



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

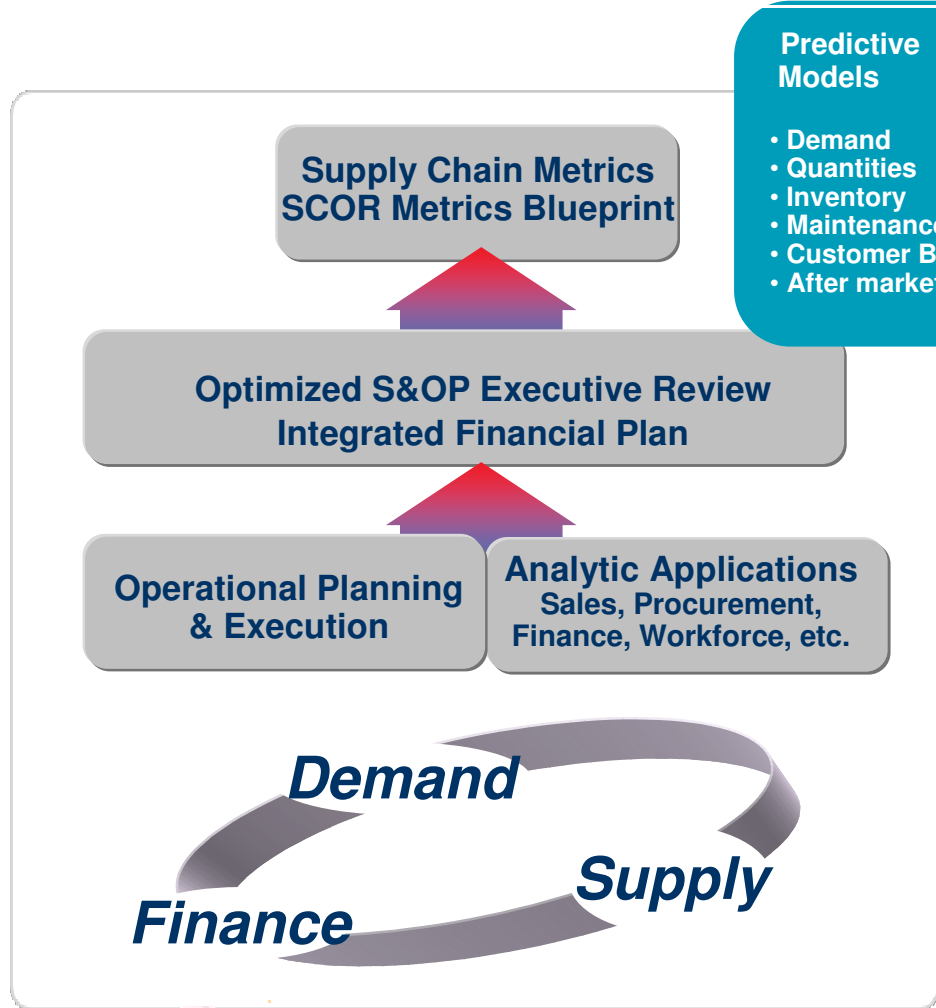


IBM Cognos 10

Scorecards

Reports & Analysis

Real Time Monitoring

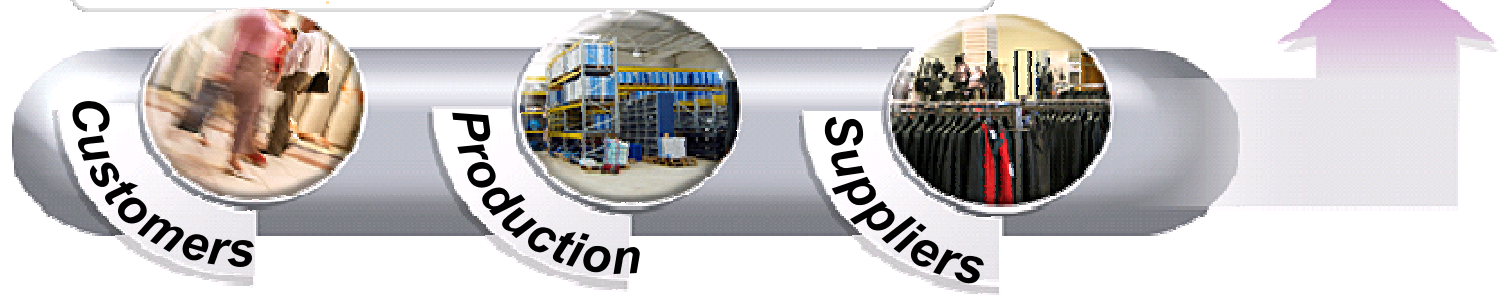


Predictive Models

- Demand
- Quantities
- Inventory
- Maintenance
- Customer Behavior
- After markets

Operations Data

- **ERP**
- **Inventory**
- **Supply Chain**
- **Logistics / 3PL**
- **MES**
- **Customer CRM**
- **Syndicated Data**
- **POS Data**
- **Trade Promotion Results**



