Cost Reduction, Throughput Increase and Capital Justification

ProModel
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Vertical

Manufacturing | Pharmaceutical | Healthcare | Portfolio | Logistics | Financial | Government | Business

Genre

Case Study | **Project Review:** | White Paper | Technology Overview

Client

Global Leader in the Design and Manufacture of Floors, Ceilings and Cabinets

Situation

The client was facing increasing costs from international suppliers. At the same time the company was seeing an increase in demand for hardwood flooring products.

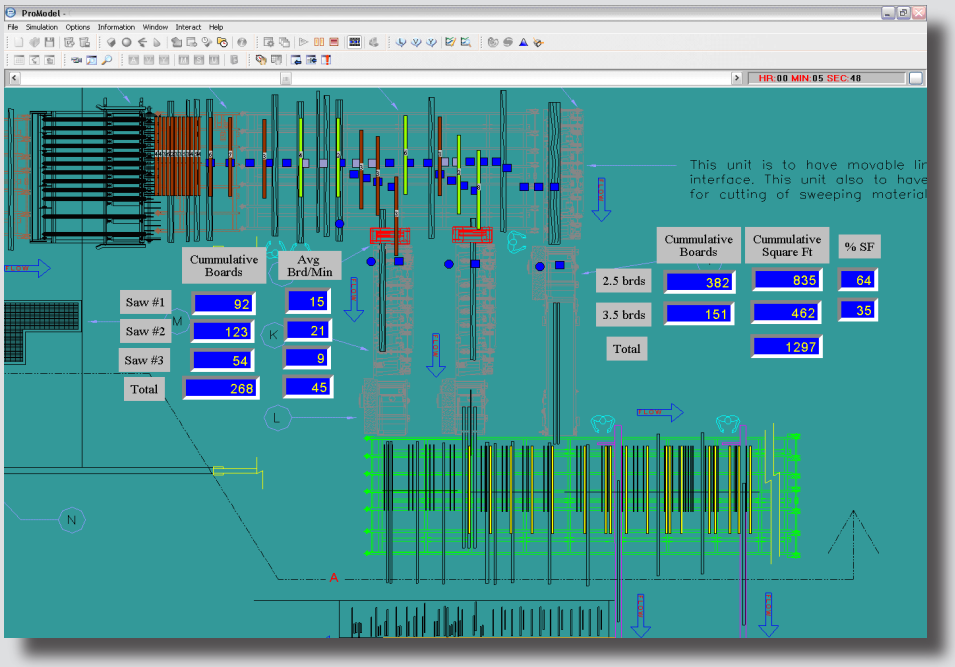
Instead of simply allowing costs to rise and hoping increased sales would adequately compensate, they decided it would be best to tackle costs, while improving quality, and increasing throughput all at the same time.

Objectives

Client situation led to the objective of increasing throughput in one of their U.S. solid wood manufacturing plants, while simultaneously reducing direct labor requirements and scrap/raw material waste.

Solution

The client team at the plant proposed a capital investment project for the plant's rip saw area. This project would add a third saw to increase rip saw output. Additionally, board measuring and sorting capability would be added to optimize board cutting.



A ProModel simulation model was prepared to verify that the concept would deliver the expected improvements prior to implementation. Plant and corporate engineering personnel worked together to build and validate the simulation, which clearly demonstrated that the initial design needed significant refinement in order to be successful. The final design was thoroughly tested and validated in ProModel, which helped the engineering team quickly define the equipment purchase specifications (equipment layout, buffing station sizes, conveyor speeds, downtime scenarios, etc). The simulation results were used to quickly demonstrate the project's value to upper management for capital justification.

