

As-Built Drawing Creation & Support for an Oil & Gas Major

Enventure helped create piping isometrics drawings for a leading energy company using CAD.



About the Client

The Client is a US-based company that does extensive work in the field of energy development. A Fortune 100 company, they offer services that include exploration, production, transportation and refinement of crude oil and natural gas. With efforts directed at developing alternative energy sources and technology that aims at optimizing resources, the Client is regarded as a leader in the industry.

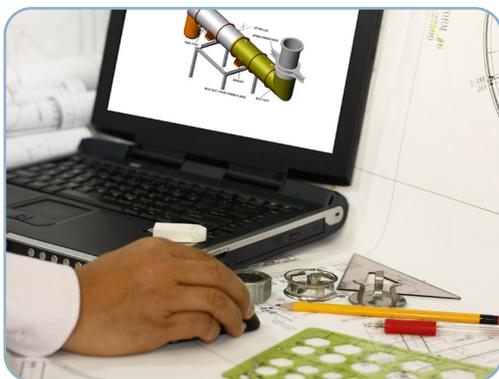


Business Need

The Client wanted to put in place an efficient maintenance system, but then realized that the existing CAD drawings of their plant were either outdated or inaccurate when compared with the actual site. Several areas of the plant had also not been converted into CAD drawings.

They had over 2,000 hand-markups of piping isometrics made by field engineers during multiple site visits, indicating maintenance, renewal or replacements undertaken on existing plants. The unstructured isometrics – being hand-drawn sketches – additionally posed problems in terms of accessibility and maintenance. While many sketches were misplaced, several others were smudged and incomplete, besides being difficult to interpret.

The Client recognized that the first step they needed to take was to update changes to existing CAD drawings and convert all hand sketches into new ones. This would help them build As-Built documentation that not only met industry standards, but would also be accurate and of good quality. Additionally, these could be used as references for any future plant operations and maintenance activities.



Why Enventure?

The Client approached Enventure to update As-Built CAD drawings for the plant, with specific emphasis on piping systems. While the task on hand was critical for the operational efficiency of the plant, it was a non-core activity that needed immediate attention. Besides, there was no bandwidth internally at the Client's end to complete this activity.

The team at Enventure had a detailed discussion with the Client, based on which a proposal was submitted. It outlined an approach that would not only reduce the time taken for drawing creation significantly, but also ensure the project could be completed 30% below budget. The Client saw the obvious benefits in engaging with Enventure for the project and commissioned Enventure to execute the same.

The Solution

Enventure set up a virtual dedicated team comprising Drafters with many years of industry experience. The engineers assigned were adept at CAD, creating drawings within 24 to 48 hours. A 'Standard Operating Procedure' was developed based on the Client's drafting standards, to ensure consistency in the drawing output. Enventure also utilized centralized block libraries, which reduced drawing time drastically. Additionally, since mark-ups were rarely done by the same individual, these libraries served as an accurate reference every time a change had to be made, and helped in standardizing the drawing creation process. Supported by the Enventure Project Management system, the project was completed on time, with high levels of quality and within assigned budgets.



Benefits

Enventure's partnership with the Client enabled them to complete a critical project in an efficient manner. The key benefits realized by the Client were:

- Zero-defect deliveries
 - Permanent repository of relevant drawings
 - Intelligent CAD library and drawings that could be further used for plant upgrades
 - Drastic reduction in maintenance effort by minimizing site visits
- Holistic parts data made available for long-term Asset Management
 - Flexible virtual dedicated team that could vary in size and structure based on work requirement



Conclusion

The Client had a challenging yet well-defined requirement that needed to be addressed in a strategic manner. The team at Enventure was able to capitalize on its experience and skill to understand the bigger picture, and thereby create a solution that solved the business needs of the Client. Enventure has thus continued to be a strategic partner for the Client, supporting them on various projects over the years.



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