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

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

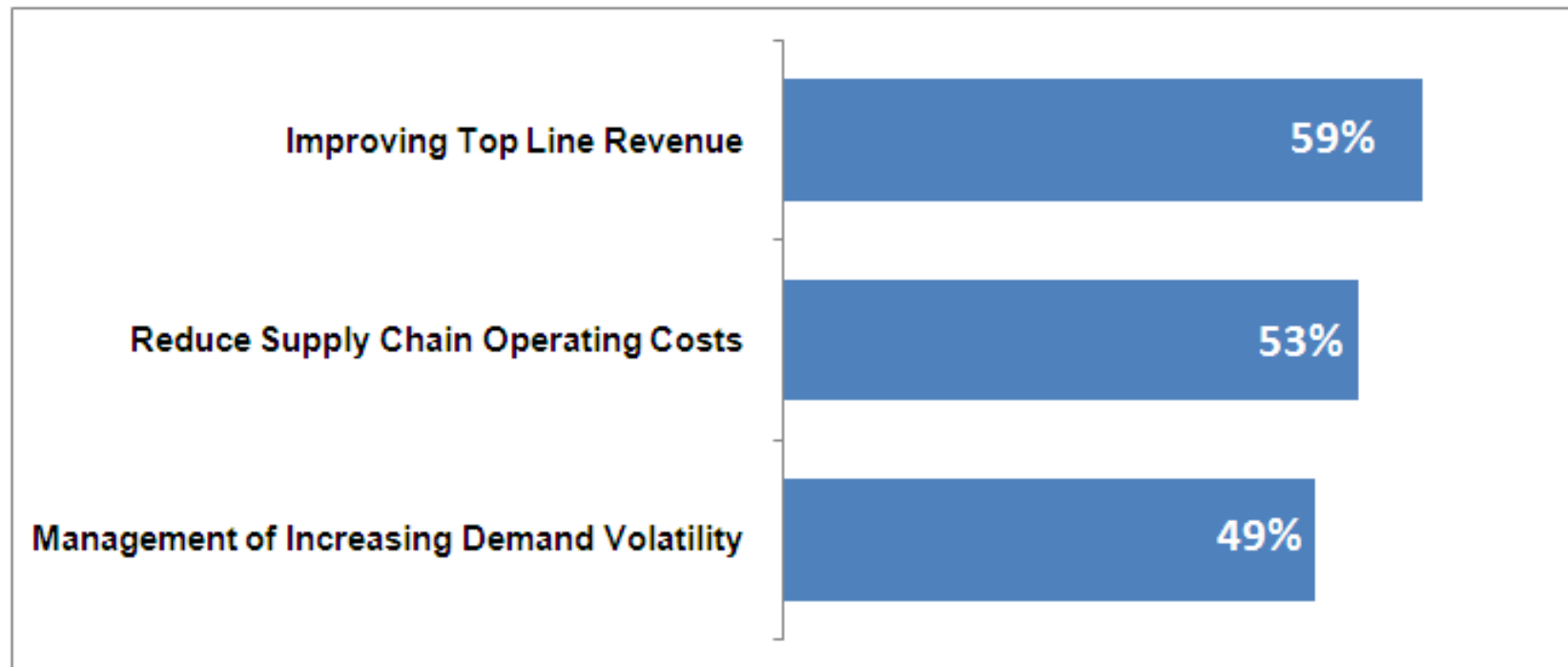
“Overwhelming” gains in gross margin performance

