SALES AND OPERATIONS PLANNING PERFORMANCE BLUEPRINT—DISTRIBUTION



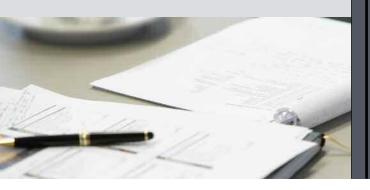
APPLICATION BRIEF





INTRODUCTION

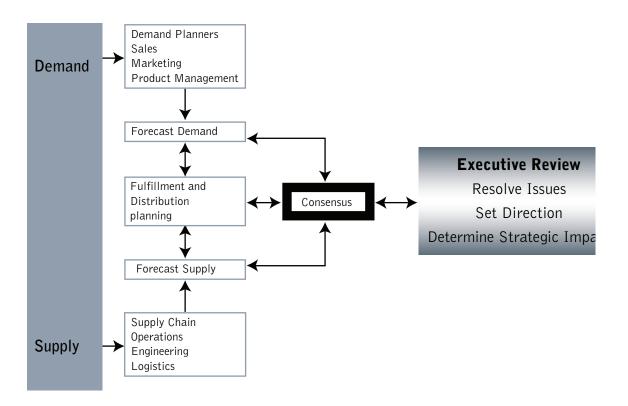
This application brief demonstrates best practices for sales and operations distribution planning. By implementing the IBM Cognos Sales and Operations Planning Performance Blueprint-Distribution, organizations can test many factors in the planning process and use the plan to determine whether resources and budget will meet demand. The models and processes described in this document are generic for most North American companies, but can be configured to support alternative model requirements and to accommodate planning in many countries.



OVERVIEW

The *IBM Cognos Sales and Operations Planning Performance Blueprint—Distribution* provides an in-depth guide to post-production fulfillment and distribution planning. As sales and operations planning (S&OP) matures in organizations, it has evolved into an internal, supply chain-wide process that reconciles operational plans across all relevant business operations. The Sales and Operations Planning suite of Blueprints continues to grow due to demand plans and their connection to production-constrained supply plans and constrained distribution plans. Demand and supply plans and the executive review components strongly reflect companies' operational and strategic financial plans.

Figure 1 shows where the new functionality in fulfillment and distribution fits into the *Sales and Operations Planning Blueprint* suite of models.



BLUEPRINT OBJECTIVES

The *IBM Cognos Sales and Operations Planning Performance Blueprint—Distribution* is a Web-based process for S&OP distribution planning using IBM Cognos 8 Planning and IBM Cognos 8 Business Intelligence. The *Blueprint* provides a performance-management framework that includes planning, metrics, and reporting.

This application brief provides an overview of a typical customer implementation. The models and processes described here apply to most manufacturing companies and can be configured to support alternative model requirements and accommodate planning in any environment.

Using the *Blueprint*, organizations can test many major constraints in the planning process: inventory targets and budgets; warehouse space; service versus cost trade-offs; and other supply chain costs such as carrying costs and capital investments, variable costs, and fixed cost budgets on the distribution side of the organization. Manufacturers can use the plan to determine whether sufficient resources and budget exist to meet demand over broad time frames, such as months, quarters, or years.

The *Blueprint* was designed to meet typical business needs, such as:

- A decision-making mechanism to identify over-capacity situations and make informed decisions to relieve bottlenecks such as allocating available capacity or investing in future capital expansion to provide additional future capacity
- Planning and controlling priorities
- The ability to model the constraints and costs of
 - Warehouse facilities (e.g., space and inventory)
 - Critical labor and machinery resources
 - Direct and indirect expenses
- Variance analysis and exception reporting from actual to plan
- What-if modeling, which enables managers to perform multi-dimensional and multi-scenario analyses of changes in demand, supply plan, resource availability, as well as the associated financial impact
- A tool to resolve conflicts in the supply and demand plan
- A method of determining the tradeoff between customer-service levels and constrained resources
- A method of integrating the fulfillment and distribution capabilities into the S&OP process

Supply-chain management focuses on the flow of raw materials, parts, work-in-process, and finished products required to ensure that customers receive finished products at the right time, in the right location, and in the right amounts. Executives now realize the importance of logistics to corporate strategy. Superior customer service may be the key goal driving logistics strategy, but organizations must also consider cost, valueadded services, flexibility, and adaptability.

Manufacturers must align supply and demand to create one statement of anticipated demand and use that statement as the single driver for consumption of critical supply-chain resources. Frequently, one key step in the process—checking available capacity—occurs too late; manufacturers would benefit from integrating an effective supply-chain capacity check into the S&OP process. The focus should be on bottleneck work centers, critical in-bound supply chain materials, and restricted support processes, such as financial commitment, transportation and logistics, and warehousing facilities. More than ever, organizations today need an effective way to identify those resources and link them to the demand plan.

Business Problems Related to S&OP

- Inefficient operations, with limited integration between Sales, Supply Chain/Manufacturing Operations, and Finance
- Inability for senior management to develop integrated demand and supply plans and simulate financial impact of scenarios
- Decreased customer loyalty and greater competition
- Low-cost competition
- Systems that do not support overall view of the business
- Disconnected processes caused by multiple functions and processes in the organization
- Multiple and disjointed transaction systems
- Extended and complex global supply-chain networks
- Outsourced logistics and manufacturing
- Significantly increasing logistics costs
- Increasing globalization in manufacturing, resulting in new operational issues

S&OP is a critical link between strategy and execution; the S&OP plan is only valuable if it is attainable. Supply chain resource planning provides an effective tool for testing the S&OP plan against supply-chain critical resources as part of the consensus process. Specifically, the *IBM Cognos Sales and Operations Planning Performance Blueprint*—*Distribution:*

- Provides proactive analysis of resources beyond production capacity
- Identifies major resource constraints earlier in the planning process
- Improves communication and coordination
- Enables better alignment between S&OP and resource capabilities
- Drives better customer service through improved planning, faster identification of changes in business conditions, and more frequent performance review
- Improves visibility across the entire supply chain
- Provides greater connectivity among all aspects of the supply chain
- Delivers exception-based information
- Reduces costs
- Integrates supply-chain logistics planning into the S&OP process
- Parallels physical supply chains in all firms and financial supply chains involving decisions about capital investments, borrowing, dividends, and other factors under the control of the company financial managers (the two chains should be linked, especially at the strategic level of planning)
- Incorporates *what-if* modeling, enabling managers to perform multi-dimensional and multi-scenario analyses of changes in demand, supply plan, resource availability, as well as the associated financial impact

In addition to the benefits specific to the *Blueprint*, the IBM Cognos 8 Planning solution provides significant benefits to companies:

- Flexible model development to support a wide variety of planning models
- Web-based or Excel-based deployment of models for data collection and consolidation
- Easy version control
- Real-time workflow to drive collaboration
- Real-time consolidation
- Real-time reporting
- Real-time calculations in the browser for immediate results

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- Audit tracking, user textual annotations, and attachments at the cell, worksheet, and model level to drive collaboration
- Drop-down validation lists to ensure data consistency
- Scalable architecture with proven deployments to thousands of users
- Linking functionality to provide divergent, yet interrelated components of planning environment
- Off-line capabilities
- Custom-date capabilities with no limit on the time dimension to enable planning by the week, season, period, quarter, or year
- Unique multi-directional calculation engine that enables input across any dimension at both the detail and total levels

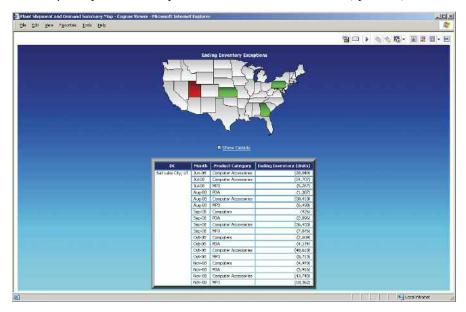
BUSINESS INTELLIGENCE

The *IBM Cognos Sales and Operations Planning Performance Blueprint—Distribution* includes multiple views into key metrics, charts, graphs, and reports. Several views appear below.

To drive visibility into exceptions and alerts, the Sales and Operations Planning Distribution Portal (Figure 2) combines charts, graphs, maps and drill-down information to the supporting business intelligence.







The Distribution Center Inventory Level Monitor Map (Figure 3) alerts managers about distribution center inventory exceptions. The report enables selections for month, product, and distribution center.

Figure 3

The Distribution Center (DC) Master Planner Summary Review Report (Figure 4) shows a complete view of a distribution center's inventory plan. This report enables a user to look at inbound inventory, outbound inventory, forecasted inventory values, and planned inventory value and provides alerts to those areas where inventory is forecasted above capacity plans.

