

The Client

Like most railroads, Union Pacific Railroad has extensive real estate holdings far beyond those used for operations. These holdings are typically the second largest income generator for a railroad. UP was using seven different mainframe legacy systems to manage these assets. They did not have accurate records of their holdings or the leases, easement, etc. A merger with a large competitor (Southern Pacific) was forthcoming and the existing systems could not be integrated with the acquired business.

The Project

In 1996, after an extensive national search, UP selected REsource Partners to develop a client-server enterprise system to manage their real estate assets. Although it would be developed by the real estate department, the application would integrate with eight surviving legacy systems in other departments and would be used by hundreds of employees across the company.

The Tasks Performed by Jay Sultan

- I facilitated design and requirement meetings over four months that included subject matter experts, who were often contentious with each other, and IT personnel.
- I developed the data model for the system, which included over 120 entities.
- I oversaw the development of the design and testing requirements.
- I coded 85% of the back-end system using Oracle's PL/SQL.
- I was the account manager for the three-year project and managed the 35-person REsource Partners staff as well as UP personnel tasked to the project.
- When the IT department could not provide anyone who understood one of the undocumented legacy systems, I reverse-engineered the code and data structures to create functional requirements for our product.
- I performed the data integration (for real estate) between UP and SP in three weeks, instead of the six months estimated by the IT department.

The Results

- The project was finished on-time and on-budget.
- The project billed over \$1.7 million dollars.
- During the UP/SP integration, I discovered that SP had made several systemic billing errors. I was able to generate the corrected bills and supporting documents. UP issued these bills and realized an immediate \$2 million in unanticipated revenue.
- The system has a Delphi front-end and Oracle back-end with about 1,200 Oracle objects in the model and a combined 1.6 million lines of code (estimated).
- Union Pacific Railroad is still using this enterprise-level system to manage the 700,000 pieces of real estate they own and the billing and accounting for about \$200M in annual revenue.
- The system is used by over 200 people in 10 departments and has been instrumental in a significant decrease of administrative cost and a 50% reduction in administrative staff.