

case study -

Modernizing a large-scale custom ERP system

Angular

API development

Progress technologies

Simplifying the UI

Company

Large metal toll processor

Customer since

2019

Goals

- ✓ Modernize the legacy ERP system with a browser-based interface
- ✓ Retain 15+ years of custom backend logic
- ✓ Automate mundane, repetitive work and streamline workflows
- ✓ Meet the needs of a broad range of users

The client

Resolute recently partnered with a large toll processor of steel, aluminum and copper to the automotive, appliance, beverage can and industrial products industries to modernize its ERP system.



Their unique ERP system

Because of its unique business model, existing off-the-shelf ERP platforms did not meet the needs of the client, who had been customizing its ERP system for more than 15 years to accommodate specialized requests from customers. The system's backend contains an enormous amount of custom logic, which is extremely valuable to the 700+ people who use the system and has become a competitive advantage for the company.

Toll processing – also known as toll manufacturing, requires specialized equipment to process raw or semi-finished metals into materials that can be used by product manufacturers. To that end, the client maintains 3.8 million square feet of building space packed with a variety of equipment for slitting, cutting, oscillating, blanking and perforating metals – none of which it actually owns.

3.8 million ft²

Warehouse for processing the metals

15 years

Spent in customizing the ERP system used

700+

People using the system

background –

“Resolute helped us solve a critical challenge – retaining our valuable, proprietary custom logic that our users rely on, while adapting to the evolving needs of the business and enhancing the user experience. We knew where we wanted to go but didn’t know how to get there – and having Resolute’s experts on our team has given us a solid foundation and a strong start.”

– Software Engineering Lead, client



the challenge –

The journey to modernization begins

In 2019, the need to modernize the ERP system became apparent. Because it was installed as a client application on individual machines, annual updates were required every 2-3 months to provide users with the newest features. This was a slow and expensive process that taxed the company's technical resources. Additionally, modernizing the ERP would enable the client to continue to deliver on its brand promise of high quality and innovation.

Simplify and streamline the CX

The new web-based user interface had to simplify and streamline the customer experience without changing it drastically, while leveraging the backend business logic that the company had worked so hard to build for over a decade.

Long shelf life

The new system also had to have a long shelf life.

Angular expertise

The client determined that Angular would be the best technology to use for building out the application's new front end, but realized the company had no Angular developers in-house. Although they solicited quotes from a few providers, they followed a recommendation for Resolute, who provided skilled Angular consultants.

the solution –

Angular consultants hit the ground running

Resolute's consultants built an application programming interface (API) as the middle layer to connect **the Progress backend** to **the new Angular frontend**. Working closely with the client's internal developers and subject matter experts, they designed the new frontend to meet the project's exact requirements, ensuring all dependencies and details were considered. Teams met weekly to discuss required features and tradeoffs and determine the best ways to solve numerous development challenges.

Given the size and scale of the ERP platform, work was divided into **21 modules**. Every module was a large project in itself, and three teams worked on them simultaneously. Resolute began with **the Customer Service Representative (CSR) module**, the largest project, and will continue with additional projects following its completion. Each module is broken into multiple phases, which keeps development on track and moving forward.

Technologies



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the result -

Successful pilot kicks off the roll out

Over the course of the project, Resolute became a trusted business partner for the client, offering flexible and effective ways to solve complex problems. In just three months, Resolute modernized the Receiving function of the client's CSR module, and it was ready to go live – a full month earlier than anticipated. Going live with the first module was a very sensitive goal, because it's the first-time users would interact with the system. Resolute took special care to ensure the system interface met user expectations.

The client worked with Resolute to create a UX that was appropriate for all users, for example, avoiding excessive scrolling to improve the experience for users who are accustomed to using static pages. Once the client realized scrolling would be frustrating for some users, the client halted the project and worked with Resolute, who was able to reduce scrolling by about 30%.

3 months

Modernized the CSR module

1 month

Earlier than expected

30%

Reduced scrolling

1

Instant updates

By modernizing its ERP system, **the client will be able to make updates available to users instantly**, without any manual effort. While the old system will be available to existing users, the client expects most customers to move to the new system to take advantage of new features, including automation and streamlined workflows.

2

More attractive to younger generations

The new system is **especially attractive to younger employees who are drawn to digital technologies, because it speaks their language and offers familiar controls**. Meanwhile, all of the standard features users are accustomed to are still available, which is helpful for those who may be a little bit more resistant to change.

3

Strengthen their competitive advantage

Most importantly, **the modernized ERP enables the client to maintain and even strengthen its competitive advantage**.

Let's talk about your technology requirements.

Get in touch

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