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larrisi	ourg, PA	Inbound Transfers from Plants	Otubound Shipmants to Customers	Ending Inventory (Units)	Forecasted (reventory Value	Planned Inv	ventory Value	apacity
3.n-08	Standard TV	148	85	787	19,639		30,000	65%
	Speakers	296	169	1,574	39,276		30,000	1.010
	Receiver	124	71	767	19,148		30,000	64%
	Big Screen TV	146	84	777	19,403		22,000	88%
	Eyewear	0	0	44,325	1,106,417		0	0%
	Illuminations	4,627	2,818	26,080	650,991		490,000	130W
	Watches	8,436	4,600	41,538	1,036,600		800,000	1.00%
	Binopulars	4,420	3,537	27,223	679,523		400,000	17096
	Nevigation	7,179	4,400	7,498	187,158		200,000	94%
	DVD Mdeo	11,942	6,624	52,694	1,423,126		950,000	150%
	CD Audia	14,730	8,417	72,350	1,953,958		2,000,000	96%
	Entertainment Accessories	18,751	11,573	114,438	3,090,641		3,000,000	105%
	Software	9,282	5,303	49,793	1,344,777		900,000	149%
	Game Console	15,743	8,996	69,468	1,876,123		1,000,000	10000
	Computers	11,894	6,796	58,417	1,523,895		2,000,000	76%
	PDA	9,642	5,510	42,547	1,109,696		1,000,000	1115
	Computer Accessories	16,220	9,344	103,203	2,692,198		2,600,000	1000
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			Harrisburg, PA	<u>M</u>	icon, GA	Salt Lake (ity, UT
			Ending Inventory (Units) Statu	5 Ending Inventory (Units)	Status	Ending Inventory (Units)	Status
Jun-08	CONSUMER ELECTRONICS	Computers	29,205	11,118		5,245	
		PDA	21,273	7,555		2,823	
		Computer Accessories	51,601	16,307		-20,049	
		MP3	20,102	7,810		3,915	
ul-08	CONSUMER ELECTRONICS	Computers	31,175	10,782		3,590	
		PDA	23,616	7,154		849	
		Computer Accessories	54,410	15,636		-24,707	38
		MPB	30, 996	5,946		-5,267	12
10-ru	DE CONSUMER ELECTRONICS	Computers	33,429	10,396		1,668	
		EDA	26,265	6,703		-1,387	-
		Computer Accessories	57, 849	14,615		-30,410	-
		MP3	32,456	5,696		-6,498	38
ep-08	CONSUMER ELECTRONICS	Computers	35, 536	9,967		-426	
		EDA	28,059	6,394		-2,896	-
		Computer Accessories	61,481	13,947		-36,433	38
		MPS	34,092	5,417		-7,876	38
0t:08	CONSUMER ELECTRONICS	Computers	38,527	9,524		-2,609	**
		EDA	29,574	6,135		-4,174	
		Computer Accessories	63,999	13,346		-40,610	38
		MPS	35,085	5,247		-8,713	88
Sov-08	CONSUMER ELECTRONICS	Computers	41,328	9,045		-1,970	88
		eda	31,641	5,781		-5,916	
		Computer Accessories	65, 88B	12,894		-43,743	-
		MPS	37,042	4,912		-10,362	38

The Ending Inventory Status Report (Figure 5) shows projected ending inventory for a distribution center and highlights any products that are forecasted to be out of stock, providing future visibility to drive higher revenue and margin.

Figure 5

The **Resource Capacity Plan Chart** (Figure 6) provides a resource capacity plan over time, by resource, product, distribution center, and plan version. Charting forecasted required capacity against demonstrated and maximum capacity with highlighting provides clear visibility into resources that will constrain the demand placed on the distribution center.



The Distribution Center (DC) Resource Requirements Summary Chart (Figure 7) shows the summary level machine and labor capacity for each month. To alert the planner of the need to reallocate plan data, this view highlights in red any months where required capacity exceeds maximum capacity. Users can display this report by distribution center, product, month, and version. Users can view details of resources in this summary report by clicking on the Month link.

)C: /ersion:	Harrisbu		Product: CONSUMER E		s ▼ Montl	15: Jan-08 Fab-08 Mar-08	1
	N	1achine (Capacity.		Labo	r Capacity	
Month	Required Capacity	Max Capacity	Load vs. Capacity (%)	Required Capacity	Max Capacity	Load vs. Capacity (%) 6% 50% 100% 150%	
<u>Jul-09</u>	601	1,115		2,010	2,225		
Aug-00	526	984		1,756	1,963		
<u>5ep-08</u>	564	995	-	1,885	Z,033		
<u>Oct-08</u>	548	1,013		1,833	2,022		
Nov-DB	600	952		2,004	1,943		
<u>Dec-08</u>	522	954		1,747	1,905		

Figure 7

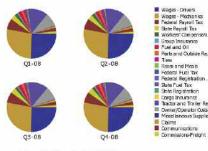
If you drill down from the Summary Report in Figure 7, you will see the **Resource Requirements Plan** (Figure 8). This report provides detailed information about resources, which helps drive resource-allocation decisions; the report also helps companies meet the demand plan on the distribution center.

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	Total to	bound Units 1	otal Outbeand Units	Its Reg/Unit	Required Capacity De	monstrated Capacity	Mail Capacity	Demonstrated Capacity Overage	Maximum Capacity Overage
97.00	Indeed	65,476	T51	7.20	7672.+1	797,71	995.25		a
	Stock	05,476	37,541	17-20	1,709.02	1,475,42	1,770.50		
	Bok	65,476	32,541	9,60	736.21	1,229.51	1,345.02		
	Fack	65,476	37,541	14.40	1,104.52	983 6L	1,117.62	2	
	Load	65,476	37,54	6.00	403.13	737,75	1,055.00		
	Shrink Wrengton	65,47h	37,511	6.00	460.13	(65.74	254.10		
	Pallelizina	65,478	37,541	3.00	632.32	19.19+	575.41	1	
	Labeler	65,47%	27,541	3.00	230.07	635.74	734.42		
,	Forkbit	65,47h	37,511	2.40	184.05	819.68	983.61		
J2-00	Unical	67,471	50,069	7.20	17083-51	749.13	899.96		18
	Sock	87,471	50,059	13.20	1,907.10	1,498.26	1,797,01		
	ttek .	87,471	50,089	9,60	826.98	1,248,95	1,348,63		
	Zack .	87,471	50.065	14.40	1,224.57	998.84	1,119.77		*
	Lood	87,471	50,080	6.00	516.49	749.13	1,057.22		
	Shrini: Wrauging	87,471	58,069	6.00	616.49	.665.89	765.70		
	Collections	87,471	00,009	3.00	709.67	498.62	504.32	=	
	Labeler	87,671	50,089	3,00	258.24	655.89	745.80		
	Zoridit	87,471	50,025	Z:40	205.59	632.37	998.04		

The Distribution Center Pro Forma Income Statement (Figure 9) provides a simulated pro-forma profit and loss statement (P&L) for the distribution center. The P&L is based on the demand and cost plans resulting from the planning process. In addition, multi-dimensional views (Figure 10) of costs provide insight into the variance between plan and actual.

	Jan-08	Feb-08	Mar-08	Q1-08	
otal Revenue	150, 187, 317	149,688,614	152,541,251	452,417,182	
Vages - Drivers	15,684,360	17,713,538	14,613,139	49,011,037	
Vages - Mechanics	18,507,253	19,655,399	15,673,055	53,835,707	
ederal Payroll Tax	4,626,813	4,913,850	3,932,386	13,473,049	
itate Payrol Tax	2,313,407	2,456,925	1,966, 193	6,736,525	
Norkers' Compensation	1,156,703	1,228,462	983,097	3,368,262	
Froup Insurance	578,352	614,231	491,548	1,684,131	
fuel and Ol	1,458,315	1,553,489	1,242,699	4,254,503	
Parts and Outside Repairs	1,073,944	1, 139, 510	912,025	3,125,479	
Tires	945,071	1,002,769	802,582	2,750,422	
Room and Meals	145,831	155,349	124,270	425,450	
Federal Fuel Tax	185,073	220,809	174,104	579,985	
Federal Registration and License	72,916	77,674	62,135	212,725	
State Fuel Tax	92,536	110,405	87,052	289,993	
State Registration	291,663	279,628	227,009	798,300	
Cargo Insurance	182,289	194,186	155,337	531,813	
Tractor and Trailer Rental	8,749,887	9,320,932	7,456,197	25,527,016	
Owner/Operator Costs	5,833,258	6,213,955	4,970,798	17,018,011	
Miscellaneous Supplies	145,831	155,349	124,270	425,450	

Figure 9



Complete hierarchy Months(All)

	Q1-08	Q2-06	Q3-08	Q4-08	
Vages - Drivers	49,011,037	43,620,800	44,069,790	44,069,750	
Vages - Mechanics	53,835,707	45,035,705	48,035,705	48,035,705	
ederal Payrol Tax	13,473,049	12,055,967	12,056,367	12,056,367	
tate Payrol Tax	6,736,525	6,028,184	6,028,184	6,029,104	
orkers' Compansation	3,368,252	3,014,092	3,014,092	3,014,092	
roup Ensurance	L,684,131	1,507,046	1,507,046	1,507,046	
uel and Cil	4,254,503	3,910,029	3,810,829	3,810,028	1
arts and Outsida Repairs	3,125,479	2,796,188	2,296,188	2,796,188	
kes .	2,750,422	2,460,646	2,460,646	2,460,646	
com and Mexis	425,450	381,003	381,003	381,003	
ederal Fuel Tax	579,985	533,868	533,868	533,068	
oderal Registration and License	212,725	190,501	190,501	190,501	

Figure 10

REAL-TIME WORKFLOW VISIBILITY

As the master planner and distribution center managers update distribution center plans, executives need real-time visibility to workflow status.

This *Blueprint* offers a master planner role, which can make decisions on allocations from plant-level information to distribution centers. Distribution center managers can see the consolidated results of the S&OP plans in their operations and the effects of those results and scenarios on their distribution center. Executives and reviewers can see the workflow status of each distribution center. As co-owners of that information, they can also make edits, if required. All workflow status changes, data consolidations, and aggregations occur in real time, allowing for frequent planning iterations.

Before a user enters data, the state of the plan is **O** Not started. Once a user saves a plan, the state becomes **Work in progress** and remains accessible for further editing. When a user submits an item, the plan is **Cocked**, and permits no further changes. The Locked state indicates that the plan is ready for review.

A reviewer can see a plan in any state, but can only reject a Locked item. When a reviewer rejects a Locked plan, the plan returns to a state of Work In Progress, which means it is again editable.

Figure 11 shows a workflow in which the master planner is the reviewer of both the master planner assumptions and the distribution center managers.

