

IBM Software Information On Demand 2012

October 21 - 25

Mandalay Bay | Las Vegas, NV

How Manufacturers Use the IBM Cognos Sales and Operations Planning (S&OP) Performance Blueprint

Session Number 3162

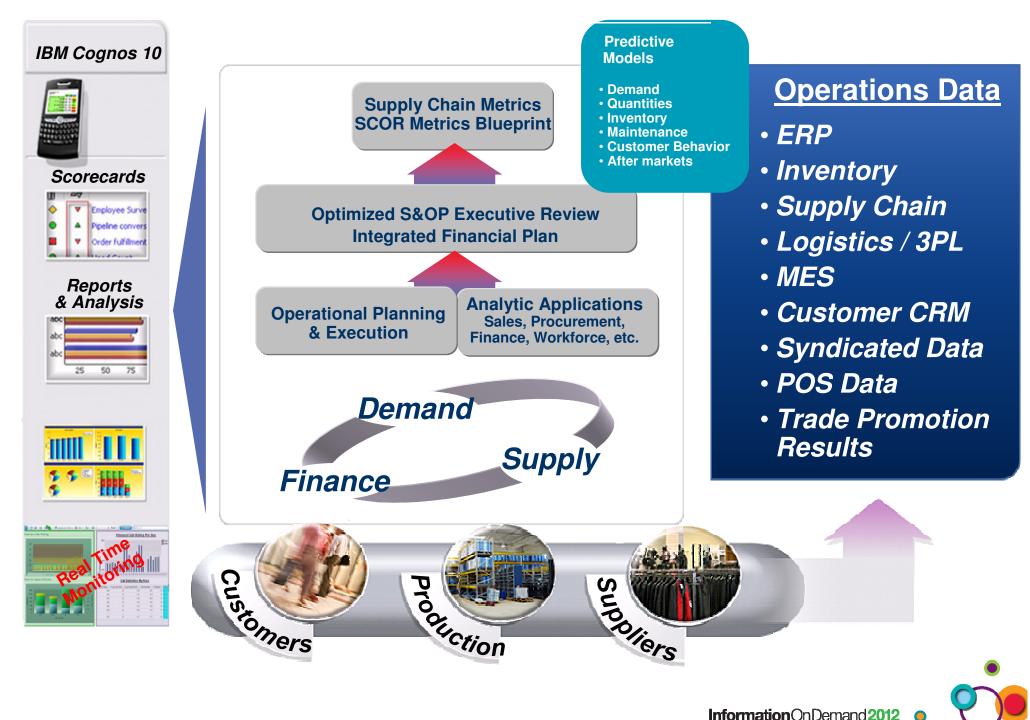
Paul Hoy, IBM Business Analytics Dan Barrett, IBM Business Analytics



Industrial Sector Performance Management



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Even small improvements in the S&OP process yield significant gains

Integration of financial, forecast, and operational data is key to improved customer service

"Overwhelming" gains in gross margin performance

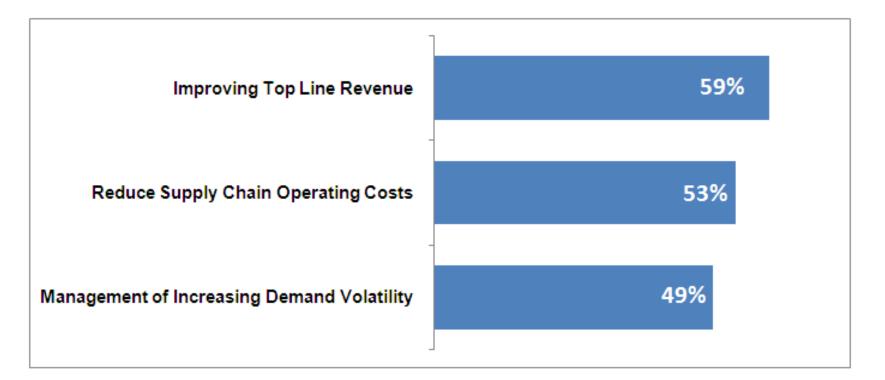


Source: Ventana Research

Sales and Operations Planning is critical to overcoming key industry challenges



- Sales and Operations Planning (S&OP) is the key integrated process that supply chain organizations can leverage to achieve visibility and transformation throughout the value chain.
- Key pressures competing against each other amidst increased global supply chain complexity



Aberdeen's S&OP Study Results – Key pressures based on 196 companies involved in S&OP-related initiatives.



Analytics for Sales and Operations Planning



Description

An integrated Sales and Operations Planning solution that allows an organization to combine disparate data sources, review and update unconstrained demand scenarios, compare that demand to supply constraints, drive to a balanced consensus demand and supply plan whilst continuously monitoring the financial impacts of those scenarios and final plans.

Business Challenges

- Client's processes for reconciling Supply, Demand and financial impact are loosely connected and do not exploit analytics and optimization technologies to identify the "best" plan for the company.
- Wide spread use of manual process, Excel and PowerPoint no scenario or financial analysis provided.
- Disparate data sources with time consuming data manipulations
- Planning and review processes many times exceed the production time.

Business Outcomes

- Reduce inventory
- Improve cash flow
- Improve Forecast accuracy
- Improve customer service
- Simulate various alternatives to balance customer service, operational, and financial performance



IBM Business Analytics Innovation Center



Demand Planning and Operations Planning Blueprints linked to form the **S&OP Blueprint Suite**

Pre-packaged models that support "what-if simulation" in demand, supply, and financial plans allow effective visibility and trade offs between customer service, operational efficiency, and finance goals.

Performance Blueprints

- •Leverage Best Practices
- •Models, Templates, Reports
- •Support critical business processes
 - Functional
 - Industry-focused

Thought Leadership

- Opinion Leader Articles
- Business Value Guides
- Application Briefs



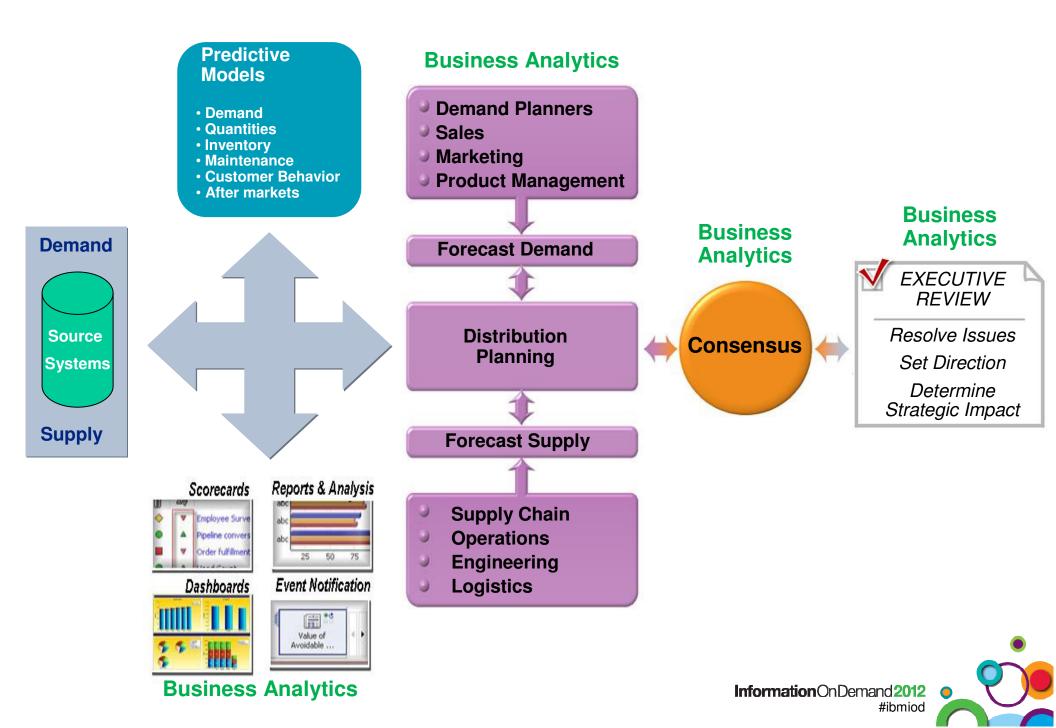
Operational Effectiveness driven by Sales & Operations Planning (S&OP)



- Integrate sales, supply chain, and finance to collaborate on strategy and institute a financially-driven S&OP process
- Enables collaboration on a single statement of demand and reconciliation of demand to supply plans
- Provides capacity, material, throughput and financial modeling of multiple products across multiple plants to meet the demand plan.
- Facilitates plan creation, seeding of base plans, periodic executive review and balancing the plan with financial targets
- Model and respond quickly to demand and supply changes to determine the impact and trade-off among customer, supply and financial decisions
- Continuously monitors the plan using scorecarding and analytics, making 'righttime' adjustments as needed
 - Plan vs. actual performance for sales, revenue, COGS, inventory, customer delivery, and gross margin metrics
- Generates Pro-Forma Financial Plans based on multiple scenarios
- Provide the views and detail appropriate to each role
 - Units, revenue, COGS, margin, production hours and utilization, critical components
- Leverage investment in transaction systems with integration that provides analysis of actuals, simulation and optimization of outcomes
- Link operational planning to strategic goals

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IBM Business Analytics S&OP Solution



Becker Underwood Streamlines Global Operations and Refines Supply Chain Management



Business Objectives

- Reduce number of reporting systems, streamline infrastructure, and optimize data assets for global consistency and timeliness
- Improve supply chain operations for inventory optimization
- Synchronize global communication and collaboration both internally and externally with customers and suppliers

Becker Underwood is a

global multinational company that develops and produces a wide range of agricultural and horticultural solutions for turf management, agriculture, seed treatment, vegetation management, forestry, pest control, and many other industries

Results

- 50% increase in inventory turns
- 15% improvement in forecasting accuracy
- Improved visibility into supply chain operations provides marketing, sales, and operational users with better planning information.
- Forecasting conversations transformed to more timely and accurate business predictions based on the most current information.
- Improved ability to manage and control inventory and overall supply chain.



