

Garment Analyzer (GA)

-Complete Sewing Productivity Improvement
Solution



www.EfficientERP.com

GARMET ANALYZER

Industrial Engineering Module of eERP



True open platform Pre-determined motion time system

Ultimate in

- ✓ Time Standard.
- ✓ Worker Assessment Solution
- ✓ Line balancing solution with Real Life Line Balancing
- ✓ Thread Consumption

To Improve

- ✓ Productivity by around 15%
- ✓ Quality
- ✓ Manufacturing Methods
- ✓ Response to customer Needs
- ✓ Traceability
- ✓ Communication & Worker Satisfaction



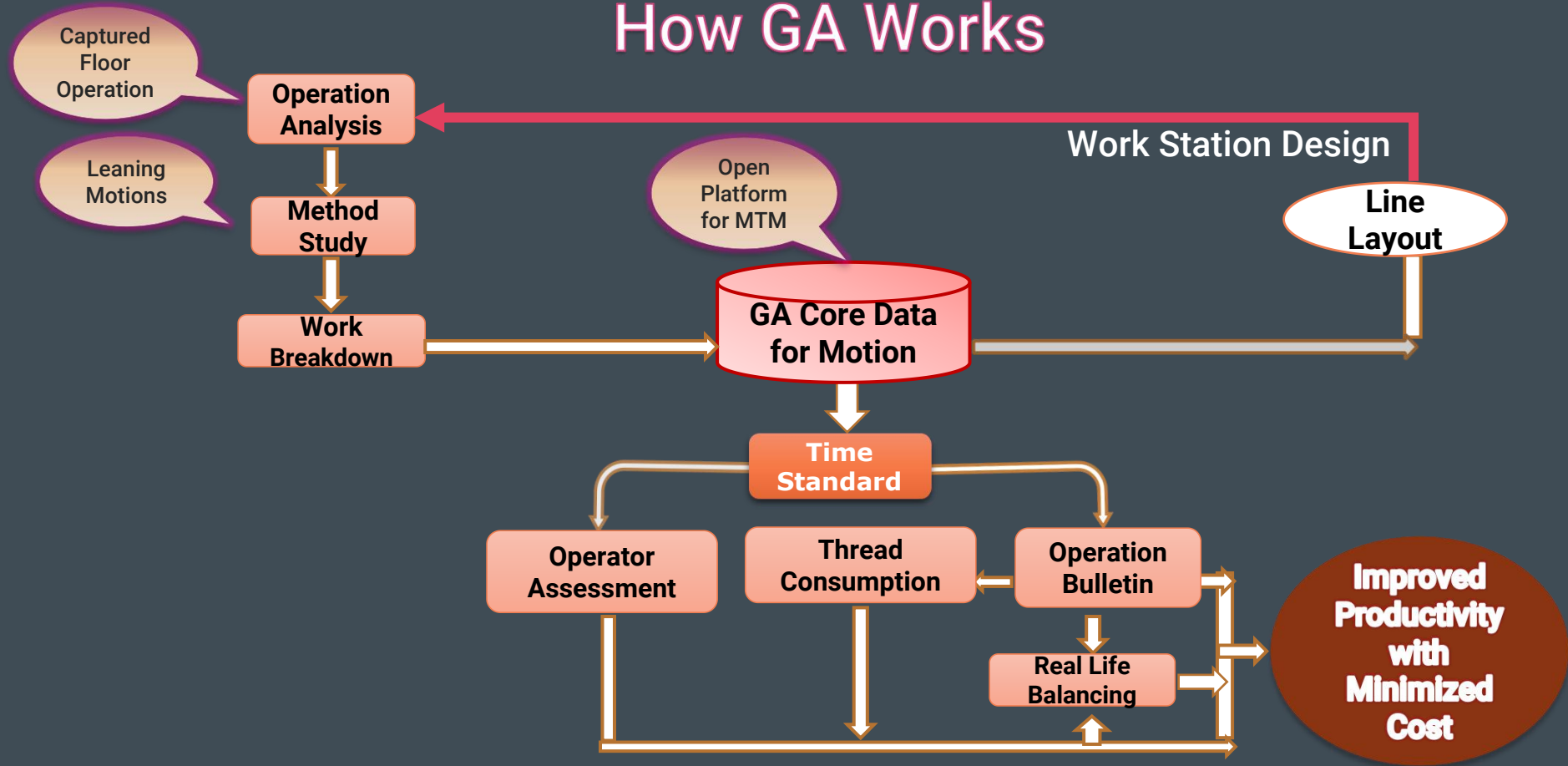
To Standardize

- ✓ Operation
- ✓ Style Operation Breakdown
- ✓ Worker Recruitment Procedure
- ✓ Thread Consumption
- ✓ Worker Assessment Procedure
- ✓ Product Costing

To Anticipate

- ✓ Absenteeism with Real Life Update of Skill Inventory
- ✓ Loss of Productivity by Real Life Balancing

How GA Works



Introduction to Garment Analyzer

1

GA is the methods management system and is a Open Predetermined Motion Time System (OPMTS), designed specifically for the sewn products industry.

2

Its primary function is to rationalize manufacturing methods and to produce an accurate evaluation of the time required to perform a specific task or operation.

3


The system consists of three parts


- ❖ the inherent GA Database itself, which forms the heart and integrity of the system
- ❖ the GA Data Process Which Process All The Calculation To Enhance the data processing
- ❖ and GA in core a cloud software, which is the vehicle that "drives" the data



Garment
Analyzer


Key Features


 Flexible Predetermined Motion Time System


 Perfect Standard Time for All Sewing Operations

 Fully Customized Solution


 Built in Mailing System for Operation Bulletin & Worker


 Assessment Report
Real-time skill inventory update to cope up absenteeism and enhance productivity


 Unique optimized line balancing system to ensure optimum productivity

 Real-life line balancing with the actual operator and proper utilization of the worker



 Pitch Diagram to Find Bottleneck easily