Cognos Planning - Contributor					
aster Planner				User Instructions About	ut He
		Velcome - Cogn			
Contributions	You are a reviewer for		Law United States		
 Distribution Master Planner Reviews Jotal Distribution Plan 	Name Total Distribution Centers	State Work In Progress	Ownership Reviewer None <u>Master</u> <u>Planner</u>	Last Data Change 11:15:53 AM - Friday, September 05, 2008	-
Distribution Master Planner Total Distribution Centers	Which is made up of:				
Macon, GA	Name	State	Ownership	Reviewer Last Data Change	
Jopeka, KS Salt Lake City, UT	Total Distribution Centers (All)		Email All		
J Harrisburg, PA	Macon, GA	Work In Progress	Wacon DC Manager	 11:15:51 AM - Friday, September 05, 2008 	-
	Topeka, KS	Work In Progress	Topeka DC Manager	 11:15:03 AM - Friday, September 05, 2008 	v
	Salt Lake City, UT	Work In Progress	Salt Lake City DC	 11:13:54 AM - Friday, September 05, 2008 	v
	Harrisburg, PA	 Work In Progress 	- Harrisburg DC Manager	 11:13:05 AM - Friday, September 05, 2008 	-
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This model offers two distinct views: master planner and distribution center manager. The master planner makes the initial allocation of market demand and plant planned shipments to the distribution centers. The distribution center manager can adjust these forecasts. Although the process is automated, parties should keep an open line of communication to achieve corporate goals.

MASTER PLANNER VIEW

Demand Summary Tab

The Demand Summary Tab (Figure 12) displays summary of demand by market and product; this tab contains "Revised Demand Forecast" data from the forecast cube in the *IBM Cognos Manufacturing S&OP Customer Demand Blueprint*. The master planner can adjust the demand for forecast months, if desired.

Demand Summary	Demand Allo	c Assumption	is Demar	Mar O	DC Plan	Planned Ship	oments F	Plant Ship Alloc /	Assumptions	h	1	
Total Products			tribution Mast							<u> </u>		
	Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08	Jul-08	Aug-08	Sep-08	Q3-08
Total Demand	375,101	373,985	380,951	1,130,037	363,047	360,085	390,337	1,113,469	675,132	414,085	383,071	1,472,
Regional Accounts	267,811	267,049	274,757	809,617	263,094	261,096	283,344	807,533	494,893	300,557	277,658	1,073,
East Region	89,096	88,843	91,407	269,347	87,527	86,862	94,264	268,653	164,643	99,991	92,372	357,0
New York	27,276	27,199	27,967	82,441	26,780	26,576	28,841	82,196	50,374	30,593	28,262	109,3
Orlando	29,631	29,546	30,399	89,575	29,108	28,887	31,349	89.344	54,754	33,253	30,720	118,
Atlanta	32,190	32,098	33,042	97,330	31,639	31,399	34,075	97,113	59,515	36,145	33,391	129,0
Central Region	92,393	92,130	94,789	279,312	90,766	90,076	97,752	278,594	170,735	103,690	95,790	370,2
Chicago	28,285	28,205	29,001	85,492	27,770	27,559	29,908	85,238	52,238	31,725	29,308	113,
Kansas City	30,727	30,639	31,523	92,890	30,185	29,956	32,509	92,650	56,780	34,483	31,856	123,
Dallas	33,381	33,286	34,264	100,931	32,810	32,561	35,335	100,706	61,717	37,482	34,626	133,
West Region	86,322	86,076	88,560	260,958	84,801	84,157	91,328	260,286	159,515	96,876	89,496	345,1
Los Angeles	26,427	26,351	27,096	79,874	25,946	25,748	27,943	79,637	48,805	29,640	27,382	105,0
Denver	28,708	28,626	29,452	86,786	28,202	27,987	30,372	86,561	53,049	32,217	29,763	115,0
Seattle	31,187	31,098	32,013	94,299	30,654	30,421	33,013	94,089	57,662	35,019	32,351	125,0
Strategic Accounts	107,290	106,935	106,194	320,419	99,953	98,989	106,993	305,936	180,240	113,527	105,413	399,
Cybertek	24,256	24,138	22,546	70,939	23,293	22,932	24,431	70,656	36,049	25,956	24,526	86,
ElectronicStuff	18,681	18,643	18,997	56,321	18,533	18,392	19,959	56,883	34,861	21,172	19,558	75,
Computation	15,102	14,956	15,011	45,068	14,600	14,489	15,724	44,813	27,464	16,679	15,408	59,
Universal Technology	15,454	15,389	15,677	46,520	15,294	15,178	16,471	46,943	28,769	17,472	16,141	62,
Global Electronics	19,738	19,735	19,619	59,092	14,266	14,158	15,364	43,789	26,836	16,298	15,056	58,
Tek Warehouse	14,058	14,075	14,345	42,479	13,967	13,841	15,044	42,852	26,262	15,951	14,724	56,



Demand Allocation (Alloc) Assumptions Tab

The **Demand Alloc Assumptions Tab** (Figure 13) enables the master planner to allocate demand by market (including strategic accounts) to the various distribution centers. For example, below we see that demand for the ElectronicStuff account will be filled 50 percent by products from the Harrisburg, Pennsylvania, distribution center and 50 percent by products from the Macon, Georgia, distribution center. The master planner can reallocate the plan when reviewing forecasted inventory levels by distribution center.

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Demand Summary De	emand Alloc Assump		Allocation to D	C Plant Pla	nned Shipments	Plant Ship Alloc A	ssumptions	1	
"∰[] Allocation %	🛃 🕫 💌	Distribution Master	bution Master Planner 🛛 🐨						
	Seattle		Cy	bertek.			Electron	nicStuff	-
	Salt Lake City, UT	Harrisburg, PA	Macon, GA	Topeka, KS	Salt Lake City, UT	Harrisburg, PA	Macon, GA	Topeka, KS	lialt Lake City, U"
yewear	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
linoculars	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
luminations	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
lavigation	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Vatches	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
oftware	100.00%	25.00%	25.08%	25.08%	25.00%	50.00%	50.00%		
iame Console	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
VD Video	100.00%	25,00%	25.00%	25.00%	25.00%	50.00%	50.00%		
D Audio	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Intertainment Accessories	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
ФА	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Computer Accessories	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
AP3	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Computers	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
)esks	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Office Accessories	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Chairs	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
itandard TV	100.00%	25.00%	25.08%	25.00%	25.00%	50.00%	50.00%		
peakers	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
leceiver	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
Big Screen TV	100.00%	25.00%	25.00%	25.00%	25.00%	50.00%	50.00%		
4									

Demand Allocation to Distribution Center (DC) Tab

The **Demand Allocation to DC Tab**, shown in Figure 14, combines the total demand volume by market and the projected allocation of demand from the two previous tabs. This tab calculates the demand in units by product type and market for each distribution center.

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Demand Summ	nary Demand Alloc Assumptions	Demand Allocat	entrand a formed of the	Plant Planned Ship	CONTRACTOR CONTRACTOR	ip Alloc Assumptions	
"∰ [Eyewear	y an-08 €			Distribution Maste	er Planner 💌		
		Harrisburg, PA	Macon, GA	Topeka, KS	Salt Lake City, UT	Total Distribution Centers	
	Total Demand from Forecast	1,641	1,641	1,641	1,641	6,562	1
New York	Demand Allo % for DC	100.00%	0.00%	0.00%	0.00%	100.00%	
New Fork	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	1,641	0	0	0	1,641	
	Total Demand from Forecast	1,766	1,766	1,766	1,766	7,063	
Orlando	Demand Allo % for DC	0.00%	100.00%	0.00%	0.00%	100.00%	
Unando	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	0	1,766	0	0	1,766	
	Total Demand from Forecast	1,902	1,902	1,902	1,902	7,608	
Atlanta	Demand Allo % for DC	0.00%	100.00%	0.00%	0.00%	100.00%	
	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	0	1,902	0	0	1,902	
	Total Demand from Forecast	1,701	1,701	1,701	1,701	6,805	
4045042	Demand Allo % for DC	0.00%	0.00%	100.00%	0.00%	100.00%	
Chicago	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	0	0	1,701	0	1,701	
	Total Demand from Forecast	1,831	1,831	1,831	1,831	7,324	
	Demand Allo % for DC	0.00%	0.00%	100.00%	0.00%	100.00%	
Kansas City	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	0	0	1,831	0	1,831	
	Total Demand from Forecast	1,972	1,972	1,972	1,972	7,889	
Dallas	Demand Allo % for DC	0.00%	0.00%	100.00%	0.00%	100.00%	
/allas	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	0	0	1,972	0	1,972	
	Total Demand from Forecast	1,589	1,589	1,589	1,589	6,358	
and the second sec	Demand Allo % for DC	0.00%	0.00%	0.00%	100.00%	100.00%	
Los Angeles	Demand Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Demand for this DC	0	0	0	1,589	1,589	100
						Current owner: N	Aaster Planner

Figure 14

Plant Planned Shipments Tab

The **Plant Planned Shipments Tab** summarizes planned shipments by plant and product, and contains "Shipments" data from the production plan cube in the *Blueprint*. The master planner can adjust shipments for forecast months, if desired.

Plant Ship Allocation (Alloc) Assumptions Tab

Shown in Figure 15, the Plant Ship Alloc Assumptions Tab enables the master planner to allocate plant shipments to various distribution centers. Below, we can see that 30 percent of shipments from the Moline, Illinois, plant go the Harrisburg, Pennsylvania, distribution center, and 70 percent of shipments go to the Topeka, Kansas, distribution center.

Demand Allocation to DC	Plant Planned Shipments	Plant Ship Alloc Assumptions	Plant Shipment Alloc to DC DC Master Planner Review	
Tr Moline, IL	Allocation %	💌 🎾 🖑 Distrit	pution Master Planner 💌	
	Harrisburg, PA Macon, GA	Topeka, KS Salt Lake City, UT		
Eyewear	30.00%	70.00%		
Binoculars	30.00%	70.00%		
Illuminations	30.00%	70.00%		
Navigation	30.00%	70.00%		
Watches	30.00%	70.00%		
Software	30.00%	70.00%		
Game Console	30.00%	70.00%		
DVD Video	30.00%	70.00%		
CD Audio	30.00%	70.00%		
Entertainment Accessories	30.00%	70.00%		
PDA	30.00%	70.00%		
Computer Accessories	30.00%	70.00%		
MP3	30.00%	70.00%		
Computers	30.00%	70.00%		
Desks	30.00%	70.00%		
Office Accessories	30.00%	70.00%		
Chairs	30.00%	70.00%		
Standard TV	30.00%	70.00%		
Speakers	30.00%	70.00%		
Receiver	30.00%	70.00%		
Big Screen TV	30.00%	70.00%		

Plant Shipment Allocation (Alloc) to Distribution Center (DC) Tab

The **Plant Shipment Alloc to DC Tab** (Figure 16) shows a tab that combines shipment volumes from each plant with the percentage allocation of shipments to the distribution centers from the two previous tabs. The tab calculates the shipment volumes from each plant to each distribution center by product and month.

