

How to “GO THERE” with Dynamic Safety Stock

LaCrosse Footwear, Inc.

velocity

CONNECT + ACCELERATE + INNOVATE

Jean Herring

Director, Demand & Supply

Kyle Garcia

Demand Planning Manager

Brad Johnson

Senior Demand Planner

Introductions

- ▶ Jean Herring – Director Demand & Supply
- ▶ Kyle Garcia – Manager Demand Planning
- ▶ Brad Johnson – Senior Demand Planner

Agenda

- ▶ LaCrosse Footwear, Inc. Overview
- ▶ Our Logility Structure
- ▶ How to “Go There” with Dynamic Safety Stock
 - Custom Batch jobs
 - Challenges and Creative Solutions
 - Results
- ▶ Take aways for you!

LaCrosse Footwear, Inc.

LFI is a footwear manufacturer and importer headquartered in Portland, Oregon

We are a wholly owned subsidiary of ABC Mart in Japan.

Our core brands are:



Timeline

The Beginning

1932



1932 // Charles Danner opens the doors of Danner Shoe Mfg. Company in the old logging town of Chippewa Falls, Wis. with five employees to build affordable, handcrafted work boots.

Move to the Pacific Northwest

1936-1950



1936 // Charles discovers an opportunity to sell caked logging boots in the Pacific Northwest and decides to move his family and the Danner business to **Portland, Oregon**.

1939 // Charles's sons John and Bill join the family business. They both leave their studies at the University of Portland to serve in the military during World War II.

1940's // After the end of the war, John goes to law school and Bill focuses on making boots at Danner.

1950's // Bill expands the product line and opens the company's first retail store.

Birth of USA-Made Hiking Boots

1960-76



1960 // Hiking, backpacking and mountain climbing become national trends. Danner becomes one of the only domestic manufacturers of hiking boots.

1970 // Danner designs a medium-weight hiker for broader appeal and becomes the standard for performance, rugged durability and craftsmanship.

1973 // The Danner 6490 launches and delivers the perfect balance of minimal break in with heel and toe protection. This model would later become known as the **Mountain Light** and would launch an entire collection of classic hiking designs.

First Waterproof Boot with GORE-TEX Liner

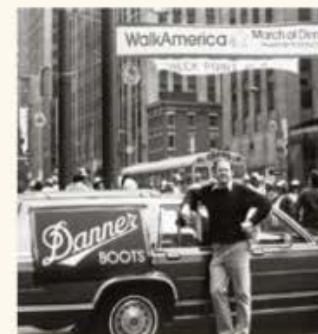
1979



1979 // Danner's unrelenting commitment to quality leads to the development of construction methods to make wet feet a thing of the past. Using **GORE-TEX** fabric, Danner is the first footwear brand to develop and patent a unique way of making a truly waterproof boot.

Change of Ownership

1983



1983 // After 50 years, Bill sells his company to Eric Merk under the condition that Eric follow the tradition of quality and craftsmanship the Danner family had built over the years. The company then moves to a new larger facility near the Portland airport.

Timeline

Specialty Boots for Military and Law Enforcement 1983-92



1983 // Danner expands into hunting footwear and building boots for uniformed personnel, including elite members of the **U.S. Armed Forces and law enforcement.**

1992 // The American Podiatric Medical Association awards Danner boots and Danner Airthotic with the **AMPA seal of acceptance**—yet another nod to the comfort of Danner footwear.

Merge with LaCrosse Footwear 1994



1994 // On March 14, Danner merges with LaCrosse Footwear Inc. of LaCrosse, Wis., to form a major force in the footwear industry. Since 1897, the LaCrosse brand has stood for premium-quality, handcrafted rubber footwear.

ISO 9002 Certification 1996



1996 // Danner becomes the first shoe manufacturer in the U.S. to earn ISO 9002 certification. This international set of quality standards helps assure customers that their Danner boots will be made to the highest standards for comfort, durability, support and waterproof protection.

Supporting our Troops 2010



2010 // Danner creates premium protective footwear, **co-developing and producing the new standard in combat boots** with the USMC RAT and Army Combat Hiker.

Growth and Expansion 2010-TODAY



2010 // The growth of Danner continues with the opening of a world-class 59,000 sq ft factory in Portland, Ore.

2012 // Danner is recognized as being one of the most desirable American fashion brands in the Japanese market.

2014 // The Danner Mountain Light Cascade makes its film debut in the **Fox Searchlight Pictures release of WILD.** Based on Cheryl Strayed's New York Times best-selling book, the film recounts her 1100-mile journey along the Pacific Crest Trail.