 Support line balancing for modular production system.

 Create Visual Drag and Drop Line Layout Directly from Operation Bulletin

 Automatic Thread Consumption

 Export Data to Excel, pdf, XML etc.

 Built in Report Builder to Build unlimited reports to meet your satisfaction

Garment Analyzer Deliverables

- 1 Substantial time reduction for style costing and style introduction.
- 2 Rapid quantification of changes in design, materials, volume, technique and quality.
- 3 Improvement in overall consistency rates.
- 4 Evaluation and justification of new equipment and methods
- 5 Setting and pre-engineering of consistent and accurate rates.
- 6 Elimination of lost business caused by overpricing of jobs.
- 7 Elimination of lost income caused by under-pricing of jobs.
- 8 Overall management of manufacturing standards data base.
- 9 Data transfer capabilities to other systems.
- 10 Efficiency of operator training via method specification.
- 11 Reduction of clerical time.
- 12 Optimum productivity with selecting appropriate worker for appropriate operation.
- 13 Standardize and Flexible system for Worker Assessment and Recruitment
- 14 For modular lines one can make operation bulletin within 10 min with real worker's capacity with an enhance flexibility in worker selection.

GARMENT ANALYZER **REPORTS**





Efficient Garment Planner Ltd

Operation Bulletin

BID	Style	Style Description	Buyer	CT	SM	Utl%	Optm tgt	Line Tgt	PlanHr	St. Eff	Cts Eff	Line No	Helper	Printed At
2552	3550192966	TG Denim Jegging FT	TARGET	0.428	16.8	72.6	133	120	10	55%	70%	G-EGP	0	18-Mar-2020 15:14:28

Machine Code	Machine Name	Quantity
CS1	Chainstitch Machine [101]	2
DNCHST	Duble Needle Chainstitch Machine	1
DNLS	Duble Needle Lockstitch Machine	3
FOA	Feed off the Arm	2
HP	Hand Press	12
KANS	Kansai	2
LS1	Lockstitch Machine [301]	1
QL3	Overlock Machine [503]	5
QL4	Overlock Machine [504]	2
QL5	Overlock Machine [505]	2
PTB	Press - Table & Hand Iron	2
SNLS	Single Needle Lockstitch Machine	20
Total Manpower:		54
Total Machine Operator:		40
Total Manual Operator:		14
Total Helper:		0

