

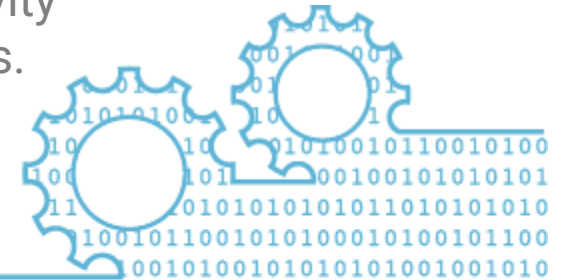


Industry 4.0 applications

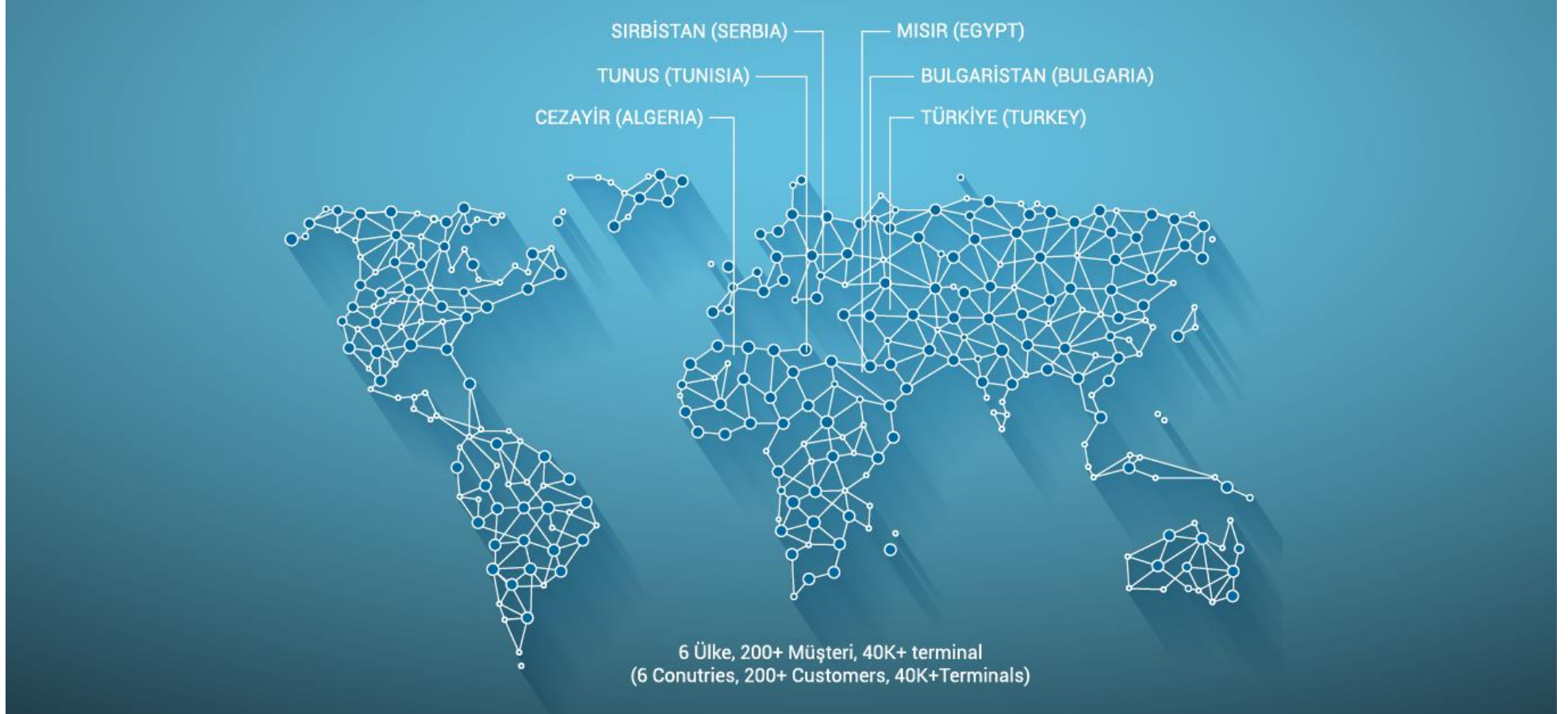
Productivity and quality improvement Fair wage system

Prepared: Consulting department, January 2020

- It is a research and development company that performs productivity and quality improvement projects, especially in labor-cost factories.