INVENTORY

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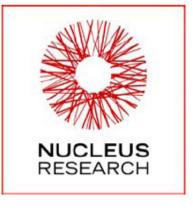
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Becker Underwood Return on Investment





Independent analysis by Nucleus Research:

- ROI: 383%
- Payback: 4 months



Better discounts from suppliers due to improved communication and raw material forecasts



Inventory reduction due to better forecasts

Timely ordering of supplies and better delivery to customers



"Our investment in business intelligence and analytics has really paid dividends for our Company. The forecasting and planning processes between our operations and sales teams now run much more seamlessly, and the real time information that is available to us is invaluable. These are innovations that we have come to rely on, have adopted quickly, and have become an integral part of our company."

> Peter Innes, Chief Executive Officer, Becker Underwood



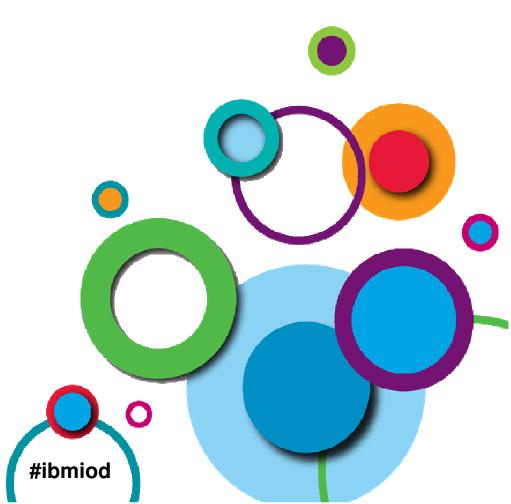


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Demonstration



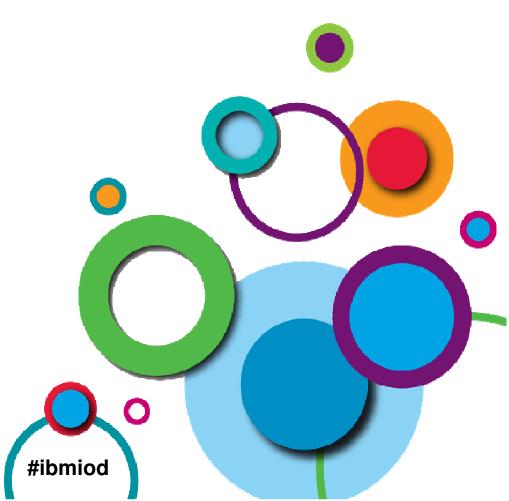


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Questions



We Value Feedback – Submit YOUR Survey!!!

- Access SmartSite to complete your session surveys
 - Any web or mobile browser at iodsmartsite.com
 - SmartSite applications for iPhone, iPad, Droid and Blackberry
 - Any SmartSite kiosk onsite
- Each completed session survey increases your chance to win an Apple TV with daily drawings sponsored by Alliance Tech





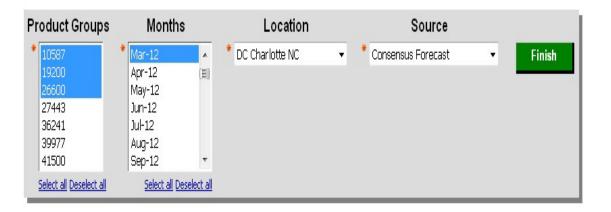
	é	IBM	Cognos	Viewer -	S&OP	Dashboard
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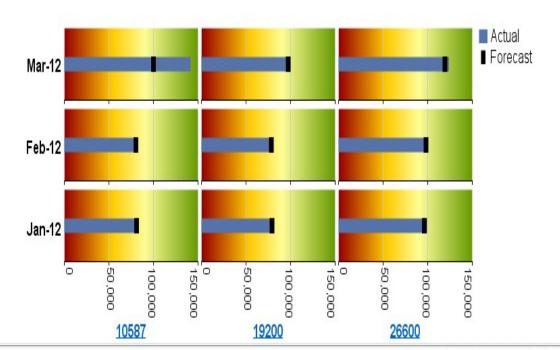
BIN Cognos Viewer - SoloP Dashboard			
	S&OP D	Dashboard	
Business Process Flows Demand Planning	Demand and Supply Plan Synchronization Critical Components Revie	view Financial Review	d ک
Top/Bottom Products Top/Bottom Product	cts Report Actual vs Forecast Variance Drive to Consensus Demand	nd Analysis Gross Margin Consensus Plan Forecast Accuracy	Forecast Velocity
	Top Products for DC Char	rlotte NC in Feb-12 by Units	
	Location Months Version	Order Measure Products	
	Control Apr-12 Control Apr-12 Control Apr-12 Control Apr-12 Control Apr-12 Control Jun-12 Control Jun-12 Control Jun-12 Control Jun-12	O Top O Bottom C Bottom C Gross Revenue O Cost of Sales O Gross Margin	
	Feb-12 25,000 ue Cost of Sales Gross Margin	Products 1,200,000	Products, Gross Margin 27443-36003-00
27443-36003-00 21,909 \$1,569,34 26600-74343-06 21,439 \$1,681,03 26600-74372-06 21,384 \$1,994,27 27443-36022-00 20,732 \$1,184,00 10587-14121-00 18,443 \$2,204,30 10587-14114-00 18,146 \$1,536,05 19200-00027-06 18,029 \$1,683,08 19200-00080-15 17,682 \$1,397,40 27443-36035-00 17,387 \$1,129,98 26600-74352-06 15,922 \$1,374,70	41 \$631,417 \$937,924 20,000 31 \$952,535 \$728,496 15,000 71 \$1,051,450 \$942,821 15,000 05 \$539,861 \$644,144 y 08 \$774,420 \$1,429,888 5 59 \$688,459 \$847,600 10,000 80 \$782,098 \$900,982 5,000 09 \$693,134 \$704,275 5,000 81 \$459,713 \$670,268 \$670,268	26600-74372-06 27443-36022-00 10587-14121-00 19200-00027-06 19200-00027-06 19200-00080-15 27443-36035-00 26600-74352-06 0 0 0 0 0 5 0 0 0 0 5 0 0 0 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0	26600-74343-06 26600-74372-06 27443-36022-00 10587-141121-00 10587-14114-00 19200-00027-06 19200-00080-15 27443-36035-00 26600-74352-06





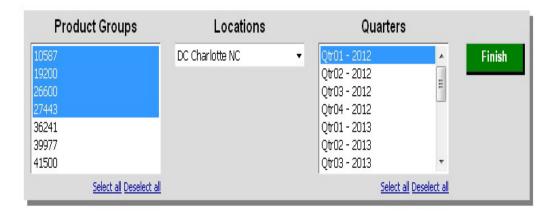
Actual vs Forecast Variance Analysis







Forecast Accuracy for DC Charlotte NC



	V	Veek09 - 20	12		<u>Week10 - 2</u>	012		Week11 - 20)12	Ī	Neek12 - 20)12		Week13 - 2012				
Product Groups	Actual	Forecast	Var %	Actual	Forecast	Var %	Actual	Forecast	Var %	Actual	Forecast	Var %	Actual	Forecast	Var %			
<u>10587-14121-00</u>	4,348	4,348	0.0%	12,0	00 4,248	-182.5%	11,000	4,151	-165.0%	3,696	4,055	8.9%	3,611	3,962	8.9%			
<u>10587-14115-00</u>	2,500	2,500	0.0%	4,6	88 2,500	-87.5%	4,688	2,500	-87.5%	4,688	2,500	-87.5%	4,688	2,500	-87.5%			
<u>10587-14114-00</u>	4,562	4,562	0.0%	5,8	08 4,573	-27.0%	5,781	4,583	-26.1%	5,794	4,594	-26.1%	5,808	4,605	-26.1%			
<u>10587-14329-00</u>	3,677	3,677	0.0%	4,9	3,804	-31.0%	4,656	3,935	-18.3%	4,817	4,071	-18.3%	4,983	4,211	-18.3%			
<u>10587-14428-00</u>	968	968	0.0%	2,3	14 963	-140.3%	2,765	958	-188.7%	4,875	952	-411.8%	4,121	947	-335.0% 🔴			
<u>10587-14527-00</u>	1,100	1,100	0.0%	1,1	00 1 ,100	0.0%	0 1,100	1,100	0.0% 🔵	1,100	1,100	0.0%	0 1,100	1,100	0.0%			
<u>10587-14916-00</u>	1,706	1,706	0.0%) 1,6	48 1,648	0.0%	1,766	1,592	-10.9% 🔴	1,706	1,538	-10.9%	1,648	1,486	-10.9%			
<u>10587-15128-00</u>	537	537	0.0%	6	44 544	-0.1%	531	550	3.5% 🔵	537	557	3.5%	544	563	3.4% 🔵			
<u>10587-16125-00</u>	331	331	0.0%	0 3	28 328	0.0%	334	325	-2.8%	331	322	-2.8%	328	319	-2.8%			