HOUR=>	1	8	10	Front Image	Back Image
Tgt@40%Eff	77	617	771		
Tgt@45%Eff	87	694	868		
Tgt@50%Eff	96	771	964		
Tgt@55%Eff	106	849	1061		
Tgt@60%Eff	116	926	1157		
Tgt@65%Eff	125	1003	1254		
Tgt@70% Eff	135	1080	1350		
Tgt@75% Eff	145	1157	1446		

S/N	Operation Name	Operation Des	Category	M/C	SM	Operator	Idl Min	Tgt/Oprtr	Section	M	Workers	Attachment	Sys Note	Remarks	RID
1	Seam Join With Body	40 CM	Q	SNLS	0.6	2	12	60	01. FRONT						105589
2	Seam Body Of	40 Cm	Q	OL3	0.5	2	15	60	01. FRONT						105590
3	Front Pocket Mouth Rolling	40 CM	Q	DNLS	0.6	2	12	60	01. FRONT						105591
4	Sifty Oil	15 cm*2	R	OL3	0.05	1	54	120	01. FRONT						105592
5	Front Rise Join With Sifty By 5thd Oil	25 CM(FRONT RISE & SIFLY)	Q	OL5	0.35	1	18	120	01. FRONT						105593
6	Side Single Fly Trs	12 CM	Q	SNLS	0.35	1	18	120	01. FRONT						105594
7	J Stitch Mark On Frt Part	22CM	S	HP	0.15	1	42	120	01. FRONT						105595
8	J Stitch On Frt Part	18 Cm	Q	SNLS	0.3	1	24	120	01. FRONT						105596
9	Front Rise Trs	15cm	R	LS1	0.45	1	6	120	01. FRONT						105597
10	Side Separate Oil	234 CM	R	OL4	0.35	1	18	120	01. FRONT						105598
11	Back Pocket Roolling	20cm	R	DNLS	0.4	1	12	120	02. BACK						105599
12	Back Pocket Around Oil	38cm	R	OL3	0.35	1	18	120	02. BACK						105600
13	Back Pocket Iron	36 CM	S	PTB	0.45	1	6	120	02. BACK						105601
14	Back Yoke Join	29 cm	Q	DNCHST	0.35	1	18	120	02. BACK						105602
15	Back Rise	36 cm	Q	FOA	0.35	1	18	120	02. BACK						105603
16	Back Pocket Att Position Mark	40 cm	Q	HP	0.5	2	15	60	02. BACK						105604
17	Back Pocket Attach	80cm	P	SNLS	0.7	2	9	60	02. BACK						105605
18	Back Pocket Second Stitch	37cm	Q	SNLS	0.55	2	13.5	60	02. BACK						105606
19	Side Separate Oil	234 CM	R	OL4	0.35	1	18	120	02. BACK						105607
20	Blk & Front Part Match	0	R	HP	0.3	1	24	120	04. ASSEMBLY						105608
21	Inseam Join By Sol	60CM	Q	OL5	0.45	1	6	120	04. ASSEMBLY						105609
22	Inseam Top Stc	160 cm	R	FOA	0.35	1	18	120	04. ASSEMBLY						105610
23	Side Seam Join	80 cm	Q	SNLS	0.55	2	13.5	60	04. ASSEMBLY						105611
24	Side Cord Stitch	26 cm*2	R	SNLS	0.4	1	12	120	04. ASSEMBLY						105612
25	Busted Seam Crease	80 cm	R	PTB	0.4	1	12	120	04. ASSEMBLY						105613
26	Waist Belt Make	12 CM	Q	SNLS	0.25	1	30	120	04. ASSEMBLY						105614
27	Leg Hem Elastic Measure & Cut	35 CM	R	HP	0.5	2	15	60	04. ASSEMBLY						105615
28	Elastic Edge Tack	4 CM	R	SNLS	0.3	1	24	120	04. ASSEMBLY						105616
29	Elastic Mark	15cm	R	HP	0.35	1	18	120	04. ASSEMBLY						105617
30	Elastic Mark	15cm	R	HP	0.35	1	18	120	04. ASSEMBLY						105618

Report

Unique Line Optimization Technique.
 Flexible Layout.
 Unique Combination technique.
 Automatic Thread Consumption.



