



CASE STUDY

Rishabh Engineering successfully completes an oil storage project with Octave's design solution



Key facts:

Company: Rishabh Engineering, a division of Rishabh Software

Website:
www.rishabheng.com

Industry: Oil & Gas

Country: India

Octave products used:
Forte 3DWorx (CADWorx Plant Professional)

Headquartered in Beside Sigil, India, Rishabh Engineering provides multidisciplinary engineering services to global engineering, procurement and construction (EPC) leaders, detailed engineering contractors, original equipment manufacturers (OEMs), fabricators and surveying companies. Clients are involved in the oil and gas, chemical, petrochemical, power, water, wastewater and utility industries.

Identifying goals

A privately held U.S.-based EPC firm specializing in the engineering and construction of heavy industrial facilities and pipelines appointed Rishabh Engineering to develop a 3D model for a brownfield expansion project of a storage tank facility in Oklahoma, U.S., with a capacity of 360,000 bpd. The project included four storage tanks, two booster pumps, two charge pumps, three mainline pumps, a launcher and receiver, metering and prover skids, sump tank, transformer and Motor Control Center (MCC) building. Piping totaled 3,262 feet with diameters ranging from ½" to 24" comprising 80 lines.

Overcoming challenges

The team did not receive a site or equipment layout. They had to start routing the pipe from civil survey points to develop the 3D model. The site also had an uneven ground surface, adding another challenge for piping routes.

Forte 3DWorx offered a lower cost compared to other available plant design tools and was very easy to use. Forte 3DWorx allowed Rishabh Engineering to create user shapes customized for the project, and the Generic Attach command enabled the team to attach intelligent information to components imported from other software.

"Forte 3DWorx allowed designers to add electrical trays, junction boxes, and structural and piping models without changing any utility tool, saving a considerable amount of time," said the manager of business acquisitions at Rishabh Engineering.

Capabilities found in Forte Isogen and Forte 3DWorx provided accurate and detailed isometric drawings while reducing project time by 5%.

Key benefits:

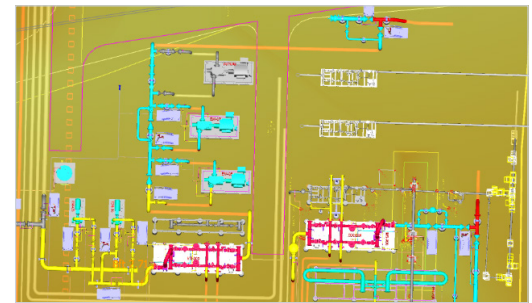
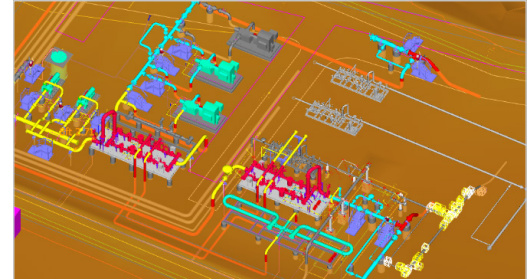
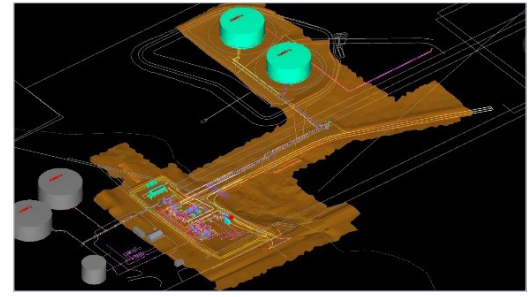
- Reduced work-hours while improving the accuracy of 3D deliverables and ensuring client satisfaction
- Generated comprehensive isometric drawings
- Took advantage of administration aspects like spec editing, project creation, customization and I-Configure™, which were quick and adaptable
- Able to quickly learn and adapt the software for users with AutoCAD® backgrounds

Improving productivity and accuracy with Forte 3DWorx

The 3D enhanced feature in Forte 3DWorx replicates actual component shapes of the components which helps to accurately check and resolve clashing in smaller piping. The spec editing, project creation, customization and I-Configure tools proved quick and adaptable. It was easy to learn, thus reducing overall training time by 20%.

Realizing results

Rishabh Engineering delivered the intelligent 3D model with General Arrangements (GA), isometric drawings, bills of material and other deliverables which reduced the overall cost of the project. Team members learned quickly, and they increased accuracy while ensuring client satisfaction.



"The project required 2,000 work-hours, yet we delivered the final 3D model in 2½ months with a team of just five members."

Manager of Business Acquisitions
Rishabh Engineering

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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