



ARE YOU READY?

FROM UNDOCUMENTED SPACE TO STRATEGIC ASSET

CASE STUDY: DIGITAL INNOVATION



From Undocumented Space to Strategic Asset

For facility management and engineering teams, undocumented space isn't just inconvenient, it's a liability. At this 100,000-square-foot facility, a significant portion of the building had no existing drawings. Without accurate documentation:

- Expansion planning was speculative
- Process flow improvements lacked measurable validation
- Capital decisions carried unnecessary risk
- Remote stakeholders had limited visibility into the space

Traditionally, manually measuring and drafting a facility of this size would take six months or longer. The organization needed accurate data — but without disrupting operations or waiting half a year to get it.

RAPID REALITY CAPTURE AND DIGITAL TWIN DEPLOYMENT

CAI deployed reality capture technology to scan the entire facility in just four hours.

Within two days, the organization had access to a fully navigable, millimeter-accurate digital model of the building. CAI deployed reality capture technology to scan the entire facility in just four hours. Within days, the organization had access to an interactive model that allowed users to navigate the space through immersive panoramic imagery similar to Google Street View.

Teams could move through the facility virtually, take accurate measurements, tag assets with critical information, and document issues directly within the environment. The result was not just a static model, but a fully navigable and functional digital workspace that mirrored the physical building. The scan data could also be imported directly into CAD and Revit for engineering use.





Instead of relying on assumptions or fragmented documentation, the team now had a verified digital representation of their facility that is now accessible from anywhere.

As one stakeholder put it:

“Coming from a place where we had no drawings of a part of our building drastically changed how we can formulate expansions and ideas to improve our process flow. As well as being able to connect remote associates and vendors by giving them a virtual tour of our building discussing pain points and improvements all while being remote. IVION has been a game changer and allows us to provide visuals and import into CAD and Revit to showcase all transformations and options to stakeholders and contractors alike.”

DATA-DRIVEN DECISIONS AND FASTER ALIGNMENT

With a validated digital model in place, expansion discussions shifted from guesswork to engineering confidence. Teams were able to:

- Evaluate layout constraints before committing capital
- Test process flow improvements virtually
- Present multiple design options clearly to leadership
- Coordinate with contractors using accurate geometry
- Reduce ambiguity and downstream change orders

Stakeholders, vendors, and remote associates could walk the facility virtually, accelerating alignment without repeated site visits. Decision cycles shortened. Collaboration improved. Planning became grounded in measurable reality.

BUSINESS IMPACT

- Documentation timelines reduced from months to days
- Increased confidence in process flow optimization
- Improved contractor coordination
- Faster stakeholder alignment

BEYOND DOCUMENTATION: A DIGITAL BACKBONE FOR OPERATIONS

What began as a documentation gap evolved into a long-term operational platform. The same digital twin now supports:

- SiteSync-enabled Digital Gemba Walks with geo-tagged issue tracking
- Geolocated asset inventory integrated with CMMS
- Asset induction and commissioning acceleration
- On-demand CAD and Revit as-builts
- Capital project validation before mobilization
- Remote vendor coordination
- Integration with the Autodesk ecosystem

By capturing the facility once in four hours, the organization created a reusable digital asset that will support engineering, maintenance, and capital planning for years to come.

This is the difference between solving a space problem — and building a digital backbone for the business.



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+1 317-271-6082
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