

**Make faster and better decisions with
 PULSE Dashboard & Analytics Software**

Inventory Optimization Module – NEW!

“Inventory optimization is a method for managing stock levels to meet customer demand while reducing costs. It involves using a forecast, replenishing inventory at the right time, and holding the right amount of safety stock.”

PULSE Dashboard & Analytics is revolutionary software that adds value to your Macola® investment in a new way —with a real-time display of key metrics and detailed analysis with the click of a mouse. Installation and training in one afternoon. Everything exports to Excel/printer/PDF/email. Reports are all customizable by non-technical users.

What is the new PULSE Inventory Optimization module?

- Several popular custom analysis reports that were previously sold separately are now bundled at one price.
- A tab for copying your customized reports.

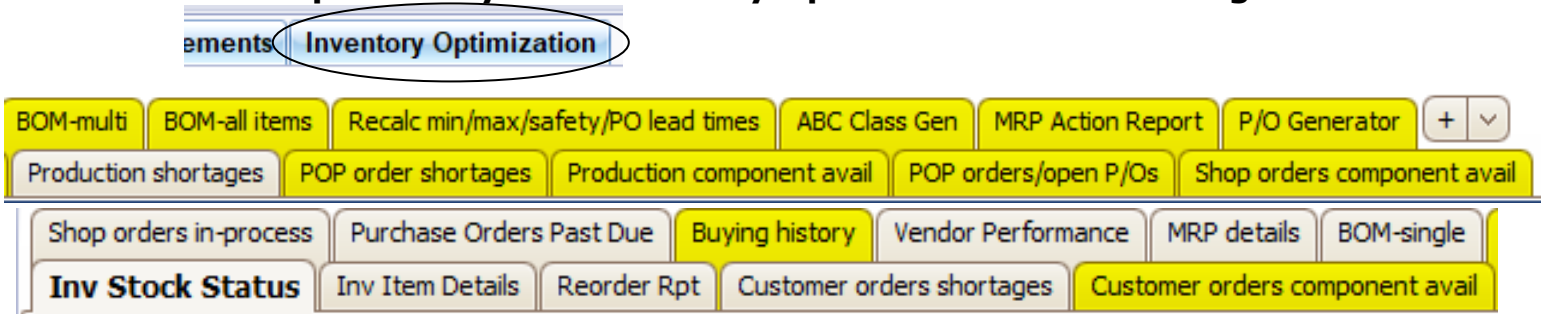
What is included with the new PULSE Inventory Optimization module?

See sample reports on the following pages.

1. Multi-level Bill of Material
2. ABC inventory class generator
3. Recalculate Item Min, max, Safety Stock level, and Purchasing Lead Times
4. MRP Action report (Crystal)
5. Buying History by vendor and by item (2 reports)
6. Purchase Order Generator
7. Open Customer Order Component Shortages
8. Production Order Component Shortages (separate for POP and Shop Floor)
9. Production Order Shortages showing open purchase orders
10. Shop Order – In-Process Variance Analysis (customized standard report)
11. Shop Order – On-Time Performance Analysis (customized standard report)

You will need to be licensed for the PULSE Designer module.

This is a mock-up of how your “Inventory Optimization” module might look like



1. Multi-Level Bill of Material

This Advanced Screen Designer report links together multiple reports. On the top panel, the report lists all manufactured items. You click on an item number to display its multi-level bill of material components on the lower panel.

Choose Manufactured Item To View												
Loc	Item #	Item Description	Pur or MFG	Prod Cat	Cat - Prod Cat Desc	O/H Qty (All Loc)	Average Cost	Last Cost	Last Mfg Dt	Last Sale Dt	Usage Qt Month Av	
CIN	005-E3000...	WHEEL	M	FAB	FABRICATED	0	\$24.23	\$24.23	5/19/21	6/20/21		
CIN	005-E3409...	WHEEL	M	FAB	FABRICATED	6	\$26.15	\$26.21	6/12/21	6/12/21		
CIN	005-E3695...	WHEEL	M	FAB	FABRICATED	0	\$24.40	\$24.40	12/27/20	12/27/20		
CIN	005-E5413...	WHEEL	M	FAB	FABRICATED	1	\$24.07	\$24.02	6/13/21	6/13/21		
CIN	005-E5421...	WHEEL	M	FAB	FABRICATED	4	\$25.99	\$24.94	5/23/21	6/17/21		

Contains([Pur or MFG], 'm')