6 9 8	🔉 🖻 🖻 X 🕞 🔂	®- ≥ ĭŀ -	OD	?			
Demand Allo			ip Alloc Assump	otions Plant	Shipment Alloc to D(DC Master Planner Review	
Binoculars	▼ "\$ *[]↓an-08		💌 🐤 🛛 🜄 Distribution Master Planner 💌				
		Harrisburg, PA	Macon, GA	Topeka, KS		otal Distribution Centers	
	Total Shipments from Plant	2,274	2,274	2,274	2,274	9,096	
doline, IL	Shipments Allo % for DC	30.00%	0.00%	70.00%	0.00%	100.00%	
nomio, ic	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	682	0	1,592	0	2,274	
	Total Shipments from Plant	2,025	2,025	2,025	2,025	8,099	
lewark, NJ	Shipments Allo % for DC	75.00%	25.00%	0.00%	0.00%	100.00%	
EWGR, NU	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	1,518	506	0	0	2,025	
	Total Shipments from Plant	1,901	1,901	1,901	1,901	7,605	
Come Ch	Shipments Allo % for DC	0.00%	0.00%	0.00%	100.00%	100.00%	
anta Cruz, CA	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	0	0	0	1,901	1,901	
	Total Shipments from Plant	2,534	2,534	2,534	2,534	10,136	
	Shipments Allo % for DC	0.00%	0.00%	70.00%	30.00%	100.00%	
louston, TX	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	0	0	1,774	760	2,534	
	Total Shipments from Plant	1,759	1,759	1,759	1,759	7,037	
1 1 2 M A	Shipments Allo % for DC	0.00%	100.00%	0.00%	0.00%	100.00%	
acksonville, FL	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	0	1,759	0	0	1,759	
	Total Shipments from Plant	0	0	0	0	0	
conserved a	Shipments Allo % for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
Contractor	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	0	0	0	0	0	
	Total Shipments from Plant	10,493	10,493	10,493	10,493	41,972	
	Shipments Allo % for DC	105.00%	125.00%	140.00%	130.00%	500.00%	
All Plants	Shipments Allo % Override for DC	0.00%	0.00%	0.00%	0.00%	0.00%	
	Shipments to this DC	2,201	2,266	3,365	2,661	10,493	

Distribution Center (DC) Master Planner Review Tab

The DC Master Planner Review Tab, shown in Figure 17, enables the master planner to review projected beginning and ending inventory levels by product, distribution center, month, and version, based on incoming and outgoing shipments calculated in previous tabs. The master planner can also see the value of the inventory at each distribution center (the value is derived by multiplying inventory levels by the average selling price by product). The master planner can also input planned inventory value and compare this amount to calculated value.

Demand Allocation to DC	Plant Planned Shipments	Plant Ship Alloc	Assumptions	Plant Shipn	ent Alloc to DC	DC Maste	r Planner Re	VIEW		
Binoculars	Harrsburg, PA		Cunent	Forecast	*	PDistrib	ulion Master Pk	enner 💌		
		Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08	Jul-08 1
Beginning Inventory (Units)		6,224	6,871	7,580	6,224	9,138	10,954	13,370	9,138	13,612
nbound Transfers from Plants		2,201	2,302	3,725	8,228	3,785	4,385	2,210	10,380	4,025
Itubound Shipments to Customers		1,553	1,593	2,168	5,314	1,969	1,969	1,969	5,906	1,969
nding Inventory [Units]		6,871	7,580	9,138	9,138	10,954	13,370	13,612	13,612	15,668
verage Selling Price		\$24.96	\$24.96	\$24.96	\$24.96	\$24.96	\$24.96	\$24.96	\$24.96	\$24,96
arecasted Inventory Value		\$171,504	\$189,214	\$228,091	\$228,091	\$273,426	\$333,739	\$339,762	\$339,762	\$391,091
Nanned Inventory Value		\$200,000	\$200.000	\$200,000	\$200,000	\$200,000	\$200.000	\$200,000	\$200,000	\$200,000
Projected Revenue [Demand	* Average Selling Price)	\$38,764	\$39,755	\$54,114	\$132,634	\$49,139	\$49,142	\$49,142	\$147,423	\$49,145

DISTRIBUTION CENTER MANAGER VIEW

The following represents the view available to a distribution center contributor and the aggregated view for all distribution centers. Inbound transfer and outbound shipments volume data comes from the master planner views described above.

Distribution Center (DC) Ship and Demand Summary Tab

The DC Ship and Demand Summary Tab (Figure 18) contains the same data as the Distribution Center (DC) Master Planner Review tab in the master planner view, but here the view is limited to selected distribution centers. The tab displays projected beginning and ending inventory levels by product, month, and version and includes data for incoming and outgoing shipments. The distribution center manager can also see the value of the inventory at a distribution center (the value is derived by multiplying inventory levels by the average selling price by product). Planned Inventory Value links to the master planner cube; the distribution center manager can adjust the value, if necessary.

DC Ship and Demand Summary DC Attributes Produ	ct Attributes F	Resource Assumpt	ions DC Re	ource I/O Attribut	e DC Capa	city and Canying (osta	
Total Products Total Products	-	Macon,	GA	-				
	Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08
eginning Inventory (Units)	193,433	187,405	183,584	193,433	179.057	172,564	166,247	179,057
bound Transfers from Plants	79,907	81,852	82,706	244,465	76,561	76,059	82,540	235,160
tubound Shipments to Customers	85,935	85,673	87,233	258,841	83,054	82,377	89,282	254,713
nding Inventory (Units)	187,405	183,584	179,057	179,057	172,564	166,247	159,505	159,505
verage Selling Price	\$551.40	\$551.40	\$551.40	\$551.40	\$551.40	\$551.40	\$551.40	\$551.40
precasted Inventory Value	\$5,001,806	\$4,899,740	\$4,779,048	\$4,779,048	\$4,605,347	\$4,436,422	\$4,256,050	\$4,256,050
anned Inventory Value	\$5,011,000	\$5,011,000	\$5,011,000	\$5,011,000	\$4,711,000	\$4,711,000	\$4,711,000	\$4,711,000
rojected Revenue (Demand * Average Selling Price)	\$2,293,543	\$2,285,773	\$2,328,427	\$6,907.744	\$2,220,560	\$2,201,349	\$2,387,225	\$6,809,134

Figure 18

Distribution Center (DC) Attributes Tab

Figure 19 shows DC Attributes Tab, which contains data about the distribution center, such as productive space percentages, number of resources, demonstrated capacity, and maximum capacity.

