CASE STUDY / SYSTEM BUILD

I built the scheduling system that kept a steel fabricator on the critical path

CHRIS WIDNER

HEAD OF BUSINESS TECHNOLOGY & HR, QUALITY IRONWORKS (2014–2021)

As the sole in-house technical authority on Quality Ironworks' five-person executive team, I owned the company's technology budget and outsourced IT relationship. When the company had no system for scheduling fabrication against the construction projects it fed into, I designed, built, and shipped one myself.

$700K

ANNUAL SAVINGS DRIVEN THROUGH AUTOMATION

$600K of it eliminated by the scheduling system alone.

4 Years

NEAR-BANKRUPTCY TO RECORD PROFITABILITY

Company-wide turnaround; I sat on the 5-person exec team that drove it.

PROBLEM

Quality Ironworks' shop sat on the critical path for every large project it fabricated for. If scheduling slipped, the delay didn't stay contained to the shop floor, it cascaded through the whole job.

Scheduling ran on manual coordination, with no shared system tracking it and no financial reporting that gave project managers visibility into cost against schedule.

As the company's only in-house technical resource, there was no one else to build a fix. Either I did it myself, or it didn't get built.

> **Scope:** this was project-based critical-path scheduling for active construction jobs, not recurring or facilities maintenance scheduling.

ACTION

Owned it end-to-end, alone. I scoped, designed, and built the system myself, full-stack, with no dev team and no outside vendor, inside a technology budget I controlled as the sole in-house technical authority on the five-person executive team.

Built around the actual constraint. The application modeled critical-path scheduling specifically, sequencing fabrication against the construction schedule it fed into, not a generic project-tracking tool retrofitted to the job.

Gave PMs visibility they didn't have. I added real-time financial reporting so project managers could see cost and schedule together for the first time, instead of working from two disconnected pictures.

Shipped, tested, and supported it myself. Node.js, Express, SQL, and a front end I built and maintained personally, the same pattern that shows up across my career: I build the thing, I don't hand it off.

RESULT

$600K in manual scheduling labor eliminated, part of $700K in total annual savings I drove through automation.

The critical path held. Projects depending on QIW's shop hitting its dates ran through a system built specifically to protect that dependency.

It became infrastructure, not a project. Once live, every large job ran through the scheduling system. It wasn't a pilot or a side initiative, it was how the company operated.

Company-wide turnaround: near-bankruptcy to record profitability in four years, with this system built and run by the only technical hire in the building.

CHRIS.WIDNER@HEY.COM · 603.499.2137

LINKEDIN.COM/IN/CHRISWIDNER