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



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



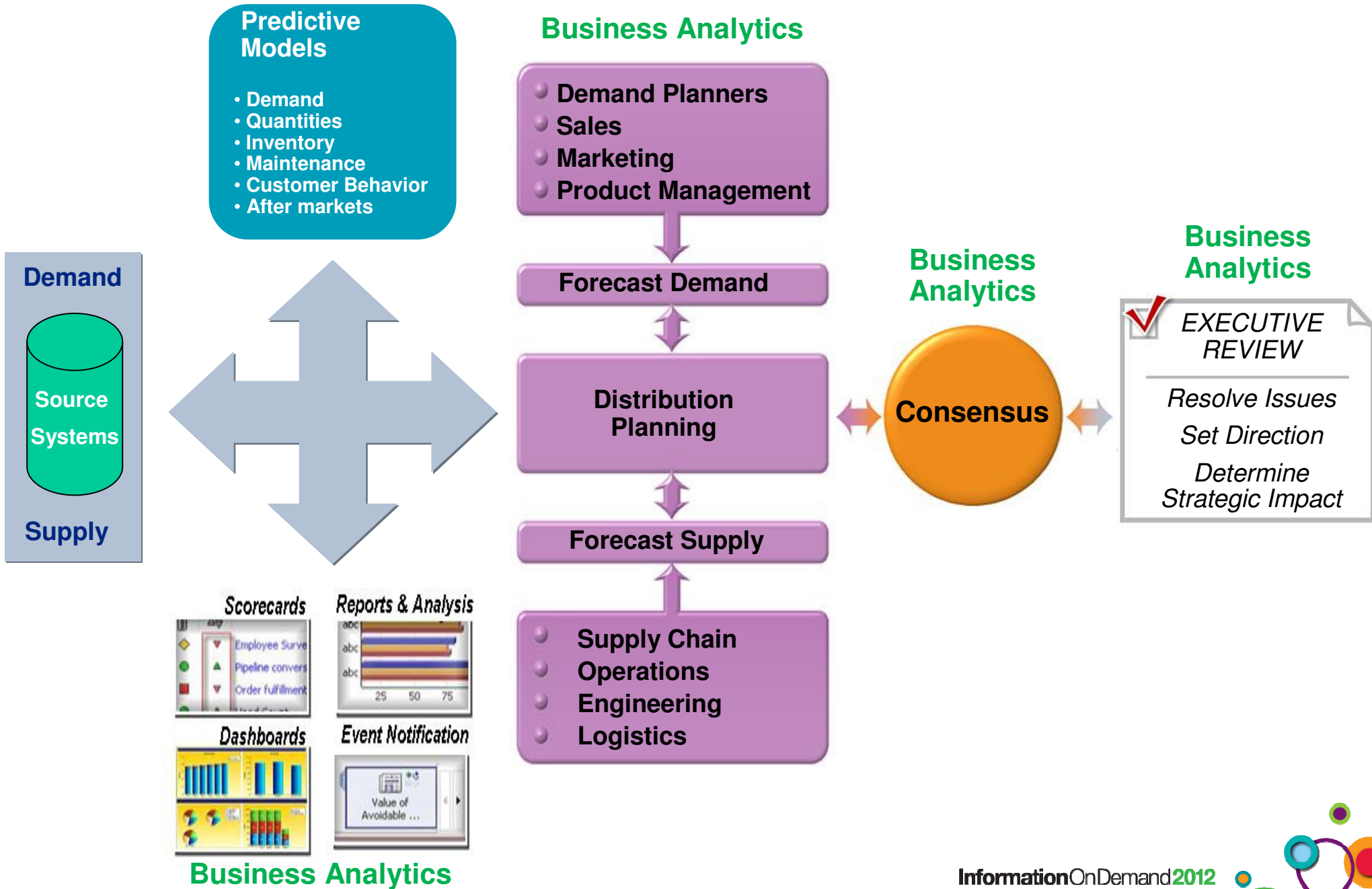
Operational Effectiveness driven by Sales & Operations Planning (S&OP)



- 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 'right-time' 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



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

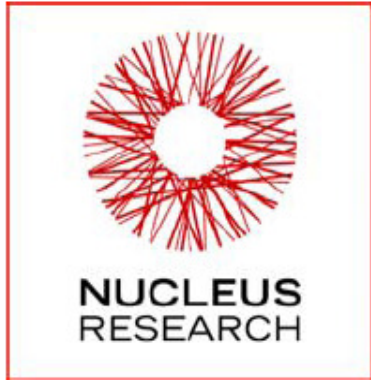
- 50% increase in inventory turns
- 15% improvement in forecasting accuracy
- Improved visibility into supply chain operations provides marketing, sales, and operational users with better planning information.
- Forecasting conversations transformed to more timely and accurate business predictions based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



↑ INVENTORY PERFORMANCE

↑ FORECAST ACCURACY





Independent analysis by Nucleus Research:

- **ROI: 383%**
- **Payback: 4 months**

“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*



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





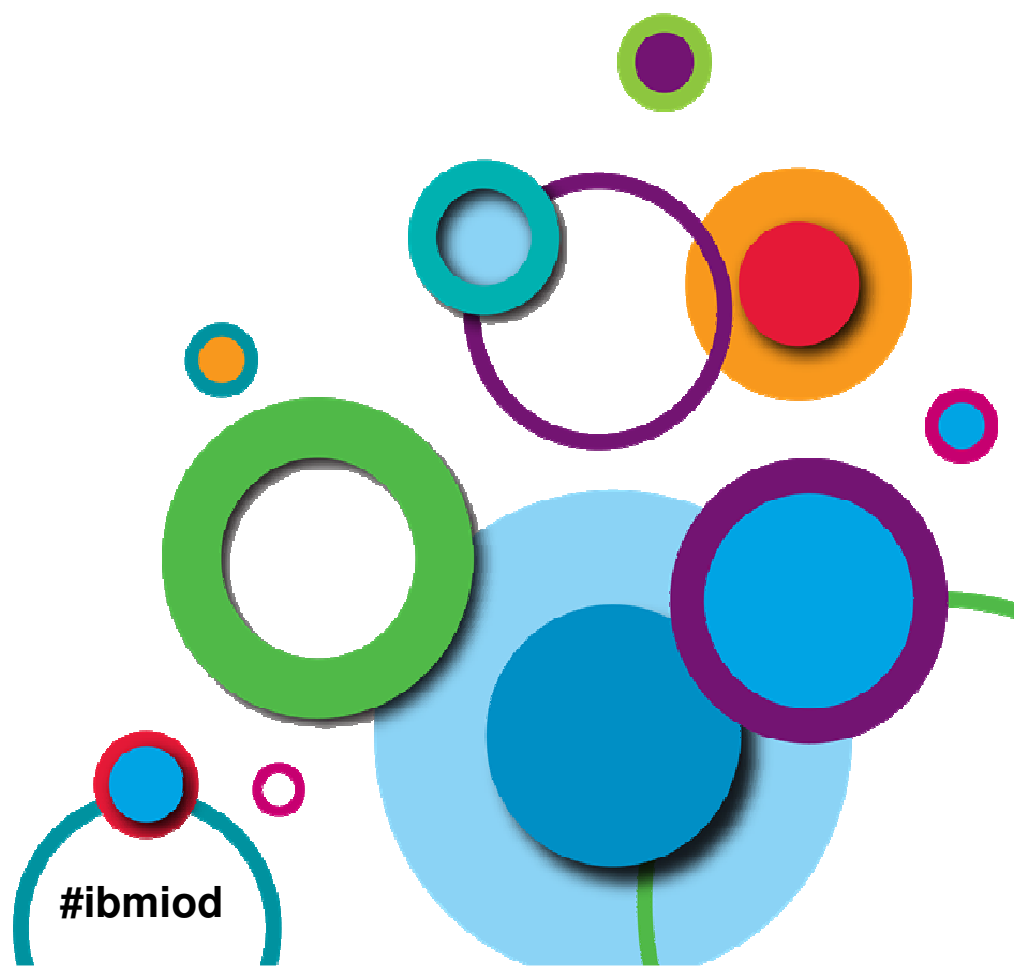
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Demonstration