Image: Second	Elle Edit View Iools Action	s <u>H</u> elp							_	_		
Image: Second	# 🖬 🗛 👗 📭 🕮 🗙 🕞	E @-	🖢 Vi- 🔍		<u> </u>							
Jan 08 Jan 08 Feb 08 Mar 08 Q1-08 Apr 08 Jun 08 Q2-08 Jul 08 Aug 08 Sep 08 Total Sq Feet 150.000 <th>DC Ship and Demand Summary DC All</th> <th>tributes Pro</th> <th>duct Attributes</th> <th>Resource</th> <th>Assumptions</th> <th>DC Resou</th> <th>zce I/0 Attribut</th> <th>e DCCa</th> <th>pacity and Car</th> <th>ying Costs</th> <th></th> <th></th>	DC Ship and Demand Summary DC All	tributes Pro	duct Attributes	Resource	Assumptions	DC Resou	zce I/0 Attribut	e DCCa	pacity and Car	ying Costs		
Teal Speet 150.000	🎓 🛛 🛃 Macon, GA	7.6						01.		- 65		
Phoduchive late: Dock and Parti Space % 55% 75%												Sep-08 -
Production Days per Mo. 75%					150,000				150,000			150
Production Days per Mo 26 23 26 75 25 26 25 76 26 26 Production Hours per Day 16	Productive Isle, Dock and Parts Space %											
Production House per Day 16 1												
Human Resources 75.00% <t< td=""><td></td><td>26</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>26</td><td></td></t<>		26									26	
Human Productivity % 75.00%	Production Hours per Day	16	16	16	16	16	16	16	16	16	16	
Shipping Docks 9	Human Resources											
Stockers 4<		75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.
Stockers 4<	Shipping Docks	9	9	9	9	9	9	9	9	9	9	
Packars 4 6 </td <td>Stockers</td> <td>4</td> <td></td>	Stockers	4	4	4	4	4	4	4	4	4	4	
Loaders/Unloaders [50% each] 6 6 6 6<	Pickers	4	4	4	4	4	4	4	4	4	4	
Demonstrated Capacity - Unloading 936Hrs 1.123Hrs 936Hrs 1.123Hrs 1.124Hrs 1.248Hrs	Packers	4	4	4	4	4	4	4	4	4	4	
Max Capacity - Unloading 1,123Hrs 994Hrs 1,123Hrs 3,240Hrs 1,123Hrs 1,080Hrs 1,223Hrs 1,123Hrs 1,248Hrs 1,200Hrs 3,648Hrs 1,248Hrs 1,248Hrs 1,248Hrs 1,248Hrs 1,33Hrs	Loaders/Unicaders (50% each)	6	6	6	6	6	6	6	6	6	6	
Demonstrated Capacity - Stock 1,248Hrs 1,104Hrs 1,248Hrs 1,200Hrs 2,248Hrs 1,200Hrs 3,684Hrs 1,248Hrs 1,200Hrs 3,648Hrs 1,248Hrs 1,338Hrs 1,338Hrs <th1,200hrs< th=""> 3,648Hrs 1</th1,200hrs<>	Demonstrated Capacity - Unloading	936Hrs	828Hrs	936Hrs	2,700Hrs	200Hrs	936Hrs	900Hrs	2,736Hrs	936Hrs	936Hrs	900
Max Capacity - Stock 2.246Hrs 1,987Hrs 2.246Hrs 1,987Hrs 2.246Hrs 2,160Hrs 2,246Hrs 1,248Hrs 1,200Hrs 1,394Hrs 1,394Hrs<	Max Capacity - Unloading	1.123Hrs	994Hrs	1,123Hrs	3,240Hrs	1.080Hrs	1,123Hrs	1.080Hrs	3,283Hrs	1,123Hrs	1,123Hrs	1.08
Max Capacity - Stock 2.246Hrs 1.93/Hrs 2.246Hrs 1.93/Hrs 2.246Hrs 2.160Hrs 2.246Hrs 2.160Hrs 2.246Hrs 1.248Hrs 1.20Hrs 3.36Hrs 1.20Hrs 3.36Hrs 1.248Hrs 1.248Hrs 1.20Hrs 3.36Hrs 1.23Hrs 1.33Hrs 1.33Hrs </td <td>Demonstrated Capacity - Stock</td> <td>1,248His</td> <td>1.104Hrs</td> <td>1,248Hrs</td> <td>3,600Hrs</td> <td>1,200Hrs</td> <td>1,248Hrs</td> <td>1,200Hrs</td> <td>3.648Hrs</td> <td>1,248Hrs</td> <td>1,248Hrs</td> <td>1,200</td>	Demonstrated Capacity - Stock	1,248His	1.104Hrs	1,248Hrs	3,600Hrs	1,200Hrs	1,248Hrs	1,200Hrs	3.648Hrs	1,248Hrs	1,248Hrs	1,200
Demonstrated Capacity - Picking 1.248Hrs 1.104Hrs 1.248Hrs 1.200Hrs 3.248Hrs 1.208Hrs 1.200Hrs 3.648Hrs 1.248Hrs 1.208Hrs 1.335Hrs 1.334Hrs 1.334Hrs <t< td=""><td></td><td>2.246Hrs</td><td>1.987Hrs</td><td>2.246H/s</td><td>6.480Hrs</td><td>2,160Hrs</td><td>2.246Hrs</td><td>2,160Hrs</td><td>6,566Hrs</td><td>2.246Hrs</td><td>2.246Hrs</td><td>2.16</td></t<>		2.246Hrs	1.987Hrs	2.246H/s	6.480Hrs	2,160Hrs	2.246Hrs	2,160Hrs	6,566Hrs	2.246Hrs	2.246Hrs	2.16
Max Capacity - Picking 1,335Hirs 1,335Hirs <td></td> <td>1.248Hrs</td> <td>1.104Hrs</td> <td>1.248Hrs</td> <td>3.600Hrs</td> <td>1.200Hrs</td> <td>1.248Hrs</td> <td>1.200Hrs</td> <td>3.648Hrs</td> <td>1.248Hrs</td> <td>1.248Hrs</td> <td>1,200</td>		1.248Hrs	1.104Hrs	1.248Hrs	3.600Hrs	1.200Hrs	1.248Hrs	1.200Hrs	3.648Hrs	1.248Hrs	1.248Hrs	1,200
Demonstrated Capacity - Packing 1,248Hrs 1,104Hrs 1,248Hrs 1,200Hrs 1,248Hrs 1,200Hrs 3,648Hrs 1,248Hrs 1,248Hrs 1,248Hrs 1,248Hrs 1,248Hrs 1,334Hrs 1,334Hrs <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
Max Capacity - Packing 1.334Hrs 1.053Hrs 1.053Hr									and the second sec			
Demonstrated Capacity - Loading 936Hrs 828Hrs 936Hrs 930Hrs 930Hrs 936Hrs												
Max Capacity - Loading 1.053His 1.053Hi												
Machine Resources 50.00%									- Contract () for a provide the second			
Machine Productivity % 50.00%		10000000	120001110			1,000,000	1,0000110.	1,000		110000110		
Forklitts 3		50.00%	50.00%	50.002	50 002	50.00%	50.00%	50.00%	50 002	50.002	50.002	50
Shrink Wrapping Machines 2 <th2< th=""> 2 2 <th2< th=""></th2<></th2<>												
Pallet Machines 2 <th2< th=""> 2 2</th2<>			5									
Labeling Machines 2			2									
Demonstrated Capacity - Forklift 624Hrs 552Hrs 624Hrs 1,800Hrs 620Hrs 624Hrs 620Hrs 1,20Hrs 1,20Hrs <th1,20< th=""> Max Capacity</th1,20<>			2									
Max Capacity - Forklift 1.248Hrs 1.04Hrs 1.248Hrs 1.200Hrs 1.248Hrs 1.200Hrs 1.248Hrs 1.200Hrs 1.248Hrs 1.248Hr		1073.000.000	552Hr.									600
Demonstrated Capacity - Shrink Wrap 416Hrs 368Hrs 416Hrs 1,200Hrs 400Hrs 416Hrs 400Hrs 416Hrs 416Hrs 400Hrs 416Hrs 416Hrs 400Hrs 416Hrs 416Hrs 416Hrs 400Hrs 416Hrs 416Hrs 400Hrs 416Hrs 416Hrs 416Hrs 400Hrs 1,216Hrs 416Hrs 416Hrs 400Hrs 1,216Hrs 416Hrs 400Hrs 1,200Hrs 920Hrs												
Max Capacity - Shirnk Wrap 957Hirs 846Hra 957Hirs 2,760Hrs 920Hirs 920Hirs 2,771Hirs 957Hirs 95		10000000000										
Demonstrated Capacity - Palletizing 416Hrs 368Hrs 416Hrs 1,200Hrs 400Hrs 1,216Hrs 416Hrs 400Hrs 1,216Hrs 730Hrs 730Hrs </td <td></td> <td>92-</td>												92-
MaxCapacity Palletizing 730Hrs 646Hrs 730Hrs 2,106Hrs 702Hrs 730Hrs 702Hrs 2,134Hrs 730Hrs 73					and the set of the last set of the set of the set of the							
												70 -
	A second s	7 Sortis	OHOR (S	r ounits;	e, rooms	rocrits	Contraits	rucints	1,134115	r aurits	r aurtra	*

Product Attributes Tab

The **Product Attributes Tab** (Figure 20) contains data about products, including units of measure, units per ton, average selling price, carrying cost per unit, weight, size, and stack footprint calculations by product.

DC Ship and Demand Sur	nmary DC /	Attributes Pr	oduct Attribu	tes Resour	ce Assumptio	ns DCI	Resource I/O Attrib	ute DCC	apacity and C	anying Costs	
🐦 🛛 🖳 Macon, GA				48							-10-10-10-10-10-10-10-10-10-10-10-10-10-
	Eyewear	Binoculars	Illuminations	Navigation	Watches	Software	Game Console	DVD Video	CD Audio	Entertainment Accessories	PDA 4
Unit of Measure	Thousand .	Gross	Gross	Gross	Gross	Gross	Gross	Gross	Thousand	Gross	Gross
Units in the Measure	1,000	144	144	144	144	144	144	144	1,000	144	144
Units per ton	5,000	667	500	1,000	2,000	2,000	80	2,000	2,667	667	1,000
Avg Selling Price	24.96	24.96	24.96	24.96	24.96	27.01	27.01	27.01	27.01	27.01	26.09
Carrying Cost per Unit	0.023	0.640	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Unit Weight (lbs.)	0.400	3.000	4.000	2,000	1.000	1.000	25.000	1.000	0.750	3.000	2,000
Stack Width (Inches)	12.0	28.0	30.0	20.0	20.0	20.0	36.0	20.0	16.0	20.0	20.0
Stack Depth (Inches)	12.0	28.0	20.0	20.0	24.0	24.0	36.0	22.0	20.0	24.0	24.0
Stack Footprint (Inches)	144.0	784.0	600.0	400.0	480.0	480.0	1,296.0	440.0	320.0	480.0	480.0
Pieces per Stack	2.000	120	50	48	200	16	16	16	16	16	16
Conversion to Feet	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0	144.0
Stack Footprint (Feet)	1.0	5.4	4.2	2.8	3.3	3.3	9.0	3,1	2.2	3.3	3.3

Figure 20

Resource Assumptions Tab

Shown in Figure 21, the **Resource Assumptions Tab** lists the distribution center resources required per unit for each product.

	8 × 🗗 🖸	® ≥ 11- 0 ⊡	?							
DC Ship and Demand Summ	nary DCAttributes	Product Attributes Resou	ace Assum	tions DC	Resource I/O A	tribute D	C Capacity a	nd Carrying Costs 📗	ľ	
Custent Forecast	T * Mac	on, GA						M		
Rit	Total Products	LIFESTYLE PRODUCTS	Eyewear	Binoculars	Illuminations	Navigation	Watches	ENTERTAINMENT	MEDIA	Software
Square Footage Allocated	150,000	25,248	2,970	8,911	8,911	1,485	2,970		37,129	1,485
Unit of Measure			Thousand	Gross	Gross	Gross	Gross			Gross
Human Resources										
Unload Hrs Reg/Unit	12.60	3.00	0.60	0.60	0.60	0.60	0.60		3.00	0.6
Stock Hrs Reg/Unit	23.10	5.50	1.10	1.10	1.10	1.10	1.10		5,50	1.1
Pick, Hrs Reg/Unit	16.80	4.00	0.80	0.80	0.80	0.80	0.80		4.00	0.8
Pack Hrs Reg/Unit	25.20	6.00	1.20	1.20	1.20	1.20	1.20		6.00	1.2
Load Hrs Reg/Unit	10.50	2.50	0.50	0.50	0.50	0.50	0.50		2.50	0.5
Machine Resources	20100									
Shrink Wrapping Hrs Reg/Unit	10.50	2.50	0.50	0.50	0.50	0.50	0.50		2.50	0.5
Palletizing His Reg/Unit	5.25	1.25	0.25	0.25	0.25	0.25	0.25		1.25	0.2
Labeler Hrs Reg/Unit	5.25	1.25	0.25	0.25	0.25	0.25	0.25		1.25	0.2
Forklift Hrs Reg/Unit	4,20	1.00	0.20	0.20	0.20	0.20	0.20		1.00	0.2

Distribution (DC) Resource Inbound/Outbound (I/O) Attribute Tab

The DC Resource I/O Attribute Tab (Figure 22) lists whether an inventory-processing activity is inbound or outbound.

