

Patti Perspective

July, 2015

Greetings!

Implementing new automation system technology can deliver exceptional business value to manufacturers. However, many automation projects do not deliver the full potential ROI. Why? The answer could be in a decision you make upfront. Our feature article brings you a highly experienced end-user's perspective on choosing the right control system integrator for implementing new automation technology.

The Patti Personnel Spotlight is on a great contributor to our team, Senior Engineer, Dave Calme. His talent as an engineer is undeniable and his team player mentality make Dave an essential part of our team.

An End Users Perspective on Choosing the Right Control System Integrator

Penny wise, dollar foolish? Many of us remember this saying, perhaps as part of a lesson our parents taught us growing up. Sometimes we can go to such great lengths to save money, but in the final analysis, that 'penny wise' decision ends up costing us much more than what we were trying to save! This

lesson came to mind at the recent Siemens Summit in Las Vegas during a conversation with a Siemens end-user, Bruce Slade, P.E., Senior Projects Engineer at Mosaic Fertilizer, LLC. In no uncertain terms, Slade made it clear that he is a strong advocate of using a solution partner from the start of a new automation project. In his view, you may pay more upfront to have a solution partner integrate a new automation project, but in the long run, it is well worth the investment.

It was interesting to learn from a highly experienced end-user's perspective, why choosing the right control system integrator is so important. Slade is a professional engineer who has been involved in process automation for more than 35 years. This article will take a look at why he holds steadfast to always using a solution partner for the specific automation technology his company has invested in.

During our conversation, Slade said, "I am a big believer in using a solution partner from the start of a project. It can be a costly mistake to choose a company based on a lower upfront cost when implementing new technology." When asked why, Slade continued, "You could end up with a 2015 product functioning like a 1990's product, losing the benefits of the advances in the technology."



Slade explained, "The more powerful and more flexible a PCS (programmable control system), the more critical the system setup and initial programming. The setup decisions are often unable to be changed without starting from scratch. This is why you need the competency of a solution partner up front. After that initial programming, your company control department should be able to easily maintain and modify your system."

As an example, Slade told us that he had experienced firsthand the repercussions of poor setup decisions when an engineering company claiming to know a new technology programmed a new PLC (programmable logic controller) using 1990's ladder logic. Later, he needed to add a VFD (variable frequency drive) which should have taken one of his staff engineers about 15 minutes to do. To Slade's surprise, the engineer assigned to the task returned an hour later to tell him adding a VFD was going to be a more difficult and complicated undertaking than anticipated because of the way the PLC was set up and programmed.

In fact, Slade ended up having to hire an outside engineering company - a solution partner - to completely rewrite the program. "It took a solution partner several months in his shop and 30 hours of downtime due to the use

of 1990's ladder logic and programmer generated tags in lieu of present day block-ware and automatic tag generation," said Slade. "The reprogramming cost \$750,000 and has resulted in decreased maintenance time and ease of maintenance. The payback was calculated at less than 2 years. The bad code would have plagued us for the next 10-15 years. This expense was both necessary and avoidable."

The bottom line, when evaluating resources to use before implementing new technology, it is not cut and dry. In fact, picking the right system integrator can be a mission-critical decision. For example, if you are implementing new Siemens automation technology, a company may be familiar enough with the technology to make it work, but Siemens Solution Partners are specialist with highly developed skills in the specific technology for delivery of the most advanced solution.

"A solution partner must be certified and then maintain his expertise," explained Slade. "The Siemens Solution Partners personnel, after training, will work on systems side-by-side with the Siemens employees to get on-the-job experience, learning additional tips and tricks prior to working on your system. By contrast other integrators often send their least busy programmer to the next 1 or 2 week school on your PCS after he gets your purchase order."

To sum it up, Slade clarified his position, "Does a solution partner cost more? Not necessarily so. But in my experience, if there is a price difference, I consider it money well spent. When analyzing TCO (total cost of ownership), the upfront cost is virtually always the least significant cost. If you do not relentlessly pursue the lowest TCO, you can never be the low cost producer. In a tight economy, the low cost producer is the last one standing."

