

OIL & GAS UPGRADER / REFINERY

CASE STUDY

Enabling digital capital project execution through a centrally hosted, data-centric design environment with continuous compliance auditing across multiple engineering contractors.

\$15-30M

Data handover
cost avoidance

20%+

Eng hrs saved via
EDT design reuse

\$31M

Project cost
avoidance

SUMMARY

This client was embarking on a major capital project and wanted to avoid traditional handover pitfalls (document rich, information poor), avoid commissioning and start-up delays, and create a digital twin to handover to operations. ReVisionz supported this by defining a digital capital project execution strategy and enabling a centrally hosted design tools environment for all EPCs.

ReVisionz provided solution architecture, set up and configured infrastructure and intelligent design tool catalogs, and developed documentation and training materials for deployment to external engineering contractors. We centrally managed, supported and maintained the client design tool environment, performed data quality and information handover quality audits and provided operations support/sustainment services.

"ReVisionz was instrumental in guiding the setup of tools, processes and procedures and in providing the skilled resources to integrate our systems." – Vice President of Engineering & Capital Projects

Project Snapshot

Client Industry: Oil & Gas Upgrader / Refinery

Practice Areas Utilized: Digital Technology Solutions, EDT

Project Duration: 2012 / Ongoing

Client Success Criteria

- Achieve a common and consistent set of design systems.
- Optimize information/data handover to operations and maintenance.
- Provide complete, compliant and consistent engineering data to O&M.

Challenges

- Traditional handover approaches would have resulted in document-rich, information-poor deliverables.
- Multiple EPCs were executing using separate tools and environments, creating risk of inconsistency.
- Commissioning and start-up were at risk due to fragmented systems and delayed data consolidation.
- Licensing costs and duplicate tool configurations created financial exposure.

REVISIONZ

Experts guiding your digital journey

Key Results



Established a Data-Centric Execution Model

A centrally hosted design environment unified all EPCs under common systems, standards and governance.



Eliminated Traditional Document-Based Handover

The hosted architecture removed the need for large-scale document consolidation and reconciliation at turnover.



Enabled Sustainable Lifecycle Data Management

Continuous data compliance auditing and integration with O&M systems supported long-term operational sustainability.



ReVisionz' Strategy

- Defined a digital capital execution strategy leveraging data-centric design tools.
- Delivered solution architecture and configured centralized infrastructure and tool catalogs.
- Established a hosted design environment and tag registry for all EPCs.
- Developed contractor documentation and training materials.
- Managed the environment, including data quality and handover audits.

Tools & Tech Used

Octave Forte

Octave Facets

Octave InConcert

Octave Loop

Takeaways

- Clear engineering contractor terms and defined handover requirements were critical to compliance.
- Visibility and ownership of engineering data across the project and facility lifecycle strengthened operational sustainability.
- Leveraging data from engineering design tools streamlined the population of operations and maintenance systems.

Complexity & Innovation

- The program supported eight engineering contractors operating across 15+ global execution centers.
- The environment supported 350+ concurrent system users within a centrally hosted architecture.
- Work scope was transitioned between engineering contractors within two weeks without disruption.

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