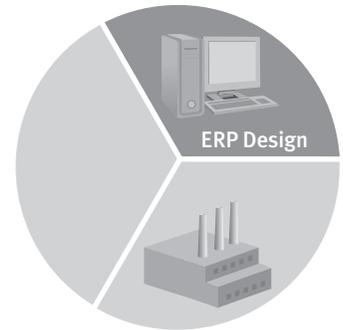
Automation Vendor

Adept on the plant floor, automation vendors understand the intricacies of the control system. However, these vendors generally lack the skills and business process knowledge needed to translate plant floor data to and from the ERP system. They depend on the client's resources or an outside firm to help them complete the enterprise integration. In addition, automation vendors tend to have biased perspectives when specifying the technology to enable integration; they advocate using the automation products their company develops.



ERP Vendor

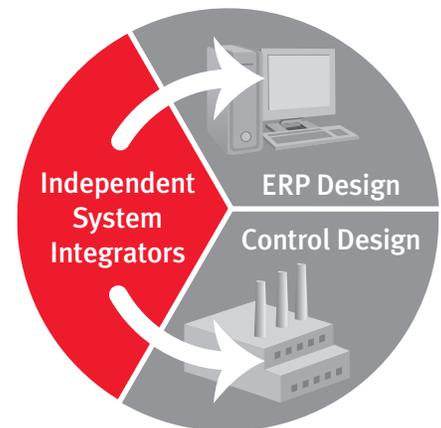
Likewise, ERP vendors know business systems and the transactions of importance at that high level, but they do not understand the plant floor. They must use the client's engineering team as a resource for identifying the critical data points and tags and then translating this information to the ERP system. Plus, just as automation vendors recommend using their own technologies at the control system level, ERP vendors promote their products at the ERP level.



Independent Systems Integrator

In general, independent systems integrators (ISIs) have a broader level of experience than the other vendor options. However, most have gained this experience by working either as automation or ERP vendors; their projects have primarily focused on one or the other area, with minimal crossover. Roughly 95 percent of ISIs are basically automation vendors with some limited knowledge of business systems. They must rely heavily on the client for assistance when integrating the plant floor with the ERP world.

A select few are truly independent ISIs who are equally experienced in the control system / MES and ERP worlds. Drawing on this experience, these vendors are uniquely able to implement the new ERP system, facilitate enterprise integration and work efficiently to troubleshoot any problems that may occur. Well versed in ISA-95, truly independent ISIs use these standards as a guideline for helping organizations identify the types of transactions needed for integration. While ISIs consult the client for insight into the organization's specific operations and business processes, ISIs have the knowledge they need to work independently on project execution.



Other exceptional advantages of partnering with an ISI include:

Vendor-Independent Approach

ISIs evaluate the client's operations and objectives first and then recommend solutions that fit without a vendor bias. Their project experience gives them a practical understanding of all the major back-office systems, including solutions from Microsoft, SAP and Oracle, as well as a range of plant floor technologies. This foundation of knowledge allows ISIs to specify the best products for each client — building off the client's existing framework — and custom-develop solutions to achieve the client's objectives.

Experience in Multiple Industries

Understanding the requirements of different industries allows ISIs to adjust each solution accordingly. For example, these providers know which plant floor and ERP system transactions are important for each industry. Plus, when working in regulated industries, such as food and beverage and pharmaceutical, ISIs understand the importance of compliance. They know how to set up systems to allow for fast, cost-effective data retrieval if product recalls or bioterrorism should occur.

Training and Maintenance

Finally, ISIs provide complete training on the new, integrated ERP system and allow the client to choose the service level for ongoing maintenance. In most instances, the client will be able to maintain the systems without additional assistance.

Together, these distinct advantages allow true ISIs to continually build upon their foundation of knowledge in order to benefit their clients. These providers have a realistic understanding of project requirements and can troubleshoot efficiently, allowing them to keep each project within its prescribed scope, schedule and budget. In the end, ISIs are able to meet the client's objectives — providing real-time, actionable information while reducing costs, increasing efficiency and developing the client's competitive edge.

Conclusion

Many vendors deliver knowledge and solutions for either the plant floor or the business systems level; organizations that simply want a new ERP system can find a variety of capable providers in the marketplace. But organizations looking to maximize the value of their ERP system should partner with an independent systems integrator to ensure proper implementation as well as integration with the plant floor. Truly independent ISIs enhance each project with a complete understanding of available technologies and specific industry considerations. These ISIs are uniquely qualified to work with their clients in developing an appropriate integration solution that will deliver immediate and ongoing benefits.

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