****Note: While the term 'solution partner' is used in this article to identify the integrators Siemen has vetted and qualified to be part of its integrator program, it should be noted that other automation manufacturers use different terms such as 'certified integrator' or 'authorized integrator' to identify qualified integrators.*

****More about Bruce Slade P.E.: In addition to his work at Mosaic, Slade serves on the Siemens Automation User Advisory Board, and is the president/owner of Byte Size, a process automation and process safety consulting firm. Slade has also written articles for trade publications such as this interesting article - ['7 things noncontrol people should know about control engineers'](#) - for Control Engineering.*

Patti Spotlight - Dave Calme

Dave Calme is a man of many talents! His path to becoming one of our Senior Controls Engineers included stops in Ann Arbor for a B.S. in Applied Mathematics and successful career as a master electrician!

Some people might limit their view of the job to just Engineer, but Dave considers his job in three parts:

engineering, interacting with customers, and mentoring. With his engineering hat, he does engineering design, software programming, and

equipment commissioning for automated equipment and systems. His customer interaction includes work with the sales team and estimating project costs. Dave embodies our team values by working with junior team members to develop their technical skills.



Dave began working with Patti Engineering in 2008, his first job in the controls system integration industry. He worked elsewhere during 2010 and 2011, but still consulted with Patti Engineering. He rejoined the team full time in January 2012. "The opportunities and challenges that Patti Engineering provided brought me back," Dave says.

Dave has seen a range of projects in his tenure. He has worked on several powertrain assembly projects, but he has also worked on some less common



projects. From automating the water flow controls system at the Wilson Dam Spillway, to perfecting the electrical controls and programming for an experimental process to encase hazardous waste within small chunks for glass at Dow Chemical, to Siemens S5 to S7 upgrades at Oetiker, Dave has embraced a range of challenges. His adaptability is a great asset to our team.

"From a strictly technical perspective, the variety of opportunities is one of the most alluring aspects of working with Patti Engineering. The work never becomes routine as each project has unique challenges and nuances." He says the culture is a great fit, too. "The atmosphere is generally relaxed, open, and friendly. There is a common respect for each person's abilities and talents and a strong sense of belonging to a team, even as our members are spread around the country. The company is small enough that the employees know each other and large enough to have mature processes and systems in place."

Dave was born and raised in Northern Oakland County, MI, where he lives with his family today. "After losing the mother of my two children many years ago, I have been fortunate to meet an incredible woman, Valbona." This fall will be an exciting time for them as they plan a September wedding!

"Between us, we have three children, all of whom I am very proud." Griffin, 19, and Paola, 18, attend Wayne State University. Griffin is in the pre-pharmacy program and Paola hopes to become a dentist. Morgan is 17 and is a rising high school senior.



"My family and I enjoy Michigan travel and the many parks, lakes, rivers, and forests that our great state offers. Some of the most beautiful scenery and charming towns are right here within a few hours of metro Detroit."



Dave may feel lucky to live in Michigan, but we're pretty lucky to have him here!

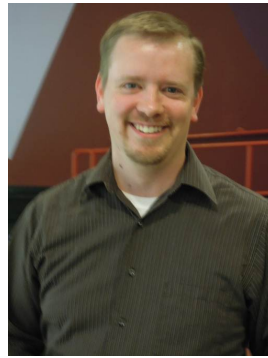
We work as partners with our clients. When you need an expert to help solve automation challenges, we are here to add value to your solution - enhance efficiency, increase productivity, and work with your team as a trusted resource. Visit our **website** for more information on our areas of expertise, or call us (248)364-3200 for a free initial consultation.

Thank you for your interest in Patti Engineering.

Best regards,

Georgia H. Whalen
Director of Marketing
Patti Engineering





We are happy to report that our engineers will be contributing more content to our Patti Engineering blog! Steve Palmgren, VP of Texas Operations, wrote his first blog post titled - [An Engineer's Debugging Tip - No Packet Sniffing Hardware or RS232 Port Required](#)! Check it out on our [blog](#)!

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