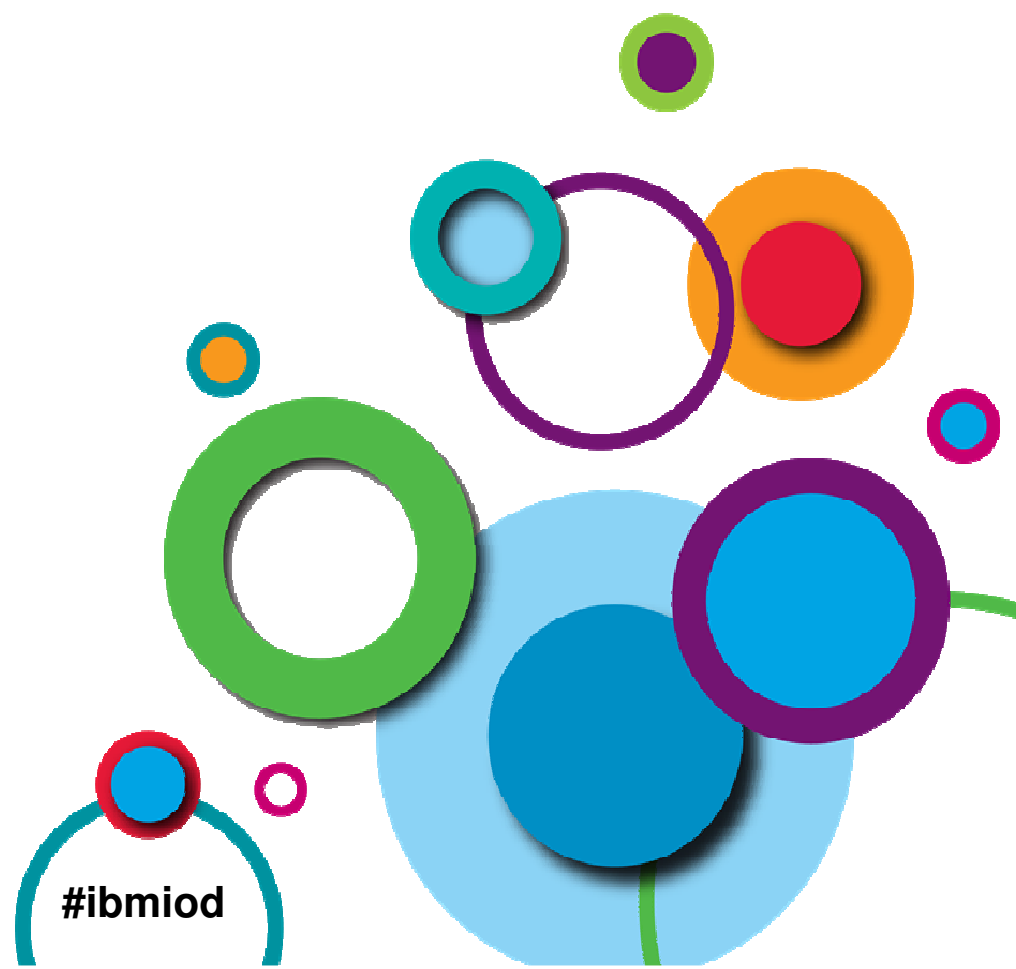
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Questions



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- 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

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S&OP Dashboard

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Demand Planning

[Demand and Supply Plan Synchronization](#)

[Critical Components Review](#)

[Financial Review](#)

Top/Bottom Products

[Top/Bottom Products Report](#)

[Actual vs Forecast Variance](#)

[Drive to Consensus Demand Analysis](#)

[Gross Margin Consensus Plan](#)

[Forecast Accuracy](#)