NOW // Danner continues to design and manufacture a complete line of hiking, hunting, uniform, work and lifestyle boots in its world-class factory in Portland, Ore.

Channel Complexity

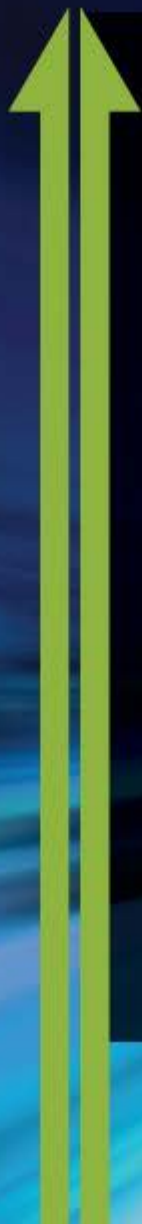
- ▶ DTC – brand websites and 5 branded retail locations
- ▶ Wholesale – National/Regional/Specialty
- ▶ Wholesale - International
- ▶ Government Contracts



Supply Chain

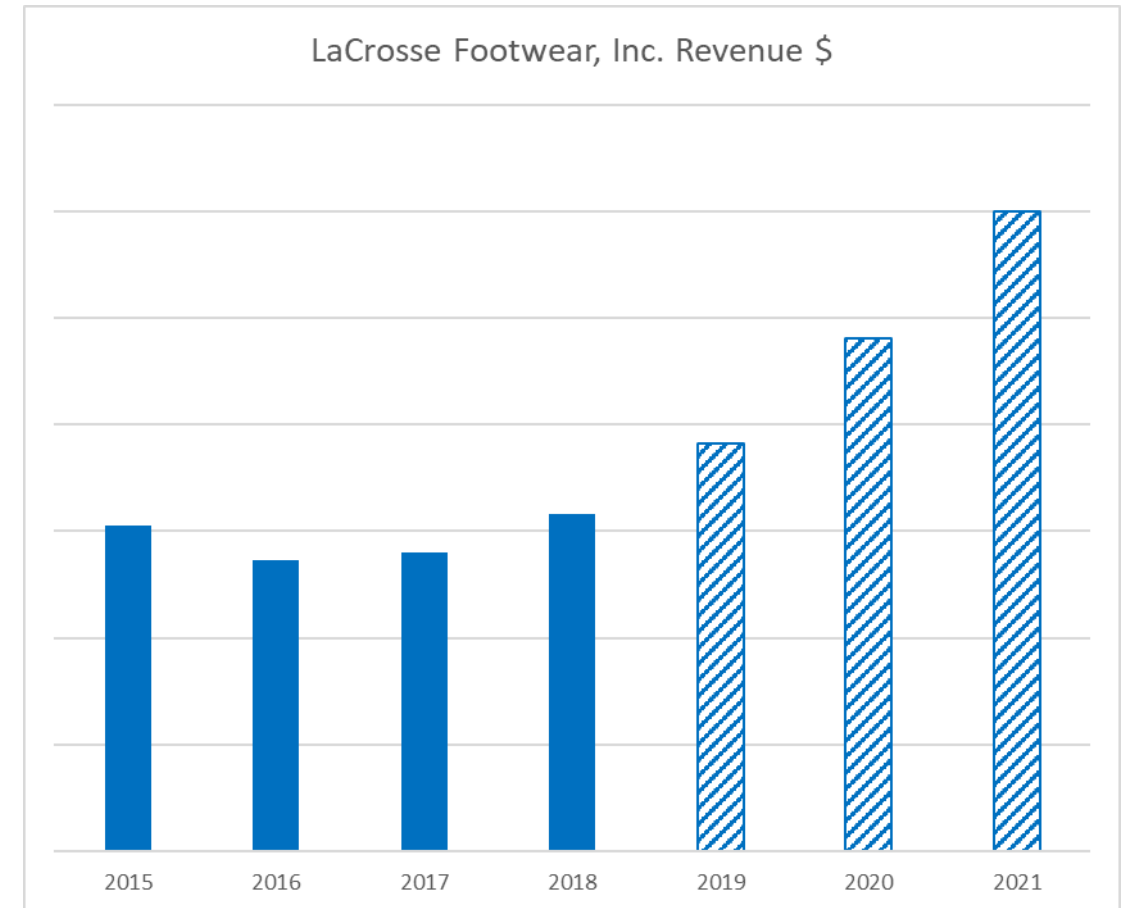
- ▶ Domestic manufacturing in Portland, OR
 - Finished goods
 - Sourced Uppers
- ▶ Eight contract manufacturing facilities in China, Vietnam and Cambodia
 - Currently no dual sourcing
- ▶ 2 DC's - 1 in Portland and 1 in Indiana
 - Currently no dual warehousing
- ▶ Lead times of 2-3 months (domestic) to 4-5 months (sourced)