Forecast Unit Velocity for Week14 - 2012



Product: 10587-14121-00

Locations	Week14 - 2012	Week15 - 2012	Variance
DC Charlotte NC	3,677	3,593	(84)
DC Boston MA	3,054	3,017	(37)
DC Atlanta GA	2,639	2,639	0

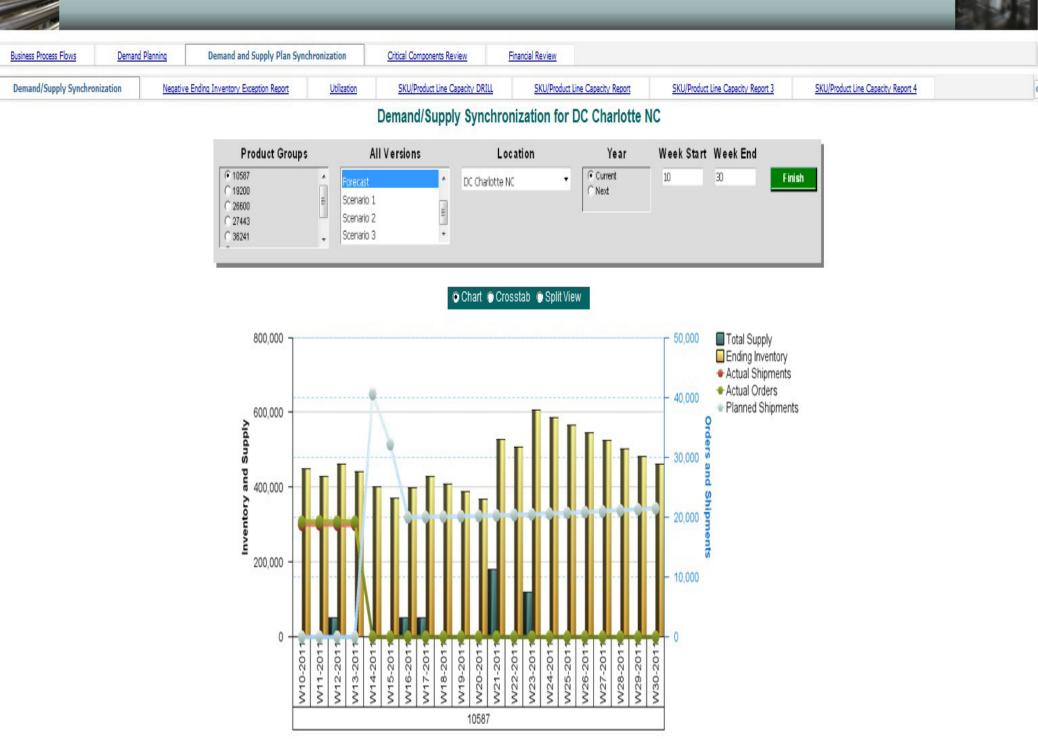
Product: 10587-14115-00

Locations	Week14 - 2012	Week15 - 2012	Variance
DC Charlotte NC	2,375	2,375	0
DC Boston MA	2,041	2,062	21
DC Atlanta GA	1,319	1,319	0

Product: 10587-14114-00

Locations	Week14 - 2012	Week15 - 2012	Variance
DC Charlotte NC	4,384	4,394	10
DC Boston MA	2,373	2,318	(55)
DC Atlanta GA	2,375	2,375	0





Business Process Flows	Demand Planning	Demand and Supply Plan Synch	ronization	Critical Components Review	Financial Review			
Demand/Supply Synchronization	Negative En	ding Inventory Exception Report	Utilization	SKU/Product Line Capacity DRILL	SKU/Product Li	ne Capacity Report	SKU/Product Line Capacity Report 3	SKU/Product Line Capacit

Negative Inventory Report for DC Charlotte NC

All Versions	Distribution Center	Year	Week Start	Week End	
Actual Budget <mark>Forecast</mark> Scenario 1 Scenario 2 Scenario 3	DC Charlotte NC 🔻	Current Next	10	30	Finish

Weeks	Products	Ending Inventory
W12-2011	19200-00027-06	(1,875)
W13-2011	19200-00027-06	(6,272)
W14-2011	10587-14121-00	(15,711)
	19200-00027-06	(11,874)
W15-2011	10587-14121-00	(31,711)
W17-2011	36241-00294-06	(532)
W18-2011	36241-00294-06	(1,237)
W19-2011	26600-74352-06	(2,551)
	36241-00294-06	(1,931)
W20-2011	36241-00294-06	(2,678)
	36241-02500-08	(190)
W21-2011	36241-00294-06	(3,548)

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Business Process Flows Demand F	Planning	Dema	nd and Su	pply Plan 9	5 <mark>ynchron</mark> i	zation	<u>(</u>	Critical Com	ponents Re	view	Ein	ancial Revie	ew										4
Demand/Supply Synchronization	Negative Ending In	nventory Ex	xception Re	port	Util	ization		SKU/Produ	ct Line Cap	acity DRILL		SKU/Pro	duct Line Ca	apacity Rep	oort	SKU	I/Product Lir	ne Capacity	(Report 3		SKU/Proc	luct Line Ca	pacity Re
						F	Plant	Utiliza	tion f	or Ch	arlott	e NC											
			All Ve	rsions		P	roducti	on Plar	ıt))	⁄ear	We	ek Starl	t Weel	End			ř.					
		Actual Budge <mark>Forec</mark> a Scena Scena	et ast erio 1 erio 2			Charlot	tte NC		•	© Curre	ent	10		30		Fin	ish						
Charlotte NC		W10- 2011	W11- 2011	W12- 2011	W13- 2011	W14- 2011	W15- 2011	W16- 2011	W17- 2011	W18- 2011	W19- 2011	W20- 2011	W21- 2011	W22- 2011	W23- 2011	W24- 2011	W25- 2011	W26- 2011	W27- 2011	W28- 2011	W29- 2011	W30- 2011	Total
-Req'd Capacity - Hrs Available	Required Capacity - Hours Production Hours Available	31.8 350.0	31.8 350.0	307.8 350.0	31.8 350.0	6.6 438.0	266.6 510.0	136.6 510.0	56.6 438.0	6.6 350.0	6.6 350.0	286.6 350.0	697.6 350.0	6.6 350.0	171.6 350.0	75.6 350.0	106.6 350.0	6.6 350.0	6.6 350.0	6.6 350.0	6.6 350.0	6.6 350.0	2,259.4 7,846.0
	Hours (Over)/Under Capacity	318.2	318.2	42.2	318.2	431.4	243.4	373.4	381.4	343.4	343.4	63.4	(347.6)	343.4	178.4	274.4	243.4	343.4	343.4	343.4	343.4	343.4	5,586.6
Line 01	Required Capacity - Hours	0.0	0.0	100.0	0.0	0.0	0.0	130.0	50.0	0.0	0.0	0.0	201.0	0.0	165.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	746.0
- Req'd Capacity - Hrs Available	Production Hours Available	80.0	80.0	80.0	80.0	168.0	240.0	240.0	168.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	2,176.0
	Hours (Over)/Under Capacity	80.0	80.0	(20.0)	80.0	168.0	240.0	110.0	118.0	80.0	80.0	80.0	(121.0)	80.0	(85.0)	80.0	(20.0)	80.0	80.0	80.0	80.0	80.0	1,430.0
Line 05	Required Capacity - Hours	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	493.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	568.8
— Req'd Capacity — Hrs Available	Production Hours Available	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	1,680.0
	Hours (Over)/Under Capacity	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	(413.8)	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	1,111.2

Business Process Flows	Demand Planning	Demand and Supply Plan	Synchronization	Critical Components Review	Financial Review		
Demand/Supply Synchronization	Negative Endir	ng Inventory Exception Report	Utilization	SKU/Product Line Capacity DRILL	SKU/Product Line Capacity Report	SKU/Product Line Capacity Report 3	SKU/Product Line Capacity
		S	KU/Product	Line Capacity Report	for DC Charlotte NC		

