

Best Practices in Solving Inventory Accuracy Problems

Bob Klunk

Things to Touch on Tonight

- Common Sources of Inventory Variances
- Methodology for Solving
- How to Keep it from Happening Again

Identify the Problem

- You're probably seeing;
 - Poor productivity, “looking” for product,
 - Late Shipments Mis-picks, short orders, “Cut and Ship”
 - Customer service complaints and calls; Stress levels are high
 - “Management by Heroics”
- Lots of people telling you what's wrong or how easy it is to fix
 - Hope is not a strategy; It won't go away on its own

The biggest mistake you can make is to start solving the problem too quickly

Make a Plan

- Admit and Disclose
- Assemble a Team
- Gather Data
- Document Symptoms
- Create Action Steps and Accountability
- Manage Expectations
- Track Progress
- Don't Take Shortcuts!

Case Study

- Seasonal Business
- 130,000 Sq. ft.
- 74,000,000 annual units
- Variance of 250,000 units
 - (.34% of annual throughput, Goal .1%)
- Labor Utilization 53%
- About 1 in 5 orders had an exception
- Inundated with Customer Service Calls

Case Study

CLIENT Inventory Reconciliation and Ongoing Maintenance

Project Manager: Inventory Control Manager

Sponsors: Client Plant Manager; Bob Klunk Director of Operations

Stakeholders: xxx;xxx

Resources: xxx;xxx

Objective:

- Reconcile physical inventory to WMS system for item, bin location, and lot.(Floor to book)
- Reconcile FW system to CLIENT perpetual inventory.
- Create processes and controls to maintain the inventory accuracy going forward.

Current State:

SAP and WMS are run in parallel with manual update

There has not been system reconciliation in any reasonable recent past

There is no reason to suspect any real physical loss

Services levels have been poor for some time due to variances from WMS to SAP in available inventory

Order exceptions have not been correctly reconciled to SAP

Orders are often picked ahead and remain in "Staged" for many days

It is unclear how orders shipped from Mfg are received, actual vs. SAP

CLIENT is placing orders and planning production based on SAP available inventory

There are large variances between SAP and WMS book inventory

A black flying saucer with a small antenna on top and three glowing green eyes. A bright yellow beam of light projects downwards from the saucer, and inside the beam, a cow is visible. The background is a light blue sky.

Common
Reasons Given
for Missing
Inventory

Real Sources of Inventory Error

- Product mismarked
- Qty counted wrong at inbound
- Qty shipped inbound is wrong
- Lots and items are mixed
- Item never received at all/missing transaction
- Item put away in the wrong location
- Mis-pick
- Pilferage
- Bulk Theft

The Job's not Finished Until the Paperwork is Done



- In this case...
 - Receipts not reconciled and matched
 - BOL's were being forced due to "Not there"
 - Propagated location errors
 - The warehouse "Worked", but the paperwork did not match