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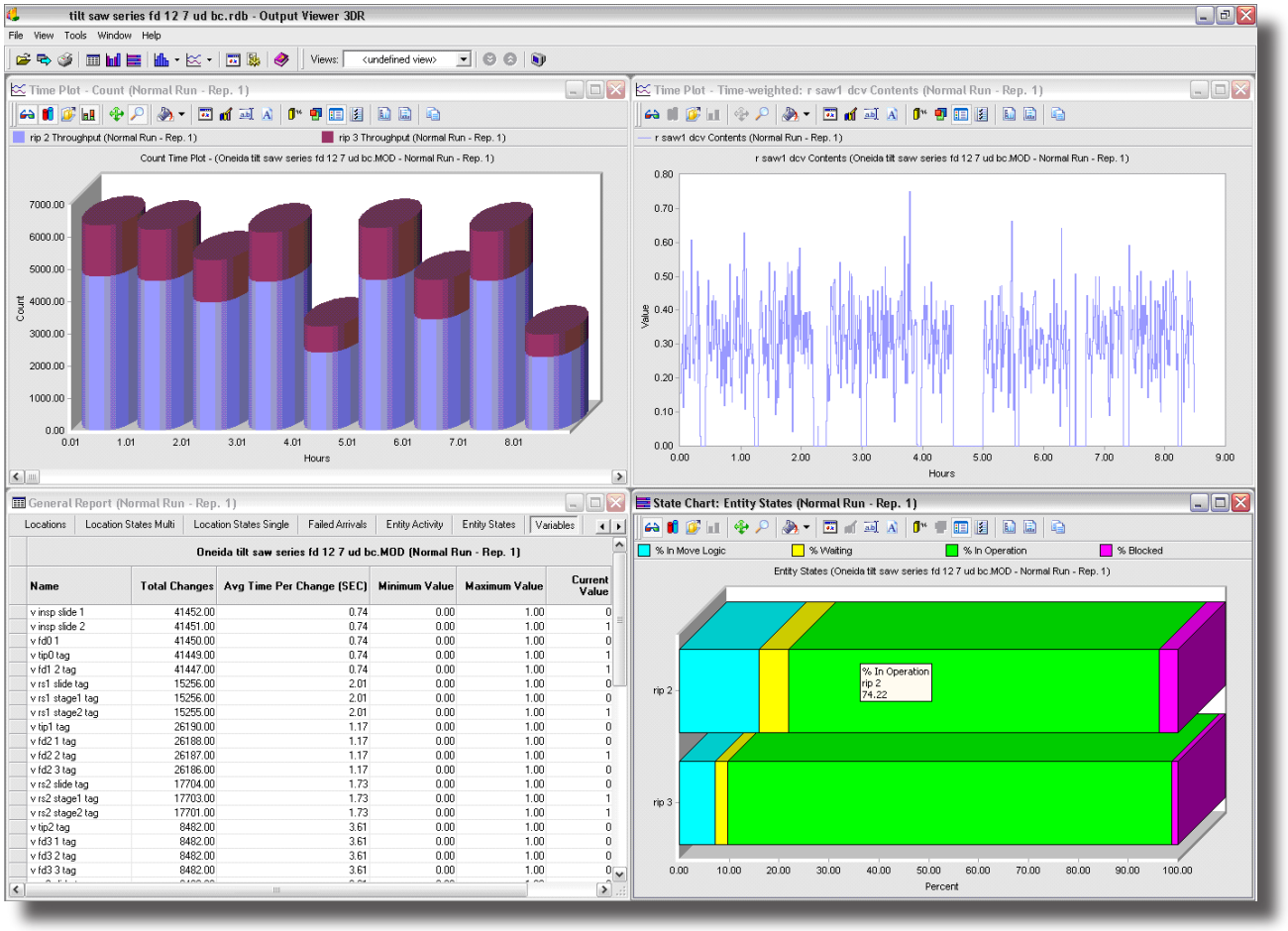
Solution



Solution output reports and graphics used to determine the most appropriate course(s) of action based on project objectives

Results

- Discovered the means to meet required throughput while reducing labor costs by 20%.
- Minimized wood scrap and significantly reduced material costs by measuring and sorting boards so the best combination of 2.5” and 3.5” could be cut from each board.
- Estimated savings from this project are $1- 3 million.
- Improved their ability to clearly and concisely communicate the value of process improvement to stakeholders.

Estimated Savings