Multi-Level BOM View (Item # = 005-E5413)															
Level	Item #	Par Item #	Parent Loc	Seq #	Parent Item Desc	Comp Loc	Comp Item #	Comp Item Desc	Activity Flag	Pur/Mfg	Qty Per Par	Scrap Factor	Scrap Qty	Qty_Or	
0	005-E5...	005-E5...	CIN	1	WHEEL	CIN	E5413	EDGE HOUSING ...	A	P	1.5	0	0	50	
0	005-E5...	005-E5...	CIN	2	WHEEL	CIN	ZIPPER CUS...	ZIPPER BAGS ...	A	P	1.33	0	0		
0	005-E5...	005-E5...	CIN	3	WHEEL	CIN	ZIPPER TAB ...	ZIPPER BAGS ...	A	P	1	0	0		
0	005-E5...	005-E5...	CIN	4	WHEEL	CIN	CORDING C...	PACKAGING MATERI...	A	P	7.5	0	0		
0	005-E5...	005-E5...	CIN	5	WHEEL	CIN	POLY SH #0...	BUSHING	A	P	1	0	0		
0	005-E5...	005-E5...	CIN	7	WHEEL	CIN	POLY BAG C...	BUSHING	A	P	4	0	0		
0	005-E5...	005-E5...	CIN	8	WHEEL	CIN	EWFR	EDGE HOUSING ...	A	P	1	0	0		
0	005-E5...	005-E5...	CIN	9	WHEEL	CIN	LABOR	LABOR COST ...	N	P	0.31	0	0		

2. ABC Inventory Class Generator

Assigning ABC codes is a way of managing your inventory based on dollar usage over the prior 12 months. It is very time-consuming to assign accurate ABC classes manually. By focusing on your "A" items, you will better manage 80% of your dollar usage for the year. The PULSE ABC Class Generator software quickly and accurately calculates and sets the proper class for each purchased or manufactured item. ABC classes should be calculated separately for purchased items versus manufactured items.

Leahy Consulting - Inventory Class Generator

Generate Data Per Location and Item Per Item

Purchased Manufactured

Class A: 80% | Class B: 15% | Class C: 5% | Class D: 0%

Update Visible Items Visible Items: 17 Visible Changes: 8
Total Items: 3519 Total Changes: 365

Item #	Item Desc 1	Location	Prod Cat	MFG	Usage \$	Usage Qty	Current Class	Suggested Class	New Class	Class Change?	
1	C544	LABELS	GER	FAB	INV	\$3,005	1,202	C	A	A	Y
2	C545	LABELS	GER	FAB	INV	\$1,336	703	C	A	A	Y
3	C654	LABELS	GER	FAB	INV	\$1,118	588	C	A	A	Y
4	C758	LABELS	GER	FAB	INV	\$1,073	564	C	A	A	Y
5	C761	LABELS	GER	FAB	INV	\$978	391	C	A	A	Y
6	C653	LABELS	GER	FAB	INV	\$978	514	C	A	A	Y
7	C647	LABELS	GER	FAB	INV	\$953	501	C	B	B	Y
8	C651	LABELS	GER	FAB	INV	\$731	384	C	B	B	Y

7. Open Customer Order Component Shortages

Some organizations like to check the component availability of a customer order when the order is received. On the upper panel, you click on the customer order number. The lower panel displays the summarized bill of material for that item and which components will prevent you from manufacturing that item.

Customer Order Component Availability												
OE Order #	Status	Ord Dt	Cust #	Customer Name	Pur or MFG	Open?	Item #	Item Description	Ord Qty	O/H Qty (Loc)	Qty Avail (Loc)	Order Total
00127581	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6242-48009	PRODUCT LINE PAINTING ...	66	0	0	\$1,633.50
00127581	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6262-5453	WHEEL	2	0	0	\$420.00
00127579	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6263-5453	WHEEL	34	0	0	\$2,303.50
00127581	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6264-5453	WHEEL	2	0	0	\$161.00
00127579	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6280-5439/54...	V-IDLER PULLEY	6	0	0	\$666.00
00127581	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6228-5439/54...	PRODUCT LINE TRUCK	17	0	0	\$1,317.33
00127579	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6229-5439/54...	PRODUCT LINE TRUCK	10	0	0	\$1,766.60
00127579	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6242-48009	PRODUCT LINE PAINTING ...	64	0	0	\$1,584.00
00127579	P	4/20/19	0000000010...	CINCINNATI DISTRIBUTORS	M	N	6244-48009	PRODUCT LINE PAINTING ...	55	0	0	\$4,345.00
									1,599,958			\$41,281,001.86

