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General Purpose:

Manufacturing Metrics are needed to evaluate production activity, based on daily, weekly, monthly, and yearly information: OEE, Earned DL Hours, Actual DL Hours, Net Variance, Labor Productivity, Machine Utilization, and other factors.

- A daily automated report containing information derived from the BPCS System of "actual" information will be created. The daily report and all other reports can be run on demand from the UGN Database: Weekly Actuals, Month-To-Date Actuals, Monthly-Built-By-Finance Team with Actuals and Budget, Year-To-Date Actuals, Year-To-Month-with Actuals and Buget, and Date Range Actuals.
- 2) Plant Controllers and Cost Accountants build the monthly report, which will be created automatically with the actuals information from the BPCS System. Plant Controllers will add the rest.
- 3) Summary reports for all of the above will also be available.

UGN Database Navigation Tree:

 To find the Manufacturing Metrics Reports, open the "Plant Specific Reports" menu in the UGN Database Navigation Tree/Menu.

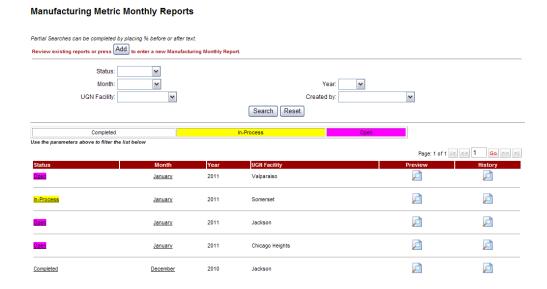
, 110	ome
¥	Accounts Receivable:
¥	Acoustic:
¥	Calendars:
¥	Capital Projects:
¥	Costing:
¥	Cost Reduction:
¥	Cycle Counter Matrix:
¥	DBA Workspace (Admin):
¥	Data Maintenance:
¥	Drawing Management:
¥	Engineering Change:
¥	Planning and Forecasting:
≽	Plant Specific Reports: Manuf Metric Avail Shift Fcti Manuf Metric Monthly Data Manuf Metric Reports
¥	Request For Development:
¥	Research and Development:
¥	Safety:
¥	Security:
¥	Work Flow:



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List / Search Page for Monthly Report (Data Entry):

• This is a list of monthly reports only because they are built by team members using a combination of automated BPCS data and manual data entry.



Monthly Report (Data Entry) Details Page:

- Only Plant Controllers, Cost Accountants, and Administrators will have access to this screen.
- Only One Monthly Report Per Facility can be created
- Fields that cannot be automatically filled from the BPCS System need to be updated by the user. Most of the "Budget" fields need to be entered by the team member. Most of the "Actual" fields are automatically populated from the system. Allocated Support and other non-BPCS fields would be added by the finance team members.
- Fields with blue labels indicate numeric values that need to be entered by the user.
- As each "Department" is completed, the totals will be updated.
- The user will be able to toggle through the departments and the "total" using a dropdown box.
- More fields are shown for a specific department than the "totals" section. This is because the "totals" department is a rolled up sum of all fields for each department with a production dollar greater than 0.
- The departments would automatically be pulled from the BPCS System.
- If a specific department is selected, then a button will appear to allow the user to see a "pop up" page with a list of calculation sources.
- A "preview" button will allow this information to be seen as a "Crystal Report" (PDF File).
- After the Plant Controller has finished a report, there will be two different buttons to press.
 - A button to notify team members of the same plant to review
 - A button to notify corporate team member to review
 - Once a report has been sent to team members, the Plant Controller will have the option to notify the previously notified team members that the report has been updated.
- All monthly reports will be saved and searchable on a "search/list page." (The other reports will be viewable in a different report selection page.)
- Team members who are notified of the monthly report will receive a hyperlink to the PDF preview of this
 information.

See the next page for a screen shot.



