

Patti Perspective

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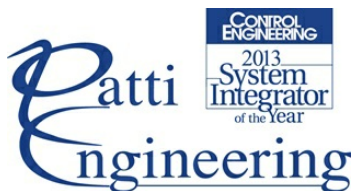
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Greetings!

There is nothing better than learning a few good tips and tricks to make your automation challenges a little easier. As many of our readers can relate, trying to integrate modern PLC technology with decades old serial devices, found in many manufacturing facilities, can be a time consuming and frustrating process. In this month's feature article, one of Patti Engineering's electrical engineers, Nick Clark, provides insights to commissioning and debugging when working with Siemens CP34 Series Communication Module. We hope you will find the article helpful.

The Patti Personnel spotlight is on Alex Kennedy, a talented engineer who joined us just about two years ago. Alex's positive impact and strong work ethic has been noticed, earning him this recognition!

Thank you for your interest in Patti Engineering!

Best regards,

Georgia H. Whalen
Director of Marketing
Patti Engineering
Phone: 978.697.2664
email: gwhalen@pattieng.com

We are Recruiting!



Patti Engineering is always looking for great talent! If you are interested in exploring opportunities at Patti Engineering, email us at Management@PattiEng.com.

Commissioning and Debugging Using a Siemens CP34 Series Communication Module

***** Technical content provided by Nick Clark, electrical engineer, Patti Engineering**

As a trusted Siemens Solution Partner, Patti Engineering works with Siemens technology every single day. This month, we'd like to share a little behind the scenes insight into a recent project where our team of expert engineers worked on a leveling system to support robot machinery that builds airplanes. This article will give you a look into working with CP340 & CP341 communication cards for S7 300 PLCs, aiding as a reference on how to setup and debug one of these types of systems.



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As background, the cards allow the PLC to communicate to a variety of serial devices. Each card has its own limitation and has to be chosen based on the requirements of the serial device - which speaks a certain language protocol (how the sent and received transmissions make it back and forth). These cards are often difficult to commission and start-up given the sheer amount of variation in serial devices, plus limited diagnostic feedback if it isn't functioning properly.

The project was put forth partly because of old serial devices that required integration into a PLC. The solution used by Patti Engineering's team was a proper CP34* card that matched the serial device and a RS485 to USB converter cable and software for testing. The serial data and devices can be very tricky to debug - considering the variation and settings, limited diagnostics, etc. - but using a few tools, tricks and knowledge of how different protocols work, our engineers were able to quickly get the job done and debug these devices over the course of a few weeks in development and only a couple of weeks onsite. Most new devices in plants use new communication protocols such as Profinet, Profibus, TCP and others. These protocols require very little debug and have come a long way since basic serial devices were standard. It is common to see basic serial devices in older machinery, but they have been fading out in modern applications. While the road to commissioning and debugging can be bumpy, Patti Engineering is here to help.

[If you are interested in learning the detailed tips, the full article is available by click here for the PDF.](#)

Our spotlight this month is on Alex Kennedy, he has been a valuable part of the Patti Engineering team for almost 2 years. Alex brought a level of knowledge and dedication to the company that our executive team recognized and appreciated right away.



"Alex has proven himself to be a very hands-on, resourceful, and intelligent engineer, with a 'Git-R-Done' work ethic," said Ken Kutchek, vice president of operations. "Alex is a valuable member of our team... he consistently achieves outstanding results with his dedication and technical expertise."

With a strong focus on assembly systems - anything ranging from door panel assembly to hot test cells on large diesel engines - Alex has provided his expertise working on projects in both the Auburn Hills office, as well as assisting the Texas branch with its tremendous growth. Alex has some unique skills combining his abilities with mechanical, electrical, and software engineering. He also lends a hand to Patti Engineering's sister company, LEID Products, when it needs expertise in machining.

Originally from Iron River Michigan, in the Upper Peninsula, Alex thrives in a small town setting. He currently lives, with his wife Katie, just 20 miles north of the Patti Engineering main office in a village with a population of less than 400 people. Alex and Katie enjoy their village lifestyle and living in an old farm house built in 1870, which they share with their two playful dogs, Coon and Mildred. The couple was recently married, in May of 2013, and look forward to finally getting away on their honeymoon next month!



A graduate of Michigan Technological University, Alex earned two degrees in Electrical Engineering Technology and Chemical Engineering Technology. Though Alex devotes a lot of time to his career, he still finds time for his hobbies, including target shooting and working in the garage. He even has his very own machine shop to aid his various side projects.

[Click here for Alex's Spotlight in PDF!](#)