Availability View (OE Order # = 00127579 AND Item # = 6280-5439/5404)												
OE Order #	Item #	Comp Item #	Comp Item Desc 1	Comp pur_or_mfg	Parent Qty Needed	Make ?	Total Component Qty Needed	Comp_Qty_On_Hand	Comp_Qty_Allocated	Comp_Qty_Avail	Short QTY	
00127...	6280-...	COR...	PACKAGING MATERIALS	P		No		50,000.00	50,964.71	-964.71		
00127...	6280-...	E540...	EDGE HOUSING	P		No		392.91	273.41	119.51		
00127...	6280-...	E543...	EDGE HOUSING	P		No		2,152.43	1,435.13	717.29		
00127...	6280-...	EW39...	EDGE HOUSING	P		No		396,868.00	5,381.00	391,487.00		
00127...	6280-...	EW40...	EDGE HOUSING	P		No		324,348.00	2,277.00	322,071.00		
00127...	6280-...	INS 2	SHIPPING CARTON INSERTS	P		No		0.00	200.00	-200.00		

8a. Unreleased Shop Orders Component Shortages

Manufacturers should double-check component availability before releasing the order to the shop floor. The top panel displays all open shop orders (we also offer the same report for POP orders). On the upper panel, you click on a manufacturing order number. The lower panel displays the summarized bill of material for that parent item number and indicates which components will prevent you from manufacturing the item.

Shop Floor Orders with Consolidated BOM												
SF Ord #	SF Created Dt	SF Due Dt	Item #	Item Desc 1	Loc	Production Ord Qty	O/H Qty (Loc)	Qty Allocated (Loc)	Qty Avail (Loc)	Avg Cos		
31	5/13/02	2/5/02	BIKEAS	ADVENTURE BIKE, LW, BLACK	MA	7	1,022	51	971	\$1,043		
43	5/14/02	5/3/02	BIKEAS	ADVENTURE BIKE, LW, BLACK	MA	10	1,022	51	971	\$1,043		
46	5/14/02	5/8/02	BIKEAS	ADVENTURE BIKE, LW, BLACK	MA	10	1,022	51	971	\$1,043		
49	5/14/02	5/10/02	BIKEAS	ADVENTURE BIKE, LW, BLACK	MA	25	1,022	51	971	\$1,043		
51	5/14/02	5/14/02	BIKEAS	ADVENTURE BIKE, LW, BLACK	MA	15	1,022	51	971	\$1,043		
55	5/14/02	5/14/02	BIKEAS	ADVENTURE BIKE, LW, BLACK	MA	30	1,022	51	971	\$1,043		
						227						

Consolidated BOM (SF Ord # = 49)												
Comp Item #	Comp Item Desc 1	Comp Product Category	Comp Mat Cost Type	Comp Pur/Mfg	Make ?	Found on Levels	Total Qty Needed	Comp_Qty_On_...	Comp_Qty_Alloc...	Short Qty	Comp Qty Avail	
BCABASSY	... Brake and Ca...	BB	ASM	M	Yes	1	25.00	686.00	203.00	0.00	483.	
BCABLE	... Cable for Brak...	BB	CP	P	Yes	2	25.00	950.00	15.00	0.00	935.	
BCALIPER	... Brake Caliper...	BB	CP	P	Yes	2	25.00	983.00	3.01	0.00	979.	
BOLT	... BOLT	BB	CP	P	No	2, 2, 2	75.00	10,447.00	111,430.00	-101,058.00	-100,983.	
BRANDS	... Brake Brd...	BB	CP	P	Yes	2	75.00	686.00	61.00	0.00	610.	

8b. Unreleased POP Production Order Component Shortages

The top panel displays all open POP production orders (we also offer the same report for shop orders). When you click on an order number in the top panel, the lower panel displays the summarized bill of material and tells you which components may prevent you from manufacturing the item.