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Manufacturing Metrics Monthly	y Data					
Status: Open		* UGN Facility:	Jackso	on v		
* Month: March 🔻		-	2011			
monds. Wardt		r our.	2011			
December 14 OK UEADUM	IED/ 450	0)				
Department: JACK-HEADLIN						
Include Selected Department: (Only checked	Departme					
Last Updated By: Hall, Greg		Last Updated:	04/08/20	11		
		Sav		eview		
		Notify if	nternal F	Reviewers		
Production Performance JACK-HEADLINER(4520)					
Danata and Materia						
Department Notes:						
						<u>~</u>
Metric Budget	1	Actual		Vie	ew Calculation Sources	
OEE (Based on Available Hours): 0.0	96	85.8 %		Good Part Count	Scrap Part Count	Total Part Count
Earned Direct Labor Hours:	— i	4326	Budget			
Actual Direct Labor Hours: 0	= 1	5781	Actual	13494	117	13611
Net Variance:		-1,455	Aotuui	Utilization		Down Time (Unscheduled)
Labor Productivty: %	-	74.8%	Budget	0.0	0	
Machine Utilization: 0.0%		88.1%	Actual	88.1 %	314	37.74
Overtime Hours - Direct:				Monthly Shipping Days		Available Per Shift Factor
Overtime Hours - Indirect:				31	248	6.8
Scrap as a percentage of Cost of Production:	96	0.9		Budget Shift Count	Actual Shift Count	
In-Process Scrap as a percentage of Cost of Production:	96	1.5 %		0	1.49	
Team Members Used for Containment:				Machine Hours Worked	Machine Hours Downtime	Machine Hours Earned
Number of Parts in Containment:				Machine nours worked	(Scheduled and Unscheduled)	Macrime nours Earned
Number of Off-Standard Team Members - Direct:			Budget			
Number of Off-Standard Team Members - Indirect:			Actual	276.76	93.24	271.61
Check if there is Standardized Work in All Cells:					Man Hours Downtime	
Team Member to Team Leader:				Man Hours Worked	(Scheduled and Unscheduled)	
Capacity Utilization (Based on 24/7/365):	96	96	Budget			
			Actual	4404	1377	
				(S) Reject Scrap Dollars	(SM) Misc Scrap Dollars	Production Dollars
			Budget	s	s	s
			Actual	s 13740.61	s	s 1591360.57
				101 10.01	"	
			(1) In-Process Scrap Dollars	3	
			Budget	S		
			Actual	s 23434.43		
				SM Teansactions	that do not relate to department	s directly
			No I		that do not relate to department artments Found. All SM Transact	
				Additional Ladinary Cont.	sc Scrap Dollars to use: \$	
				Additional Indirect Mis	so so ap pollars to use: 5	
			Save			



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Team Members

Metric (Monthly)	Budget	Flex Budget	Actual	B / (W) Flex Budget
Direct - Perm:	37	30	33	-3
Direct - Temp:	8	6	11	-5
Total Direct Labor:	45	36	44	-8
Indirect Hourly Production- Perm:				0
Indirect Hourly Production - Temp:				0
Total Indirect Labor:	0	0	0	0
Office Hourly - Perm:				0
Office Hourly - Temp:				0
Total Office Hourly:	0	0	0	0
Salary - Perm:				0
Salary - Temp:				0
Total Salary:	0	0	0	0
Total Team Members:	45	36 S.	44 ave Preview	-8



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Manufacturing Metrics Calculation Source Popup:

- View the place in the BPCS Reports and/or calculations that are needed to build the department data. Exceptions:
 - 1. When obtaining the In-Process Scrap Dollars (I Transactions), Reason Codes 1 and 99 will be filtered out for all facilities but Jackson. Also for Somerset, department 6055 will NOT use any I transactions.
 - 2. Actual Downtime hours will filter out Reason Codes 50 and 94 for all UGN Facilities.