Danner "Go There" brand video



“GO THERE”

- ▶ Historically stable and profitable ~ but flat and dependent upon military contracts
- ▶ 2018 YOY growth of 13% with focus on strategic categories, changes in Sales Rep structure and newly formed strategic partnerships
- ▶ Aggressive growth targets with YOY 25% increases
- ▶ Aim to double revenue by 2021!



How are we going to “GO THERE”?



- ▶ Increased marketing spend
- ▶ First ever overall Danner brand campaign
- ▶ Opening additional Danner stores (3 in 2019 and future plans for more)



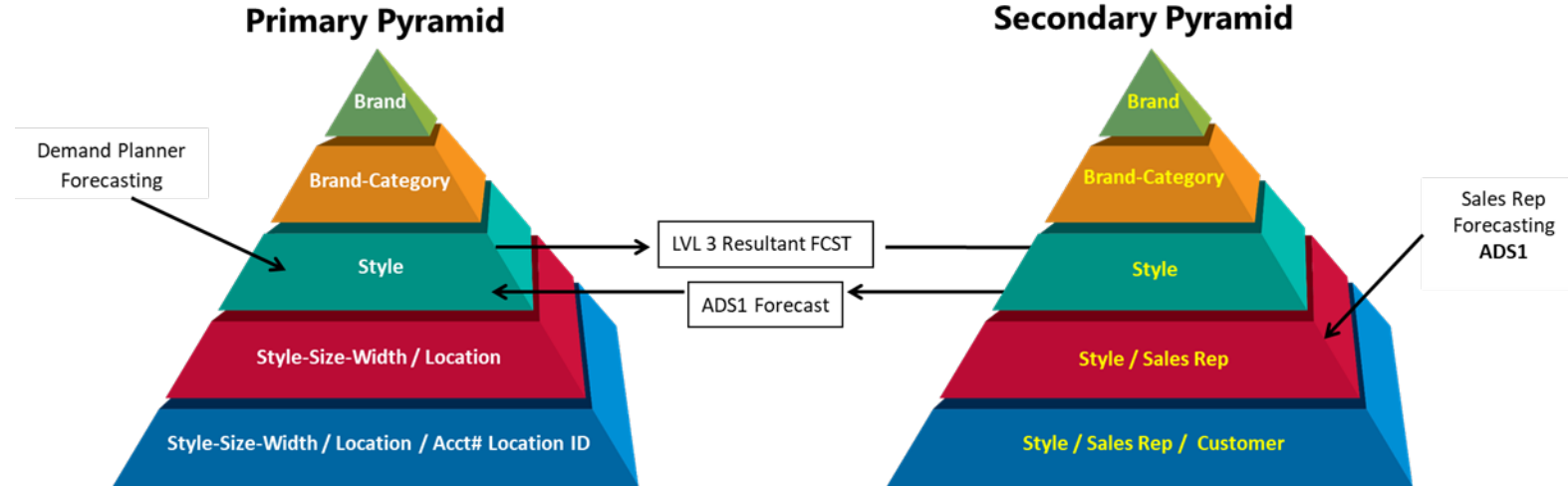
- ▶ Category focused Sales Rep organization
 - Core/Hike & Lifestyle
 - Key Account focus



