

Spring The TJCAA Quarterly

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Building Trust through CSP and Simulation Testing

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In the Fall of 2025, TJCAA provided Control Systems Programming (CSP) services for a client's Chemical Systems Improvements Project.

TJCAA's CSP team targeted three primary tasks on this project:

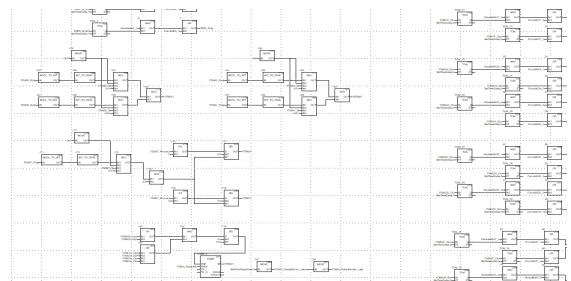
1. PLC Configuration and Programming
2. HMI and Historian Software Configurations
3. On-Site Testing and Commissioning Assistance

In describing CSP, Andrae Rauch P.E. explains "We provide the brains for everything and build upon what others construct." A significant and really cool aspect of control system programming is process simulation software configurations created by TJCAA's CSP staff. The purpose of the simulation software, which mimics the instrumentation and process control equipment responses, is quality control, but it's also useful during software demonstration workshops to give the client a glimpse of what they're getting. The benefits to the client are numerous:

- Validate software interfaces, configurations and logic
- Ensure predictable and desired responses to what-if scenarios
- Provide feedback to the client and the CSP team

The simulation software's functionality and versatility make it a win-win for

both the client and the programming team. It's a key offering included in TJCAA's CSP proposals.



Simulation Configuration Sample

For any CSP project, the aim is to complete the work on time with quality results, but it's also more than that. Andrae says, "We have a different philosophy (at TJCAA) than a traditional system integrator." In addition to aligning the designer's program control strategy with client standards, our team is committed to being fully engaged—both on-site and off-site—to ensure the startup process is as smooth and complete as possible. Testing with TJCAA's simulation software configurations plays a critical role in achieving both quality and schedule objectives.

Work on this project had to be completed during a limited duration plant shutdown, and all teams, including Andrae and his group, worked hard to finish the job in time for the scheduled restart date—which they accomplished in December. Great job, team!

TJCAA's Business Certifications

- Alameda County Small, Local Emerging Business
- California DGS SBE
- California Green Business
- City of Colton SBE
- City of Los Angeles SBE
- City of Oakland LBE
- CPUC Women Owned Enterprise
- Eastern Municipal Water District SBE
- Inland Empire Utilities Agency SBE
- Metropolitan Water District of Southern California SBE
- San Diego County Water Authority SBE
- Port of Long Beach SBE
- Port of Oakland LIABE/SBE/VSB
- PWC Registration—Dept of Industrial Relations (DIR)
- West Basin Municipal Water District SBE

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