Shortages by POP order																
Mfg Ord #	MRP - Avail?	Mfg Order Due Dt	Production Ord Status	Item #	Item Description	Loc	Prod Cat	Order Qty	On-Order Qty (Loc)	O/H Qty (Loc)	Qty Allocated (Loc)	Qty Avail (Loc)	Item Controlled Fg	Item Stocked Fg	Average Cost	
0021...	N	8/13/21	R	003-E5...	WHEEL	...	FAB	2	2	0	2	-2	Y	Y	\$24.846.	
0021...	N	7/24/21	R	003-E5...	WHEEL	...	FAB	2	2	4	0	4	Y	Y	\$26.004.	
0021...	N	8/10/21	R	003-E5...	WHEEL	...	FAB	1	1	0	1	-1	Y	Y	\$24.845.	
0021...	N	8/8/21	R	003-E5...	WHEEL	...	FAB	1	1	0	1	-1	Y	Y	\$24.356.	
0021...	N	8/15/21	R	005-E5...	WHEEL	...	FAB	1	1	1	1	0	Y	Y	\$23.790.	
0020...	Y	5/2/21	R	009-E5...	WHEEL	...	SUM	2	2	0	0	0	Y	Y	\$23.728.	
0021...	N	8/15/21	R	009-E5...	WHEEL	...	SUM	1	1	0	1	-1	Y	Y	\$24.601.	
37,987																

Query Analyzer (Mfg Ord # = 00218859 AND Item # = 003-E5431)													
Mfg Ord #	Item #	Comp Item #	Comp Search Desc	Comp Item Desc 1	Comp Product Category	Comp pur_or_mfg	Total Component Qty Needed	Make ?	Short QTY	Comp_Qty_On_Hand	Comp_Qty_Alloca...	Comp_Qt...	
00218859	003-E...	CARTO...	SHIPPING CARTON	SHIPPING C...	CTN	P	2.00	Yes	0.00	11,097.40	155.00	10	
00218859	003-E...	CORDIN...	PACKAGING MATERIALS ...	PACKAGING...	PAC	P	15.00	No	979.71	50,000.00	50,964.71	10	
00218859	003-E...	E5431 ...	EDGE HOUSING	EDGE HOU...	FAB	P	3.00	Yes	0.00	2,252.36	394.86	1	
00218859	003-E...	EWFR ...	EDGE HOUSING	EDGE HOU...	FAB	P	2.00	Yes	0.00	115,940.10	1,151.27	114	

9. POP Production Order Shortages showing open P/O's

Whenever there is a shortage, the question to be answered is, "Do I have this item on-order, at what quantity, and when will it be available? That question applies to both purchased and manufactured items. On the upper panel, this report displays only production orders that contain shortages. By clicking on the item number, the lower panel displays any open purchase orders, their quantity, and the scheduled arrival date.

POP order component shortages showing open P/O's																
Production Ord Status	Prod Cat	Mfg Order Due Dt	Par Item #	POP Item Desc 1	Item Description	Item #	Pur or MFG	MRP - Demand/Replenish...	MRP - Calc Demand Qty	MRP - Avail?	MRP - Net Qty O/H (Loc)	On-Ord Qty (All Loc)	Qty Allocated (Loc)	MRP Qty Avail (Loc)	Qty...	
Mfg Ord #: 00207105 (MRP - Calc Demand Qty: 100)																
R	SUM	6/18/21	BELT ...	BELT	BELT	6690-54...	M	6/18/21		N	0	100	100	0		
R	PAC	6/18/21	6690...	BELT ...	VELCRO	...	P	6/18/21	100	N	-218	0	218	0		
100																
Mfg Ord #: 00207937 (MRP - Calc Demand Qty: 2)																
R	SUM	5/16/21	TURNT...	TURNTABLE PULL...	FRAMES	6390-30...	M	5/16/21		N	-2	4	6	0		
R	FRA	5/16/21	6390...	TURNT...	FRAMES	FRAME 6...	P	5/3/21	1	N	100	192	61	0		
75,461.99																
Contains([MRP - Avail?], 'N')																
Purchase Orders Scheduled to be Received (Item # = FRAME 6390)																
Loc	Vend #	Vend Name	Item #	Item Description	PO Ord #	Qty Ordered	Qty Allocated (Loc)	Ord Dt	Promise Dt	Request Dt						
CIN	000000017900	DAYTON TRUCKING	...	FRAME 6...	01706400	50	61	7/1/21	10/31/21	7/1/21						
CIN	000000017900	DAYTON TRUCKING	...	FRAME 6...	01619600	142	61	4/30/21	7/10/21	7/10/21						

10. Shop Floor – Analysis of In-Process Orders

This report is a customized version of our standard "Shop Floor Order View" report. It is designed to allow you to analyze labor hours and component variances. The screen also allows you to drill down to view the details on the lower two panels.

