

INVENTORY MANAGEMENT AND INTERMODAL TRACKING SUITE AGILE PROCESS



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PROBLEM

At many manufacturing or production facilities this transportation company provides rail cars to be loaded by the customer before being transported to a different location, either within the customer's location, or by rail across the country. They needed to be able to keep track of what rail cars are at each location, and where they are within the location. There also needed to be a way to communicate when the customer wanted a car moved.

The system needed to reduce the complexity of requesting movement of rail cars. It also needed to be easy for the customer to manage inventory and communicate switching needs.

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CLIENT

Guilford Group provides service to a Fortune 500 Railroad Company. This company is one of the leading transportation companies in the United States. With revenue of over \$11 billion in 2012, it provides transportation services for goods of all kind by rail, intermodal containers and by truck. They are headquartered in Jacksonville, FL, and operate over 21,000 of track, 70 ports and nationwide transportation services.

This company's intermodal division provides rail-based intermodal service solutions across their network which covers the eastern United States and key interchanges with all major North American railroads to extend its market reach. They have 39 intermodal terminals throughout this region which serves 66% of the U.S. Population.



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SOLUTION

Guilford Group used the Agile process to develop an interactive, . The application is web-based and uses a JavaServer Faces (JSF) backend.

Using a graphical user interface, the customer has a screen that shows a list of tracks, and a list of which cars are sitting on that track. Car types, whether a car is empty or full, and what the car is loaded with can all be color coded by the user. The user can customize the visual representation of the cars to suit their own preferences.

Through the system, the user can correct this transportation company's records to reflect the actual cars they have on their property, the location and order of the cars on the tracks. They can request a car be moved from one location in the plant to another location by dragging a car image from one track to another. This transportation company will then come out and move the car.

The system simplified plant management by letting customers indicate times for car pulls and placement. It supplies crews with standardized before and after documentation and improved data accuracy by using customer supplied data. It assists in the vision of electronic communication between customers and crews.



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SOLUTION

The project was developed in 2 phases. The first phase developed the Inventory Management portion, and the second phase developed the Intermodal Tracking Suite. It was expected that during the development process that there would be changes to the desired results, there would be scope creep, which made it a perfect project in which to use the Agile process, where software is developed and tested in an iterative fashion.

There were 10 sprints, or separate development steps, in the development of the Inventory Management portion of the project. During each sprint, a set of desired results were defined, developed and tested. In the following sprint, a separate set of results were defined, developed, tested independently, and then tested with the results of the previous sprint. By the end of the sprints the application was fully developed and functioning.

The first phase of the project had a budget of approximately \$54,500. The second phase had a budget of \$600,000. Guilford Group stayed within budget. This was a 9 month project that utilized a team of 10 at its highest point.

Guilford Group had the knowledge and expertise to achieve the efficiencies that this transportation company needed. By combining their experience in the transportation industry, with –, Guilford Group was able to take the possibilities that this transportation company saw and bring them to reality.