Calculations for Department 4520

Actual OEE (Based on Available Hours):	85.8 % = (13494 / 13611) * 88.1 * (271.61 / 276.76) * 100
Actual OEE = (OEEActualGoodPartCount / OEEActualTotalPartCount) * OEEActualUtilization * (Actual Machine Earned Hours / Actual Machine Hours Worked) * 100 Budget OEE (Based on Available Hours): Budget OEE = (OEEBudgetGoodPartCount / OEEBudgetTotalPartCount) * OEEBudgetUtilization * (Budget Machine Earned Hours / Budget Machine Hours Worked) * 100	0.0% = (0 / 0) * 0.0 * (0/ 0) * 100
OEE Actual Good Part Count: OEE Actual Good Part Count = OEE Actual Total Part Count - OEE Actual Scrap Part Count	13494 = 13811 - 117
OEE Actual Scrap Part Count (See Scrap Dollare By Department, RIEM203B - Column: Scrap Quantity)	117
OEE Actual Total Part Count (See Scrap Dollar By Department, RIEM203B - Column: Production Dollars)	13611
OEE Actual Available Hours (OEEActualAvailableHours=Machine Hours Available) (See Below)	314
OEE Actual Unscheduled Down Hours (OEE Actual Unscheduled Down Hours = UNscheduled Machine Down Time) (See Below)	37.74
Actual Machine Hours (See Daily Efficiency Report, RIEM214B - Column: Machine Hours Actual)	276.76
OEE Actual Utilization OEE Actual Utilization = (Actual Machine Hours / OEE Actual Available Hours) * 100	88.1 % = (276.76 / 314) * 100
OEE Budget Utilization OEE Budget Utilization = (Budget Machine Hours / OEE Budget Available Hours) * 100	0.0% = (0 / 0) * 100
Earned Direct Labor Hours: (See Daily Efficiency Report, RIEM214B - Column: Man Hours Standard)	4326
Actual Direct Labor Hours:	5781 = 4404 + 1377
Actual DL Hours = Actual Man Hours Worked + Total Actual Man Hours Downtime Budget Direct Labor Hours: Budget DL Hours = Budget Man Hours Worked + Total Budget Man Hours Downtime	0 = 0 + 0
Actual Man Hours Worked (See Daily Efficiency Report, RIEM214B - Column: Man Hours Actual)	4404
Total Actual Man Hours Downtime (See Below)	1377
Actual Downtime Hours (See Downtime Hours Report, RIEM205B - Column: MDT Downtime) or	93.24
(See Daily Efficiency Report, RIEM214B - Column: Downtime Hours)	
Budget Machine Earned Hours	0
Actual Machine Earned Hours (See Daily Efficiency Report, RIEM214B - Column: Machine Hours Standard)	271.61



-1455 = 4326 - 5781 Actual Net Variance = Earned DL Hours - Actual DL Hours

Budget Net Variance: Budget Net Variance = Earned DL Hours - Budget DL Hours

Actual Labor Productivty: Actual Labor Productivity = (Actual Earned DL Hours / Actual DL Hours) * 100

Budget Labor Productivty:

Budget Labor Productivity = (Budget Earned DL Hours / Budget DL Hours) * 100

Actual Machine Utilization:

(Actual Machine Utilization = OEE Actual Utilization) (See above)

Actual Scrap as a percentage of Cost of Production:

Actual Scrap = ((Total Actual Specific Scrap Dollars + Total Actual Misc Scrap Dollars + Total Actual Indirect Scrap Dollars) / Total Actual Production Dollars)* 100 (Rounded to 1 decimal)

Budget Scrap as a percentage of Cost of Production:

Budget Scrap = ((Total Budget Specific Scrap Dollars + Total Budget Misc Scrap Dollars) / Total Budget Production Dollars)* 100 (Rounded to 1 decimal)

Actual In-Process Scrap as a percentage of Cost of Production:

Actual In-Process Scrap = (Total Actual In-Process Scrap Dollars / Total Actual Production Dollars)* 100 (Rounded to 1 decimal)

Budget In-Process Scrap as a percentage of Cost of Production:

Budget In-Process Scrap = (Total Budget In-Process Scrap Dollars / Total Budget Production Dollars)* 100 (Rounded to 1 decimal)

OEE Actual Available Hours

Actual Machine Hours Worked Hours Per Shift = (Number of Working Days * 8) 248 = 31 * 8

Rounded Actual Shift Count = (Actual Machine Hours Worked + Actual Downtime Hours) / Hours Per Shift 1.49 = (276.76 + 93.24) / 248

Number of Working Days Available per shift Factor

314 = 31 * 6.8 * 1.49

Budget Downtime Hours

Hours Per Shift = (Number of Working Days * 8) Rounded Budget Shift Count = (Budget Machine Hours Worked + Budget Downtime Hours) / Hours Per Shift 0 = (0 + 0) / 248Number of Working Days 31