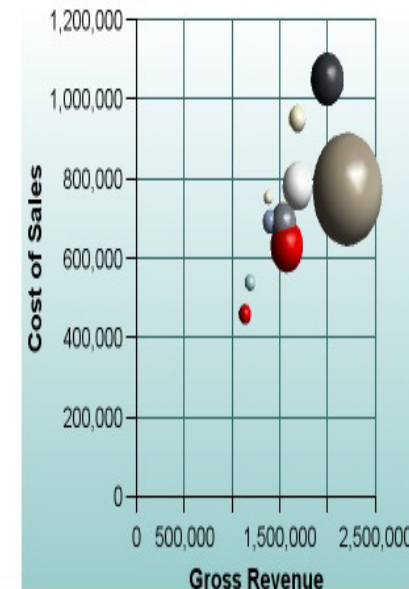
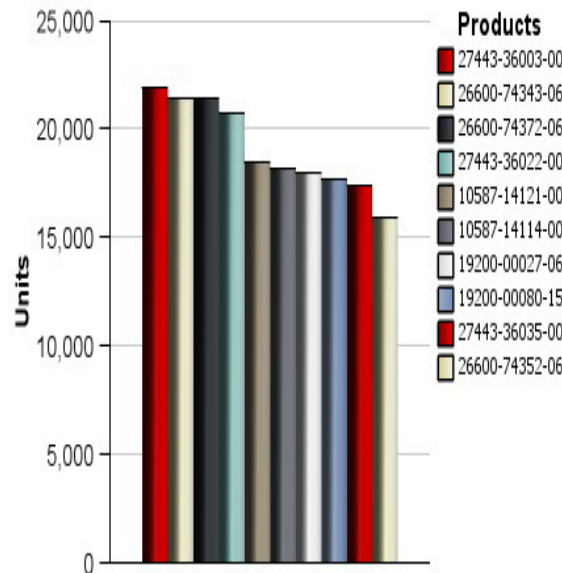
[Forecast Velocity](#)

Top Products for DC Charlotte NC in Feb-12 by Units

Location	Months	Version	Order	Measure	Products
* DC Charlotte NC	* Feb-12	* Actual	<input checked="" type="radio"/> Top <input type="radio"/> Bottom	* <input checked="" type="radio"/> Units <input type="radio"/> Gross Revenue <input type="radio"/> Cost of Sales <input type="radio"/> Gross Margin	10 Finish

Feb-12

	Units	Gross Revenue	Cost of Sales	Gross Margin
27443-36003-00	21,909	\$1,569,341	\$631,417	\$937,924
26600-74343-06	21,439	\$1,681,031	\$952,535	\$728,496
26600-74372-06	21,384	\$1,994,271	\$1,051,450	\$942,821
27443-36022-00	20,732	\$1,184,005	\$539,861	\$644,144
10587-14121-00	18,443	\$2,204,308	\$774,420	\$1,429,888
10587-14114-00	18,146	\$1,536,059	\$688,459	\$847,600
19200-00027-06	18,029	\$1,683,080	\$782,098	\$900,982
19200-00080-15	17,682	\$1,397,409	\$693,134	\$704,275
27443-36035-00	17,387	\$1,129,981	\$459,713	\$670,268
26600-74352-06	15,922	\$1,374,705	\$754,225	\$620,480



Products, Gross Margin

- 27443-36003-00
- 26600-74343-06
- 26600-74372-06
- 27443-36022-00
- 10587-14121-00
- 10587-14114-00
- 19200-00027-06
- 19200-00080-15
- 27443-36035-00
- 26600-74352-06

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Actual vs Forecast Variance Analysis

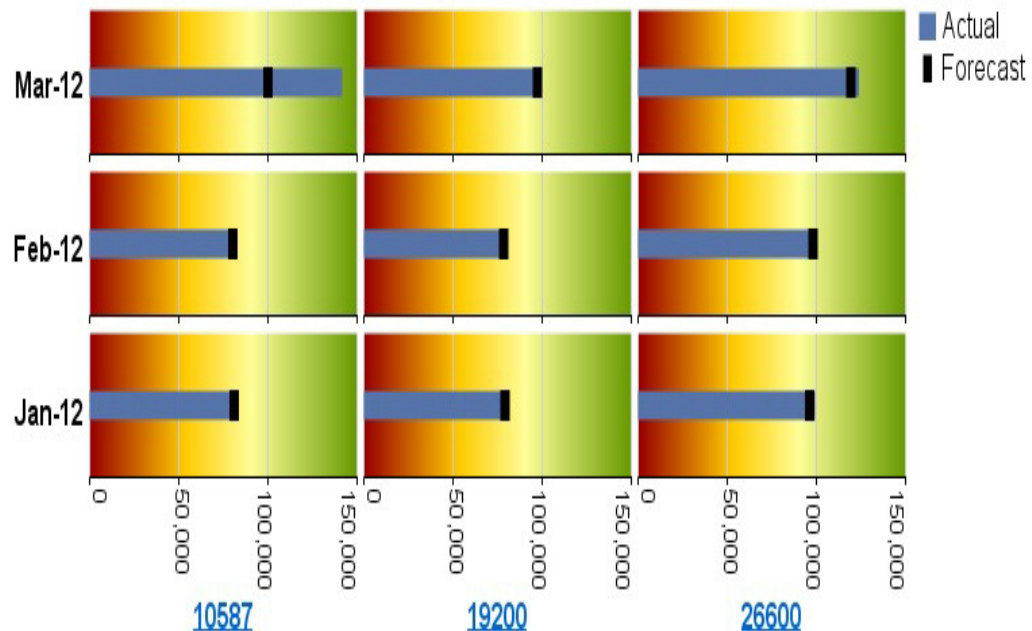
Product Groups
 * 10587
 19200
 26600
 27443
 36241
 39977
 41500
[Select all](#) [Deselect all](#)