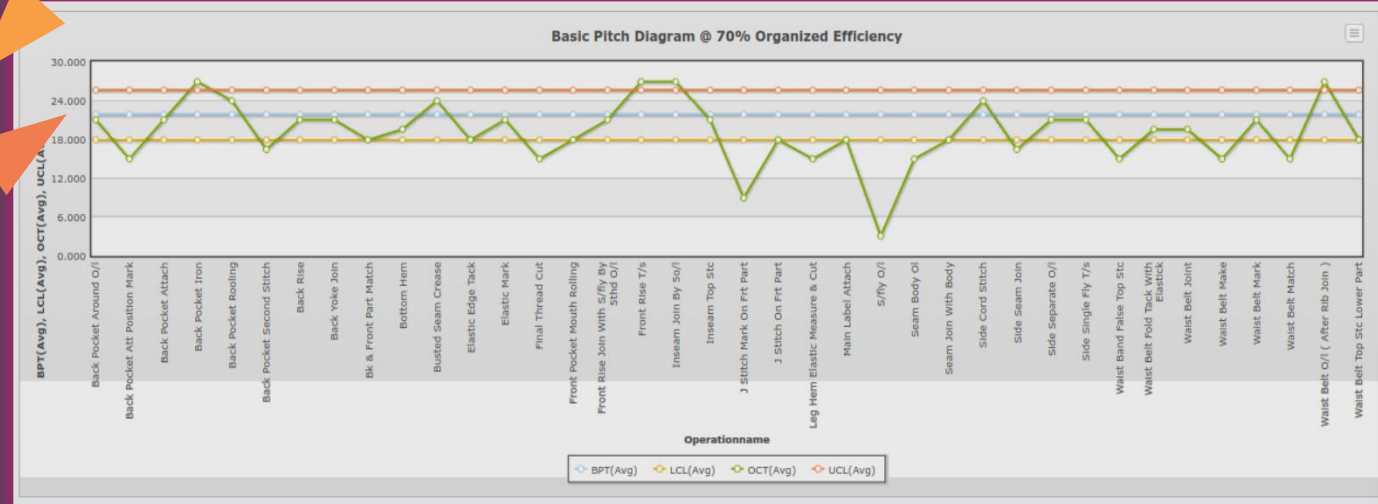
Operation Bulletin

Report

Basic Pitch diagram to find bottlenecks earlier than execution



Pitch Diagram



Report

Just click to reorder operations, reduce operator, combine, save template and more.....!



Optimization

Optimize Bulletin For: 3550192966																	
Row ID	Dn	UP	Operation Name	Description	Section	Machine Code	Stan Min	Capacity	Std Operator	Ac Operator	Round Op	System Note	Remarks	RID	BID	Copy	
1	↓	↑	Seam Join With Body	40 CM	01. FRONT	SNLS	0.600	100	1.39	2.00	0.60			105589	2552		
2	↓	↑	Seam Body O/I	40 Cm	01. FRONT	OL3	0.500	120	1.16	2.00	0.83			105590	2552		
3	↓	↑	Front Pocket Mouth Rolling	40 CM	01. FRONT	DNLS	0.600	100	1.39	2.00	0.60			105591	2552		
4	↓	↑	S/fly O/I	15 cm*2	01. FRONT	OL3	0.050	1,200	0.11	1.00	0.88			105592	2552		
5	↓	↑	Front Rise Join With S/fly By 5thd O/I	25 CM(FRONT RISE & S/FLY)	01. FRONT	OL5	0.350	171	0.81	1.00	0.18			105593	2552		
6	↓	↑	Side Single Fly T/s	12 CM	01. FRONT	SNLS	0.350	171	0.81	1.00	0.18			105594	2552		
7	↓	↑	J Sttich Mark On Frt Part	22CM	01. FRONT	HP	0.150	400	0.34	1.00	0.65			105595	2552		
8	↓	↑	J Sttich On Frt Part	18 Cm	01. FRONT	SNLS	0.300	200	0.69	1.00	0.30			105596	2552		
9	↓	↑	Front Rise T/s	15cm	01. FRONT	LS1	0.450	133	1.04	1.00	-0.04			105597	2552		
10	↓	↑	Side Separate O/I	234 CM	01. FRONT	OL4	0.350	171	0.81	1.00	0.18			105598	2552		
							3.700		8.63	13.00							
02. BACK																	
Row ID	Dn	UP	Operation Name	Description	Section	Machine Code	Stan Min	Capacity	Std Operator	Ac Operator	Round Op	System Note	Remarks	RID	BID	Copy	
11	↓	↑	Back Pocket Roolling	20cm	02. BACK	DNLS	0.400	150	0.93	1.00	0.06			105599	2552		
12	↓	↑	Back Pocket Around O/I	38cm	02. BACK	OL3	0.350	171	0.81	1.00	0.18			105600	2552		
13	↓	↑	Back Pocket Iron	36 CM	02. BACK	PTB	0.450	133	1.04	1.00	-0.04			105601	2552		
14	↓	↑	Back Yoke Join	29 cm	02. BACK	DNCHST	0.350	171	0.81	1.00	0.18			105602	2552		
15	↓	↑	Back Rise	36 cm	02. BACK	FOA	0.350	171	0.81	1.00	0.18			105603	2552		