Arge Bilişim is a R&D company of 20 years that has served 200+ customers in 6 countries



What ARGE BİLİSİM do?

It closely follows production fashions such as lean production and industry 4.0, selects, blends and applies the suitable techniques for the factory or processes.

Industry 4.0 applications



What is ArgeMAS?

- ArgeMAS is a production management mentality that provides and facilitates the data collection, measurement, analysis and action cycle developed by Arge Bilisim.
- ArgeMAS includes data collection hardwares, MES software modules and consultancy services of Arge Bilişim.



We design and implement a layout plan by complying with the rules such as the material becoming a product by following the smallest road, the shortest transportation, and by following rules like the ones that doesn't affect ergonomics..



What is the bundle system?



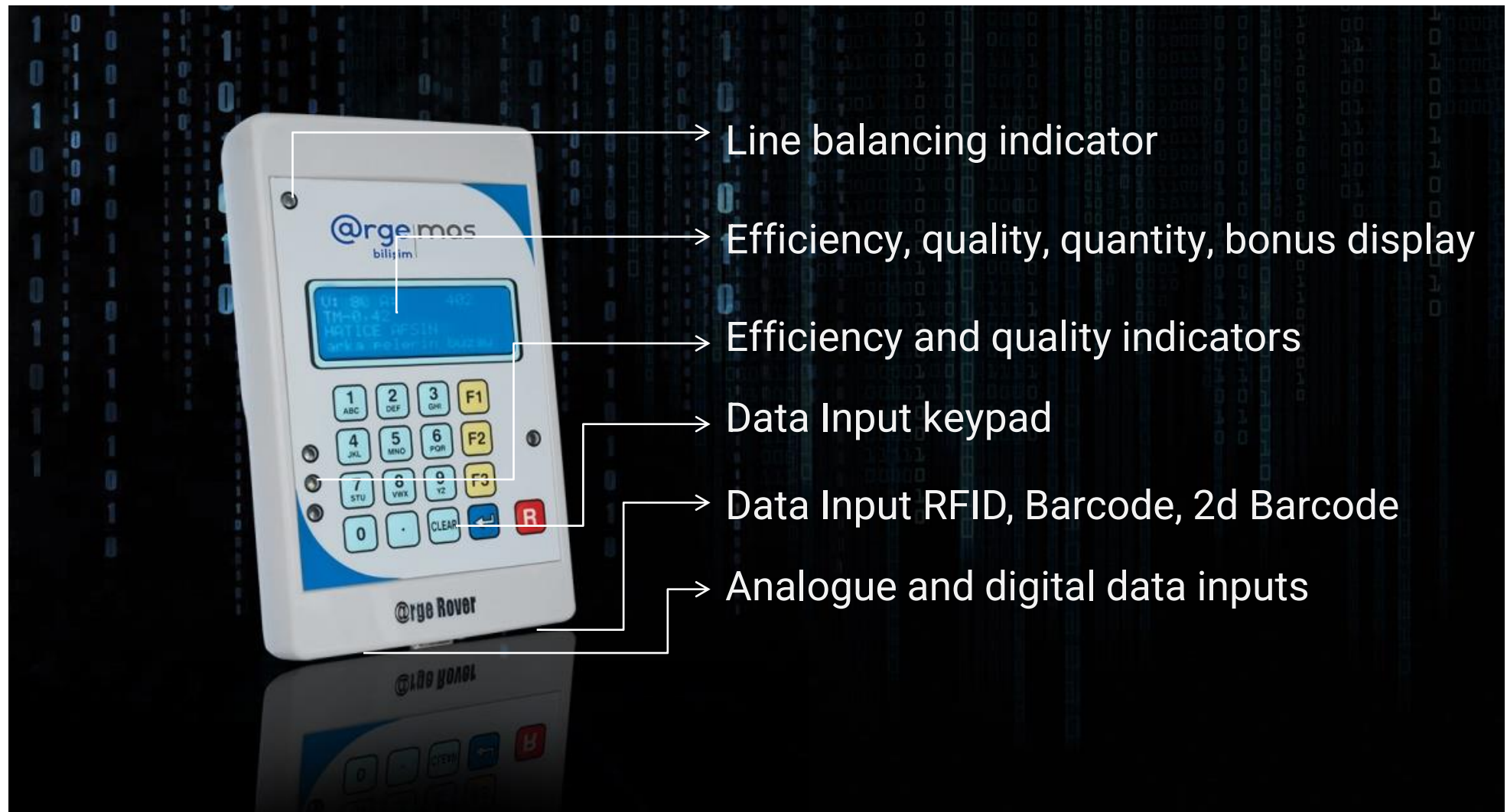
In garment factories;