Months
 * Mar-12
 Apr-12
 May-12
 Jun-12
 Jul-12
 Aug-12
 Sep-12
[Select all](#) [Deselect all](#)

Location
 * DC Charlotte NC

Source
 * Consensus Forecast

Finish



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Forecast Accuracy for DC Charlotte NC

Product Groups	Locations	Quarters	
<ul style="list-style-type: none"> 10587 19200 26600 27443 36241 39977 41500 	DC Charlotte NC	<ul style="list-style-type: none"> Qtr01 - 2012 Qtr02 - 2012 Qtr03 - 2012 Qtr04 - 2012 Qtr01 - 2013 Qtr02 - 2013 Qtr03 - 2013 	<input type="button" value="Finish"/>
Select all Deselect all		Select all Deselect all	

[Week09 - 2012](#)
[Week10 - 2012](#)
[Week11 - 2012](#)
[Week12 - 2012](#)
[Week13 - 2012](#)

Product Groups	Actual	Forecast	Var %	Actual	Forecast	Var %	Actual	Forecast	Var %	Actual	Forecast	Var %	Actual	Forecast	Var %
10587-14121-00	4,348	4,348	0.0%	12,000	4,248	-182.5%	11,000	4,151	-165.0%	3,696	4,055	8.9%	3,611	3,962	8.9%
10587-14115-00	2,500	2,500	0.0%	4,688	2,500	-87.5%	4,688	2,500	-87.5%	4,688	2,500	-87.5%	4,688	2,500	-87.5%
10587-14114-00	4,562	4,562	0.0%	5,808	4,573	-27.0%	5,781	4,583	-26.1%	5,794	4,594	-26.1%	5,808	4,605	-26.1%
10587-14329-00	3,677	3,677	0.0%	4,983	3,804	-31.0%	4,656	3,935	-18.3%	4,817	4,071	-18.3%	4,983	4,211	-18.3%
10587-14428-00	968	968	0.0%	2,314	963	-140.3%	2,765	958	-188.7%	4,875	952	-411.8%	4,121	947	-335.0%
10587-14527-00	1,100	1,100	0.0%	1,100	1,100	0.0%	1,100	1,100	0.0%	1,100	1,100	0.0%	1,100	1,100	0.0%
10587-14916-00	1,706	1,706	0.0%	1,648	1,648	0.0%	1,766	1,592	-10.9%	1,706	1,538	-10.9%	1,648	1,486	-10.9%
10587-15128-00	537	537	0.0%	544	544	-0.1%	531	550	3.5%	537	557	3.5%	544	563	3.4%
10587-16125-00	331	331	0.0%	328	328	0.0%	334	325	-2.8%	331	322	-2.8%	328	319	-2.8%

Forecast Unit Velocity for Week14 - 2012

Products	Locations	Week	All Versions	
* 10587-14121-00 10587-14329-00 10587-14428-00 10587-14527-00 10587-14916-00 10587-15128-00 10587-16125-00	* DC Anchorage AL DC Atlanta GA DC Bangor ME DC Boston MA DC Charlotte NC DC Dallas TX DC Des Moines IA	* Week14 - 2012	* Forecast	Finish
Select all Deselect all	Select all Deselect all			

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	

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[Negative Ending Inventory Exception Report](#)

[Utilization](#)

[SKU/Product Line Capacity DRILL](#)

[SKU/Product Line Capacity Report](#)

