Success Stories

Reckonstruct F Ltd

Six Times Faster Through Model-Based Engineering - Reckonstruct's Transition to HiCAD

Reckonstruct is a façade design and engineering studio based in Sofia, Bulgaria. Established in 2022, the company specialises in custom façade systems, including rainscreen cladding, mullion-transom façades and complex building envelopes for commercial and mixed-use buildings. Reckonstruct has a team of ten professionals specialising in design, structural calculations and CAD drafting. The company takes projects from early concept work through to production-ready manufacturing documentation.

ReckonSTRUCT

REFERENCE REPORT

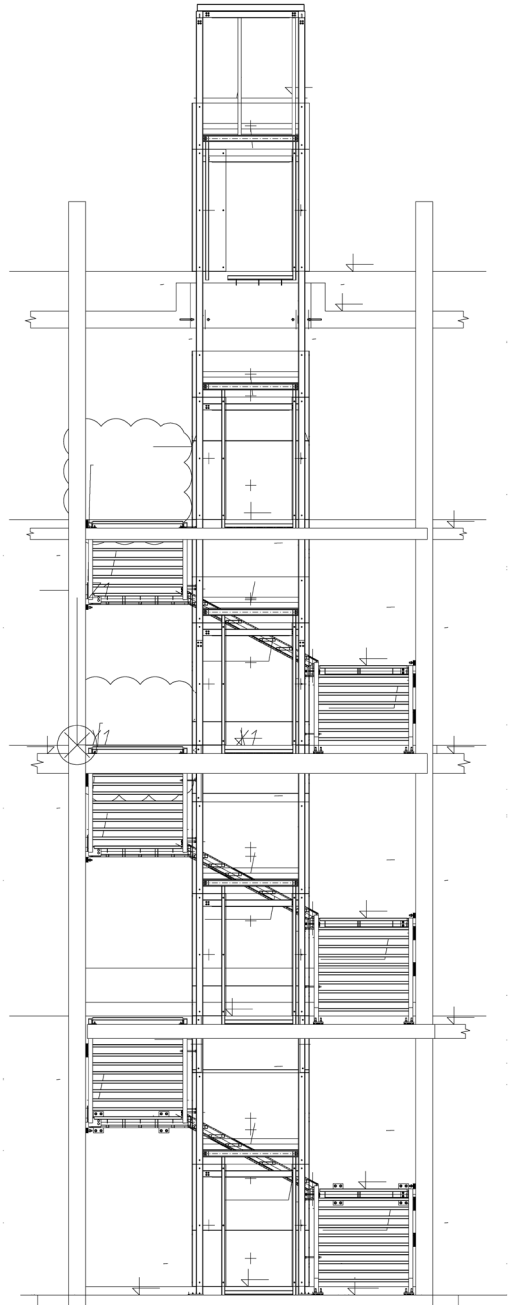
Transitioning from a drawing-centric workflow to a more efficient approach

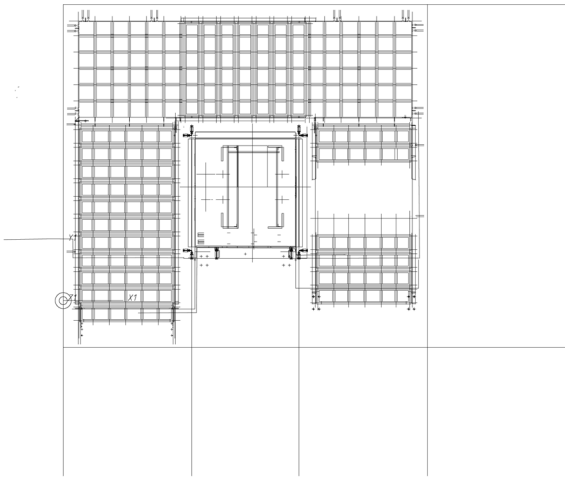
When asked what prompted the search for a new CAD approach, Reckonstruct highlighted a common challenge in façade engineering: projects evolve rapidly, and late revisions can require disproportionate effort when the workflow is primarily 2D. Prior to HiCAD, the CAD landscape primarily relied on AutoCAD (and occasionally Advance Steel). While these tools supported basic drafting well, Reckonstruct described them as less suited to the assembly logic, fabrication-driven detailing and structured 3D modelling needed for complex façade work. The result was frequent manual coordination, and a "ripple effect" when changes had to be reflected across multiple drawings and details. From the outset, their aim was not merely "improved drawings", but rather the establishment of a more dependable engineering process: a model-based workflow where the 3D model becomes the definitive source of truth and subsequent outputs, such as sections, details and bills of materials, can be consistently derived. In summary, this approach reduces the need for manual updates, minimises the risk of inconsistencies, and facilitates a more efficient change management process.

