



## CASE STUDY

# Gas Liquids Engineering greatly reduces its design time with Forte 3DWorx design solutions

### Key facts:

**Company:** Gas Liquids Engineering

**Website:**  
[www.gasliquids.com](http://www.gasliquids.com)

**Industry:** Oil & Gas

**Country:** Canada

### Octave products used:

Forte 3DWorx (*CADWorx Plant Professional*),  
OrthoGen for Forte 3DWorx (*OrthoGen for CADWorx*)

### Key benefits:

- Completed overall design in 10 months instead of the usual 18 months
- Cut 35% of 3D design hours
- Reduced arrangement drawing time by 75%
- Eliminated design errors and wasted time

Gas Liquids Engineering (GLE), a full-service engineering, procurement and construction (EPC) management firm located in Calgary, Alberta, Canada. It has 225 employees with 75 being part of the firm's industry-leading piping design and drafting team. Over its 26 years in business, GLE has completed more than 5,000 projects in both conventional oil & gas projects and in natural gas plant and distribution design, sour gas processing, acid gas injection, liquids recovery and compression.



### Identifying goals

GLE was awarded full EPC for a gas processing plant to produce 200 million cf (MMcf) of sweet gas and more than 7,700 barrels of NGL daily. The greenfield project included more than 27,000 feet of butt-welded pipe ranging from 2 to 30 inches outside diameter plus 50 major pieces of equipment.

Challenges included an extremely aggressive design schedule of 10 months for a project normally considered to require 18 months. The location in the side of the foothills in central Alberta also presented significant layout and design challenges.

### Overcoming challenges

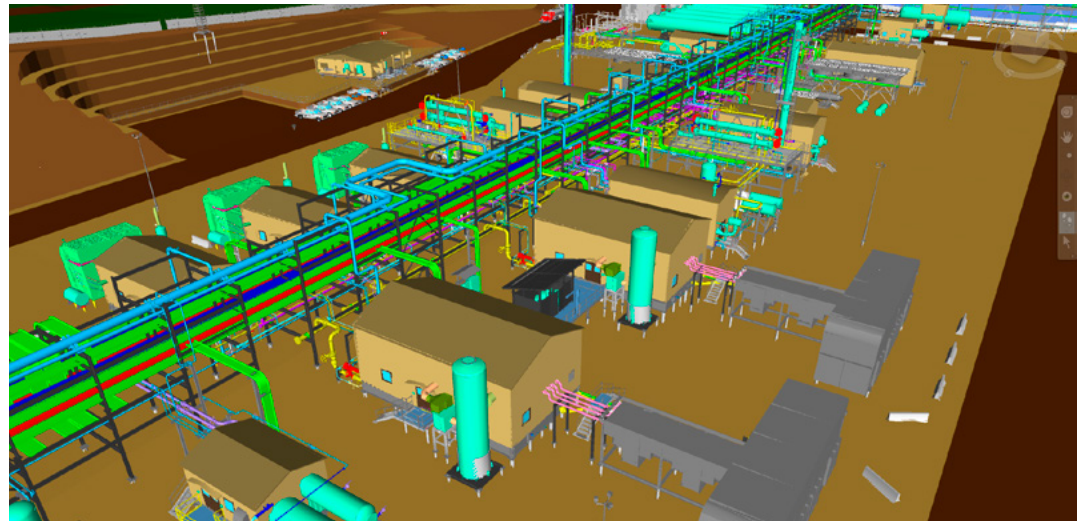
Using the latest version of Forte 3DWorx software, GLE was able to model more effectively and efficiently than before. The company cut 35% of 3D design hours thanks to the significantly improved and easy to use newer version.

The added value of OrthoGen for Forte 3DWorx decreased the time needed to produce arrangement drawings by about 75%. GLE could customize styles and templates to suit the client's deliverables for a standardized presentation package of the drawings. More significantly, it enabled GLE to slide the modeling schedule much closer to the final date to meet the client's tight deadline.

GLE was able to prevent missed deadlines, incorrect bills of material and budget overruns on design hours. This reduced the hours that would have been required to check the accuracy of the drawing deliverables. Using conventional methods would have resulted in missed deadlines, less accurate information and a much higher labor cost charged back to the client.

*"The software allowed a seamless flow among disciplines such as P&ID, piping, structural and stress analyses. New hires learn the software easily and feedback is universally positive."*

**Vince Wehnes**  
CAD Manager, GLE



Prior to Forte 3DWorx, there would have been design inefficiencies and they would have wasted time on rework due to design errors.

The user-friendly interface and tools offered by Forte 3DWorx meant new hires didn't have to spend hours being trained. Most other programs would have required extensive training and delays.

### **Realizing results**

Thanks to Forte 3DWorx, GLE was able to stay under budget for the gas processing plant project. The company also found Octave's design products to be quite user-friendly. The increased efficiency enables the design staff to spend more of their time designing.

"The software allowed a seamless flow among disciplines such as P&ID, piping, structural and stress analyses," Vince Wehnes, CAD manager for the project at GLE, said, "New hires learn the software easily and feedback is universally positive."

The client was very satisfied with the end deliverable and is working with GLE on future projects.

## **About Octave**

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets— for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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