

## Summary

At Musician's Friend, excess inventory had ballooned by over \$5 million — much of it the result of systemic mismatches between purchasing behavior and inventory planning parameters. These misalignments stemmed from the implementation of a new warehouse management system (HighJump), changes to receiving automation, and a shift toward masterpack (case/pallet) ordering from vendors.

The planning system (JDA/E3) defined overstock as inventory exceeding the maximum threshold. But those thresholds had not been consistently updated to account for masterpack quantities, resulting in “overstock” designations that were functionally unavoidable with each receipt. Compounding this, the existing report lacked any seasonal demand adjustments, flagging many items as overstocked even when current levels were appropriate for the time of year.

The overstock report, which was intended to help planners and merchandisers guide discounting, purchasing, and marketing decisions, no longer served its purpose. It was pointing to “problems” that weren't problems and obscuring real issues.

## Solution

I fully reengineered the report to reflect the new operational realities:

- Added projected 13-week seasonal sales aligned with our 4x13-week planning model.
- Integrated masterpack quantities highlighting systemic mismatches between order quantities and max inventory thresholds.
- Flagged SKUs where masterpack logic effectively guaranteed overstock under current planning parameters.

*Note: Due to corporate restrictions, no screenshots or original code are included.*

## Impact

The reengineered report changed the conversation from “What’s overstocked?” to “Why is it overstocked — and what’s the right action?”

- Planners adjusted max thresholds in JDA/E3 to account for masterpack logic, eliminating false positives from the overstock list.
- Enabled smarter discounting strategies to accelerate sell-through and recover cash.
- Facilitated merchandising collaboration to flag and discontinue chronically underperforming SKUs.
- Supported a significant reduction in excess inventory over the following quarters by:
  - Allowing planners to ignore “excess” that would cycle out naturally via seasonal demand.
  - Refocusing attention on SKUs where carrying cost was destroying ROI.

Additionally, I created a secondary report to identify SKUs where order quantity exceeded the maximum, even if current inventory levels were below threshold — exposing overlooked process misalignments.

## Takeaway

Sometimes a report isn’t broken — the business has just evolved past what the report was designed for. This project reinforced my belief that great analysts don’t just deliver data — they clarify systems, surface invisible friction points, and drive better decisions.