The key reasons for choosing HiCAD, and how it aligns with real-world façade requirements

When asked to elaborate on the reasoning behind their selection of HiCAD, Reckonstruct highlighted the importance of practical production requirements, including the need for consistent 2D/3D data, support for complex geometries, and the capacity to automate parts lists and documentation. However, the decisive factor in the project's success was the integration of two elements that closely resemble those in real-life façade projects: a clear assembly structure and a reliable Bill of Materials (BOM) system. Furthermore, the value of built-in libraries and sheet-metal tools that align with manufacturing geometry was emphasised. These features facilitate the transition from design intent to fabrication-ready information, thereby minimising rework.

The partnership with ISD was also described as a logical fit, which is an excellent strategic move for both parties. The founder had previously worked with HiCAD on complex façade projects abroad, and that prior experience informed the decision to establish the same foundation at Reckonstruct—supported by ISD for implementation and ongoing expertise.





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Adoption in practice: learning curve, hybrid phase, clear direction

HiCAD differs significantly from Autodesk-based tools, so the learning curve was steep. During the transition phase, a combination of learning resources was utilised, with operations conducted in a hybrid mode to ensure uninterrupted delivery capability while cultivating internal proficiency. The operating model is clear. The team responsible for manufacturing drawings works strictly in HiCAD, while early-stage design can still begin in AutoCAD. At the same time, Reckonstruct noted that they are actively moving toward broader adoption of HiCAD across project phases, reflecting a steady shift from „tool usage“ to „workflow standard.“

Productivity enhancement is achieved through daily efforts

When asked about its daily use, Reckonstruct described a production-focused setup built around 3D modelling, sheet-metal tools, BOM/parts management, and standard libraries for profiles, fasteners and commonly used components. Instead of providing a long list of features, they highlighted one capability that consistently drives productivity: the ability to generate clean sectional views directly from the 3D model, with automatic updates when changes occur. In the field of façade engineering, where meticulous attention to detail and strict revision control are paramount, this approach to documentation proves invaluable in minimising repetitive tasks and ensuring consistency across all deliverables.

Reckonstruct‘s approach to production documentation is pragmatic. Key derivations originate in HiCAD, outputs are managed to fit office standards and project needs, and the workflow accommodates the reality that not every project phase or contributor may yet be fully standardized on a single tool.

BIM is also playing an increasingly significant role. Even in the context of fabrication documentation, Reckonstruct has observed that market expectations are evolving to demand coordinated 3D information and precise model exchanges, thereby shaping the way engineering data is structured and communicated.

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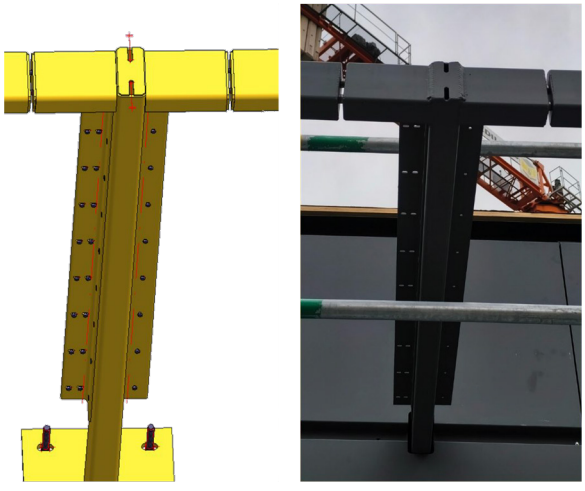