Efficient Garment Planner Ltd

Operation Breakdown by GA

Operation ID	Operation Title	Operation Description	SPC	Operation Category	Product Category	Seam Burst	Stitch Type
496	Sleeve Join (sylinder Type)	55 cm*2(sylinder type)	5.50	P	Denim Shirt	0.00	
Picture	Picture 2	Machine	RPM	Machine Time	Manual Time	Is Manual	
		OL5	3,200	0.24	0.59		

Operations Breakdown

	CODE	Element	Freq	Ttl TMU	Ttl Machine TMU	Basic Time	Remarks
1	GP2H	GET PART WITH TWO HANDS	2	66.000	0.000	0.033	
2	PPAL	PUT PART TO APPROXIMATE LOCATION	2	20.000	0.000	0.010	
3	GP2H	GET PART WITH TWO HANDS	2	66.000	0.000	0.033	
4	MAP2H	MATCH AND ADD ADDITIONAL PART 2 HANDED	2	138.000	0.000	0.069	
5	FOOT	PART TO M/C FOOT	2	76.000	0.000	0.038	
6	ARPF	REPOSITION WORK	2	150.000	0.000	0.075	
7	AA2P	ALIGN TWO PARTS	10	610.000	0.000	0.305	
8	S55HB	Sewing 55 cm with Folding Condition: H and Stop Acc: B	2	0.000	493.140	0.247	
9	CBLADE	CUTTING WITH FIXED BLADE	2	66.000	0.000	0.033	
Grand Summary(9)				1,192.000	493.140	0.843	

Basic Time	Stan Min	Capacity	Remarks	Manual %	Allow	Factory	Entered by
0.843	0.986	60		60.400	17.000	ALL	OJLIE

