



## Upcoming Events

- ACE Conference and Golf Outing in Minneapolis. August 4,5,6
- Pi in the Sky Webinar. July 31<sup>st</sup>, 11 AM Central Time.

Also, thanks for visiting our booth and conference room at the FEW and attending our speech.

## Brain Teaser

### In England, you cannot take a picture of a man with a wooden leg. Why not?

Submit answers for a prize to [Carsonm@direct-automation.com](mailto:Carsonm@direct-automation.com). Use the same e-mail if you have a question you would like answered in the next issue and login for the Pi in the Sky Webinar.

## Thank you

Thank you for being our client or considering our services. We hope to bring you the best in automation so you can bring the world the best in ethanol production.

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## Solutions for a Changing Economy

Margins tighten and grow from month to month, but you will run your plant with your chosen control system for decades. There are definite differences between suppliers of DCS services and the brands you use. Make sure you find a vendor you want to partner with for the long haul and get a system that provides you flexibility for the decades to come.

### THE APACS STRUGGLE

We often talk to potential clients about their frustrations with the looming Siemens APACs obsolescence. Some systems are as little as 5 years old. If you have this system, make sure to include us in your conversations on your potential options. Keep in mind, although initially affordable, a HMI replacement will set you up for future costs.

## Building Trust.

When you are deciding on outsourcing automation for your ethanol plant, you need to know you can trust that supplier.

At a minimum, an automation integrator needs to be available when you need help, have the expertise to get the job done safely and effectively, be affordable enough to use when you need help, and listen and adhere to your demands. Most automation integrators will give you those services, and if you are not getting those, you should search elsewhere for service.

We believe clients should get more:

- Clients deserve platform brands that are top rated, mainstream, and easy to use. Use of nonproprietary brands allow clients flexibility to make decisions on suppliers and ensure that training is readily available. This also ensures that parts and subsequent service fees will remain competitively priced.
- Clients deserve seamless integration. They should not be forced into having multilayered control systems. Otherwise, this sets them up for future costs and makes their systems too complex. Unnecessary complexity forces future decisions and clouds options.

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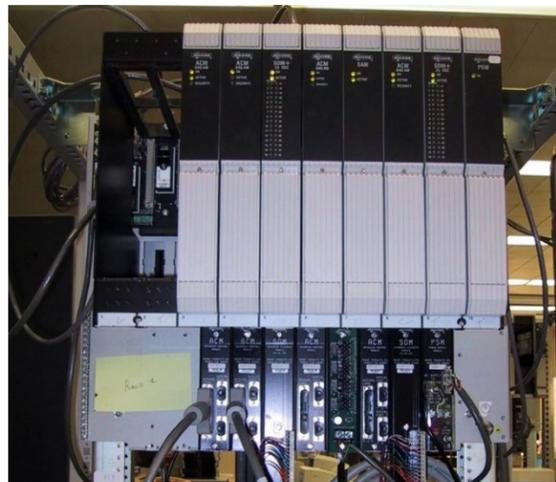
## Principles for Project Management Success

Common sense goes a long way, but training and communication will contribute to better project success rates.

It is without a doubt that DCS migrations are among the most stressful and mission critical projects a plant can undergo. We've completed many successful DCS migrations and we take each one seriously. Because the execution of a migration occurs in a short window, during the seasonal plant shut down, you can expect Direct Automation's full attention to the preparation and execution of this project.

Preparation includes your operators, engineers, managers, and vendors. It includes a sizable electrical team and all of our staff. We analyze everything and we have always finished our DCS migration projects on time.

Execution of the prepared plan is seamless and monitored each step of the way.



## Is it time to upgrade to a new DCS?

With a long useable lifetime, you should only have to replace a DCS once during your tenure at a company.

If APACs, Foxboro, Provox, Yokagawa or ABB System Six are in your daily vocabulary, call us for a free evaluation and proposal for a DCS Migration.

The Siemens APACs DCS was installed in a majority of Ethanol plants up until 2009. Shortly after that time, Siemens issued a notice that the system would not be serviced or have parts produced after 2020. Integrators will try to get you to install PCS7 DCS with a phased HMI replacement approach.