- ▶ New European Agents
 - UK
 - Germany
 - Benelux
 - France

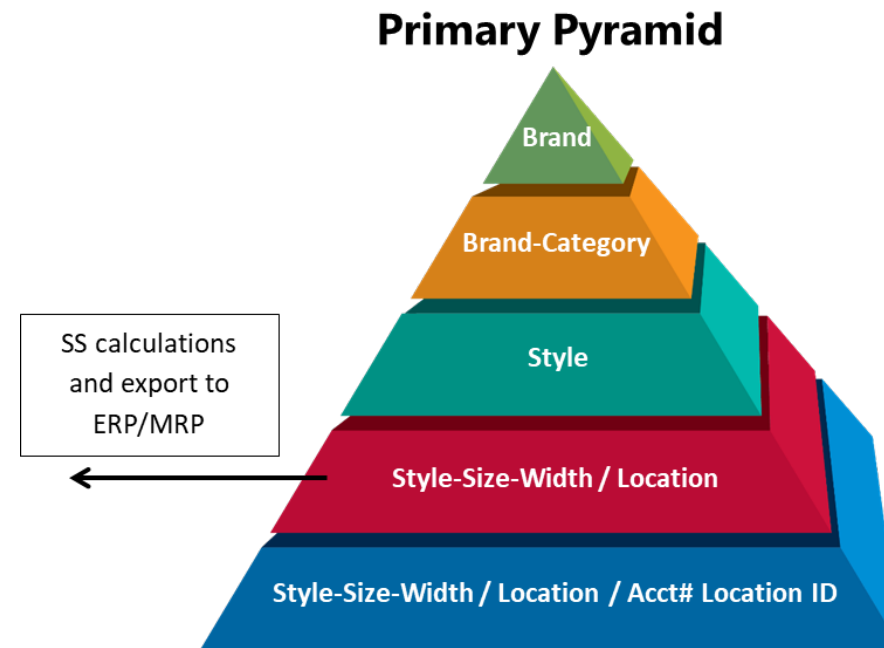
Logility Architecture

- ▶ DP module
- ▶ IP module
- ▶ Two pyramids
 - Primary – DP forecasting and ERP/MRP integration
 - Secondary – Sales Rep forecasting
 - Cross pyramid force L3 Style



Inventory Planning

- ▶ Primary Pyramid only
- ▶ Safety Stock calculations (Level 2)
 - Nightly Script
 - Ad hoc
- ▶ Automated weekly integration with ERP/MRP for inventory planning (Level 2)



So – how do we
dynamically
calculate
Safety Stock?

Our Tiered Approach

- Category Ranking
- Style Selling Behavior
- Multiple Service Levels

Category Ranking

- ▶ INVESTMENT – focused strategic growth initiatives, marketing support, untapped opportunity
 - Hike
 - Lifestyle
 - Hunt
 - Work

- ▶ CUSTOMARY – conventional, stable and established
 - Tactical
 - Military
 - Outdoor
 - Waders

Style Selling Behavior

- ▶ Bi-Annual Review
- ▶ **AT-ONCE** – highly replenished, strategic family, marketing support, vast customer buy-in
- ▶ **KEY** – new distribution, major introduction, but not quite as important as At-Once
- ▶ **STANDARD** – it is “ok” to have limited, short lived stock outs

Nightly Scripts

Options...

Script

Script

- ADHOC_MONTHLY
- ADHOC_NIGHTLY
- BATCH_DP_MONTH_1
- BATCH_DP_NIGHT_1
- BATCH_DP_NIGHT_2**

BATCH_DP_NIGHT_2

Script Description : NIGHTLY PROCESS NO ROLL STEP 2

Step	Remarks	Program	Description:	Run Option User	Run Option
1	<input type="checkbox"/>	Mass Maintenance		LPSUSER	BATCH_PMM_REMOVE_ABC_P3_SETTINGS
2	<input type="checkbox"/>	Cross Data Source Forcing		LPSUSER	BATCH_CPF_LEVEL_3
3	<input type="checkbox"/>	Calculate Forecasts		LPSUSER	BATCH_FCP_LVL2
4	<input type="checkbox"/>	Calculate Proportional Forecasts		LPSUSER	BATCH_PFC_LVL3_TO_LVL2
5	<input type="checkbox"/>	Force Forecasts		LPSUSER	BATCH_FIF_LVL3_TO_LVL1
6	<input type="checkbox"/>	Summarize Demand		LPSUSER	BATCH_SID_LVL3_TO_LVL5
7	<input type="checkbox"/>	Mass Maintenance		LPSUSER	BATCH_PMM_IP_PARAM_ASSIGN_V2
8	<input type="checkbox"/>	Mass Maintenance		LPSUSER	BATCH_DESUBSTITUTE_SS
9	<input type="checkbox"/>	Calculate Inventory Plan		LPSUSER	BATCH_ICP_PARAMETERS
10	<input type="checkbox"/>	Build Network Structure		LPSUSER	BATCH_BDR
11	<input type="checkbox"/>	Build Dependent Forecasts		LPSUSER	BATCH_BDF
12	<input type="checkbox"/>	Calculate Inventory Plan		LPSUSER	BATCH_ICP_SAFETYSTK
13	<input type="checkbox"/>	Export Planning Data		LPSUSER	BATCH_EXT_CLEAR_LVL4_USR_DATA_FIELDS
14	<input type="checkbox"/>	Export Planning Data		LPSUSER	BATCH_EXT_CLEAR_LVL5_USR_DATA_FIELDS
15	<input type="checkbox"/>	Spreadsheet Input Transactions		LPSUSER	BATCH_SSI_CLEAR_LVL4_USR_DATA_FIELDS
16	<input type="checkbox"/>	Spreadsheet Input Transactions		LPSUSER	BATCH_SSI_CLEAR_LVL5_USR_DATA_FIELDS