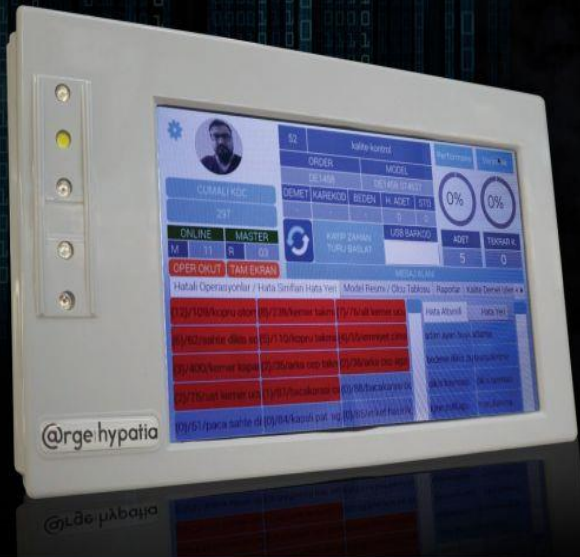
- Barcode
- 2d Barcode (QR, Data Matrix etc..)
- RFID
- Digital or button
- Manuel (keypad)
- Touch screen

Data is collected with these methods.

- Analogue data collection. (For predictive maintenance)







Üretime IOT ; @rge HYPATIA

argebilisim.com

- It is an advanced IoT data collector developed by Arge Bilişim as hardware and software..
- It can be used easily in difficult conditions such as production environment.
- It has resistive and capacitive screen options.
- Picture can be shown and video can be played
- It has 2 usb, one rs232, digital and analog inputs and outputs.
- It can collect RFID, barcode, touch, digital, analog data. It also has digital outputs.
- It has two wireless communication systems, one is wifi and the other is sub-GHz.
- It can be accessed and adjusted via wifi.
- Related to production; efficiency, performance, in-line quality, end-of-line quality, final quality, bonus, standard time, quantity etc. information can be easily viewed on the screen.
- Data can be sent with a virtual keyboard on the screen.
- It has software that provides both operator and quality control personnel screens.
- Has Turkish and English interfaces.

Standard time measurement, optimization and standardization

What is time study?

Stopwatch
MTM



What is time study?

It is the application of techniques developed to determine the time required for an operator, who is qualified to perform the operation, to perform the operation with a defined performance, in order to determine how long the operation can be performed.

How to measure standard time?

1- Method of Stopwatch;

Enough examples of the operation performed with the correct method are measured with a chronometer. Tempo is estimated. Time measured with a chronometer is cleared, averaged, and multiplied by tempo using statistical methods.

Tempo is the speed of the operator during the measurement.



How to measure standard time?

2- With MTM(Methods-Time-Measurement)method;

Methods-Time-Measurement (MTM) It is a procedure that analyzes any manual operation, determines the essential movements required, and assigns each of these movements a predetermined standard time according to the factors affecting it.