Eile Edit	View Iools Actions Help % 🗈 🛍 🗙 🖙 🖽 💽	≥ ïi- O ⊡ ?
Resource Assu	mptions DC Resource I/O Attribute	
🎲 🛛 🔁 Macon, GA	•	
	1/0 Attribute	
Unload	Inbound	
Stock	Inbound	
Pick	Outbound	
Pack	Outbound	
Load	Outbound	
Shrink Wrapping	Outbound	
Palletizing	Inbound and Outbound	
Labeler	Outbound	
Forklift	Outbound	
	Cur	rrent owner: Macon DC Manager

Figure 22

Distribution Center (DC) Capacity and Carrying Costs Tab

The DC Capacity and Carrying Costs Tab, shown in Figure 23, calculates the amount of square footage required to store each product; the tab also calculates carrying costs by product.

Resource Assumptions DC Resource I.	O Attribute DC C	Capacity and C	Carrying Costs	DC Resource	Requirements Pla	n DC Op	verating Cost Ass	umptions		
😵 🛛 Total Products 🔳 🧏 🗍	Current Forecast		To Macon.	GA		11				
	Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08	Jul-08	Aug-08
Seginning Inventory (Units)	193,433	187,405	183,584	193,433	179,057	172,564	166,247	179,057	159,505	148
nbound Inventory	79,907	81,852	82,706	244,465	76,561	76,059	82,540	235,160	143,073	87
Demand	85,935	85,673	87,233	258,841	83,054	82,377	89,282	254,713	154,287	94
Ending Inventory (Units)	187,405	183,584	179,057	179,057	172,564	166.247	159,505	159,505	148.292	141
Average Inventory (Units)	190,419	185,494	181,321	181,321	175,811	169,406	162,876	162,876	153,898	144
Stack Footprint (Feet)	162.44	162.44	162.44	487.33	162.44	162.44	162.44	487.33	162.44	16
Pieces per Stack	37	37	37	37	37	37	37	37	37	
Per Piece Equivalent before adjustments	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
Productive Isle, Dock and Parts Space %	1,155%	1,155%	1,155%	1,155%	1,155%	1,155%	1,155%	1,155%	1,1552	1,1
Productive Isle, Dock and Parts Space	16.93	16.93	16.93	16.93	16.93	16.93	16.93	16.93	16.93	1
Productive Stows and Stack Space %	1,575%	1.575%	1,575%	1,575%	1,575%	1,575%	1,575%	1,575%	1,575%	1,5
Per Piece Equivalent Unit Footprint	22.57	22.57	22.57	22.57	22.57	22.57	22.57	22.57	22.57	2
Square Footage Required	137,289	134,636	131,589	131,589	126,817	122,096	117,047	117,047	110,054	104
Equare Footage Allocated	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150
Required to Allocated %	2,525.77%	2,476.27%	2,421.30%	2,421.30%	2,333.63%	2,243.93%	2,147.14%	2,147.14%	1,962.71%	1,854.
Fotal Sq Feet	3,150,000	3,150,000	3,150,000	3,150,000	3,150,000	3,150,000	3,150,000	3,150,000	3,150,000	3,150
Required to Total Sq Footage %	91.53%	89.76%	87.73%	87.73%	84.54%	81.40%	78.03%	78.03%	73.37%	69.
Carrying Cost per Unit	21.503	21.503	21.503	64.509	21.503	21.503	21.503	64.509	21.503	21
Fotal Carrying Costs	\$49,216	\$48,085	\$47,174	\$144,475	\$45,943	\$44,469	\$42,911	\$133,324	\$41,252	\$39

Distribution Center (DC) Resource Requirements Plan Tab

The DC Resource Requirements Plan Tab (Figure 24) calculates the resources required to process inbound and outbound inventory. The tab enables comparison of the calculated resource requirements to the demonstrated and maximum capacity.

Resource Assumption	ns DC Res	ource 1/0 Attri	2023 202	Capacity and (Service States and the service of th	Concentration that plat and the		Cost Assumptions	
≱ []µan-08		File Eyewe	ar	T	">Currer	vt Forecast	🗾 🚏 Macon.	GA	X	
	Unload	Stock	Pick	Pack	Load	Shrink Wrapping	Palletizing	Labeler	Forklift	
Init of Measure	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand	
/0 Attribute	Inbound	Inbound	Outbound	Dutbound	Outbound	Outbound	Inbound and Outbound	Outbound	Outbound	
otal Inbound Units	5,674	5,674	5,674	5,674	5,674	5,674	5,674	5,674	5,674	
otal Outbound Units	5,888	5,888	5,888	5,889	5,888	5,888	5,888	5,888	5,888	
hs Reg/Unit	0.60	1.10	0.80	1.20	0.50	0.50	0.25	0.25	0.20	
Required Capacity	3.40	6.24	4.71	7.07	2.94	2.94	2.89	1.47	1.18	
Demonstrated Capacity	64.13	85.51	85.51	85.51	64,13	28.50	28.50	28.50	42.75	
Aax Capacity	76.96	153.92	91.47	91.40	72.15	65.56	50.02	63.85	85.51	
Capacity Message										

Figure 24

Distribution Center (DC) Operating Cost Assumptions Tab

The DC Operating Cost Assumptions Tab (Figure 25) enables the distribution center manager to input a monthly forecast for miles driven and trips taken and calculate operating costs.

DC Resource Reg	uirements Pla	n DC Og	perating Co	st Assumpti	ons DC V	ariable Costs	DC Fixed	Costs D	C Pio Forma I	ncome State	sment			R	
Current Forecast			Macon, G/	And a real of the Arrows of	-										
	Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08	Jul-08	Aug-06	Sep-08	Q3-08	Oct-08	Nov-08	Dec-0
ictual/Forecast Flag	Actual	Actual	Forecast		Forecast	Forecast	Forecast		Forecast	Forecast	Forecast		Forecast	Forecast	For
Total Miles Driven	129,299	131,885	134,523	395,708	134,523	134,523	134,523	403,568	134,523	134,523	134,523	403,568	134,523	134,523	13
otal Trip: Taken	213	213	213	640	213	213	213	640	213	213	213	640	213	213	(



Distribution Center (DC) Variable Costs Tab

Shown in Figure 26, the DC Variable Costs Tab calculates variable costs based on historical cost per trip or cost per mile averages. The system enables overrides variable expense types cost per mile, cost per trip, and even total variable expense.

DC Resource Requirements Plan DC	Operating Cost Ass	mptions DC	Variable Costs	DC Fixed Costs	DC Pro Form	na Income Statem	ent			R
🐦 🛛 Wages - Drivers 📰 🦅 🗍	Current Forecast	•	*[] Macon.	GA	-					
	Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08	Jul-08	i i i i
Actual/Forecast Flag	Actual	Actual	Forecast		Forecast	Forecast	Forecast		Forecast	1
Actual Cost (for Actual Months)	232.736.81	247.093.22	0.00	479,830.03	0.00	0.00	0.00	0.00	0.00	
Cost per Mile (for Actual Months)	1.800	1.874	0.000	1.225	0.000	0.000	0.000	0.000	0.000	
Cost per Mile (12 month avg.)	1.892	1.889	1.653	1.811	1.459	1.297	1.160	1.305	1.044	
Cost per Mile [12 month avg.] Act only	1.892	1.889	0.000	1.260	0.000	0.000	0.000	0.000	0.000	
Cost per Trip (for Actual Months)	1,090.61	1,157.89	0.00	749.50	0.00	0.00	0.00	0.00	0.00	
Cost per Trip (12 month avg.)	1,067.95	1,079.95	944.95	1,030.95	833.78	741.14	663.12	746.02	596.81	
Cost per Trip (12 month avg.) Act only	1,067.95	1.079.95	0.00	715.97	0.00	0.00	0.00	0.00	0.00	
Forecast Calculation Type			per mile		per mile	per mile	per mile		per mile	
Cost per Mile Calculated	1.892	1.889	1.889	1.890	1,889	1.889	1.889	1.889	1.889	
Cost per Mile Override	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Cost per Mile	1.892	1.889	1.889	1.890	1.889	1.889	1.889	1.889	1.889	
Total Miles Driven	129,299.46	131,885.44	134,522.64	395,707.54	134,522.64	134,522.64	134,522,64	403,567.92	134,522.64	
Cost per Trip Calculated	1,067.95	1,079.95	1,079.95	1,075.95	1,079.95	1,079.95	1,079.95	1,079.95	1,079.95	
Cost per Trip Override	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cost per Trip	1,067.95	1,079.95	1,079.95	1,075.95	1,079.95	1,079.95	1,079.95	1.079.95	1,079.95	
Total Trips Taken	213.40	213.40	213.40	640.20	213.40	213.40	213.40	640.20	213.40	
Calculated Cost	232,736.81	247,093.22	254,162.88	733,992.91	254,162.88	254,162.88	254,162.88	762,488.64	254,162.88	
Cost Override	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Final Cost	232,736.81	247,093.22	254,162.88	733,992.91	254,162.88	254,162.88	254,162.88	762,488.64	254,162.88	

Figure 26

Another view of the same tab (Figure 27) shows the variable expense categories available in the model.

