

Autodesk Software Consolidation and Enhancement

A Drawing Office Consolidation of Software and Data File Repository that works and provides enhanced project delivery and management of data enabling heightened project delivery and customer satisfaction. An overall solution that enables the integration of engineering design functions and data management into a fully functional quality Management System that is compliant to AECI Mining's ISO 9001 listing through the British Standards Institute.

Customer Challenge

The AECI Mining Drawing Office (DO) utilized Autodesk software that for the most part enabled the departmental deliverables as highlighted and prescribed by, for the most part, internal customers. With a more focused departmental drive to improve the Customer Satisfaction Index (CSI) and providing customer projects with improved On Time In Full (OTIF) capabilities, it became apparent that the Autodesk software employed at the time and the utilisation of said software would need to be reviewed and amended to better archived departmental objectives.

The aspect of strategic alignment was also highlighted as a major concern because, at the time, there was very little synergy with DO internal operations in being aligned to the overall company strategy. This strategy being a reduction in defects, improved overall delivery timings on equipment manufacture and delivery, improved drawing quality with quality measurements that were in line with Six Sigma.

The DO faced many internal challenges as well and these had to be addressed as well. Efficient utilisation of the software in the design area as well as the data repository were also scrutinised. Internal Gap and SWOT analyses were carried out to identify focus areas, which could then be leveraged to implement a process of high impact changes that would evaluate CSI and OTIF objectives whilst at the same time initiate the transition phase of improved software utilisation, data management and Do functioning that would allow for alignment to overall Company strategy.

Business Outcome

Through numerous iterations and consolidation of software, the DO has been included into the AECI Mining ISO listing and in as much has implemented a fully functioning Quality Management System. In terms of draughting and file storage, the consolidation of these and the move from Vault Basic to Vault Professional has allowed for much improved efficiency and the achievement of CSI and OTIF objectives. The department now consistently achieves scores of above the targeted 85% in both areas.

Considering these measures were not in place previously and the fact that the department was struggling to deliver highlights the fact that the renewed efforts put in by both the DO, with the intense support of Modena Onesolve, achieved a complete turnaround in both DO capabilities and strategic alignment.

Conclusion

Implementing the revised strategy of software consolidation and data management was highly successful with improvements in relying on 2D drawings and utilising a more 3D based system enabled the DO to engage with customers on a level previously vacant. The process of designing with a different mind-set where the designs could be shared and reviewed with customers enabled the DO to streamline internal processes and improve on lead times to delivery of projects.

The mover from Vault Basic to Vault Professional enabled a robust system of ensuring the concept of “One Version of the Truth”. This was a major issue before the strategy was implemented and with the assistance from Modena Onesolve the adoption of the new repository changed the management of data completely.

As a final aspect of the enhancements achieved, the DO has now been able to re-educate customers in terms of how the processes employed for when design work is carried out and the creation of data packs is achieved. The ability to view 3D models has resulted in much more customer involvement where reviews are conducted within a cross functional team and the understandings of what is being designed are far more easily understood than when the reviews were carried out in the 2D environment.

Considering the Return On Investment for license costs and subscription fees the DO has achieved financially acceptable levels within the accounting structure of the company. The DO is well on its way to becoming a profit centre versus the current status of a cost centre. It is envisaged that by end Q2 of 2024 this will be achieved.

The DO can therefore, categorically state, that without the extensive input and assistance provided by Modena Onesolve, the turnaround with in the DO and its ability to deliver services to customers above the 85% efficiency rate would not have been achieved.

Project Summary

The project was to rationalise the DO software utilised at the time, consolidate the software onto a single platform for all users, replace Vault Basic with Vault Professional and implement accordingly.

The project had a lengthy timeline as it involved numerous challenges, which were of a technical nature, renewed learning curves as to how the software consolidation would affect normal operations, renewed data management processes and financial constraints. The DO embarked on this project from 2018 and was completed in 2021 with the main objectives of CSI and OTFI having been met.

The DO strategy however is aligned to continuous improvement and as such opportunities to improve are always being investigated. From the successes of the project it is the DO intension to further fully utilise the expertise of Modena Onesolve to enhance the DO capabilities in all aspects of the draughting environment as well as into relatively new fields of Virtual Reality and Robotics. The fundamental and core aspect to the DO strategy is to continuously evolve with improved service delivery, new technology, maximising software

capability, exploring other areas of services that are not currently provided to customers and remain the service provider of choice.

The partnership that has evolved over time between the DO and Modena Onesolve has delivered exceptional dividends to AECI Mining as a whole and the DO is committed to take this partnership to new heights and continue to tap into the expertise provided by Modena Onesolve. The industry that AECI Mining operates with in is ever changing and to think that the DO can face these challenges alone would be naive and short sighted.

Project Duration

3 years with ongoing support and annual services, that are required to maintain operability.

Autodesk Solutions

AutoCAD

Autodesk Vault Professional

AutoCAD Plant 3D & P&ID

Inventor

Product Design & Manufacturing Collection

Navisworks

Services Provided:

Vault Migrations and Upgrades

Virtualization

Configuration & Deployment

Custom Training

Implementation

Custom Content Advanced Workshops

On Site Support

Advanced Remote Autodesk Specialist Support

Customer Discovery Workshops – provide insight into what's next in terms of driving ongoing improvement and expansion of Autodesk toolset

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good chemistry

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