		Distrib	Distribution Center		Production Plant		nt	Product SKUs			Year		Week Start Week End			ł							
	Budget Forecast Scenario 1 Scenario 2 Scenario 3		DC Char	lotte NC	▼ (Charlotte M	NC		10587-141 10587-141 10587-141 10587-143 10587-144	115-00 114-00 329-00 428-00	ot all Desele	E 0	Current Next		10	30)		Finish				
Prod	uction Plant: Charlotte N	С	W10- 2011	W11- 2011	W12- 2011	W13- 2011	W14- 2011	W15- 2011	W16- 2011	W17- 2011	W18- 2011	W19- 2011	W20- 2011	W21- 2011	W22- 2011	W23- 2011	W24- 2011	W25- 2011	W26- 2011	W27- 2011	W28- 2011	W29- 2011	W30- 2011
Line 01	10587-14121-00	Adj Unit Capacity	30,769	<mark>30,769</mark>	30,769	30,769	30,769	46,154	<mark>46,15</mark> 4	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	<mark>30,769</mark>	30,769	30,769	30,769
:	— Adj Unit Capacity — Adj Sched Prod	Adj Sched Production	0	0	0	0	0	50,000	50,000	0	0	0	0	60,000	0	0	0	0	0	0	0	0	0
10	Aujonic capacity — Aujochou Hou	Adj Over/Under Capacity	30,769	30,769	30,769	30,769	30,769	(3,846)	(3,846)	30,769	30,769	30,769	30,769	(29,231)	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769
Line 02	10587-14121-00	Adj Unit Capacity	<mark>45,45</mark> 5	<mark>45,455</mark>	45,455	45,455	45,455	45,455	<mark>45,455</mark>	45,455	<mark>45,455</mark>	45,455	<mark>45,455</mark>	45,455	45,455	<mark>45,455</mark>	45,455	<mark>45,455</mark>	45,455	<mark>45,45</mark> 5	45, <mark>455</mark>	45,455	45,455
1	— Adj Unit Capacity — Adj Sched Prod	Adj Sched Production	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	— Aky one capacity — Aky Schou Prou	Adj Over/Under Capacity	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455	45,455

Workflow Consensus Plan	Finished Goods In	nventory Critical C	omponent Cost - Stan	dard Critical C	omponent Constr
Workflow V [Workflow]			Columns: Completic		
	% Complete	Name	Target Date	Due Date	Days Past Due
Total Workflow	85%	Paul Hoy	,	,	
B Demand	100%	Mike Wilcox	,	,	
Consensus Plan	100%	Mike Wilcox	October 09, 2012	October 08, 2012	1
Materials	90%	Kathy McPhee	,	,	
Critical Component Cost - Standard	100%	Jeff Richards	October 15, 2012	October 15, 2012	
Critical Component Constraint	100%	Jeff Richards	October 15, 2012	October 15, 2012	
Critical Component Cost BOM	100%	Jeff Richards	October 15, 2012	October 15, 2012	
Critical Component Cost What-if % Chang	e 100%	Jeff Richards	October 15, 2012	October 15, 2012	
Bill of Materials	75%	Jeff Richards	October 19, 2012	October 18, 2012	1
Finished Goods Inventory	75%	Jeff Richards	October 19, 2012	October 18, 2012	1
Critical Components Inventory	75%	Jeff Richards	October 19, 2012	October 18, 2012	1
Production	85%	Leonard Oppenheimer	,	,	
Production Hours Assumptions	100%	Dan Barrett	October 15, 2012	October 15, 2012	
Production Cost Standard	100%	Dan Barrett	October 15, 2012	October 15, 2012	
Production Line - SKU Constraint	60%	Dan Barrett	October 19, 2012	October 18, 2012	1
Distribution Lead Time	100%	Dan Barrett	October 15, 2012	October 15, 2012	
Production Requirements	60%	Dan Barrett	October 19, 2012	October 18, 2012	1
Integrated Financial Statements	69%	Kathy Bremer	,	,	
Calendar	100%	Charlie Rodriguez	October 15, 2012	October 15, 2012	
Income Statement	50%	Charlie Rodriguez	October 19, 2012	October 18, 2012	1
Trial Balance	90%	Charlie Rodriguez	October 19, 2012	October 18, 2012	1
Balance Sheet	50%	Charlie Rodriguez	October 19, 2012	October 18, 2012	1
Financial Summary	50%	Charlie Rodriguez	October 19, 2012	October 18, 2012	1

	Plan Fi	Finished Goods Invento	tory Critica	al Component Cost	- Standard	Critical Componer	nt Constraint	Critical Compone	ent BOM	Critical Component Co	st What-if % Change	e Bill of Materi	ials Produ	ction Hours Assun	nptions
			Columns E Wee	ek 🗸	Context: PG 10 [Product		riginal 🗸	Consensus Foreca	ist v Unit						
2	ek10 - 2012	Week11 - 2012 W	Veek12 - 2012	Week13 - 2012	Week14 - 2012	Week15 - 2012	Week16 - 201	12 Week17 - 2012	Week18 - 2	012 Week19 - 2012	Week20 - 2012	Week21 - 2012 V	Veek22 - 2012	Week23 - 2012	Week2
	12,000	11,000	3,696	3,611	(0 (0 0		0	0	0	
_	4,248	4,151	4,055	3,962	15,000					,527 3,446	3,366	3,289	3,213	3,140	
	4,688	0000000	4,688	4,688	0.500			0 (0 0		0	0	0	
	2,500 5,808	2,500	2,500 5,794	2,500 5,808	2,500		11086			,500 2,500 0 0	2,500	2,500	2,500	2,500	
	4,573	5,781 4,583	4,594	4,605	4,615					,658 4,668	4,679	4,690	4,701	0 4,712	
	4,983		4,817	4,983	1,01.			0 0		0 0		0	0	0	
	3,804	3,935	4,071	4,211	4,357		4,66			,990 5,162		5,524	5,715	5,912	
14	2,314	2,765	4,875	4,121	(0 0		0 0		0	0	0	
53	963	958	952	947	942	937	9	32 927	7	922 917	912	907	902	897	
00	1,100	1,100	1,100	1,100	() 0		0 0)	0 0	0	0	0	0	
00	1,100	1,100	1,100	1,100	1,100	1,100	1,10	00 1,100) 1,	,100 1,100	1,100	1,100	1,100	1,100	
										<u>×</u> 1	<u>op</u> 2	Page up	→ Page dowr	<u>1</u> – <u>F</u>	lottom
	*10 - 2012	k11 - 2012 k12 - 2012	k13 - 2012 -	k14 - 2012	k15 - 2012	#16 - 2012	k18 - 2012 -	k19 - 2012	#20 - 2012		k23 - 2012	k25 - 2012 -	k26 - 2012 -	k27 - 2012	
	Week10 - 2012 -	Week11 - 2012 - Week12 - 2012 -	Week13 - 2012 -	Week14 - 2012 -	Week15 - 2012 -	Week15 - 2012 - Week17 - 2012 -	Week18 - 2012 -	Week19 - 2012 -	Week20 - 2012 -		Week22 - 2012 -	1 1 1	Week22 - 2012 - Week23 - 2012 - Week24 - 2012 - Week25 - 2012 -	Week22 - 2012 - Week23 - 2012 - Week24 - 2012 - Week25 - 2012 -	Week22 - 2012 - Week23 - 2012 - Week25 - 2012 - Week25 - 2012 - Week25 - 2012 -