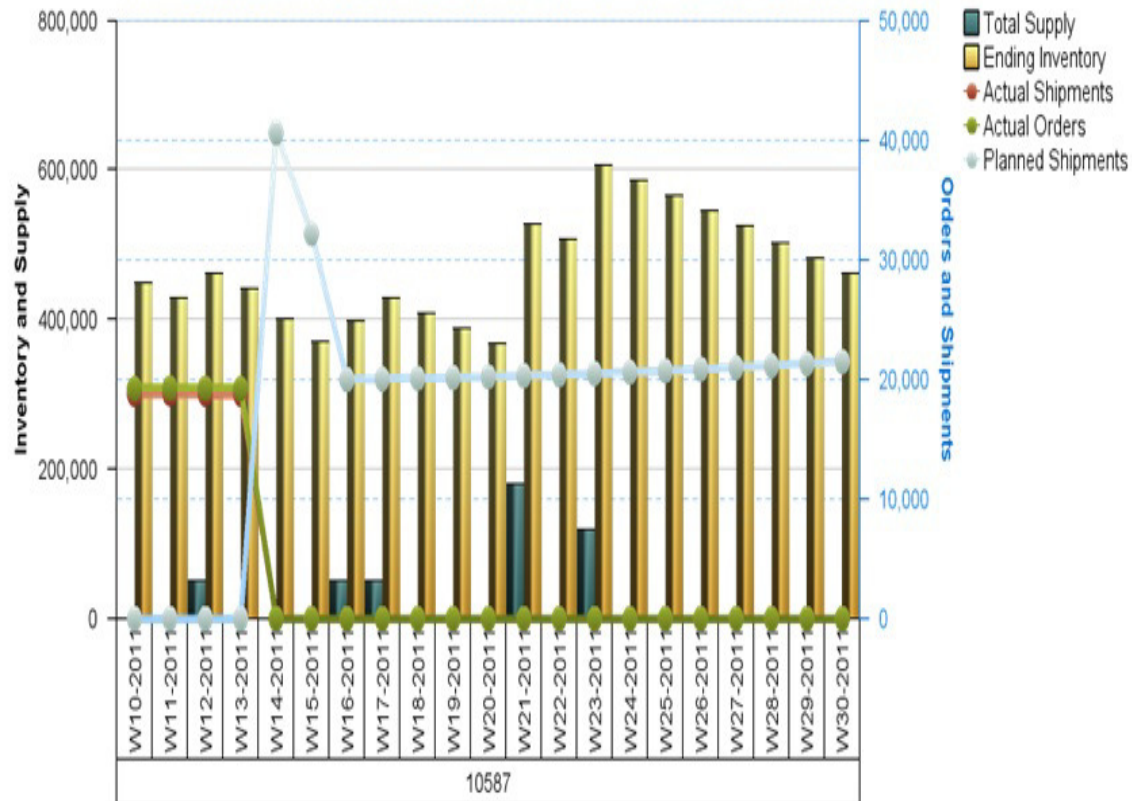
[SKU/Product Line Capacity Report 3](#)

[SKU/Product Line Capacity Report 4](#)

Demand/Supply Synchronization for DC Charlotte NC

Product Groups	All Versions	Location	Year	Week Start	Week End	
<input checked="" type="radio"/> 10587 <input type="radio"/> 19200 <input type="radio"/> 26600 <input type="radio"/> 27443 <input type="radio"/> 36241	Forecast Scenario 1 Scenario 2 Scenario 3	DC Charlotte NC	<input checked="" type="radio"/> Current <input type="radio"/> Next	10	30	Finish

Chart
 Crosstab
 Split View



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[Utilization](#)
[SKU/Product Line Capacity DRILL](#)
[SKU/Product Line Capacity Report](#)
[SKU/Product Line Capacity Report 3](#)
[SKU/Product Line Capacity Report 4](#)

Negative Inventory Report for DC Charlotte NC

All Versions	Distribution Center	Year	Week Start	Week End	
<ul style="list-style-type: none"> Actual Budget <li style="background-color: #0070C0; color: white;">Forecast Scenario 1 Scenario 2 Scenario 3 	DC Charlotte NC	<input checked="" type="radio"/> Current <input type="radio"/> 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)

Rows: Workflow [Workflow] Columns: Completion [Completion]

	% Complete	Name	Target Date	Due Date	Days Past Due
Total Workflow	85%	Paul Hoy	,	,	
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 % Change	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

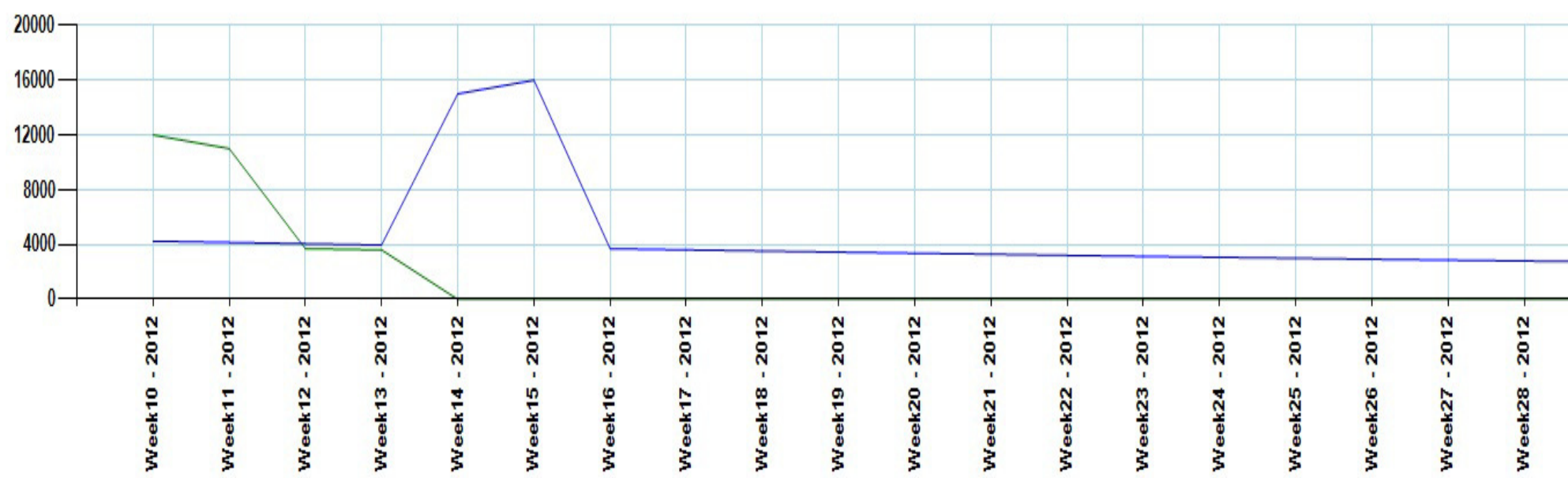
Rows: Products Only [Product] Versions [Versions]