Custom
PMM IP PARAM
ASSIGN –
Category
Ranking

Customer Sign In | LFI Central - Home | Logility Voyager Home | Self Service | LFI Helpdesk | SMU Report

Welcome Herring, Jean

Selection Set ID: 0000000000 | As Of Date: 01/2019

Home | Demand | Inventory | Orders | Analytics | Workflow | Reports | Configuration | Master Data | Administration | Tools

Global Filter | Reason Code Maintenance | Scripts | Run Options | System Options | Forecast Parameters | Inventory Parameters | Profile Maintenance

Data Source: LVSDb_DP_PROD | Logility

Options...
 User:
 Program:
 Run Options:
 Select

Filter Selection
 User: kgarcia | Filter ID: No Filter

Group Selection
 Select Group User: LPSUSER | Set Groups: IP PARAM NEW | Options ...
 Print Report | Delete Preview.tmp

Run Options

Order	Set Description
<input type="checkbox"/>	1 CATEGORY-ASSIGN-1
<input type="checkbox"/>	2 CATEGORY-ASSIGN-2
<input type="checkbox"/>	3 CATEGORY-ASSIGN-3
<input type="checkbox"/>	4 CATEGORY-ASSIGN-4
<input type="checkbox"/>	5 CATEGORY-ASSIGN-5
<input type="checkbox"/>	6 CATEGORY-ASSIGN-6

Set Detail | Add | Copy | Save

Selection Set Maintenance

Set Group User: LPSUSER | Set Group: IP PARAM NEW

Set Description: CATEGORY-ASSIGN-1

Level Selection
 All | 1 | 2 | 3 | 4 | 5

Maintenance Criteria

And/Or	If	Operator	Compare Value
AND	Brand-Category (PG)	=	DANNER-HIKING
OR	Brand-Category (PG)	=	DANNER-LEATHERWRK
OR	Brand-Category (PG)	=	DANNER-LEATHERHNT

Change Criteria

Then Change	Change Value	From Period/Year	To Period/Year
SS Category (UD30)	INVESTMENT	0	0

Custom
PMM IP PARAM
ASSIGN –
Selling
Behavior

Welcome Herring, Jean | Selection Set ID: 0000000000 | As Of Date: 01/2019

Home Demand Inventory Orders Analytics Workflow Reports **Configuration** Master Data Administration Tools

Global Filter Reason Code Maintenance Scripts **Run Options** System Options Forecast Parameters Inventory Parameters Profile Maintenance

Data Source: LVSDP_DP_PROD | Logility

Options...

User: | Program: | Run Options: | **Select**

Run Options

- ADHOC_PMM
- BATCH_DESUBSTITUTE_SS
- BATCH_INHIBIT_DUAL_WARE
- BATCH_PMM_IP_PARAM_ASS
- BATCH_PMM_IP_PARAM_ASS**
- BATCH_PMM_LIFECYCLE_MAI
- BATCH_PMM_P3_PROFILE_AS
- BATCH_PMM_REMOVE_ABC_I

Filter Selection

User: kgarcia | Filter ID: No Filter

Group Selection

Select Group User: LPSUSER | Set Groups: IP PARAM NEW | **Options ...**

Print Report | Delete Preview.tmp

Set Maintenance Table

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Order	Set Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8	SS-INVESTMENT-AO
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9	SS-INVESTMENT-KEY
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10	SS-INVESTMENT-STANDARD
<input type="checkbox"/>	<input checked="" type="checkbox"/>	11	SS-CUSTOMARY-AO
<input type="checkbox"/>	<input checked="" type="checkbox"/>	12	SS-CUSTOMARY-KEY
<input type="checkbox"/>	<input checked="" type="checkbox"/>	13	SS-CUSTOMARY-STANDARD
<input type="checkbox"/>	<input checked="" type="checkbox"/>	14	SS-INVEST-NEW
<input type="checkbox"/>	<input checked="" type="checkbox"/>		SS-CUSTOMARY-NEW

