



Case Study

Enhancing Retail Planning: Streamlining Transfer Engine Efficiency

Client: Renowned Premium Apparel Company

Key highlights



Reduced runtime from **4 hours to 71 minutes**, enhancing operational efficiency.



Implemented advanced features - **automated purchase order generation, streamlined procurement, and optimized inventory management.**



Extended planning capacity to **500 days**, aligning with long-term strategic goals.



Enhanced **performance** tailored to the client's operational needs.



Devised strategic short-term and long-term solutions to ensure **sustained improvements.**



Background

The client, a renowned premium apparel company, places significant emphasis on merchandise planning and allocation within its business operations. This strategic approach ensures that stores are well-equipped with vital information such as inventory management, order planning, and store layout optimization.

Initially relying on Anaplan, the client encountered challenges as data volume increased, leading to the development of TIGER (Transfer Engine) utilizing PySpark. This solution aimed to enhance customization and flexibility within the planning process, reflecting the client's commitment to operational efficiency and customer service.

Pain Point

Despite meticulous efforts to mirror Anaplan's codebase, the client's internal Transfer Engine faced a significant setback in execution time. While Anaplan completed processes within a swift 60 minutes, the Transfer Engine lagged far behind, requiring a cumbersome 240 minutes for execution.

This notable disparity posed a considerable challenge for the client, impacting critical planning processes and store operations. The extended runtime not only hindered operational efficiency but also led to delayed decision-making, directly affecting revenue potential and customer experience.

As a result, the client recognized an urgent need to address the inefficiencies plaguing their in-house Transfer Engine, seeking a customizable and scalable solution to align with their operational objectives.



Key Objectives



Improve Transfer Engine's performance, scalability, and aim for a daily runtime closer to one hour.



Extend planning capacity to accommodate long-term goals, targeting up to 500 days of planning.



Enable the client to seamlessly generate automatic purchase orders based on available inventory, aligning with the planned strategy.

Solution

- ▶ To address the performance issues of the Transfer Engine, a collaborative effort was orchestrated involving both the client's internal team and Altimetrik. The approach involved solving the problem for an impactful category – **Women's Pants!**
- ▶ The process began with an in-depth analysis of the Transfer Engine's codebase, where various inefficiencies were identified.
- ▶ Understand and optimise the functional logic wherever needed.



Through this analysis, optimization opportunities and architectural enhancements were pinpointed, laying the groundwork for a more efficient system. The culmination of these efforts was a set of recommendations presented to the client's leadership, underscoring the significance of performance improvements and scalability.



Code Optimization: Identification of inefficiencies and architectural enhancements through extensive codebase analysis.



Performance Recommendations: Findings were meticulously compiled and presented to the client's leadership, emphasizing the importance of performance improvements and scalability.



Runtime Reduction: Following approval, the recommended solutions were implemented, resulting in a drastic reduction in the Transfer Engine's runtime to 71 minutes, effectively meeting client expectations.



Strategic Solutions: Short-term and long-term strategies to address identified inefficiencies and enhance system performance.

The Outcomes

- ▶ **Client Satisfaction**
The client's enthusiastic endorsement of the optimized Transfer Engine signalled a significant leap forward in performance. Their positive feedback underscored the tangible improvements realized through meticulous execution, reflecting their confidence in the project outcomes.
- ▶ **Progress and Innovation**
While initial objectives weren't fully met, the project laid a robust foundation for continuous innovation. It served as a cornerstone for future advancements in merchandise planning and allocation, demonstrating the client's commitment to evolving with market demands.
- ▶ **Competitive Dynamics**
Anaplan's swift optimizations during the project timeline highlighted the ever-evolving nature of competition within the industry. The drive for efficiency showcased the competitive landscape, emphasizing the importance of staying ahead to meet customer needs effectively.
- ▶ **Accuracy and Reliability**
Crucially, the Transfer Engine maintained a consistent level of prediction accuracy, aligning seamlessly with established benchmarks set by the Anaplan system. This ensured reliability in decision-making processes, enhancing operational planning endeavours, and fostering trust in the system's capabilities.

Conclusion

The optimization of the Transfer Engine marked a significant milestone in the client's journey – **improved operational efficiency and scalability in merchandise planning**. While immediate goals were not fully realized, the project laid a solid foundation for future enhancements and innovation.

The client's endorsement highlights the importance of continuous improvement and adaptation in today's retail environment.

Moving forward, the Transfer Engine remains poised to drive success in operational planning endeavours, ensuring the client's agility and responsiveness to evolving market demands.

About Altimetrik

Altimetrik is a pure-play digital business services company. We focus on delivering business outcomes with an agile, product-oriented approach. Our digital business methodology provides a blueprint to manage data and develop, scale, and launch new products to market faster. Our team of 6,000+ practitioners with software, data, cloud engineering skills help create a culture of innovation and agility that optimizes team performance, modernizes technology, and builds new business models. As a strategic partner and catalyst, Altimetrik quickly delivers results without disruption to the business.