Columns: Week [Week]

Context: PG 10587 [Product Group] Original [Original Adjusted] Consensus Forecast [Source] Units [Measure] DC Charlotte NC [Location]

		Week10 - 2012	Week11 - 2012	Week12 - 2012	Week13 - 2012	Week14 - 2012	Week15 - 2012	Week16 - 2012	Week17 - 2012	Week18 - 2012	Week19 - 2012	Week20 - 2012	Week21 - 2012	Week22 - 2012	Week23 - 2012	Week24 - 2012	Week25 - 2012	Week26 - 2012	Week27 - 2012	Week28 - 2012
10587-14121-00	Actual	12,000	11,000	3,696	3,611	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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					
10587-14115-00	Actual	4,688	4,688	4,688	4,688	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Forecast	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
10587-14114-00	Actual	5,808	5,781	5,794	5,808	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Forecast	4,573	4,583	4,594	4,605	4,615	4,626	4,636	4,647	4,658	4,668	4,679	4,690	4,701	4,712					
10587-14329-00	Actual	4,983	4,656	4,817	4,983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Forecast	3,804	3,935	4,071	4,211	4,357	4,507	4,662	4,823	4,990	5,162	5,340	5,524	5,715	5,912					
10587-14428-00	Actual	2,314	2,765	4,875	4,121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Forecast	963	958	952	947	942	937	932	927	922	917	912	907	902	897					
10587-14527-00	Actual	1,100	1,100	1,100	1,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Forecast	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100

Top Page up Page down Bottom





Workflow



Consensus Plan



Finished Goods Inventory



Critical Component Cost - Standard

Rows:

Critical Component Number
 [Critical Component Number]

Columns:

Versions
 [Versions]

Context:

Component Cost
 [Component Cost]

	<u>Actual</u>	<u>Forecast</u>	<u>Budget</u>
30587-34323-00	3.44	3.53	3.42
30587-34335-00	3.23	3.06	2.96
30587-34334-00	3.11	3.01	2.53
30587-34329-00	3.16	2.97	2.87
30587-34428-00	3.03	2.89	2.80
30587-34527-00	3.25	3.87	3.75
30587-34936-00	3.03	3.44	3.33
30587-35328-00	3.26	3.33	3.22
30587-36325-00	2.98	2.65	2.57
30587-38329-00	3.28	3.45	3.34
39200-00027-06	3.10	3.18	3.08
39200-00053-04	2.91	2.75	2.67
39200-00080-35	2.80	2.35	2.28
39200-00085-33	2.84	2.67	2.59
39200-00303-03	2.73	2.61	2.52
39200-00305-06	2.93	3.49	3.37
39200-00330-00	2.73	3.09	3.00
39200-00202-06	2.93	3.00	2.90
39200-00252-05	2.68	2.39	2.31
39200-00262-04	2.95	3.11	3.01
26600-74372-06	2.75	2.41	2.33
26600-74372-05	2.39	2.09	1.51
26600-74343-06	2.09	1.83	1.78
26600-74352-06	1.87	1.57	1.52

Rows:

Columns:

Context:

Critical Component Number
[Critical Component Number]

Time
[Time]
Critical Component Constraint
[Critical Component 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	
30587-34334-00	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

Rows: Critical Component Number [Critical Component Number]
Columns: Bill of Materials Measure [Bill of Materials Measure]
Context: 10587-14121-00 [Product] Forecast [Versions]

	Standard Quantity	Substitute	New Quantity	Standard Cost per Unit	Cost Adjustment	Change %	Adjusted Standard Cost per Unit	Standard Cost
Total Standard Cost					0.56			43.56
Production Cost							5.00	5.00
All Other Components							13.64	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	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	

Rows: Distribution Center [Distribution Center]
Columns: Production Facilities [Production Facilities]
Distribution Lead Time [Distribution 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	Freemont Line 07
	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time	Distribution Lead Time
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 Sacramento 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	

Rows:

Production Lines Only
[Production Facilities]

Columns:

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

Rows: Income Statement [Income Statement]
 Columns: Months [Months]
 Context: FY1 [Years] Operations Planning [Organization] Forecast [Versions]

	Jan	Feb	Mar	⊕ Q1	Apr	May	Jun	⊕ Q2	Jul	Aug	Sep	⊕ Q3	Oct	Nov	Dec	⊕ Q4
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 amortization	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	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	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	\$0.84	\$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	\$0.84	\$16.06	\$24.16	\$7.24	\$1.14	\$16.99	\$25.38
Retained earnings - beginning 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 - 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 earnings	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 Outstanding (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 (1000s)	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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