Selection Set Maintenance

Set Group User: LPSUSER | Set Group: IP PARAM NEW

Set Description: SS-INVESTMENT-AO

Level Selection

All | 1 | 2 | 3 | 4 | 5

Maintenance Criteria

And/Or	If	Operator	Compare Value
AND	SS Category (UD30)	=	INVESTMENT
AND	Class (UD03)	=	AT-ONCE
AND		=	

Change Criteria

Then Change	Change Value	From Period/Year	To Period/Year
4th Choice Parameter Key	SS-INVESTMENT-AO	0	0

Custom
PMM IP PARAM
ASSIGN –
4th Choice
Parameter
Key

Welcome Herring, Jean | Selection Set ID: 0000000000 | As Of Date: 01/2019

Home | Demand | Inventory | Orders | Analytics | Workflow | Reports | **Configuration** | Master Data | Administration | Tools

Global Filter | Reason Code Maintenance | Scripts | **Run Options** | System Options | Forecast Parameters | Inventory Parameters | Profile Maintenance

Data Source: LVSDP_DP_PROD | Logility

Options...

User: | Program: | Run Options: | **Select**

Run Options

- ADHOC_PMM
- BATCH_DESUBSTITUTE_SS
- BATCH_INHIBIT_DUAL_WARE
- BATCH_PMM_IP_PARAM_ASS
- BATCH_PMM_LIFECYCLE_MAI
- BATCH_PMM_P3_PROFILE_AS
- BATCH_PMM_REMOVE_ABC_I

Filter Selection

User: kgarcia | Filter ID: No Filter

Group Selection

Select Group User: LPSUSER | Set Groups: IP PARAM NEW | **Options ...**

Print Report | Delete Preview.tmp

Table:

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Order	Set Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7	SS-INVESTMENT-AO
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8	SS-INVESTMENT-KEY
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9	SS-INVESTMENT-STANDARD
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10	SS-CUSTOMARY-AO
<input type="checkbox"/>	<input checked="" type="checkbox"/>	11	SS-CUSTOMARY-KEY
<input type="checkbox"/>	<input checked="" type="checkbox"/>	12	SS-CUSTOMARY-STANDARD
<input type="checkbox"/>	<input checked="" type="checkbox"/>	13	SS-INVEST-NEW
<input type="checkbox"/>	<input checked="" type="checkbox"/>	14	SS-CUSTOMARY-NEW

Selection Set Maintenance

Set Group User: LPSUSER | Set Group: IP PARAM NEW

Set Description: SS-INVESTMENT-AO

Level Selection

All | 1 | 2 | 3 | 4 | 5

Maintenance Criteria

And/Or	If	Operator	Compare Value
AND	SS Category (UD30)	=	INVESTMENT
AND	Class (UD03)	=	AT-ONCE
AND		=	

Change Criteria

Then Change	Change Value	From Period/Year	To Period/Year
4th Choice Parameter Key	SS-INVESTMENT-AO	0	0

ICP PARAMETERS – TIERED APPROACH

Level 2 Options...

Item

Location

Select

- 41550-10.0D 2
- Location
- IN
- IN DDO
- + 41550-10.0EE
- + 41550-10.5D 2
- + 41550-10.5EE
- + 41550-11.0D 2
- + 41550-11.0EE
- + 41550-11.5D 2
- + 41550-11.5EE
- + 41550-12.0D 2
- + 41550-12.0EE
- + 41550-13.0D 2
- + 41550-13.0EE
- + 41550-14.0D
- + 41550-14.0EE
- + 41550-15.0D

Grid

41550-10.0D IN - VITAL 8" BROWN

Pivot Format... Export...

	2/19	3/19	4/19	5/19	6/19	7/19	8/19	9/19	10/19	11/19	12/19	1/20	Total
Dependent Forecast	0	0	0	0	0	0	0	0	0	0	0	0	0
Resultant Forecast	68	60	52	52	121	200	160	281	182	134	136	154	1600
Order Quantity	66	60	54	54	120	198	162	282	180	132	138	156	134
Reorder Point	427	536	634	841	1047	1119	1029	1079	853	759	695	630	804
Safety Stock	96	87	78	78	136	186	160	220	178	148	145	155	139
Available Service	75.44	75.56	76.56	76.58	75.41	75.40	75.65	75.01	75.71	75.72	75.74	75.50	75.69
Build Inventory	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Goal Inventory	129	117	105	105	196	285	241	361	268	214	214	233	206
Turn Rate	12.4	13.8	16.0	16.1	8.7	6.2	7.8	5.6	7.3	9.3	9.3	8.6	10.1
Inventory Weeks	4.2	3.8	3.2	3.2	6.0	8.4	6.7	9.3	7.1	5.6	5.6	6.0	5.8
Promotion Lift Quantity	0	0	0	0	0	0	0	0	0	0	0	0	0
Promoted Resultant Forecast	68	60	52	52	121	200	160	281	182	134	136	154	1600