Shop Floor Open Orders - WIP Variance Analysis														
Order Header														
SF Ord #	SF Start Dt	SF Complete Dt	Production Ord Status	Item #	Production Ord Qty	Production Reported Qty	Planned Labor Hours	Actual Labor Hours	Variance Labor Hours	Variance Labor \$	Planned Components \$	Actual Components \$	Variance Material \$	SF Plan Total
47	4/10/02	5/9/02	E	SSEAT...	20	20	345	3,450,345	3,450,000	\$49,200,000	\$1,360	\$1,360	\$0	\$8,29
44	4/3/02	5/14/02	E	SFRAM...	20	20	345	345	0	\$0	\$5,000	\$5,000	\$0	\$11,93
31	1/2/02	2/8/02	E	BIKEAS...	7	6	191	105	-86	(\$1,089)	\$4,452	\$3,816	(\$636)	\$8,10
43	3/15/02		S	BIKEAS...	10	0	273	39	-234	(\$3,225)	\$6,360	\$0	(\$6,360)	\$11,57
48	4/17/02		S	SFRAM...	15	0	259	0	-259	(\$3,690)	\$3,750	\$0	(\$3,750)	\$8,95
50	4/18/02		R	SFRAM...	15	0	259	0	-259	(\$3,690)	\$3,750	\$0	(\$3,750)	\$8,95
					127	46.00	2,760.75	3,450,833.88	3,448,073.13	\$49,173,516	\$50,172	\$10,176	(\$39,996)	\$104,169.4

31 - Summary											
	Sale Amount \$	Setup Labor Hrs	Setup Machine Hrs	Labor	Fixed Overhead	Var Overhead	Components	Outside Opers	Setup	Total Cost \$	Gross Pr
Planned		0.00	0.00	\$2,588.25	\$543.54	\$517.65	\$4,452.00	\$0.00	\$0.00	\$8,101.44	
Actual		0.00	0.00	\$1,499.26	\$314.86	\$299.86	\$3,816.00	\$0.00	\$0.00	\$5,929.98	

Order Details									
Bill of Material Components									
Comp Item #	Item Desc 1	Oper #	Count Point	Std Cost	Plan Qty	Issued Qty	Var Comp Qty		
BCABASSY	Brake and Cable Assembly	40		\$96.000000	7	6	-1		
FORK	Fork, Blk, Titanium Mesh	60		\$100.000000	7	6	-1		
HBASSY	Handlebar Assembly	30		\$30.000000	7	6	-1		

11. Shop Floor – On-time Performance Analysis

This report is a customized version of our standard "Shop Floor Order View" report. It is designed to allow you to pinpoint manufactured items that, over time, are consistently not completed on time.

Shop Orders - on-time performance										
Order Header										
SF Ord #	Ord Dt	SF Due Dt	SF Complete Dt	Days late/early	Production Ord Status	Item #	Item Desc 1	SF Plan Total Cost \$	SF Act Total Cost \$	Variance Total Cost \$
21	5/13/02	1/4/02	5/14/02	-130	C	BIKEAS	ADVENTURE BIKE, LW, BLACK	\$5,787	\$3,705	(\$2,082)
22	5/13/02	12/11/01	5/14/02	-154	C	SSEATASSY	Adventure Bike Seat Assembly	\$340	\$428	\$87
23	5/13/02	1/10/02	5/14/02	-124	C	BIKEAS	ADVENTURE BIKE, LW, BLACK	\$9,259	\$6,998	(\$2,261)
24	5/13/02	12/3/01	5/14/02	-162	C	SSEATASSY	Adventure Bike Seat Assembly	\$544	\$667	\$123
25	5/13/02	1/16/02	5/14/02	-118	C	BIKEAS	ADVENTURE BIKE, LW, BLACK	\$8,101	\$5,658	(\$2,444)
26	5/13/02	12/13/01	5/14/02	-152	C	SSEATASSY	Adventure Bike Seat Assembly	\$476	\$612	\$135
27	5/13/02	1/24/02	5/14/02	-110	C	BIKEAS	ADVENTURE BIKE, LW, BLACK	\$3,472	\$3,209	(\$263)
28	5/13/02	1/9/02	5/14/02	-125	C	SSEATASSY	Adventure Bike Seat Assembly	\$204	\$255	\$51
29	5/13/02	1/22/02	5/14/02	-112	C	BIKEAS	ADVENTURE BIKE, LW, BLACK	\$5,787	\$3,982	(\$1,804)
30	5/13/02	12/27/01	5/14/02	-138	C	SSEATASSY	Adventure Bike Seat Assembly	\$340	\$428	\$87

For more information on any of our PULSE family of Macola® add-on software products, call (513) 723-8091

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