Report

Open MTM Platform
Much More Flexible to enhance
productivity



Operation

Skill Inventory

Date:10-May-2017

WorkerID ▲	WorkerName ▲	OperationName ▲	OperationDescription ▲	OperationStandard ▲	Designation ▲	MachineCode ▲	DOJ ▲	Grade ▲	Line ▲	ObservedCapa ▲
filter colu	filter column	filter column...	filter column...	filter column...	filter column	filter column.	filter co	filter c	filter	filter column.
107067	Salauddin	Arm hole top stitch	Arm hole TS-51 x 2 cm-wo helper-Intersport-new marathon-SS Tee-Rofiq-105684	181	Snr. Operator	OL4	10-Jul-2017	Q	SF3L4	150
	Salauddin	Neck Top Stitch	N-Round neck	300	Snr. Operator	FL	10-Jul-2017	Q	SF3L4	231
107067	Salauddin	Neck Binding (FL)	N-with 1 label, 1 sho join	313	Snr. Operator	FL	10-Jul-2017	Q	SF3L4	205
107067	Salauddin	Sleeve Attach	Below 44 x 2cm-1 cut mark-LPP-Rofiqul-105627	154	Snr. Operator	OL4	10-Jul-2017	Q	SF3L4	103
107067	Salauddin	Side Seam	40CMx2-without Care LBL-Real SB	156	Snr. Operator	OL4	10-Jul-2017	Q	SF3L4	84
▼ 109074 (6 Items)										
107074	Angura	Neck Top Stitch	N-Round neck	300	Operator	FL	11-Jul-2017	Q	SF2L3	156
107074	Angura	Placket attach together	M-Two Placket attach together with mark	149	Operator	SNLS	11-Jul-2017	P	SF2L3	109
107074	Angura	Placket box(cross)	19 cm cross	142	Operator	SNLS	11-Jul-2017	P	SF2L3	76
107074	Angura	Placket 1/16 T/S lower & upper	14CMx2-with nose-Asty	241	Operator	SNLS	11-Jul-2017	R	SF2L3	150
107074	Angura	Collat top stitch	1/4 edge TS-60 cm- w trim	147	Operator	SNLS	11-Jul-2017	P	SF2L3	78
107074	Angura	Pocket attach	Round w daimond 28 cm	127	Operator	SNLS	11-Jul-2017	P	SF2L3	80
▼ 0.108035 (5 Items)										
0.108035	Billal hassain	Neck Top Stitch	Fmt nk-30cm-Rohima-105763	330	Operator	FL	06-Oct-2018	Q	SF3L10	214
0.108035	Billal hassain	Arm hole top stitch	54 x 2 cm,wo helper	191	Operator	FL	06-Oct-2018	Q	SF3L10	101
0.108035	Billal hassain	Neck Rib Attach	R nk-32 cm w=1.7cm-gemo-36 creasy-motalib-109911	310	Operator	OL4	06-Oct-2018	P	SF3L10	171
0.108035	Billal hassain	Sleeve Attach	Below 44 x 2cm-1 cut mark-LPP-Rofiqul-105627	154	Operator	OL4	06-Oct-2018	Q	SF3L10	89

Report

You can create unlimited reports like this by yourself



Skill Inventory

Start Layout Design

Generate PDF

Print

Action

Visual Drag n drop layout



Visual Layout

<p>1</p> <p><u>Waist Band False Top ..</u> Tgt:70 Cap:60 SM:0.5 M/C:CS1 Oid:(140)</p>	<p>2</p> <p><u>Back Yoke Join</u> Tgt:140 Cap:171 SM:0.35 M/C:DNCHST Oid:(14)</p>
<p>3</p> <p><u>Front Pocket Mouth Ro..</u> Tgt:70 Cap:60 SM:0.6 M/C:DNLS Oid:(3)</p>	<p>4</p> <p><u>Back Pocket Roofing</u> Tgt:140 Cap:150 SM:0.4 M/C:DNLS Oid:(11)</p>
<p>5</p> <p><u>Back Rise</u> Tgt:140 Cap:171 SM:0.35 M/C:FOA Oid:(15)</p>	<p>6</p> <p><u>Inseam Top Stc</u> Tgt:140 Cap:171 SM:0.35 M/C:FOA Oid:(22)</p>
<p>7</p> <p><u>J Stitch Mark On Frt..</u> Tgt:140 Cap:400 SM:0.15 M/C:HP Oid:(7)</p>	<p>8</p> <p><u>Back Pocket Att Posit..</u> Tgt:70 Cap:60 SM:0.5 M/C:HP Oid:(16)</p>
<p>9</p> <p><u>Bk & Front Part Match</u> Tgt:140 Cap:200 SM:0.3 M/C:HP Oid:(20)</p>	<p>10</p> <p><u>Leg Hem Elastic Measu..</u> Tgt:70 Cap:60 SM:0.5 M/C:HP Oid:(27)</p>

Machine Code	Image	Qty	Manual
CS1		1	
DNCHST		1	
DNLS		2	
FOA		2	
HP		9	
KANS		1	
LS1		1	
OL3		4	
OL4		2	
OL5		4	
PTB		2	
SNLS		13	
Total:		42	