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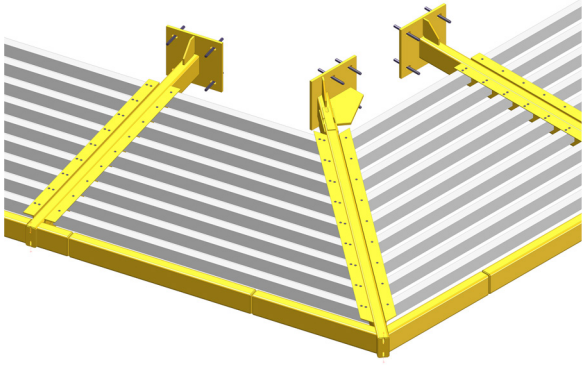

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Proof through a comparable project: ~6× faster delivery

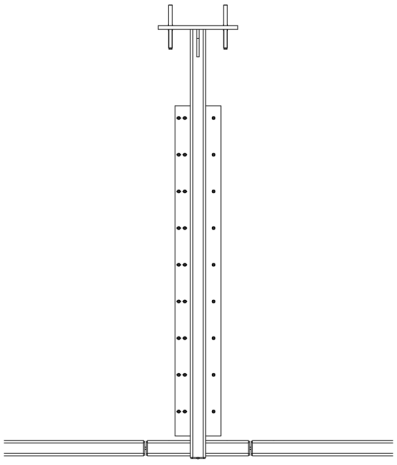
Reconstruct's most compelling example is a steel canopy project. A comparison was made between two canopies that were almost identical. One of these was completed using AutoCAD, while the other was delivered using HiCAD. The AutoCAD canopy project took several months and the late-stage changes made it a challenging environment to work in. Despite the late changes, the comparable canopy in HiCAD was delivered roughly six times faster.

When asked to identify the reason for this discrepancy, Reconstruct attributed it to the model-driven workflow. This approach enables sections, details and BOMs to be derived directly from the 3D model, ensuring that changes are propagated across outputs automatically, eliminating the need for manual repetition. The assembly structure and sheet-metal tools reduced repetitive drafting and helped avoid the revision „ripple effect" that typically consumes time and increases risk in drawing-centric processes.

They also reported positive downstream effects, including the clarity of the manufacturing drawings, fewer fabrication questions, and a smoother installation on site. This suggests that the documentation was produced faster and more effectively.

Working with ISD: strong setup support, reliable response

With regard to the collaboration with ISD, Reconstruct described the setup phase as well supported and effective in facilitating a swift initiation. While the need for assistance remained limited over time, responses to questions were clear and timely. The partnership was characterised as positive and dependable.



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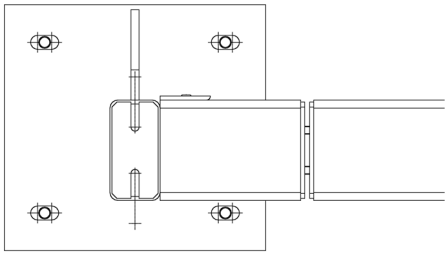