Create Action List and Owners

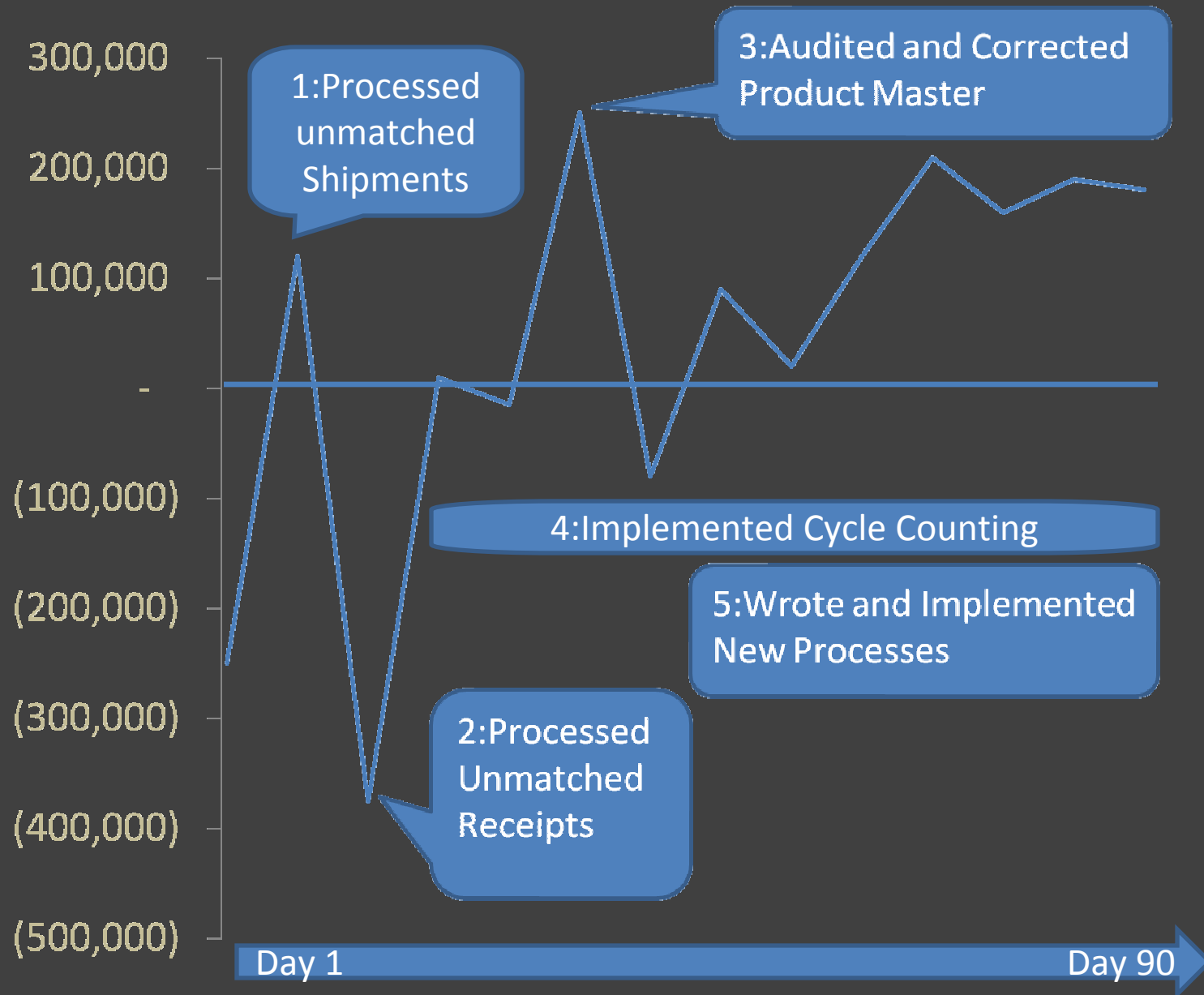
Action Items:

- Create project plan, Team Roles, and Responsibilities
- Setup Web Access for Client onsite resources
- Stop assigning inventory more than 24 hrs in advance
- De-pick all orders not shipping within 48 hours
- Count and consolidate damages
- Complete all known parallel transactions in SAP
- Cycle Count all locations and make adjustments in FW book
- Run Daily "Open Order Recon"
- Run weekly Book to Book variance report and report running variance
- Research variances using FW system transaction history
- Bring Client Inventory Specialist onsite for team workshop
- Update I/B and O/B work instructions based on lessons learned
- Create a week-ending reconciliation
- Create daily transaction reconciliation
- Create a Box-Order production schedule (Like and MRP/Work Order)
- Establish Weekly/Monthly/Quarterly cycle count program
- Create a weekly scorecard for the entire operation. What should be on it? E.g. Loads and pallets in/out, cycle counts, adjustments, order exceptions, on time shipping, order accuracy, pallets on hand.
- Conduct full inventory count
- Calculate \$ value of final variance
- Reconcile Book to Book and make SAP adjustments

So What Did We Do?

- Team Communication (Accounting, Sales, Operations, Procurement, Customer Service...)
 - Weekly Project Team Meeting, Daily book to book variance report
- Receiving
 - ASN, Dock Schedule, Directed Put Away, Put Away Audit
- Systems and Process (Value Stream Mapping)
 - Product Master, Lots, Rotation Protocol, Day end, Weekend, Month end
- Cycle Counting
 - Bin vs. Item, On Incident, Pick Front Count Back, Making Adjustments/Hold
- Shipping
 - Order Picking, Order Checking, OSD

Tracking the Results



What Do We Take Away From
This?

The Important Parts

- Work outside the drama and emotion
- Communicate, Tell the truth and Build Trust
- Use Project Management and Lean Principles
- Identify the problem before attempting to solve
- The technical part is easy...Focus on People and Process

Process is the Antidote for Chaos!

Michael Hammer

Resources

- White Paper: Inventory and Warehouse Management Best Practices: Cycle Counting. 5/21/2008 by Kevin Collins
- The Art of War, Sun Tzu, 496 BC
- “The Toyota Way”; Jeffrey Liker, 2004
- Anything by Ken Ackerman
- Publications in APICS, WERC, and IWLA

Questions?

Thank You!