EG STOPWATCH

 **Take Lap**

29902 **Pause** **Reset** **Save**

Avg. Cap(Pcs/Hr): 247

Operator Name/ID: সৌরভ

Line No: 01

Operation Name: নেক টপসিট

Machine: SNLS

Allowance(%): 10

No of Pcs/Cycle: 1

Average Time(Sec): 14.58

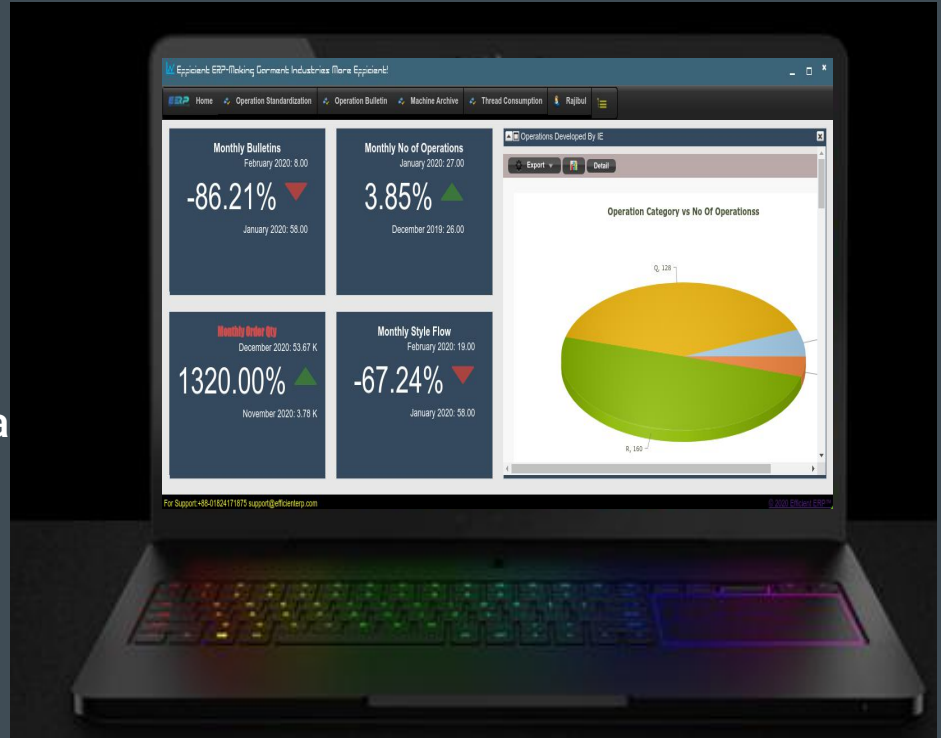
Lap No: 1

Running Total: 9.254 Sec

This Lap: **LAP(2) Saved: 9.254 Sec**



Sync Skill Data



Study directly from your smartphone online/offline

Message From CEO.



We are living at the age of AI and in our company, Efficient ERP, we are deploying AI to solve common problems our Garment Industries are facing now a days, e.g., Increase profitability, Enhance Productivity, Better Performance, Cost Reduction, Continuous Improvement etc in a way no other company thought before. Before going for a viable solution for Garment Industries we researched, architected, and Re-engineered an Efficient and user friendly system for more than ten years, with our vast experience we built the solution which is most prominent around the world and successfully implemented throughout many organization and made them more efficient.

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Garment Analyzer



Connect from Everywhere

Since GA is the Industrial Engineering Module of Efficient ERP which is a Cloud ERP so user can connect from any HTML5 supported device and from anywhere!



Un-Parallel Line Balancing Techniques

In Efficient ERP Lab we developed an unique line balancing technique that match perfectly for garment industries



Announce Your Gain

Generally Garments which are using GA achieved the potential efficiency gain over 10% by method improvement!



Attach Operation Videos

Attach operation videos and access them from anywhere when needed!



HA Server Cluster

To ensure your 100% uptime we have high available server cluster, for on premise deployment we'll do the same!

Meet Our Team



S.M. Rajibul Huda
BSc in IPE(SUST), MCITP, MCDDBA
Founder CEO



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BSc in CSE(PUC)
Software Engineer



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Implementation executive



National Martyrs
Memorial

Thank You