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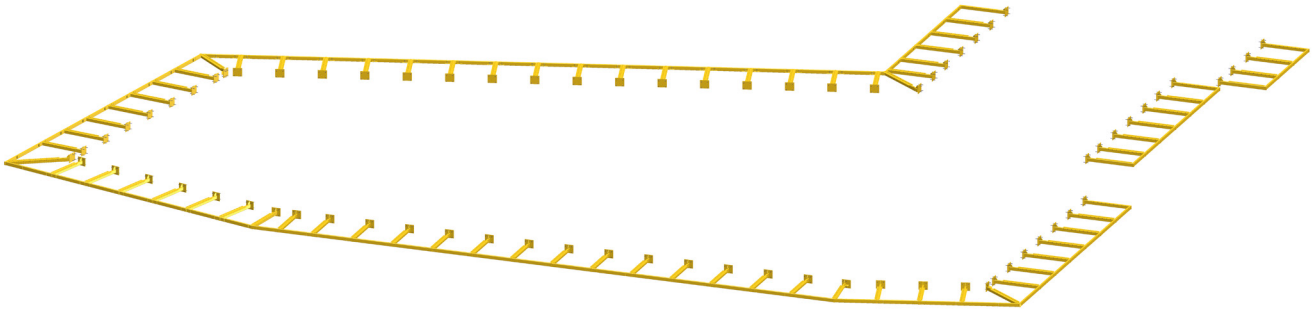

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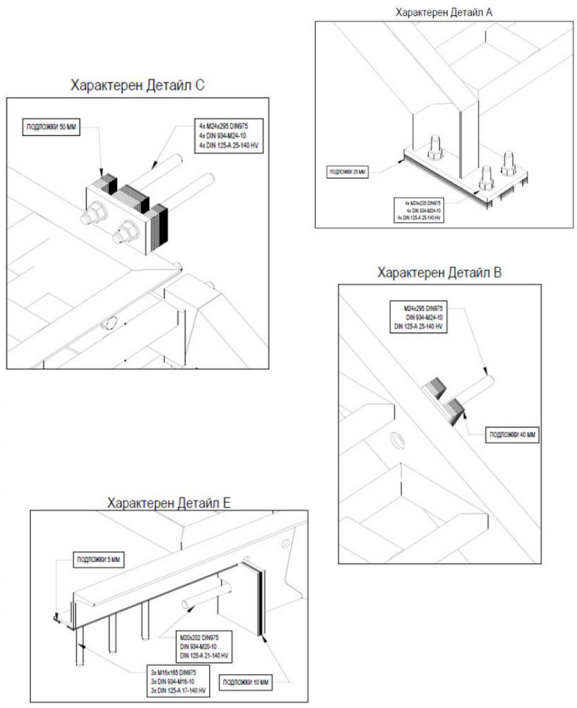
Closing perspective and outlook about HiCAD

The combination of BIM and 3D, as implemented in the German manner, is characterised by its precision, structure and fabrication-oriented approach.

Their advice to other companies considering CAD/PDM solutions is grounded in the reality of adoption: choose a tool that fits your actual workflows, commit to learning it properly, and prioritise strong 3D-to-documentation consistency, because that is where the largest efficiency gains typically emerge.

Looking ahead, Reckonstruct plans to expand HiCAD usage across all project phases, explore deeper PDM/PLM integration, and continue moving toward a unified workflow from concept through production.



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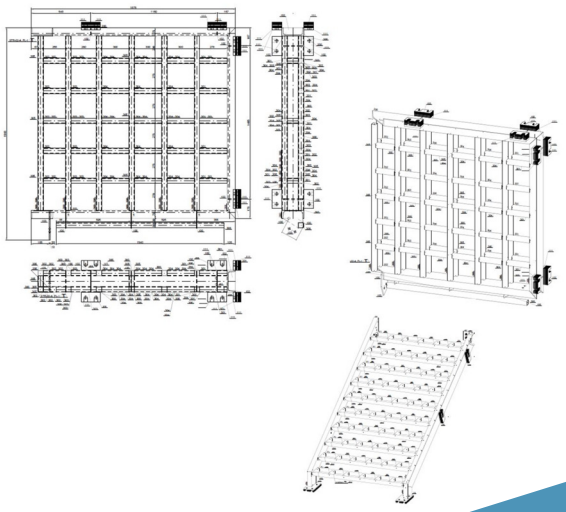

In brief:

- Reckonstruct F Ltd
- Industry: Steel/metal engineering, sheet metal
- Software: HiCAD

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See for yourself what our solutions can do. We would be delighted to show you the advantages of our software solutions in a personal presentation. Contact us to arrange an individual appointment – we are looking forward to meeting you!

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