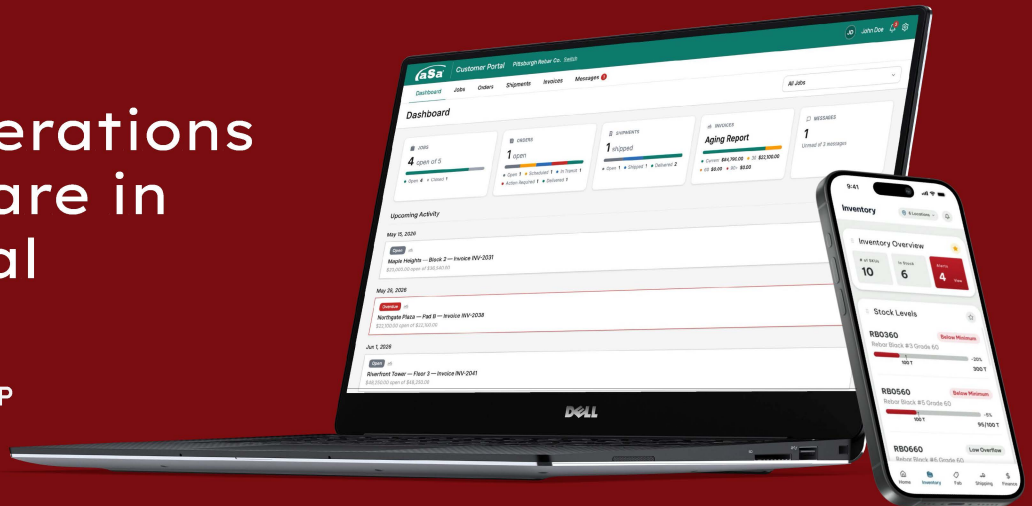




Design Considerations For ERP Software in Non-Traditional Contexts

Designing Mobility: Reimagining ERP
for Industrial Productivity



PARTNER

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Executive Summary

Applied Systems Associates, Inc. (aSa) builds the ERP software for rebar fabrication companies, but that software has only ever lived on a desktop. Over one semester of research and one of design, our team found where that gap created real friction, both for fabrication shop managers and the construction companies who buy from them. The result: a mobile app giving managers a fast, at-a-glance view of operations away from their desk, and a customer portal letting construction companies track jobs and invoices without a phone call, both validated directly with aSa clients.

About the Partner

For more than 50 years, aSa has specialized in building ERP software for the reinforcing steel and construction industry. Its core product, aSa.Studio, is the operating system for rebar fabrication companies including order entry, scheduling, production, inventory tracking, and shipping along with project management, invoicing, and accounting. aSa's customers are the fabrication companies themselves, and by extension the construction companies that buy from them, in an industry where one late delivery can idle an entire crew.

The Opportunity

aSa came to this project with a bounded question: could aSa.Studio extend beyond the desktop without being redesigned or duplicated on a smaller screen? General managers and plant superintendents lose access to operational information the moment they step away from a desk. Their customers feel the same gap from outside, with a phone call to the fabricator's office as their only way to check on an order. Mobile access has also become an expectation aSa's customers now bring from other software, adding competitive pressure to close the gap.

Approach

Our five-person team split its work across two phases. In the spring, we focused on research: nine engagements with aSa's fabrication customers and internal consultants, combining interviews, two in-person customer site visits, a card sort, and a "walk-back" activity asking participants what pulls them away from their desk. This grounded our mobile/desktop boundary in real behavior, not assumption. In the summer, we moved into design: three rounds of prototype testing, from early concepts tested with aSa's own consultants, through iterative refinement, to a final round tested directly with aSa clients on high-fidelity prototypes.

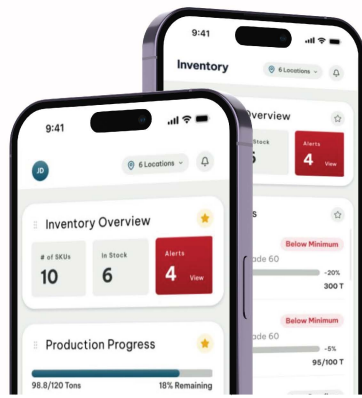


Figure 1. The mobile app's home screen is built from tiles a manager can favorite and rearrange, with a location switcher for those overseeing several plants. Testing showed managers wanted answers, not a shrunken dashboard.

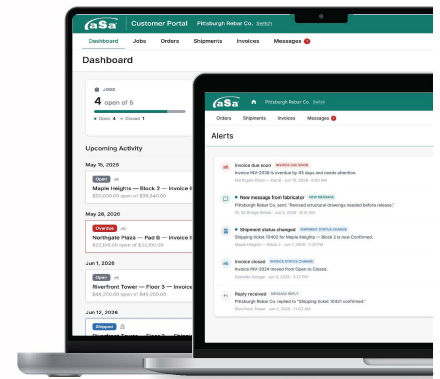


Figure 2. The customer portal speaks the construction company's language, organized by jobs, orders, shipments, invoices, and answers the three questions customers call about most, without a call to the fabricator's office.

Key Findings

Three findings, each surfaced across multiple research methods, shaped our direction.

Data lives on the desktop, but some decisions happen elsewhere.

At every fabrication company we visited, critical choices were made on the shop floor, at job sites, and in meeting rooms, far from where the data lived. When the system couldn't travel with the work, people worked around it with radios and phone calls.

People want answers, not dashboards.

Shrinking aSa.Studio's dense desktop views onto a phone would recreate the same overload on a smaller screen. As one fabrication company VP put it, "the information at your disposal is just so intense". That pushed us toward fast, direct answers over data density.

The loudest questions come from outside the company.

Some of the most urgent "where's my steel" moments weren't coming from aSa's own users, but from the fabricator's customers. As one aSa consultant put it, catching a problem like a missing bundle early prevents a much larger delay downstream. That insight is what turned this into two products instead of one.

Impact

The mobile app's core interactions tested exactly as intended. Widget favoriting and rearranging was requested unprompted across multiple sessions, and one participant put it plainly: "If it's not customizable, I would just not have a home." Location-switching for managers overseeing more than one facility matched existing mental models with no explanation needed.

Testing the customer portal directly with aSa clients validated both the direction and the details.

Vocabulary choices landed as intended, tiles labeled jobs, orders, shipments, and invoices matched how customers already talked about their work, and showing each customer only their own fabricator addressed a real trust concern. One client's company had already begun scoping a similar portal of their own, and called ours "extremely valuable."

For aSa, this validates a path to close a real customer-expectation gap without redesigning aSa.Studio because its cloud-based architecture is already well suited for sharing data to both a Mobile App and a Customer Portal. For fabrication companies, it means fewer interrupted workdays on both sides of the phone call, and a clear next opportunity: customers want to self-serve mill certificates and bills of lading, a need aSa can act on.

Outcomes and Deliverables

Our work produced two prototyped solutions, backed by a full design rationale and documentation package for aSa's engineering team. The Mobile App provides a tile-based, customizable home screen surfacing what each manager decides matters most, with drill-down detail into inventory, production, shipping, and finances. The Customer Portal gives construction companies a single login across every aSa fabricator they work with, built in their own language, to view every order, every shipment, and every invoice. It answers what customers call about most: whether a job is on track, the fabrication and delivery status of orders, the ability to request delivery dates, and open invoice amounts.