Available per shift Factor OEE Budget Available Hours = Shift Count * Monthly Shipping Days * Available Per Shift Factor 0 = 31 * 6.8 * 0

UNscheduled Machine Down Time (OEE Actual Down Hours)

Date	Shift	Reason Code	Reason Desc	Hours
03/01/2011	2	05	MDT-PRESS	0.100
03/01/2011	2	55	MDT-BLOWN PLUG	0.120
03/01/2011	2	A1	ODT-REWORK	0.030
03/01/2011	2	C3	MDT-Sub-Assembly	0.500
03/01/2011	3	06	MDT-CONVEYOR	0.130
03/01/2011	3	55	MDT-BLOWN PLUG	0.080
03/02/2011	2	06	MDT-CONVEYOR	0.030
03/02/2011	2	A1	ODT-REWORK	0.150
03/02/2011	3	A1	ODT-REWORK	0.090
03/02/2011	3	A1	ODT-REWORK	0.090
03/02/2011	3	C2	MDT-Waterjet-Robots	0.160
03/02/2011	3	C2	MDT-Waterjet-Robots	0.170
03/02/2011	3	E7	ODT-failure to follow STD work	0.070
03/02/2011	3	E7	ODT-failure to follow STD work	0.080
03/02/2011	3	E9	ODT-Changeover exceeding STD	0.020
03/02/2011	3	E9	ODT-Changeover exceeding STD	0.030
03/03/2011	2	55	MDT-BLOWN PLUG	0.330
03/03/2011	2	55	MDT-BLOWN PLUG	0.340
03/03/2011	2	A1	ODT-REWORK	0.050
03/03/2011	2	A1	ODT-REWORK	0.050
03/03/2011	2	E9	ODT-Changeover exceeding STD	0.050
03/03/2011	2	E9	ODT-Changeover exceeding STD	0.050
03/03/2011	3	56	MDT-WATERJET-INTESIFIER	0.870
03/03/2011	3	A1	ODT-REWORK	0.100
03/04/2011	2	05	MDT-PRESS	0.120

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74.8% = (4328 / 5781) * 100

0.0% = ((0.00 + 0.00) / 0.00) * 100

1.5% = (23416.28 / 1591360.57) * 100

0.0% = (0.00 / 0.00) * 100

0.9% = ((13740.61 + 0.00 + 0.00) / 1591360.57) * 100

0.0% = (0 / 0) * 100



03/30/2011	2	08	MDT-HOT-OIL-SYSTEM	0.500	
03/30/2011	2	88	MDT-GLASS CHOPPER/MAT'L PULLER	0.100	
03/30/2011	2	88	MDT-GLASS CHOPPER/MAT'L PULLER	0.100	
03/30/2011	2	88	MDT-GLASS CHOPPER/MAT'L PULLER	0.100	
03/30/2011	2	88	MDT-GLASS CHOPPER/MAT'L PULLER	0.100	
03/30/2011	2	88	MDT-GLASS CHOPPER/MAT'L PULLER	0.100	
03/31/2011	2	08	MDT-HOT-OIL-SYSTEM	1.000	
03/31/2011	2	08	MDT-HOT-OIL-SYSTEM	5.000	
Total Unscheduled Machine Down Tim	Total Unscheduled Machine Down Time (OEE Actual Unscheduled Down Hours) 37.74				

Man Hours Downtime (Scheduled and Unscheduled)

