

## A CLOUD-BASED SYSTEM FOR PROFIT OPTIMIZATION

# PROFIT HAWK™ USED TO RESOLVE CRISIS

## Team capitalizes on Profit Hawk within the first 90 days

### Executive Summary

Less than three months into their Profit Hawk implementation, the Steel Dynamics Structural and Rail Division leadership team used Profit Hawk™ to develop a plan to overcome business challenges caused by an extremely difficult winter in Ft Wayne, Indiana.

The storms and subzero temperatures delayed shipping for more than 10 days while only briefly interrupting production. Excess inventory piled up in the yards and clogged up shipping and handling processes.

In response to the ongoing problems, the leadership team decided to try their partially-implemented profit optimization system, Profit Hawk. The goal was to see if it could be used to find an integrated production, sales and shipping plan to resolve the issues —safely, and if possible, profitably. It worked.

Rob Simon, Vice President and General Manager:

*We realized there wasn't going to be a routine solution to overcoming our situation, the threat to our customer commitments and our profitability was great. We decided to try Profit Hawk to help us analyze our situation and develop plans to optimize our recovery and improve financial performance in recovering market conditions.*

*The system helped us quickly and accurately identify the unprecedented complex operating constraints, creating guidance for our team to create detailed, integrated recovery plans. Because the process was objective and thorough, the plans were wholeheartedly supported by everyone and the decision to proceed with the new plan was an easy one.*

*What most impressed me was the team's level of detail and creativity—not to mention they improved the previous forecast significantly. We could not have had a better early-win to prove the system's worth to our team.*



**SDI** **Steel Dynamics, Inc.®**  
Structural and Rail Division

*Steel Dynamics Inc.'s Structural and Rail Division became a prime source of high-quality steel products in 2002, and has since grown into SDI's second-largest operation. Initially focused on production of wide-flange beams, this division has adapted to customer needs by also offering a variety of railway products*

## Overview of the Process

### 1. Capitalize on major opportunities exposed in the analysis:

New opportunities appeared in the analysis...the specialists were alerted by the system to a line of products that had very high "profit opportunity values" that were not shipping constrained but were constrained by handling and storage issues. A meeting with Sales produced a sales strategy to double the sales of the product, then a meeting with Production produced a handling method to overcome their constraint, immediately improving the efficiency of the storage/handling. The Sales plan enabled improved volume which, along with the new improved storage/handling capabilities added another 10% in profit.

### 2. Find the best-possible profits:

The system showed an existing plan to add a crew/shift to a facility could result in underutilization of the additional labor (because the company gives everyone a full shift whenever they are scheduled to work)...When the model was used to find the optimal profitability it increased the production of a high "profit opportunity" product in one plant and moved the production of other products to another plant. Sales was engaged again and developed a plan to increase sales of those specific products that optimized the shipping capabilities of the plant. The strategy identified a labor utilization increase, now up to 86%, while keeping the other plant at 99%, still resolving the shipping bottleneck and adding another 20% in profit.

## Results

The result was a recovery plan, which was created by the leadership team in short-order, and which produced more than a 30% increase in profit from the original forecast in addition to permanent operational improvements.

Yury Krotov, Technical Services Manager, and leader of the Profit Hawk system implementation:

*One of the biggest benefits of the system is the ability to quantify different business opportunities, instead of relying on perception or "gut feel". It also stimulated creative discussions among the team and provided an efficient process for finding an optimal business plan.*

*It's exciting to know what we can do now. As hard as we might have tried, I don't think we could have found this solution as quickly using our standard practices. The new system has already paid for itself many times over.*

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