Workflow Consensus Plan	Goods Inven	tory Crit	tical Componen	t Cost - Standar	d Critica	l Component C	onstraint	Critical Compo	nent BOM	Critical Comp	onent Cost Wh	at-if % Change	⊞Bill of	Materials	Production Ho	urs Assumption:	s Produc
ows:		Columns:				Context:											
Inventory Plan [Inventory Plan]		Weeks On [Time]	У 🗸				narlotte NC nution Center]	Forecast [Versions]	10587-14 [Prod								
	<u>W10-Y1</u>	<u>W11-Y1</u>	<u>W12-Y1</u>	<u>W13-Y1</u>	<u>W14-Y1</u>	<u>W15-Y1</u>	<u>W16-Y1</u>	<u>W17-Y1</u>	<u>W18-Y1</u>	<u>W19-Y1</u>	<u>W20-Y1</u>	<u>W21-Y1</u>	<u>W22-Y1</u>	<u>W23-Y1</u>	<u>W24-Y1</u>	<u>W25-Y1</u>	<u>W26-Y1</u>
Beginning Inventory	18,284	14,289	10,103	6,014	2,018	(15,711)	(31,711)	14,594	10, <mark>9</mark> 84	7,457	4,012	645	(2,644)	54,14	3 <u>51,003</u>	47,936	44,939
Beginning Backlog (late orders)	2,288	2,397	2,510	2,621	2,729	0	0	0	0	0	0	0	0		0 0	0	0
Consensus Forecast	4,248	4,151	4,055	3,962	15,000	16,000	3,695	3,610	3,527	3,446	3,366	3,289	3,213	3,14	0 3,067	2,997	2,928
Actual Orders	4,104	4,300	4,200	4,104	0	0	0	0	0	0	0	0	0		0 0	0	0
Unconsumed Forecast	145	(149)	(145)	(142)	15,000	16,000	3,695	3,610	3,527	3,446	3,366	3,289	3,213	3,14	0 3,067	2,997	2,928
Actual Shipments	3,995	4,186	4,089	3,995	0	0	0	0	0	0	0	0	0		0 0	0	0
Planned Shipments	0	0	0	0	17,729	16,000	3,695	3,610	3,527	3,446	3,366	3,289	3,213	3,14	0 3,067	2,997	2,928
Ending Backlog (unconsumed demand and late orders)	2,397	2,510	2,621	2,729	0	0	0	0	0	0	0	0	0		0 0	0	0
Purchase or Production Orders	0	0	0	0	0	0	50,000	0	0	0	0	0	60,000		0 0	0	0
Transfer Orders	0	0	0	0	0	0	0	0	0	0	0	0	0		0 0	0	0
Total In Bound	0	0	0	0	0	0	50,000	0	0	0	0	0	60,000		0 0	0	0
Supply Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0		0 0	0	0
Total Supply	0	0	0	0	0	0	50,000	0	0	0	0	0	60,000		0 0	0	0
Ending Inventory	14,289	10,103	6,014	2,018	(15,711)	(31,711)	14,594	10,984	7,457	4,012	645	(2,644)	54,143	51,00	3 47,936	44,939	42,011
Standard Unit Cost	43.15	43, 15	43.15	43.15	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.5	6 43.56	43.56	43.56
Ending Inventory Value	616,569	435,936	259,483	87,089	(684,371)	(1,381,331)	635,721	478,474	324,844	174,747	28,103	(115, 169)	2,358,455	2,221,69	8 2,088,087	1,957,548	1,830,012
Optimized Safety Stock from ILOG	0	0	0	0	0	0	0	0	0	0	0	0	0		0 0	0	0
Inventory Budget	2,231,395	2,231,395	2,231,395	4,319,895	4,100,603	3,881,310	3,662,018	3,442,725	3,223,433	3,004,140	2,784,848	2,565,555	2,346,263	6,303,97	0 6,084,678	5,865,385	5,646,093
Inventory Variance	(1,614,826)	(1,795,459)	(1,971,912)	(4,232,807)	(4,784,973)	(5,262,641)	(3,026,297)	(2,964,251)	(2,898,589)	(2,829,393)	(2,756,745)	(2,680,724)	12,192	(4,082,272) (3,996,591)	(3,907,837)	(3,816,080)
Weeks of Supply	4	3	2	1	6	6	6	6	6	6	6	0	0		0 0	0	0
Days of Supply	25	18	11	4	42	42	42	42	42	42	42						
Turn																	

Workflow Consensus Plan Finished	Goods Inven	itory Cri	tical Componen	t Cost - Standar	rd Eritica	l Component C	ionstraint	Critical Compo	onent BOM	Critical Comp	onent Cost Wh	at-if % Change	Bill of	Materials	Production Ha	urs Assumption:	s Produc
Rows: Inventory Plan		Columns: Weeks On [Time]	ly <mark>v</mark>				narlotte NC pution Center]	Forecast [Versions]	, 10587-14 [Prod								
	<u>W10-Y1</u>	<u>W11-Y1</u>	<u>W12-Y1</u>	<u>W13-Y1</u>	<u>W14-Y1</u>	<u>W15-Y1</u>	<u>W16-Y1</u>	<u>W17-Y1</u>	<u>W18-Y1</u>	<u>W19-Y1</u>	<u>W20-Y1</u>	<u>W21-Y1</u>	<u>W22-Y1</u>	<u>W23-Y1</u>	<u>W24-Y1</u>	W25-Y1	<u>W26-Y1</u>
Beginning Inventory	18,284	<mark>14,28</mark> 9	10,103	6,014	2,018	34,289	18,289	14,594	10,984	7,457	4,012	645	(2,644)	54,143	51,003	47,936	44,939
Beginning Backlog (late orders)	2,288	2,397	2,510	2,621	2,729	0	0	0	0	0	0	0	0	0	0	0	0
Consensus Forecast	4,248	4,151	4,055	3,962	15,000	16,000	3,695	3,610	3,527	3,446	3,366	3,289	3,213	3,140	3,067	2 <mark>,9</mark> 97	2,928
Actual Orders	4,104	4,300	4,200	4,104	0	0	0	0	0	0	0	0	0	0	0	0	0
Unconsumed Forecast	145	(149)	(145)	(142)	15,000	16,000	3,695	3,610	3,527	3,446	3,366	3,289	3,213	3,140	3,067	2,997	2,928
Actual Shipments	3,995	4,186	4,089	3,995	0	0	0	0	0	0	0	0	0	0	0	0	0
Planned Shipments	0	0	0	0	17,729	16,000	3,695	3,610	3,527	3,446	3,366	3,289	3,213	3,140	3,067	2 <mark>,9</mark> 97	2,928
Ending Backlog (unconsumed demand and late orders)	2,397	2,510	2,621	2,729	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchase or Production Orders	0	0	0	0	50,000	0	0	0	0	0	0	0	60,000	0	0	0	0
Transfer Orders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total In Bound	0	0	0	0	50,000	0	0	0	0	0	0	0	60,000	0	0	0	0
Supply Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Supply	0	0	0	0	50,000	0	0	0	0	0	0	0	60,000	0	0	0	0
Ending Inventory	14,289	10,103	6,014	2,018	34,289	18,289	14,594	10,984	7,457	4,012	645	(2,644)	54,143	51,003	47,936	44,939	42,011
Standard Unit Cost	43.15	43.15	43.15	43.15	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56	43.56
Ending Inventory Value	616,569	435,936	259,483	87,089	1,493,629	796,669	635,721	478,474	324,844	174,747	28,103	(115, 169)	2,358,455	2,221,698	2,088,087	1,957,548	1,830,012
Optimized Safety Stock from ILOG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inventory Budget	2,231,395	2,231,395	2,231,395	4,319,895	4,100,603	3,881,310	3,662,018	3,442,725	3,223,433	3,004,140	2,784,848	2,565,555	2,346,263	6,303,970	6,084,678	5,865,385	5,646,093
Inventory Variance	(1,614,826)	(1,795,459)	(1,971,912)	(4,232,807)	(2,606,973)	(3,084,641)	(3,026,297)	(2,964,251)	(2,898,589)	(2,829,393)	(2,756,745)	(2,680,724)	12,192	(4,082,272)	(3,996,591)	(3,907,837)	(3,816,080)
Weeks of Supply	4	3	2	1	6	6	6	6	6	6	6	0	0	0	0	0	0
Days of Supply	25	18	11	4	42	42	42	42	42	42	42						
Turn																	

Workflow	Cons	ensus Plan	Finis	Inventory	Critical Component Cost - Standard
ws:		10010	Co	Con	text:
Critical Compo				* ! :	Component Cost
	Actual	Forecast	Budget		
30587-34323-0	0 3.44	3.53	3.42		
30587-34335-0	0 3.23	3.06	2.96		
30587-34334-0	0 3.11	3.01	2.53		
30587-34329-0	0 3.16	2.97	2.87		
30587-34428-0	0 3.03	2.89	2.80		
30587-34527-0	0 3.25	3.87	3.75		
30587-34936-0	0 3.03	3.44	3.33		
30587-35328-0	0 3.26	3.33	3.22		
30587-36325-0	0 2.98	2.65	2.57		
30587-38329-0	0 3.28	3.45	3.34		
39200-00027-0	6 3.10	3,18	3.08		
39200-00053-0	4 2.91	2.75	2.67		
39200-00080-3	5 2.80	2.35	2.28		
39200-00085-3	3 2.84	2.67	2.59		
39200-00303-0	3 2.73	2.61	2.52		
39200-00305-0	6 2.93	3.49	3.37		
39200-00330-0	0 2.73	3.09	3.00		
39200-00202-0	6 2.93	3.00	2.90		
39200-00252-0	5 2.68	2.39	2.31		
39200-00262-0	4 2.95	3.11	3.01		
26600-74372-0	6 2.75	2.41	2.33		
26600-74372-0	5 2.39	2.09	1.51		
26600-74343-0	6 2.09	1.83	1.78		
26600-74352-0	6 1.87	1.57	1.52		