Date	Is Scheduled	Shift	Actual Man Hours	Actual Machine Hours	Machine Hours Downtime	Crew Size = Actual Man Hours / Actual Machine Hours	Man Hour Down Time = Crew Size * Machine Hours Down Teme
3/01/2011	False	2	106.040000	6.350000	0.750000	16.70	12.52
3/01/2011	False	3	106.300000	6.290000	0.210000	16.90	3.55
3/01/2011	True	2	106.040000	6.350000	1.000000	16.70	16.70
3/01/2011	True	3	106.300000	6.290000	1.000000	16.90	16.90
3/02/2011	False	2	101.120000	6.320000	0.180000	16.00	2.88
3/02/2011	False	3	100.720000	6.540000	0.710000	15.40	10.93
3/02/2011	True	2	101.120000	6.320000	1.500000	16.00	24.00
3/02/2011	True	3	100.720000	6.540000	1.250000	15.40	19.25
3/03/2011	False	2	112.520000	6.580000	0.870000	17.10	14.88
3/03/2011	False	3	113.620000	6.530000	0.770000	17.40	13.40
3/03/2011	True	2	112.520000	6.580000	1.250000	17.10	21.38
3/03/2011	True	3	113.620000	6.530000	1.000000	17.40	17.40
3/04/2011	False	2	111.280000	6.470000	0.530000	17.20	9.12
3/04/2011	False	3	87.500000	6.250000	1.450000	14.00	20.30
3/04/2011	True	2	111.280000	6.470000	1.000000	17.20	17.20
3/04/2011	True	3	87.500000	6.250000	1.000000	14.00	14.00
3/07/2011	False	2	107.360000	6.100000	0.200000	17.60	3.52
03/29/2011	False	2	94.580000	5.140000	0.230000	18.40	4.23
03/29/2011	True	2	94.580000	5.140000	1.130000	18.40	20.79
03/30/2011	False	2	43.350000	4.250000	3.000000	10.20	30.60
3/30/2011	True	2	43.350000	4.250000	2.750000	10.20	28.05
3/31/2011	False	2	3.500000	1.000000	6.000000	3.50	21.00
3/31/2011	True	2	3.500000	1.000000	1.000000	3.50	3.50

Total Actual Indirect Misc Scrap Dollars (SM Transactions that do not tie to a Department)

No Misc Scrap Dollar Without Department Found, All SM Transactions relate to Departments

BPCS Data Sources Overview:

The daily and weekly "Manufacturing Metric" reports are based on information entered into BPCS. They read the same information as BPCS reports (assuming a download is done daily). So the reports will be most accurate after a noon download, for the previous day. If there are inherent delays of transactions, the regular BPCS reports are affected as well. Monthly manufacturing metric reports will also include "budget" information and a few other items that are manually entered by the plant controllers. Below shows a list of BPCS reports, Docushare SOP Documents (which contain the BPCS screens of what data is entered), a list of BPCS tables/files used to hold the data, and some timing notes that affect the data.

BPCS Reports:

- RIEM203B Scrap Dollars By Department
- RIEM214B Daily Efficiency Report
- RIEM205B Downtime Hours Report

BPCS Documents (Docushare SOPs):

The following documents show the screens that are updated to allow accurate data for the Manufacturing Metric Reports.

- BPCS405 Routing Setup
- BPCS406 Loading Standard Cost
- BPCS407 Created Standard Costs for Raw Materials
- BPCS412 Master Schedule Generation
- BPCS413 Manual Shop Order Creation
- BPCS420 Inventory Now Scanning

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- BPCS421 Inventory Now Labor Entry
- BPCS422 Inventory Transaction

BPCS Tables:

The following BPCS tables are updated from the screens mentioned above.

- FLT "Labor Ticket History" Thin Client, Labor Entry Maintenance Mocha Custom Menus #8#22 (see BPCS421 in Docushare)
- FOD "Shop Operations Detail" Creation of new shop orders or shop order maintenance (see BPCS413) and Master Schedule Generation (see BPCS412)
- FRT "Routing Maintenance" (see BPCS405 in Docushare)
- ITH I Transactions Shop Order Single Issue Scrap (Manually see BPCS422 in Docushare; Automatically Updated by Transition Works, formerly called Inventory Now (see BPCS421 in Docushare)
- ITH S Transactions Production Rejection Scrap (Manually see BPCS422 in Docushare; Automatically - Updated by Transition Works, formerly called Inventory Now (see BPCS421 in Docushare)
- ITH SM Transactions Miscellaneous Scrap "Manual Inventory Transactions" (see BPCS422 in Docushare)
- ITH R Transactions Shop Order Receipts "Mostly Automatic Inventory Transactions" Scanning (see BPCS420), ODL/Core/LOD (transactions are done automatically in the program), or manually in Inventory Transactions (BPCS422)
- YTH R Transactions "Historical Inventory Transactions" -Anything over 2 months is moved from ITH to YTH
- IWM "Warehouse Master" BPCS SCM tab Inventory
- LWK "Work Center Maintenance" BPCS MMM tab Manufacturing Data Management
- CDP "Department Maintenance" BPCS MMM tab Manufacturing Data Management
- ZPA "Reason Code Maintenance" done by BPCS group; Item Type Maintenance BPCS SCM tab, Inventory
- CMF "Cost Accounting Cost Maintenance" BPCS CEF tab (see BPCS406 and BPCS407)

