CASE STUDY

Worley boosts productivity for cable projects with Octave Facets Electrical

Key facts:

Company: Worley

Website: www.worley.com

Industry: energy, chemicals, resources

Country: Australia

Octave products used: Facets Electrical *(Integraph Smart Electrical)*

Key benefits:

- Working in a single database
- Easily accommodating multiple users
- Promoting consistency
- Reducing human errors
- Decreasing person-hours
- Simplifying checking
- Improving efficiency
- Increasing accuracy

Identifying goals

Worley, headquartered in North Sydney, Australia, is a leading provider of professional services to the resource and energy sectors and complex process industries. Its services cover the full asset spectrum in size and lifestyle, from small brownfield service contracts to mega greenfield projects. Its business units include hydrocarbons, minerals, metals and chemicals and infrastructure. Worley operates 165 offices in more than 40 countries with approximately 38,000 staff members.

Worley had its in-house tools to manage cable projects, which were challenged by the numerous Microsoft® Excel® spreadsheets utilized in tracking the amount of cable needed for projects. These spreadsheets were managed manually by numerous users across multiple offices. The management of change, especially across the different locations, was relatively impossible with the spreadsheet-type solution.

As Worley's projects grew larger and more complex, the in-house tools were challenged. It came time for Worley to move from AutoCAD® and in-house tools to adopt commercially proven products with broad user bases to carry its company forward in capabilities to be ready for the next challenge.

Overcoming challenges

After evaluating several options, Worley chose Facets Electrical, a task-specific, rule-driven and data-centric solution. The Hexagon software helps users design and maintain a safe, reliable power distribution system from load identification to plant startup.

A new software solution pushed Worley out of its comfort zone. A crucial element of the implementation was overcoming individuals' resistance to change.

Bringing the design team out of its comfort zone was one of Worley's largest implementation challenges. The company began by introducing only a small part of the software's available functionality to overcome the acceptance hurdle. Its designers and engineers were exposed to the solution in a test lab situation based on a portion of a previously completed project.

The team worked with familiar deliverables and followed standard project workflows. By actually working with Facets Electrical, the designers and engineers gained confidence in the solution because they saw it could reliably create the deliverables. Their collective mindset changed once they saw the benefits of using the software.

When each office utilizes its own solution, cohesive consolidation of data is difficult. Data also runs the risk of getting lost. Worley provided training labs to its design and engineering teams before a project enters detail design. The training labs included the lead engineer, the engineering team, the design lead and the design team. In all, the labs consisted of three engineers and three designers. By the end of the labs, the teams were able to produce the same deliverables through Facets Electrical that they were able to produce from their old solutions.

After the training labs, the tides turned, and perceptions and attitudes changed. The positive results spread, and other engineers and designers began requesting to use Facets Electrical. Clients were soon asking to use the solution on their projects as well.

Realizing results

The software's data-centric approach helps create a rulebased electrical system. Facets Electrical steadily performs relational operations and can handle enormous amounts of data input by both engineers and designers on projects with sizeable cable quantities.

One of the major benefits of Facets Electrical is that the product is not home-grown or from a small company.

Instead, it is fully supported by Octave. This gave Worley confidence that the solution will be supported in the future.

Worley projects are growing larger and are executed in multiple locations. Facets Electrical is a time-tested and proven commercial solution that is the obvious choice. It is valuable to have the support from its own Worley global Facets Electrical community along with the advantages of local and global support provided by Octave, a trusted international company.

Standardizing on Facets Electrical has increased Worley's productivity. Ultimately, Facets Electrical helps the company save money, reduce errors and increase productivity.

Moving forward

As Worley looks to future activities, it plans to expand the range of deliverables from Facets Electrical. It has goals to interface with Facets Instrumentation (formerly Intergraph Smart Instrumentation), Loop Materials (formerly Intergraph Smart Materials) and Forte 3D (formerly Intergraph Smart 3D) to further increase the relational exchange of data.

Worley is now utilizing Forte 3D for a number of tasks, such as cable management.

Leveraging data to other disciplines is a great advantage of using Octave solutions, and will increase the value of individual tools. These interfaces will offer a number of benefits, including:

- Better delivery
- Refined reporting
- Support
- Tracking the project, client and construction

With Facets Electrical, Worley is ready to successfully execute the projects of tomorrow.

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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