4 Workflow	Consensus Plan	Finished Goods Invento	ry Cri	itical Component Cost - St	andard Critical C	omponent	Constraint	al Component BOM	Critical Co	mponent Cost What-if % C	hange Bill of Mater	rials	Production Hours Assumpt	ons Production Line
Rows:					Columns:								Context:	
Critical Componen					Time [Time]	ri <mark>tical Compo</mark> [Critical Comp	onent Constraint 🗸						Forecast [Versions]	
		W10-Y1			W11-Y1			W12-Y1			W13-Y1			W14-Y1
	Component Constraint	Components Required	Warning	Component Constraint	Components Required	Warning	Component Constraint	Components Required	Warning	Component Constraint	Components Required	Warning	Component Constraint	Components Required
30587-34323-00	1,150,000	360,000		1,150,000	210,000		1,150,000	197,000		1,150,000	100,000		1,150,000	30,000
30587-34335-00	350,000	190,000		350,000	100,000		350,000	110,000		350,000	100,000		350,000	
<mark>30587-34334-00</mark>	1,700,000	610,000		1,700,000	50,000		1,700,000			1,700,000	412,000		1,700,000	200,000
30587-34329-00	600,000	114,000		600,000	74,000		600,000	4,000		600,000	4,000		600,000	184,000
30587-34428-00	150,000	90,000		150,000	90,000		150,000			150,000			150,000	
30587-34527-00	230,000	100,000		230,000			230,000			230,000			230,000	
30587-34936-00	120,000	13,000		120,000	13,000		120,000	115,500		120,000	4,000		120,000	54,000
30587-35328-00	150,000			150,000	12,000		150,000	220,000		150,000			150,000	80,000
30587-36325-00	30,000	11,000		30,000	46,000		30,000			30,000			30,000	
30587-38329-00	40,000			40,000			40,000			40,000			40,000	5,000
39200-00027-06	1,200,000	360,000		1,200,000	210,000		1,200,000	197,000		1,200,000	100,000		1,200,000	30,000
39200-00053-04	1,250,000	190,000		1,250,000	100,000		1,250,000	110,000		1,250,000	100,000		1,250,000	
39200-00080-35	1,700,000	610,000		1,700,000	50,000		1,700,000			1,700,000	412,000		1,700,000	200,000
39200-00085-33	500,000	114,000		500,000	74,000		500,000	4,000		500,000	4,000		500,000	184,000
39200-00303-03	150,000	90,000		150,000	90,000		150,000			150,000			150,000	
39200-00305-06	300,000	100,000		300,000			300,000			300,000			300,000	
39200-00330-00	150,000	13,000		150,000	13,000		150,000	115,500		150,000	4,000		150,000	54,000
39200-00202-06	150,000			150,000	12,000		150,000	220,000		150,000			150,000	80,000
39200-00252-05	50,000	11,000		50,000	46,000		50,000			50,000			50,000	
39200-00262-04	40,000			40,000			40,000			40,000			40,000	5,000
26600-74372-06	550,000	493,000		550,000	90,000		550,000	193,000		550,000	3,000		550,000	183,000
26600-74372-05	4,000,000	991,000		4,000,000	545,000		4,000,000	449,500		4,000,000	322,000		4,000,000	275,000
26600-74343-06	8,000,000	2,560,000		8,000,000	1,100,000		8,000,000	1,211,000		8,000,000	927,000		8,000,000	900,000
26600-74352-06	8,500,000	2,770,000		8,500,000	1,190,000		8,500,000	1,221,000		8,500,000	1,228,000		8,500,000	1,001,000
26600-74372-02	8,000,000	2,867,000		8,000,000	1,125,000		8,000,000	1,218,000		8,000,000	1,225,000		8,000,000	1,098,000
26600-74735-07	5,000,000	1,698,000		5,000,000	685,000		5,000,000	656,500		5,000,000	921,000		5,000,000	654,000
26600-76523-03	5,000,000	1,488,000		5,000,000	595,000		5,000,000	646,500		5,000,000	620,000		5,000,000	553,000
26600-76524-03	5,000,000	1,482,000		5,000,000	595,000		5,000,000	586,500		5,000,000	620,000		5,000,000	553,000

Critical Component Cos	st What-if % Change	Bill of I	Materials	Production Hours Assumpti	ons Producti	ion Line - SKU	Constraint	Production Cost -	Standard	Pro	duction Capacity - Standard
Rows:		-		Columns:	latariala Masaura		Context:	14121-00 🗸 🚦 Forec	ant		
Critical Component Num	ber]			Bill of M	laterials Measure Materials Measure]	*		14121-00 oduct]	ons]		
	Standard Quantity	Substitute	New Quantity	Standard Cost per Unit	Cost Adjustment	Change %	Adjusted S	tandard Cost per Unit	Standard	Cost	
Total Standard Cost					0.56				4	3.56	
Production Cost								5.00		5.00	
All Other Components								13.64	1	13.64	
26600-74343-06	2		:	2 1.83				1.83		3.66	
26600-74352-06	2		:	2 1.57				1.57		3.14	
26600-74372-02	1			1 1.31				1.31		1.31	
26600-74372-05	2			2 2.09				2.09		4.18	
26600-74372-06	1		1	1 2.41				2.41		2.41	
26600-74735-07	1			1 1.05				1.05		1.05	
26600-76523-03	1			1 0.79				0.79		0.79	
26600-76524-03	1	(1)		1.26				1.26			
26600-77003-00		1		1 1.11	0.56			1.67		1.67	
26600-80900-00				0.76				0.76			
30587-34323-00	1			1 3.53				3.53		3.53	
30587-34329-00				2.97				2.97			
30587-34334-00				3.01				3.01			
30587-34335-00				3.06				3.06			
30587-34428-00				2.89				2.89			
30587-34527-00				3.87				3.87			
30587-34936-00				3.44				3.44			
30587-35328-00				3.33				3.33			
30587-36325-00				2.65				2.65			
30587-38329-00				3.45				3.45			
39200-00027-06	1			1 3.18				3.18		3.18	
39200-00053-04				2.75				2.75			
39200-00080-35				2.35				2.35			
39200-00085-33				2.67				2.67			
39200-00202-06				3.00				3.00			
39200-00252-05				2.39				2.39			
39200-00262-04				3.11				3.11			

roduction Line - SKU	J Constraint I Produ	iction Cost - Standard	Production Capacity -	Standard Distrib	ution Lead Time	Production Allocation - St	tandard
Rows: Distribution Center [Distribution Center]	•				bution Lead Time	Context: 10587-14121-00 [Product]	~
	Charlotte Line 01	Charlotte Line 02	Charlotte Line 03	Charlotte Line 04	Charlotte Line 05	Freemont Line 06	Freem
	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribut
DC Charlotte NC	0	0	0	0	0	2	
DC Fairfax WV	1	1	1	1	1	2	
DC Washington DC	1	1	1	1	1	2	
DC Sacremento CA	2	2	2	2	2	1	
DC Los Angeles CA	2	2	. 2	2	2	1	
DC Freemont CA	2	2	2	2	2	0	
DC Toluca Lake CA	2	2	2	2	2	0	
DC Des Moines IA	2	2	2	2	2	1	
DC Seattle WA	3	3	3	3	3	1	
DC Anchorage AL	4	4	4	4	4	3	
DC New York NY	1	1	1	1	1	2	
DC Boston MA	2	2	2	2	2	2	
DC Bangor ME	2	2	2	2	2	2	
DC Stratton VE	2	2	2	2	2	2	
DC Wolfboro NH	2	2	2	2	2	2	
DC Dallas TX	2	2	2	2	2	1	
DC Atlanta GA	1	1	1	1	1	1	
DC Harrisburg PA	1	1	1	1	1	2	
DC Springfield MO	1	1	1	1	1	1	
DC Pheonix AZ	2	2	2	2	2	1	
DC Miami FL	2	2	2	2	2	2	
DC China CN	8	8	8	8	8	6	

					<u></u>										
 roduction Line - S 	KU Constrain	it Pro	oduction Cos	t - Standard	Produ	uction Capacity - Standard	Distrib	ution Lead T	ime 🏢 I	Production	Allocation	- Standard	∎ Pro	duction Requ	uirements
Rows:			Colu	mns:				Conte							
Product V				Production	Facilities	Production Allocation - S	Standard 🗸	. D	C Charlotte Distribution C	NC v					
[Product]			4	[Production]	Facilities	[Production Allocation - S	tandard]		Distribution C	enterj					
	Charlotte	Line 01	Charlotte	Line 02		Charlotte Line 03		Charlotte	Line 04	Charlotte	Line 05	Freemon	t Line 06	Freemor	nt Line 07
	Allocation	Warning	Allocation	Warning	Allocation	Warning		Allocation	Warning	Allocation	Warning	Allocation	Warning	Allocation	Warning
10587-14121-00	100.00%														
10587-14115-00	100.00%														
10587-14114-00	100.00%														
10587-14329-00	25.00%				25.00%	SKU cannot be produced or	n this line			50.00%					
10587-14428-00										50.00%					
10587-14527-00										50.00%					
10587-14916-00										100.00%					
10587-15128-00	75.00%									25.00%					
10587-16125-00	100.00%														
10587-18129-00	25.00%									75.00%					
19200-00027-06															
19200-00051-04															
19200-00080-15															
19200-00085-11															
19200-00101-03															
19200-00105-06															
19200-00110-00															
19200-00202-06															
19200-00252-05															
19200-00262-04															
26600-74372-06			100.00%												
26600-74372-05					100.00%										
26600-74343-06					100.00%										
26600-74352-06								100.00%							
26600-74372-02								100.00%							
26600-74735-07			50.00%		50.00%										
26600-76523-03					50.00%			50.00%							
26600-76524-03			100.00%												