BPCS Timing:

There are some purge programs that affect the FLT and FOD tables after a year. There should be a distinction made between the FLT, FOD, and ITH versus the other files. The FLT, FOD, and ITH are definitely updated every day, but the other files are mostly setup files and are maintained as needed.

There is also a difference in timing among the plants. That is, some plants update the labor after each shift while others make updates the following day. In addition, there may be a delay as to when the SM transactions are processed, since they're done manually. The R transactions should, more or less, be real-time. However, all transactions should be done and reconciled by 12 noon on the first day of the month.

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Manufacturing Metrics Reports Selection:

- Any team member with read-only rights can view these pages.
- Searched can be based on the following:
 - 1. Daily Actuals
 - 2. Weekly Actuals
 - 3. Month-To-Date Actuals
 - 4. Monthly (Built By Plant Controllers with Budget Info)
 - 5. Year-To-Month (Total of reports built By Plant Controllers with Budget Info)
 - 6. Year-To-Date Actuals
 - 7. Other Date Range Actuals
- Daily Reports are emailed to Plant Controllers, Cost Accountants, and any other team member that requests it.

Manufacturing Metrics Report Selection





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Preview Monthly and Year-To-Month Built by Plant Controllers Report:

- Available from Data Entry Details Page, Report Selection Page, Email Notification
- The first page contains the totals of all departments.
- One page per department exists after the totals.

Manufacturing Metrics Monthl	March	2011		IV.	I					
ackson	Open			Sound Solutions for the Automotive Industry						
Totals				Notes	E)/					
Production Performance	Current Month Budget		Current Month Actual	B / (W) Budget Actual	Prior Month Actual		B / (W) Prior Mo Actual		Actual (sched	Downtime luled and heduled)
OEE (Based on Available Hours):	0.	3 %	82.5 %	82.5 %	82.1	%	0.4	%		
Earned Direct Labor Hours:	91	0	17,819	17,819	15,344		2,475		MDT:	282.89
Actual Direct Labor Hours:	9	2	24,078	(24,078)	21,244		(2,834)		ODT:	144.46
Net Variance:		1	(6,259)		(5,900)				SDT:	1,007.00
Labor Productivity:	0.	96	74.0 %	74.0 %	72.2	. %	1.8	%	Total:	1,434.3
Machine Utilization:	0.	1 %	88.5 %	88.5 %	88.3	%	0.2	%		
Overtime Hours Direct:		3	0	0	0		0			
Overtime Hours Indirect:	91	0	0	0	.0		0			
Overtime Allocated Support Indirect:	9	3	0	0	0		0			
Scrap as a % of Cost of Production:	0.	3 %	1.2 %	(1.2)%	1.4	%	0.2	%		
In-Process Scrap as a %:	0.	3 %	0.7 %	(8.7)%	1.0	- %	0.4	%		
Team Members Used for Containment:	8)	3	0	0	0		0			
Team Members Allocated Support User for Containment:	9	3	0	0	0		0			
Parts in Containment:	0	0	0	0	0		0			
Allocated Support Parts in Containment:		3	0	0	0		0			
Off-Standard Team Members - Direct:	9	1	0	0	0		0			
Off-Standard Team Members - Indirect:	0		0	.0	0		.0			
Off-Standard Team Members Allocated Support - Indirect:		1	0	0	0		0			
is Standardized Work in Ali Cells:	N		NO		NO					
Team Member to Leader Ratio:	0.0 t		0.0 to 1		0.0 to					
Capacity Utilization (Based on 24/7/365):	0	D %	0.0 %	0.0 %	Ω.0	%	0.0	%		