Many other ethanol plants have the Foxboro DCS system. If you have version one, you may feel pressure to spend significant money on the upgraded version.

If you are one of the few ethanol plants with Yokagawa or ABB System Six, we can also assist you as many of those systems are outdated.

Technology moves quickly, we always stay on top of it at Direct Automation. We are not a spokes-

person for a DCS brand. We have trained on multiple systems, and because of our experience in ethanol we can develop a solution that works for you.

We can offer your facility a DCS that has automatic tuning, accountability built in, APC built in, sequencing, and an advanced historian. You can also opt for a simpler system that allows you to add those features later.

Seeing is believing for these systems.

We understand that you could not choose to work with us without trusting us. We anticipate multiple visits to your facility to develop a relationship. We are also ready to give you a simulated test run of a similar system that you would work with. We could even invite you for a tour of an actual client to get their opinions, and see the new DCS working first hand. This way you know exactly the features you'd be getting.

If and when you do decide to present a Direct Automation DCS to your board, we will be there to assist in report generation and clarify the proposal along the way. This will make it as simple as possible for you and your team, while helping everyone understand the DCS migration process.

When selecting a new DCS and a new integrator, keep in mind a few things. Total project cost is important because a HMI replacement sets you up for a future hardware cost. Getting that cost estimated is important in order to compare apples to apples. Also consider future version upgrade costs and add-ons that will be necessary. For example, some DCS systems include APC and Sequencing. Compensating for that missed value is important to get an accurate comparison.

-Carson Merkwan  
ChemE, MBA, PMP

**“Technology moves quickly, we always stay on top of it.”**



## Finally, a Real Historian! “PI in the Sky”™

Your ethanol plant's DCS produces about 150 million data points a day! At that rate it doesn't take long for average historians to get bogged down and become cumbersome to use.

Enter Pi in the Sky. Pi in the Sky uses OSI PI's data compression algorithms that compress your data into accurate, useable, and storable information. This has been used by thousands of companies. Even though the data is compressed, it maintains the data's integrity and is legally recognized as being as genuine as uncompressed data.

Because OSI PI has been around for a while in various industries, there are hundreds of thousands of users. This means it is in a later version and bugs are few and far between. Despite its usefulness and market penetration, it has not been utilized in the ethanol industry until Direct Automation introduced it to a few clients. The feedback has been very positive. Along with the data compression, it comes with very valuable tools. This includes an Excel add-in, iOS aps, graphical interfaces, automatic reporting, customized displays, and

advanced query searches. The graphical interfaces allow you to put charts, gauges, and red light, green light indicators on monitors, TVs, and webpages to make your data easy to interpret. The query searches make chart building and data mining easy and fast. You can get automatic reports printed, texted, or e-mailed as well. These systems make your data so much more accessible, you'll wish you had it years ago.

## This Quarter's Q&A Technology Tips

**Q: We are having multiple server malfunctions in our MCC? Why is this happening and what can I do about it?**

A: Most likely this is an issue with the environmental conditions in your MCC.

To diagnose which environmental condition is causing your servers harm, you will need to get some data.



Corrosion Coupons can be placed around your MCC to test for the corrosive nature of the room. It is a long process that takes about 3 weeks. But if it reveals that you have a corrosion issue, you can solve your server problem. Usually to solve this issue you will look to where the air from the room is coming from. If it comes from the plant, it may be corrosive and you can install forced air into the room from a cleaner location.

Other potential problems include poor cabinet design, heat issues, and poor grounding.

## EYE ON IT Current Industry Trends

Many ethanol plants do not use sequencing. Reasons not to get it include too many manual valves, turnover is low and your operators resist change, or it's not in the budget.

Despite these reasons, there is an uptick in adopting a sequencing add-on to the existing DCS. This process can make your fermentations more standard and remove human error.

The most popular customized sequencing packages are to carry out your SOPs on your Yeast Prop, Mash Train, and Fermentors. You can get this as an add-on to your current DCS or you can get it when you migrate to a new DCS.

## Support Ethanol Production

Visit our page on Facebook or

LinkedIn to connect with ways to promote ethanol at your plant. We can work together to get the word out on the positive effects of ethanol for our country.

