SEMICONDUCTOR & MICROPROCESSOR FOUNDRY

CASE STUDY

Advancing digital engineering operations in a first-of-its-kind implementation for the manufacturing sector.



As a leader in semiconductor manufacturing, the client set out to modernize its engineering design environment. ReVisionz was engaged to implement Hexagon's Smart suite across a unified platform, marking the first deployment of this scale in a non-hydrocarbon industry.

The challenge was reconciling disparate tools and workflows, with EPCs and trade partners relying on Autodesk Revit. ReVisionz integrated diverse data sources and delivered a fit-for-purpose digital ecosystem aligned to the client's evolving needs.

By bridging tool interoperability, minimizing manual configuration and standardizing catalog content, ReVisionz helped the client avoid millions in rework and established intelligent digital handover practices. Despite project cancellations and shifting priorities, we met the original scope and proved Hexagon's scalability in manufacturing.

"We brought ReVisionz in because they understood this space better than anyone. They were best equipped to help us through the complexity." - Business Stakeholder





Full-time resources at peak

Revenue generated in 2024

Hexagon tools deployed

Project Snapshot

Client Industry: Semiconductor / Microprocessor Foundry

Practice Areas Utilized: Digital Project Solutions,

Digital Operations Solutions

Project Duration: August 2023-December 2024

(primary scope)

Client Success Criteria

- Centralized configuration of smart engineering tools.
- Compliance with FCE standards and nomenclature.
- Better digital handover readiness.
- Fit-for-purpose application and catalogue content.

Challenges

- Lack of internal governance across A&E and Trade Partner tool usage.
- Competing platforms (Autodesk Revit, Inventor).
- Poor alignment between stated goals and organizational readiness.
- Limited executive sponsorship beyond core team.
- Frequent shifts in client scope and program direction.

Key Results



Centralized Configuration

Established a centralized digital engineering environment that enabled consistent tool usage across global programs.



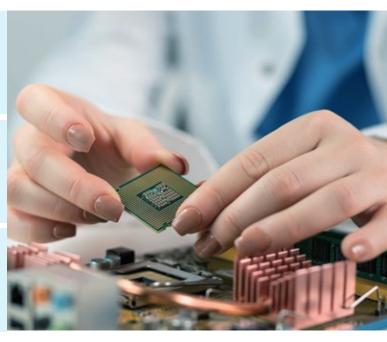
Tool Deployment & Integration

Deployed and configured seven Hexagon tools, with seamless interoperability across EPCs and internal teams.



Interoperability Innovation

Pioneered cross-platform data integration between Hexagon and Autodesk tools, setting a precedent for manufacturing.



ReVisionz' Strategy

- Built and deployed a centralized Smart Tools environment aligned with client's FCE standards, specifications and data governance objectives.
- Supported active and upcoming projects (Owl, Cardinal, Bison) through custom catalogue development, end-user support and configuration of library content.
- Bridged interoperability gaps by facilitating integration between non-Hexagon tools like Revit and Inventor into the Smart suite.

Tools & Tech Used

Smart 3D
Smart P&ID
Smart Electrical
Smart Instrumentation
Smart InterOp Publisher
Smart Reference Data
SmartPlant Foundation/SDx

Takeaways

- True digital transformation requires deep organizational buy-in in addition to funding from leadership.
- Even senior leadership support can fall short if cross-functional alignment is missing.
- A successful central toolset must be accompanied by enforcement mechanisms, governance and cultural readiness.
- Future clients must understand ReVisionz as a strategic advisor as well as a technical vendor.
- Pre-deployment engagement across all stakeholders is essential to sustain transformation.

Complexity & Innovation

- First deployment of this scale in semiconductor manufacturing.
- Interoperability with A&E tools not traditionally integrated with Hexagon.
- Execution support across multiple programs at once.
- Smart data handover compliance enforcement.

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