

COMPANY

Anonymous

LOCATION

Global

SOFTWARE

Autodesk AutoCAD Plant 3D

Autodesk Navisworks

Autodesk AutoCAD P&ID

Autodesk Vault

Sale Layout, 3D Visualisation

Customer Challenge

This customer is leading the transition towards a 100% renewable energy future. As an Energy System Integrator, it understands, design, builds and services optimal power systems for future generations. Its offering includes ultra-flexible internal combustion engine-based power plants, hybridised solar power plants, energy storage & integration solutions, as well as gas to power systems.

The technical sales team at the customer believed that the existing design communication methodology used during the sales process was significantly extending the early stages of the project. Technical design elements were typically communicated using 2D drawings even when some of the early design activities had been carried out in 3D. This resulted in a disconnected workflow and a less than optimal experience for their clients.

Project Goals

The high-level goal was to optimise the sales communication process by enabling the team to develop and deliver the early-stage design layouts completely in 3D including plant, piping, buildings, roads and site area, in a much shorter time. The specific goals included:

- Project development in 3D with 2D output created automatically.
- A more efficient design workflow as a result of process simplification.
- Improved automation of output creation and editing.
- More compelling and accessible customer facing documentation.

The intention was to continue to develop the same layout model throughout the sales and operational phases of the project to improve information accuracy and consistency.

Solutions

We worked with the team at the customer to develop a set of workflows, based around AutoCAD Plant 3D, that would allow their projects to be developed and communicated using a 3D model, throughout the development-sales-operations layout lifecycle. The workflows also included Autodesk Navisworks for aggregating and visualising the project models, AutoCAD P&ID for producing 2D schematics and Autodesk Vault to manage the project data. Based on these workflows, we delivered a series of learning and development activities to enable the team to employ them on their early pilot projects.

Business Outcomes

The early pilots demonstrated a significant reduction in the time to create the sales layout documentation and, importantly, the round trip time to deliver design changes was much reduced. The team's new ability to produce a wider variety of modern design communications including 3D visuals and walk-throughs allowed it to deliver an improved customer experience.

In addition, the use of a consistent 3D model throughout the design and delivery of the project improved information accuracy and reduced the amount of rework and duplication of effort.

Conclusion

Our long-standing relationship with this customer allowed us to identify and recommend areas for implementing Autodesk 3D technology to improve a well-established project delivery workflow. Our specialist expertise with AutoCAD Plant 3D, Navisworks and Autodesk Vault uniquely positioned Cadline as a trusted advisors whilst we worked with the team to develop the optimised, fully model centric workflows. We continue to provide guidance, support and training on this ongoing project as the processes are applied to new projects.