Chart | Detail Data

Descriptive: Inventory Build | Replenishment Controls | Inventory Status | Inventory Movement | Order Quantity | Safety Stock | Reorder Pt/ Inv Std

Entire Key: 41550-10.0D IN | Description: VITAL 8" BROWN

Description:

DRP Planner:

DRP Run Date: 1/1/1900

Period/Year Last Computed Inventory Plan: 01/2019

Date Last Computed Inventory Plan: 1/31/2019

Date Last Computed Stochastic Replenishment Plan: 1/1/1990

Dependent Std Deviation: 0.00

Dependent Variance: 0.00

Variance Law Periods:

Inventory Parameter Keys

1st Choice:

2nd Choice:

3rd Choice:

4th Choice: SS-INVESTMENT-STANDARD

Inventory Optimization:

ICP SAFETY STOCK

Global Filter Reason Code Maintenance Scripts Run Options System Options Forecast Parameters Inventory Parameters Profile Maintenance

Data Source: LVSD8_DP_PROD Alerts: Logility

Options... Parameters Select

Parameters

2
 DEFAULT
 SS-62241-75-DAYS
 SS-ACTIVE-II
 SS-CUSTOMARY-AO
 SS-CUSTOMARY-KEY
 SS-CUSTOMARY-NEW
 SS-CUSTOMARY-STANDARD
 SS-DAYS-OF-FCST-60
 SS-FGMFG-60%
 SS-FIXED-00
 SS-FIXED-200
 SS-FIXED-24
 SS-INVESTMENT-AO
 SS-INVESTMENT-KEY
 SS-INVESTMENT-NEW
 SS-INVESTMENT-STANDARD

Inventory Parameters Save Refresh

SS-INVESTMENT-STANDARD Description: STANDARD INVESTMENT

ROP/Standard/Movement: Order Quantity/Safety Stock DRP/Deployment Build

Order Quantity

Order Quantity: Sum of Forecast For X days
 Order Method: 1
 Order Multiple: No Calculation
 Min Max Type: Not Inhibited
 Min Max Inhibit: Not Inhibited

Quantity/Days/Turns: 28.00
 Minimum: 0
 Maximum: 0

Additional Data

Item Order Cost: 50.0000 Carrying Cost Factor: 0.20
 EOQ K Value: 0.00 Annual Capacity: 0
 Batch Adjustment Factor: 0.00
 EOQ Discount Breaks
 Discount Quantity 1: 0 Discount Cost 1: 0.00000
 Discount Quantity 2: 0 Discount Cost 2: 0.00000
 Discount Quantity 3: 0 Discount Cost 3: 0.00000

Safety Stock

No Value:

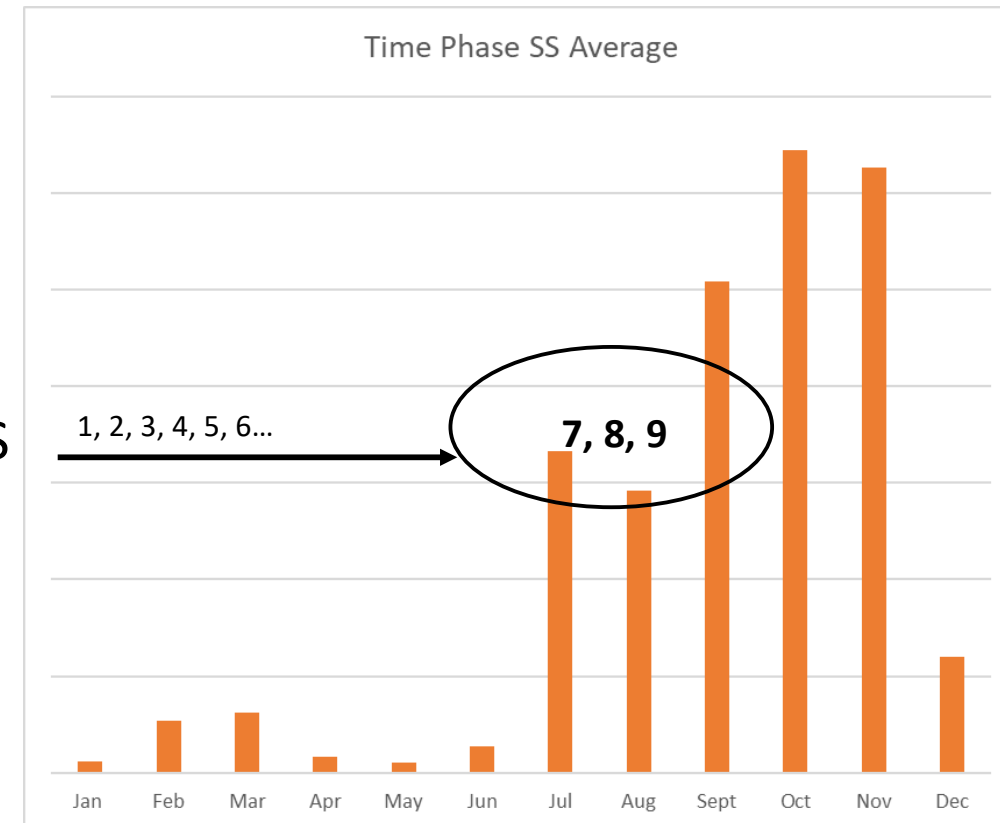
Effective Year Period YYYYPP	Method	Days/Order	Lead Time %	Avg Qty per Trans	Min Max Type	Safety Stock Minimum	Safety Stock Maximum	Min Max Inhibit
<input checked="" type="checkbox"/> 200801	Service Level	75.00	0.00	0.00	Days	14	164	Not Inhibited
<input type="checkbox"/>					No Calculation	0	0	Not Inhibited
<input type="checkbox"/>					No Calculation	0	0	Not Inhibited
<input type="checkbox"/>					No Calculation	0	0	Not Inhibited
<input type="checkbox"/>					No Calculation	0	0	Not Inhibited

ICP
PARAMETERS –
TIERED
APPROACH

Forecast Parameter	Description	Service Level	Min Days	Max Days	Logility Batch_PMM_IP_PARA M_ASSIGN_V2
SS-INVESTMENT-AO	At Once Style - all SKUs	95%	14	164	7
SS-INVESTMENT-KEY	Key Style - all SKUs	85%	14	164	8
SS-INVESTMENT-STANDARD	Standard Style - all SKUs	75%	14	164	9
SS-CUSTOMARY-AO	At Once Style - all SKUs	85%	14	84	10
SS-CUSTOMARY-KEY	Key Style - all SKUs	75%	14	84	11
SS-CUSTOMARY-STANDARD	Standard Style - all SKUs	60%	14	84	12
SS-INVESTMENT - NEW	New Style With Safety Stock	28 days of fcst	N/A	N/A	13
SS-CUSTOMARY-NEW	New Style With Safety Stock	60%	7	28	14
SS-ACCESSRIES	Socks and Accessories	60%	N/A	N/A	15
SS-ACTIVE-II	All Active II styles	28 days of fcst	N/A	N/A	16
SS-FGMFG-TEMP	All PDX Finished Goods/Non-SU	60%	0	28	17
SS-INHIBIT-NOSS	No SS	0%	N/A	N/A	18
SS-SMU-NOSS	SMU - No SS	0%	N/A	N/A	19
SS-DEP-CLOSE-DISC-NOSS	Phase Out/Disc/Closeout - No SS	0%	N/A	N/A	20
SS-PHASEOUT-NOSS	Phase Out/Disc/Closeout - No SS	0%	N/A	N/A	21

GETTING CREATIVE

- ▶ We now have dynamic, automated, statistically calculated, time phased Safety Stock!
- ▶ **YEA!**
- ▶ **However.....**our MRP system does not allow for more than 1 item “minimum”
 - *Remember we do not have license to RP...yet! 😊*
- ▶ SQL script that averages the rolling 7th,8th, 9th month’s SS
- ▶ Accounts for seasonality and period we are buying to
- ▶ React more quickly to seasonal increase/decrease in SS



RESULTS



Flexible tiered approach, automated, statistical



Supported 13% revenue growth 2018

- Overall company cancellation rate due to inventory outage is ~ 4%
- 3 day average Fill Rates improved from 64% to 70%



2018 Ending Inventory down \$4M (9% YOY)

TAKE AWAYS



Get creative with your mass maintenance and batch jobs



Think of ways to overcome integrated system limitations



Manage SS settings to your business needs

e.g. ABC ranking by SKU, product family, color importance, etc.



THANK YOU

and **Go There!**

danner.com

lacrossefootwear.com