DC Operating Cost Assump () Current Forecast -08 Feb-08 736.81 247,093.22 165.08 274,181,02	Mar-08	iable Costs DC	C Fixed Costs	DC Pro Forme In	come Stalement	1		
-08 Feb-08 736.81 247,093.22	Mar-08	Macon, GA		and a second				
736.81 247,093.22				T		_		
		Q1-08	Apr-08	May-08	Jun-88	Q2-08	Jul-08	Aug-08
ICE 00 274 101 02	254,162.88	733,992.91	254,162.88	254,162.88	254,162.88	762,488.64	254,162.88	254,162.88
103.00 2/4,181.02	282,013.81	814,359.90	282,013.81	282,013.81	282,013.81	846,041.42	282,013.81	282,013.81
541.27 68,545.25	70,503.45	203,589.97	70,503.45	70,503.45	70,503.45	211,510.35	70,503.45	70,503.45
270.63 34,272.63	35,251.73	101,794.99	35,251.73	35,251.73	35,251.73	105,755.18	35,251.73	35,251.73
135.32 17,136.31	17,625.86	50,897.49	17,625.86	17,625.86	17,625.86	52,877.59	17,625.86	17,625.86
067.66 8,568.16	8,812.93	25,448.75	8,812.93	8,812.93	8,812.93	26,438.79	8,812.93	8,812.93
342.61 21.670.24	22,280.74	64,293.59	22,280.74	22,280.74	22,280.74	66,842.23	22,280.74	22,280.74
980.87 15,895.49	16,351.52	47,227.87	16,351.52	16,351.52	16,351.52	49,054.55	16,351.52	16,351.52
183.17 13,988.03	14,389.33	41,560.53	14,389.33	14,389.33	14,389.33	43,168.00	14,389.33	14,389.33
034.26 2,167.02	2,228.07	6,429.36	2,228.07	2,228.07	2,228.07	6,684.22	2,228.07	2,228.07
581.65 3,080.15	3,123.97	8,785.77	3,123.97	3,123.97	3,123.97	9,371.91	3,123.97	3,123.9
017.13 1,083.51	1,114.04	3,214.68	1,114.04	1,114.04	1,114.04	3,342.11	1,114.04	1,114.04
290.83 1,540.08	1,561.98	4,392.89	1,561.98	1,561.98	1,561.98	4,685.95	1,561.98	1,561.9
068.52 3,900.64	4,066.95	12,036,12	4,066.95	4,066.95	4,066.95	12,200.86	4,066.95	4,066.95
542.83 2,708.78	2,785.09	8,036.70	2,785.09	2,785.09	2,785.09	8,355.28	2,785.09	2,785.0
055.67 130,021.41	133,684.45	385,761.54	133,684.45	133,684.45	133,684.45	401,053.35	133,684.45	133,684.4
370.45 86,680.94	89,122.97	257,174.36	89,122.97	89,122.97	89,122.97	267,368.90	89,122.97	89,122.93
034.26 2,167.02	2,228.07	6,429,36	2,228.07	2,228.07	2,228.07	6,684.22	2,228.07	2,228.03
205.57 13,002.14	13,368.45	38,576.15	13,368.45	13,368.45	13,368.45	40,105.34	13,368.45	13,368.4
342.61 21,670.24	22,280.74	64,293.59	22,280.74	22,280.74	22,280.74	66,842.23	22,280.74	22,280.74
256.96 16,252.68	16,710.56	48,220.19	16,710.56	16,710.56	16,710.56	50,131.67	16,710.56	16,710.5
0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	135.32 17,136.31 1057.66 8.568.16 380.37 15.895.49 103.17 13.988.03 103.17 13.988.03 034.26 2.167.02 280.37 15.895.49 103.17 13.988.03 034.26 2.167.02 581.65 3.088.15 103.17 1.083.51 1290.83 1.540.08 068.52 3.900.64 055.67 130.021.41 370.45 86.580.94 043.42 2.167.02 205.57 13.0021.41 342.62 2.167.02 205.57 13.0021.41 342.62 2.167.02 205.57 13.0021.41 342.61 2.167.02 205.57 13.0021.41 342.62 2.167.02 205.57 13.0021.41 342.61 2.167.02 256.56 16.252.68	135.32 17,136.31 17,625.86 067,66 8.568.16 8.812.93 342.61 21,670.24 22,280.74 380.37 15,895.49 16,351.52 133.17 13,988.03 14,389.33 034.26 2,167.02 2,2280.74 135.31 10,398.03 14,389.33 034.26 2,167.02 2,2280.74 290.33 1,540.08 1,561.98 068.52 3,900.64 4,066.95 542.83 2,708.78 2,785.09 055.67 130,021.41 133,684.45 370.45 86,680.94 89,122.97 034.26 2,167.02 2,2280.74 205.57 13,0021.41 13,684.45 370.45 86,680.94 89,122.97 034.26 2,167.02 2,2280.74 265.57 13,0021.41 13,3684.45 342.61 2,167.02 2,2280.74 265.57 13,002.14 13,3684.45 342.61 2,670.24 2,280.74	135.32 17,136.31 17,625.86 50,897.49 067.66 8,568.16 8.812.93 25,448.75 342.61 21,670.24 22,280.74 64,293.55 380.37 15,895.49 16,351.52 47,227.87 183.17 13,988.03 14,389.33 41,560.53 034.26 21,670.24 2,228.07 64,293.55 193.17 13,988.03 14,389.33 41,560.53 034.26 21,670.02 2,228.07 6,429.35 581.65 3,090.15 3,123.97 8,785.77 07.13 1,063.51 1.114.04 3,214.68 290.83 1,540.08 1,561.98 4,332.89 068.52 3,900.64 4,066.95 12,036.12 242.63 2,708.79 2,785.09 8,036.70 055.67 130,021.41 133,684.45 385,761.54 370.45 86,680.94 89,122.97 257,174.36 204.26 2,167.02 2,2280.74 64,230.59 205.57 13,002.14 13,36	135.32 17,136.31 17,625.86 50.897.49 17,625.86 067,66 8,568.16 8,812.93 25,448.75 8,812.93 342,61 21,670.24 22,280.74 64,293.39 22,280.74 380,371 15,895.49 16,351.52 47,227.87 16,351.52 133,17 13,988.03 14,389.33 41,560.53 14,389.33 034,26 21,670.24 2,228.07 6,429.359 2,228.07 103,17 13,988.03 14,389.33 41,560.53 14,389.33 034,26 21,670.24 2,228.07 6,429.359 2,228.07 581,65 3,080.15 3,123.97 8,785.77 3,122.97 071,73 10,083.51 1,114.04 3,214.86 1,114.04 290,83 1,561.98 4,932.89 1,561.98 6,036.70 2,785.09 055,67 130,021.41 133,684.45 385,761.54 133,684.45 370.45 86,880.94 89,122.97 257,174.36 89,122.97 043,26 2,167.02	135.32 17,136.31 17,625.86 50,897.49 17,625.86 17,625.86 067,66 8,568.16 8,812.33 25,448.75 8,812.93 8,812.93 342,61 21,670.24 22,280.74 64,233.59 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 22,280.74 16,351.52 163,351.52 163,351.52 163,351.52 163,351.52 163,351.52 163,351.52 163,351.52 163,351.52 163,351.52 163,351.52 12,328.77 3,123.97 3,123.97 3,123.97 3,123.97 3,123.97 3,123.97 3,123.97 1,114.04 290.83 1,561.98	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	135.32 17,136.31 17,625.86 50.997.49 17,625.86 17,625.86 17,625.86 52,977.59 17,625.86 067,66 8,568.16 8.812.33 25,448.75 8.812.93 8.812.93 8.812.93 8.812.93 8.812.93 22,807.4 8.812.93 22,807.4 8.812.93 22,807.4 8.812.93 22,807.4 8.812.93 22,807.4 8.812.93 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 65.842.23 22,280.74 61.649.22 22.280.74 61.649.22 22.280.74 61.649.23 22,280.74 61.649.23 22.280.74 61.649.23 22.280.74 61.649.23 22.280.74 61.649.23 22.280.74 61.649.23 22.280.74 61.649.23 22.280.75 61

Distribution Center (DC) Fixed Cost Tab

The DC Fixed Cost Tab, shown in Figure 28, enables input of fixed costs by month for forecast months, while pre-populating actual months with actual values.

DC Resource Requirements Pla		etating Cost A	ssumptions	DC Variabi	e Costs DC	Fixed Costs	DC Pro F	orma Income :	Statement			K	
*[]Current Forecast	Jan-08	lacon, GA Feb-08	Mar-08	· Q1-08	Apr-08	May-08	Jun-08	02-06	Jul-08	Aug-08	Sep-08	03-08	Oct-08
Salaries	13,588	13,546	13,707	40,841	12,999	12.881	13,955	39,835	23,666	14,806	13,703	52,175	11
Wages - Billing and Collection	6,794	6,773	6,853	20.420	6,499	6.440	6,977	19,917	11.833	7,403	6,851	26.087	5
Payroll Taxes	5,908	5,890	5,959	17,757	5.652	5,600	6.067	17,319	10,290	6.437	5,958	22,685	4
Workers' Compensation (Fixed)	5,435	5,419	5,483	16,336	5,200	5,152	5,582	15,934	9,466	5,922	5,481	20,870	4
Group Insurance (Fixed)	8,234	8,193	8,353	24,781	7,646	7,528	8.601	23,775	18,313	9.453	8,350	36,115	5
Vehicle and Driver Insurance	13,052	13.011	13,171	39,235	12,464	12.346	13,419	38,229	23,131	14,271	13,168	50,569	10
Depreciation - Tractors	14,946	14,901	15,077	44,925	14,299	14,169	15,350	43.818	26.033	16,286	15,073	57,392	12
Depreciation - Service Equipment	7,151	7,130	7,214	21,495	6,842	6,779	7.345	20,966	12,456	7,793	7,212	27,460	5
Depreciation - Trailers	14,123	14,082	14,242	42,447	13,534	13,416	14,490	41,441	24,201	15.341	14,238	53,781	11
Office Supplies	2,265	2,258	2,284	6,807	2,166	2,147	2 326	6,639	3 944	2,468	2,284	8,696	1
General Supplies	1,783	1,776	1,803	5,361	1,685	1,665	1.844	5,194	3,463	1,986	1,802	7,250	1
Advertising and Promotion	1,359	1,355	1,371	4.084	1,300	1,288	1,395	3,983	2,367	1,481	1.370	5,217	1
Real Estate Tax	2,718	2,709	2,741	8,168	2.600	2.576	2,791	7,967	4,733	2.961	2,741	10,435	2
Miscellaneous Taxes	1,235	1,231	1,246	3,713	1,182	1,171	1,269	3,621	2,151	1,346	1,245	4,743	1
Building Insurance	1,132	1,129	1,142	3,403	1,083	1,073	1,163	3,320	1.972	1,234	1,142	4,348	
Miscellaneous Insurance	1,132	1.129	1,142	3,403	1.083	1.073	1,163	3,320	1.972	1.234	1,142	4,348	
Utilities	3,397	3,387	3,427	10,210	3,250	3,220	3,489	9,959	5,917	3,701	3.426	13,044	2
Communications (Fixed)	1,941	1,935	1,958	5,834	1,857	1,840	1,994	5,691	3,381	2,115	1,958	7,454	2
Rent - Building	4,465	4,451	4,504	13,419	4,271	4,232	4,585	13,089	7,776	4,865	4,502	17,143	3
Rent - Data Processing Equipment	906	903	914	2,723	867	859	930	2,656	1,578	987	914	3,478	
Retirement of Equipment	2,463	2,463	2,463	7,388	2,463	2,463	2,463	7,388	2,463	2,463	2,463	7,388	2
Dock Rental	1,927	1,927	1,927	5,782	1,927	1,927	1,927	5,782	1,927	1,927	1,927	5,782	1
Accounting and Legal	2,248	2,248	2,248	6,745	2.248	2,248	2,248	6,745	2,248	2,248	2,248	6,745	2
Loading Fees	3,996	3,994	4.031	12,012	3,823	3,789	4,104	11,716	6,961	4,355	4,030	15,346	3
Interest Expense	3,212	3,202	3.240	9,655	3.073	3,045	3,299	9,417	5,595	3,500	3,239	12,334	2
Total Fixed Cost	125,410	125,033	126,501	376,944	120,012	118,929	128,777	367,718	217,835	136,582	126,467	480,885	103,

