

Ken Kutчек, vice president of operations at Patti Engineering, recently hosted a webinar with InduSoft, an independent SCADA provider. Patti Engineering is an InduSoft Certified Integrator. The webinar, "Best Practices for System Integrators" was filled with helpful tips and success stories. Kutчек reviewed project initiation, development, installation and completion. We would like to share some of Kutчек's advice with our loyal newsletter readers.



Kutчек's first piece of advice for the audience, "A goal without a plan is a wish," kicked off the presentation before he provided a detailed explanation of how to lay out a realistic project management plan – everything from the scope of work, requirements, what hardware and software will be required, the team, necessary training, budget, etc. Kutчек advises to be thorough in the planning process and, "a little pessimism is just good planning."

When it comes to choosing your project team, the critical piece of the puzzle is your lead engineer/project manager. For example, think about the customer and their industry and match them up with your engineer that has the most experience in that industry. Then, the kickoff meetings with your team internally, as well as with the client, should review all of the nuts and bolts that will be involved in the project. Getting off on the right foot is important, and collaboration is key!

A detailed functional specification is essential to a projects success; it becomes road map to design with thoroughly defined and explained functions, features, and operations. Understanding and agreement between integrator and customer must be clear, the functional specification will include:

- Customer requirements
- System requirements
- System overview
- Screen layout / content
- All operator interactions with the system
- All interfaces with other systems or equipment
- Included reports
- System administration, security
- System limitations
- Customer responsibilities
- Functional spec review with customer
- Customer sign-off

As the project progresses, thorough and systematic testing/verification is critical! This process provides formal testing to verify the functionality and operation and deserves same attention as requirements and designs. The customer should be involved and some method (e.g. matrix) should be used to ensure all requirements have been mapped to one or more test protocols. The factory acceptance test (FAT) provides formal testing to verify the functionality and operation of a project; and installation, testing and verification. Start using FAT during office testing, finish during onsite testing.

In summary, make sure all possible variables are accounted for and maintain an open dialog with the customer through **ALL** aspects of the project: conception, development, installation, and follow-up. The webinar concluded with a review of project completion, review and evaluation.



For full details on Kutчек and Patti Engineer's best practices check out the webinar on the [InduSoft website here](#).