Critical Compon	ent BOM	Critical Component Co	st What-if % Change	Bill of Materials	Production H	lours Assumptions	Production Li	ne - SKU Constrain	t Production	Cost - Standard	Production Capacity	/ - Standard	Distribution Lead Time
Rows: Product [Product]			Colu	mns: Production Facilities [Production Facilities]	Y				(Context: Production Cons [Production Cons			
	Charlotte Line	01 Charlotte Line 02	2 Charlotte Line 03	Charlotte Line 04	Charlotte Line 05	Freemont Line 06	Freemont Line 07	Freemont Line 08	Freemont Line 09	Freemont Line 10	Des Moines Line 11	Des Moines Line	12 Des Moines Line 13
10587-14121-00		•	N	Ν				Ν	N		N	N	N
10587-14115-00		N	N	Ν				Ν	N		Ν	N	N
10587-14114-00		Ν	Ν	Ν				Ν	N		Ν	Ν	N
10587-14329-00		N	Ν	Ν				Ν	Ν		N	Ν	N
10587-14428-00		N	Ν	Ν				N	N		N	N	N
10587-14527-00		N	Ν	N				Ν	N		Ν	N	N
10587-14916-00		N	Ν	Ν				Ν	N		Ν	N	N
10587-15128-00		N	Ν	Ν				Ν	N		N	Ν	N
10587-16125-00		N	Ν	Ν				Ν	N		N	Ν	N
10587-18129-00		N	Ν	Ν				Ν	N		Ν	Ν	N
19200-00027-06						Ν	Ν	Ν	N	Ν	Ν	Ν	N
19200-00051-04						Ν	Ν	Ν	Ν	Ν	N	Ν	N
19200-00080-15						Ν	Ν	Ν	N	N	N	Ν	N
19200-00085-11						Ν	Ν	Ν	N	Ν	N	Ν	N
19200-00101-03						Ν	Ν	N	Ν	N	Ν	N	N
19200-00105-06						Ν	Ν	Ν	Ν	Ν	N	Ν	N
19200-00110-00						N	Ν	Ν	Ν	N	N	Ν	Ν
19200-00202-06						Ν	Ν	Ν	N	Ν	Ν	Ν	N
19200-00252-05						Ν	Ν	Ν	N	N	Ν	Ν	N
19200-00262-04						Ν	Ν	Ν	Ν	Ν	N	Ν	N
26600-74372-06						N	Ν	Ν	Ν	N	N	Ν	N
26600-74372-05						Ν	Ν	Ν	N	Ν	Ν	Ν	N
26600-74343-06						Ν	Ν	Ν	N	N	Ν	N	N
26600-74352-06						Ν	Ν	Ν	N	N	N	Ν	N
26600-74372-02						N	Ν	Ν	N	N	N	Ν	Ν
26600-74735-07						N	N	N	N	N	N	N	N
26600-76523-03						N	N	N	N	N	N	N	N
26600-76524-03						N	N	N	N	N	N	N	N
26600-77003-00						N	N	N	N	N	N	N	N

Critical Component Cost What-if % Change

Bill of Materials

Production Line - SKU Constraint

Rows:

Production Lines Only [Production Facilities]

Columns:

ł

Production Hours Assumption [Production Hours Assumption]

	Number of Shifts	Hours per Shift	Days Worked per Week	Hours Available
Charlotte Line 01	2	8.0	5.0	80.00
Charlotte Line 02	1	10.0	5.0	50.00
Charlotte Line 03	1	8.0	5.0	40.00
Charlotte Line 04	2	10.0	5.0	100.00
Charlotte Line 05	2	8.0	5.0	80.00
Freemont Line 06	1	8.0	6.0	48.00
Freemont Line 07	1	10.0	5.0	50.00
Freemont Line 08	3	8.0	5.0	120.00
Freemont Line 09	2	10.0	5.0	100.00
Freemont Line 10	1	8.0	5.0	40.00
Des Moines Line 11	2	8.0	7.0	112.00
Des Moines Line 12	1	10.0	5.0	50.00
Des Moines Line 13	2	8.0	6.0	96.00
Des Moines Line 14	2	10.0	5.0	100.00
Des Moines Line 15	2	8.0	7.0	112.00
Seattle Line 16	2	8.0	7.0	112.00
Seattle Line 17	1	10.0	5.0	50.00
Seattle Line 18	1	8.0	6.0	48.00
Seattle Line 19	2	10.0	5.0	100.00
Seattle Line 20	1	8.0	7.0	56.00
Dallas Line 21	2	8.0	7.0	112.00
Dallas Line 22	1	10.0	5.0	50.00
Dallas Line 23	3	8.0	6.0	144.00
Dallas Line 24	2	10.0	5.0	100.00
Dallas Line 25	3	8.0	7.0	168.00
Harrisburg Line 26	2	8.0	7.0	112.00
Harrisburg Line 27	1	10.0	5.0	50.00
Harrisburg Line 28	3	8.0	6.0	144.00
Harrisburg Line 29	2	10.0	5.0	100.00
Harrisburg Line 30	3	8.0	7.0	168.00

roduction Line - SKU Constraint Improde	luction Cost - St	itandard [Production	n Capacity - S	Standard	Distributi	ion Lead Time	e Proc	duction Alloca	ition - Stand	ard P	roduction R	Requireme	nts Pr	roduction Rec	quirements {	Summary	Critical Co	omponents I	nventory
Rows: Production Requirements				Time		Contr i i 1	text: 10587-14121 [Product]		DC Charlotte [Distribution Ce		Charlotte Line Production Faci		Forecast [Versions]							
	<u>W10-Y1</u>	<u>W11-Y1</u>	<u>W12-Y1</u>	<u>W13-Y1</u>	<u>W14-Y1</u>	<u>W15-Y1</u>	<u>W16-Y1</u>	<u>W17-Y1</u>	<u>W18-Y1</u>	<u>W19-Y1</u>	<u>W20-Y1</u>	<u>W21-Y1</u>	<u>W22-Y1</u>	<u>W23-Y1</u>	<u>W24-Y1</u>	<u>W25-Y1</u>	<u>W26-Y1</u>	<u>W27-Y1</u>	<u>W28-Y1</u>	<u>W29-Y1</u>
Disribution Lead Time																				
Units Required at Distribution Center	0	0	0	0		0	50,000	0	0	0	0	60,000		0	0	0	0	0	0	0
Alocation % Standard	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Allocation % Adjustment	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Warning																				
Production Allocated							50,000					60,000								/ ·
Production Required Offset by Lead Time							50,000					60,000								
Required Capacity - Hours							130					156								
Unit Capacity per Week	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769
Unit (Over)/Under Capacity	30,769	30,769	30,769	30,769	30,769	30,769	(19,231)	30,769	30,769	30,769	30,769	(29,231)	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769
Unit Adjustment	0	0	0		0	50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Scheduled Production						50,000	50,000					60,000								
Total Adjusted Hours Required						130.0	130.0					156.0								
Days Worked- Standard	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Days Worked Adjustment	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of Shifts - Standard	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Shift Adjustment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hours per Shift - Standard	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Shift Hours Adjustment	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Production Hours Available	80.0	80.0	80.0	80.0	80.0	120.0	120.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Hours (Over)/Under Capacity	80.0	80.0	80.0	80.0	80.0	(10.0)	(10.0)	80.0	80.0	80.0	80.0	(76.0)	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Adjusted Unit Capacity per Week	30,769	30,769	30,769	30,769	30,769	46,154	46,154	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769	30,769
Percent of Capacity						108.33%	108.33%					195.00%								
Cummulative Required Production	55,000	55,000	55,000	55,000	55,000	55,000	105,000	105,000	105,000	105,000	105,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000
Cummulative Scheduled Production	145,000	145,000	145,000	145,000	145,000	195,000	245,000	245,000	245,000	245,000	245,000	305,000	305,000	305,000	305,000	305,000	305,000	305,000	305,000	305,000
Cummulative Production Overage (Deficit)	90,000	90,000	90,000	90,000	90,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Adjusted Production - (Over)/Under Capacit				30,769	30,769	(3,846)	(3,846)	30,769	30,769	30,769	30,769			30,769	30,769	30,769	30,769	30,769	30,769	