Distribution Center (DC) Pro Forma Income Statement Tab

The **DC Pro Forma Income Statement Tab** (Figure 29) combines total projected revenue for a distribution center's products and detailed variable and fixed costs associated with that distribution center.

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DC Resource Requirements Pla	n DC Operating Cost Assumptions 1			Variable Costs DC Fixed Costs		DC Pro Forma Income Statement					
Current Forecast	💌 🐦 🛃 Macon. GA										
	Jan-08	Feb-08	Mar-08	Q1-08	Apr-08	May-08	Jun-08	Q2-08	Jul-08	Aug-08	Sep-08
levenue	- CONTROL	1.998.999	1140.000		. Coper over	11109.00	a dari da	42.00	000.000	rong one	Sob or
l otal Revenue	2,293,543	2.285,773	2,328,427	6,907,744	2.220,560	2,201,349	2.387.225	6,809,134	4,082,591	2.532.610	2,341
Variable Costs											
Wages - Drivers	232,737	247.093	254,163	733,993	254,163	254,163	254,163	762,489	254,163	254,163	254
Wages - Mechanics	258.165	274,191	282.014	814,360	282.014	282,014	282.014	846,041	282.014	282 014	282
edetal Payroll Tax	64,541	68,545	70.503	203,590	70,503	70,503	70,503	211,510	70,503	70,503	70
State Payroll Tax	32,271	34,273	35,252	101,795	35,252	35,252	35.252	105,755	35,252	35,252	35
Workers' Compensation	16,135	17,136	17,626	50,897	17.626	17.626	17.626	52,878	17,626	17,626	17
Group Insurance	8,068	8,568	8,813	25,449	8,813	8,813	8,813	26,439	8.813	8,813	8
Fuel and Oil	20,343	21,670	22,281	64,294	22.281	22,281	22,281	66,842	22,281	22,281	22
Parts and Outside Repairs	14,981	15,895	16,352	47,228	16,352	16,352	16,352	49,055	16,352	16,352	16
lives	13,183	13,988	14,389	41,561	14,389	14,389	14,389	43,168	14,389	14,389	14
Room and Meals	2.034	2,167	2,228	6,429	2.228	2.228	2.228	6,684	2,228	2,228	2
Federal Fuel Tax	2,582	3,080	3,124	8,786	3,124	3,124	3,124	9,372	3,124	3,124	3
Federal Registration and License	1,017	1,084	1,114	3,215	1,114	1,114	1,114	3,342	1,114	1,114	1
State Fuel Tax	1,291	1,540	1,562	4,393	1,562	1,562	1,562	4,686	1,562	1,562	1
State Registration	4,069	3,901	4,067	12,036	4,067	4.067	4.067	12,201	4.067	4,067	4
Cargo Insurance	2,543	2,709	2,785	8,037	2,785	2,785	2,785	8,355	2,785	2,785	2
ractor and Trailer Rental	122,056	130,021	133,684	385,762	133,684	133,684	133,684	401,053	133,684	133,684	133
Owner/Operator Costs	81,370	86,681	89,123	257,174	89,123	89,123	89,123	267,369	89,123	89,123	89
Miscellaneous Supplies	2,034	2,167	2,228	6,429	2,228	2,228	2,228	6,684	2,228	2,228	2
Claims	12,206	13.002	13,368	38,576	13,368	13.368	13,368	40,105	13,368	13,368	13
Communications	20,343	21,670	22,281	64,294	22,281	22,281	22,281	66,842	22,281	22,281	22
Commissions Freight	15,257	16,253	16,711	48,220	16,711	16,711	16,711	50,132	16,711	16,711	16
Total Variable Cost	927,224	985,625	1,013,668	2,926,517	1,013,668	1,013,668	1,013,668	3,041,003	1,013,668	1,013,668	1,013,
Fixed Costs											
Salaries	13,588	13,546	13,707	40,841	12,999	12,881	13,955	39,835	23,666	14,806	13
Wages - Billing and Collection	6,794	6,773	6,853	20,420	6,499	6,440	6,977	19,917	11,833	7,403	6
Payroll Taxes	5,908	5,890	5,959	17,757	5,652	5,600	6,067	17,319	10,290	6,437	5
Workers' Compensation (Fixed)	5,435	5,419	5,483	16,336	5,200	5,152	5,582	15,934	9,466	5,922	5
Group Insurance (Fixed)	8,234	8,193	8,353	24,781	7.646	7,528	8,601	23,775	18,313	9.453	8
Vehicle and Driver Insurance	13,052	13,011	13,171	39,235	12,464	12,346	13,419	38,229	23,131	14,271	13
Depreciation - Tractors	14,946	14,901	15,077	44,925	14,299	14,169	15,350	43,818	26,033	16,286	15
Depreciation - Service Equipment	7,151	7,130	7,214	21,495	6,842	6,779	7,345	20,966	12,456	7,793	7
Depreciation - Trailers	14,123	14,082	14,242	42,447	13,534	13,416	14,490	41,441	24,201	15,341	14
Office Supplies	2,265	2,258	2,284	6,807	2,166	2,147	2,326	6,639	3,944	2,468	2
General Supplies	1,783	1,776	1,803	5,361	1,685	1,665	1,844	5,194	3,463	1,986	1
Advertising and Promotion	1,359	1,355	1,371	4,084	1,300	1,288	1,395	3,983	2,367	1,481	1
Real Estate Tax	2,718	2,709	2,741	8,168	2,600	2,576	2,791	7,967	4,733	2,961	2
Miscellaneous Taxes	1,235	1,231	1,246	3,713	1,182	1,171	1,269	3,621	2,151	1,346	1
Building Insurance	1,132	1,129	1,142	3,403	1,083	1,073	1,163	3,320	1,972	1,234	1
Aiscellaneous Insurance	1,132	1,129	1,142	3,403	1,083	1.073	1,163	3,320	1,972	1,234	1
Jtäties	3,397	3,387	3,427	10,210	3,250	3,220	3,489	9,959	5.917	3,701	3
Communications (Fixed)	1,941	1,935	1,958	5,834	1,857	1,840	1,994	5,691	3,381	2,115	1
Rent - Building	4,465	4,451	4,504	13,419	4,271	4.232	4,585	13,089	7,776	4,865	4
Ient - Data Processing Equipment	906	903	914	2,723	867	859	930	2,656	1,578	987	
Retirement of Equipment	2,463	2,463	2,463	7,388	2,463	2,463	2,463	7,388	2.463	2.463	2
Jock Rental	1,927	1,927	1,927	5,782	1,927	1,927	1,927	5,782	1,927	1,927	1
Accounting and Legal	2,248	2,248	2,248	6,745	2,248	2,248	2,248	6,745	2,249	2,248	2
.oading Fees	3,996	3,984	4,031	12,012	3,823	3,789	4.104	11,716	6,961	4,355	4
nterest Expense	3,212	3,202	3,240	9,655	3,073	3,045	3,299	9,417	5,595	3,500	3
Total Fixed Cost	125,418	125,033	126,501	376,944	120,012	118,929	128,777	367,718	217,835	136,582	126.
Net Profit	1,240,909	1,175,115	1,188,259	3,604,283	1,086,881	1,068,752	1,244,780	3,400,414	2,851,088	1,382,361	1,200,

Figure 29

Current owner: Macon DC Manager

ABOUT COGNOS, AN IBM COMPANY

Cognos, an IBM company, is the world leader in business intelligence and performance management solutions. It provides world-class enterprise planning and BI software and services to help companies plan, understand and manage financial and operational performance. Cognos was acquired by IBM in January 2008. For more information, visit www.cognos.com.

ABOUT THE COGNOS INNOVATION CENTER

The Cognos Innovation Center was established in North America and Europe to advance the understanding of proven planning and performance management techniques, technologies, and practices. The Innovation Center is dedicated to transforming routine performance management practices into "next practices" that help companies

- cut costs
- streamline processe
- boost productivit
- enable rapid response to opportunity
- increase management visibility

Staffed globally by experts in planning, technology, and performance and strategy management, the Innovation Center partners with more than 600 Cognos customers, academicians, industry leaders, and others seeking to accelerate adoption, reduce risk, and maximize the impact of technology-enabled performance management practices.