Team Members	Budget	Flex Budget	Actual	B/ (W) Flex Budget	Prior Mo. Actual
Direct - Perm:	103	102	112	(10)	0
Direct - Temp:	42	43	53	(10)	0
Total DL:	145	145	165	(20)	0
Indirect Hourly Production - Perm:	0	0	0	0	0
Indirect Hourly Allocated Support - Perm:	63	61	61	0	0
Indirect Hourly Production - Temp:	0	0	0	0	0
Indirect Hourly Allocated Support - Temp:	9	11	11	0	0
Total Indirect:	72	72	72	0	0
Office Hourly - Perm:	0	0	0	0	0
Office Hourly Allocated Support - Perm:	8	8	8	0	0
Office Hourly - Temp:	0	0	0	0	0
Office Hourly Allocated Support - Temp:	0	0	0	0	0
Total Office Hourly:	8	8	8	0	0
Salary - Perm:	0	0	0	0	0
Salary Allocated Support - Perm:	30	29	29	0	0
Salary - Temp:	0	0	0	0	0
Salary Allocated Support - Temp:	0	0	0	0	0
Total Salary:	30	29	29	0	0
Total Team Members:	255	254	274	(20)	0



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Preview Daily, Weekly, Month-To-Date, Year-To-Date, Other Date Range Report:

Manufacturing Metrics Report

Valparaiso

From: 04/01/2011

To: 04/11/2011



					10: 04	/11/2011	-	una solutions loi	the Automotive moustry
		OEE %	Earned DL Hrs	Actual DL Hrs	Net Var.	Labor Prdvty%	Mach. Util %	Scrap %	In-Proc. Scrap %
All Department [*]	Total(s)	81.1%	3,786	4,652	(866)	81.4%	84.2%	1.0%	1.1%
<u>Total</u> <u>Parts</u>	Good Parts	Scrap Parts	Availa <u>Tim</u>		Unscheduled Down Time	Machine Hours Worked		I Downtime Hours	Earned Machine Hours
116,040	114,553	1,487	1,47	72	114.71	1,239.43	4	26.52	1,209.31
Actual Man Hours	Man Hour Downtime				(S) Reject Scrap \$	(SM) Misc Scrap \$		In-Proc crap \$	Total Scrap \$
3,449	1,203				\$9,043.74	\$392.05	\$10),701.49	\$20,137.28
		OEE %	Earned DL Hrs	Actual DL Hrs	Net Var.	Labor Prdvty %	Mach. Util %	Scrap %	In-Proc. Scrap %
5515 VALPO S CARPET	UBARU	87.9%	290	389	(99)	74.6%	90.2%	0.0%	1.1%
<u>Total</u> <u>Parts</u>	Good Parts	<u>Scrap</u> <u>Parts</u>	<u>Availa</u> <u>Tim</u>		Unscheduled Down Time	Machine Hours Worked		<u>I Downtime</u> Hours	Earned Machine Hours
2,320	2,320	0	66		5.10	59.55		17.50	58.00
Actual Man Hours	Man Hour Downtime		<u>Shi</u> <u>Cou</u>	_	(S) Reject Scrap \$	(SM) Misc Scrap \$		In-Proc crap \$	<u>Total</u> Scrap \$
300	89		0.8	8	\$0.00	\$0.00	\$1,	,134.27	\$1,134.27



04/26/2011

Manufacturing Metrics Available Per Shift Factor:

- Used to help calculate hours per day of labor
- Factors will be updated annually.
- Factors can be for Department, Facility, or for All of UGN
- Only certain team members with administrative roles can update this information.

Manufacturing Metrics Available Per Shift Factor Maintenance



UGNFacility	Department	Available Per Shift Factor	Effective Date
Chicago Heights	CHG HTS MELSHEET LINE 2(4025)	8.00	01/01/2010
Chicago Heights	CHG HTS BARRIER / RSS LINE(4030)	7.10	01/01/2010
Chicago Heights	CHG HTS MELSHEET LINE 1(4035)	7.10	01/01/2010
	CORP-GENERAL PLANT(0)	6.70	01/01/2010
	CORP-GENERAL PLANT(0)	6.80	01/01/2011
Valparaiso	UTRA-LIGHT(5575)	7.80	01/01/2011
Somerset	SMST-FIBER LINE(6055)	7.10	01/01/2011