▲ ime Production Alle	llocation - Standard Produc	s Prod	luction Requ	irements Sun	mmary 🖡	Critical Compo	onents Invento	ory Caler	Calendar Income Statement			Trial Balance Cashflow Direct			
Rows: Production Facilities [Production Facilities]	Production Requirements									Conte	Context: All Product [Product]		DC Charlotte NC [Distribution Center]		
		W01-Y1	W02-Y1	W03-Y1	W04-Y1	W05-Y1	W06-Y1	W07-Y1	W08-Y1	W09-Y1	W10-Y1	W11-Y1	W12-Y1	W13-Y1	
	Total Adjusted Hours Required	ed 1,178.0	1,218.2	993.7	300.2	644.0	105.2	143.2	211.5	82.7	125.2	65.2	341.2	125.2	
□ All Production Lines	Production Hours Available	268,888.0	268,888.0	268,888.0	268,800.0	268,800.0	268,800.0	268,800.0	268,800.0	268,800.0	268,800.0	268,800.0	268,800.0	268,800.0	
	Hours (Over)/Under Capacity	265,714.2	266,606.7	267,741.7	267,536.8	268,156.0	268,033.3	268,656.8	268,413.1	268,249.3	267,699.8	268,734.8	268,458.8	268,674.8	
	Total Adjusted Hours Required	ed 596.3	803.7	956.5	203.0	434.0	68.0	106.0	174.3	45.5	28.0	28.0	304.0	28.0	
□ Charlotte NC	Production Hours Available	24,588.0	24,588.0	24,588.0	24,500.0	24,500.0	24,500.0	24,500.0	24,500.0	24,500.0	24,500.0	24,500.0	24,500.0	24,500.0	
	Hours (Over)/Under Capacity	23,991.8	22,990.3	23,527.5	23,607.0	24,066.0	24,432.0	24,394.0	24,325.8	24,454.5	24,472.0	24,472.0	24,196.0	24,472.0	
	Total Adjusted Hours Required	ed 180.0	142.5	175.0	100.0	71.0	30.0	78.0	30.0				100.0		
Charlotte Line 01	Production Hours Available	5,688.0	5,688.0	5,688.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	
	Hours (Over)/Under Capacity	5,508.0	5,441.5	5,409.0	5,500.0	5,529.0	5,570.0	5,522.0	5,570.0	5,600.0	5,600.0	5,600.0	5,500.0	5,600.0	
	Total Adjusted Hours Required	ed 62.4	123.2	84.0									176.0		
Charlotte Line 02	Production Hours Available	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	
	Hours (Over)/Under Capacity	3,437.6	3,376.8	3,416.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,324.0	3,500.0	
	Total Adjusted Hours Required	ed 209.0	89.0	458.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	
Charlotte Line 03	Production Hours Available	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	
	Hours (Over)/Under Capacity	2,591.0	2,711.0	2,342.0	2,786.0	2,786.0	2,786.0	2,786.0	2,786.0	2,786.0	2,786.0	2,786.0	2,786.0	2,786.0	
	Total Adjusted Hours Required	ed 14.0	334.0	182.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	
Charlotte Line 04	Production Hours Available	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	7,000.0	
	Hours (Over)/Under Capacity	6,986.0	6,666.0	6,818.0	6,986.0	6,986.0	6,986.0	6,986.0	6,986.0	6,986.0	6,986.0	6,986.0	6,986.0	6,986.0	
	Total Adjusted Hours Required	ed 130.9	115.0	57.5	75.0	335.0	10.0		116.3	17.5					
Charlotte Line 05	Production Hours Available	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	
	Hours (Over)/Under Capacity	5,469.2	4,795.0	5,542.5	4,835.0	5,265.0	5,590.0	5,600.0	5,483.8	5,582.5	5,600.0	5,600.0	5,600.0	5,600.0	
	Total Adjusted Hours Required	.d													
Freemont CA	Production Hours Available	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	
	Hours (Over)/Under Capacity	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	25,060.0	
	Total Adjusted Hours Required	.d													
Freemont Line 06	Production Hours Available	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	
	Hours (Over)/Under Capacity	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0		3,360.0	3,360.0	3,360.0	3,360.0	3,360.0	3,360.0		
	Total Adjusted Hours Required	.d													
Freemont Line 07	Production Hours Available	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	
	Hours (Over)/Under Capacity	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	

In Cost - Standard	Production Capacity	- Standard		and Time III	s t e alt e				-							-1	
	d Production Capacity - Standard		Distribution Lead Time		Production Allocation - Standard		Production Requirements		Production Requirements Summar		ary Critical Components Inventory		nventory III	Income Statement Bala		nce Sheet Trial Balance Ca	
Rows:				Colum	ns:		(Context:									
Income Statement					Nonths Months]			FY1 [Years] ¥	Operations Planning [Organization]	g V Forecas							
		<u>Jan</u>	Feb	Mar	± <u>01</u>	Apr	May	<u>Jun</u>	± <u>02</u>	Jul	Aug	Sep	⊕ <u>03</u>	Oct	Nov	Dec	± <u>Q4</u>
Sales		504,307,696	491,365,259	614,480,353	1,610,153,308	495,229,777	491,657,307	616,888,569	1,603,775,653	496, 172, 508	499,759,988	634,265,383	1,630,197,879	514,097,101	523,233,717	663,231,905	1,700,562,723
Cost of sales																	
Raw Materials		199,809,550	243,231,142	195,230,954	638,271,646	240,007,203	258,673,934	207,336,041	706,017,178	208,418,081	262,679,765	213,326,846	684,424,691	215,649,812	274,338,298	222,865,261	712,853,371
Labor		44,110,408	53,700,777	42,530,430	140,341,615	(1,100,161)	38,837,083	31,155,581	68,892,503	31,316,215	39,498,103	32,075,571	102,889,890	32,447,539	41,312,809	33,546,408	107,306,756
Total Cost of Sales		243,919,958	296,931,919	237,761,384	778,613,261	238,907,042	297,511,017	238,491,622	774,909,681	239,734,296	302, 177, 868	245,402,417	787,314,581	248,097,351	315,651,107	256,411,669	820,160,127
Gross margin		260,387,738	194,433,340	376,718,969	831,540,047	256,322,735	194,146,290	378,396,947	828,865,972	256,438,212	197,582,120	388,862,966	842,883,298	265,999,750	207,582,610	406,820,236	880,402,596
Gross Margin %		51.63%	39.57%	61.31%	51.64%	51.76%	39.49%	61.34%	51.68%	51.68%	39.54%	61.31%	51.70%	51.74%	39.67%	61.34%	51.77%
Depreciation and amortiza	ation	54,645,000	54,645,000	54,645,000	163,935,000	54,645,000	54,645,000	54,645,000	163,935,000	54,645,000	60,109,500	60,109,500	174,864,000	60,109,500	60,109,500	60,109,500	180,328,500
Selling expenses		11,475,000	11,174,989	13,971,260	36,621,249	12,446,823	12,396,306	15,561,954	40,405,083	12,531,595	12,631,348	16,042,681	41,205,624	13,009,746	13,243,639	16,791,075	43,044,461
Administrative expenses		17,213,000	16,762,970	17,213,000	51,188,970	20,290,043	20,207,692	25,368,136	65,865,871	20,428,231	20,590,845	26,151,787	67,170,864	21,207,685	21,588,963	27,371,774	70,168,422
Total operating expenses	5	83,333,000	82,582,959	85,829,260	251,745,219	87,381,866	87,248,998	95,575,090	270,205,954	87,604,826	93,331,693	102,303,968	283,240,487	94,326,931	94,942,103	104,272,350	293,541,383
Profit from operations		177,054,738	111,850,381	290,889,709	579,794,828	168,940,869	106,897,292	282,821,857	558,660,018	168,833,386	104,250,427	286,558,998	559,642,811	171,672,819	112,640,507	302,547,886	586,861,213
Interest expense		38,253,587	37,107,553	48,118,513	123,479,653	37,717,759	37,559,841	48,556,467	123,834,067	38,058,467	37,870,047	49,739,676	125,668,190	39,208,173	40,024,934	52,378,029	131,611,136
Net income before taxes		138,801,151	74,742,828	242,771,196	456,315,175	131,223,110	69,337,451	234,265,390	434,825,951	130,774,919	66,380,380	236,819,322	433,974,620	132,464,646	72,615,573	250, 169, 857	455,250,077
Provision for income taxes	S	58,527,988	56,774,556	73,621,325	188,923,869	57,708,172	57,466,557	74,291,394	189,466,123	58,229,454	57,941,172	76,101,705	192,272,331	59,988,504	61,238,150	80,138,384	201,365,038
Net income		80,273,163	17,968,272	169,149,871	267,391,306	73,514,938	11,870,894	159,973,996	245,359,828	72,545,465	8,439,208	160,717,617	241,702,289	72,476,142	11,377,423	170,031,473	253,885,039
Earnings per share																	
Basic		\$8.03	\$1.80	\$16.91	\$26.74	\$7.35	\$1.19	\$16.00	\$24.54	\$7.25	<mark>\$.8</mark> 4	\$16.07	\$24.17	\$7.25	\$1.14	\$17.00	\$25.39
Diluted		\$8.02	\$1.80	\$16.91	\$26.73	\$7.35	\$1.19	\$15.99	\$24.52	\$7.25	<mark>\$.</mark> 84	\$16.06	\$24.16	\$7.24	\$1.14	\$16.99	\$25.38
Retained earnings - begin	nning of period	85,083,002	165,356,165	183,324,437	85,083,002	352,474,308	425,989,246	437,860,140	352,474,308	597,834,136	670,379,601	678,818,809	597,834,136	839,536,425	912,012,568	923,389,991	839,536,425
NI + Retained earnings - t	beginning of period	165,356,165	183,324,437	352,474,308	352,474,308	425,989,246	437,860,140	597,834,136	597,834,136	670,379,601	678,818,809	839,536,425	839,536,425	912,012,568	923,389,991	1,093,421,464	1,093,421,464
Cumulative retained earni	ings	165,356,165	183,324,437	352,474,308	352,474,308	425,989,246	437,860,140	597,834,136	597,834,136	670,379,601	678,818,809	839,536,425	839,536,425	912,012,568	923,389,991	1,093,421,464	1,093,421,464
Common Shares Outstand	ding (1000s)	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Options Outstanding (100	00s)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000



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