○... 100.000 TMU = 1 Hour

○... 1666,7 TMU = 1 Min

○... 27,8 TMU = 1 Sec

Worksheet Detail

Worksheet Plan Detail

Ver. 1.0.1.112

Worksheet Plan

Product Group: PRODUCTS
Season: TEXTILE
Model/Product: 1000-MDL
SHIRT KIDS

Model/Prod. Picture

Model/Prod. Picture

Calculations And Machines to be Used

Model Standard Time: 21,79 50
Working Time: 378 867,02
Daily Mi: 540 13
Target: 70 0

No of Operators: ☐
Target Quantity: ☒
Target Day: ☐
Total Qty: ☐

Machine Name: düz
Quantity: 49,70
N-ek-yukü ilk a...: 0,30

Calculate

Tact Time: 0,6228

No Image

Class: Sub Class: Operat...: Oper No: Variant

Def: B

Row: Proc. Opr No Opr. Name Var Oper Expla... Machine Class Std Time Alt. Choice Deduct... Passive Output ... End of Line C... % Tablet

1 SR 34 ks_serim 0 düz 0,5 Bölüm Ç... 8 1,00 Yes

2 KS 35 ks_kesim 0 düz 1 Bölüm Ç... 8 1,00 Yes

3 KS 36 ks_kesim manuel 0 düz 0,0123 Normal 1 1,00 Yes

4 MT 203 ks_meto 0 7 parça düz 0,25 Bölüm Ç... 8 1,00 Yes

5 HZ 103 iç kemer regala 0 düz 0,3 Bölüm Ç... 8 1,00 Yes

6 HZ 86 dış kemer eldeme 0 düz 0,35 Normal 8 1,00 Yes

7 HZ 90 iç kemer gizim 1 düz 1,35 Normal 8 1,00 Yes

8 HZ 91 dış kemer dikış agma 0 düz 0,15 Normal 8 1,00 Yes

9 HZ 234 beden etiket takma 0 düz 0,2 1V Normal 8 1,00 Yes

10 DK 270 collar turn-iron 0 düz 1 Normal 1 1,00 Yes

11 DK 273 collar attach to band 0 düz 1 Normal 1 1,00 Yes

12 DK 113 bacak ara çatım 0 düz 1,2 1 Normal 1 1,00 Yes

13 DK 271 collar top_stitch 0 düz 1 Normal 1 1,00 Yes

14 DK 274 collar trimming 0 düz 1 Normal 1 1,00 Yes

15 DK 272 collar band hem 0 düz 1 Normal 1 1,00 Yes

16 DK 4439 agraf takma dişi 1 düz 1 Normal 1 1,00 Yes

17 DK 605 ağı kesme 1 düz 0,0131 Normal 1 1,00 Yes

18 DK 19 dar ütü 5 düz 0,022 Normal 1 1,00 Yes

19 DK 275 collar marking 0 düz 1 Normal 1 1,00 Yes

20 DK 115 arka ağı çatım 0 düz 0,4 Normal 1 1,00 Yes

21 DK 78 j dikisi 0 düz 0,22 Normal 1 1,00 Yes

22 DK 252 iplik temizleme 0 düz 0,6 Normal 1 1,00 Yes

23 DK 143 ilk agma 0 N-ek-yukü ilk agma 0,1313 Ürün Bitiş 1 1,00 Yes

24 DK 268 mark lining 0 düz 1,5 Normal 1 1,00 Yes

25 DK 391 kol gaze 1 düz 0,8 Normal 1 1,00 Yes

26 DK 278 quality control 0 düz 1 Normal 1 1,00 Yes

27 DK 74 a.pat.bed.dik.ve.giz 4 ceylan 0,35 Normal 1 1,00 Yes

28 DK 269 collar run-stitch 0 düz 1 Normal 1 1,00 Yes

29 DK 22 kalite kontroll 1 PANTOLON düz 0,8 Normal 1 1,00 Yes

30 KL 826 son islem kontrol 0 düz 1 Normal 1 1,00 Yes

31 KL 162 tekrar kontrol 0 düz 0,3 Normal 1 1,00 Yes

32 KL 151 kalite kontrol 0 düz 0,85 Bölüm Ç... 1V 1,00 Yes

33 HZ 694 line end control 0 düz 0,5 Normal 8V 1,00 Yes

emniyet-t... 2 cep yan tut... 659 0

emniyet-t... 2 cep yan tut... 659 1

emniyet-t... 2 cep yan tut... 659 2

emniyet-t... 2 cep yan tut... 659 3

emniyet-t... 2 cep yan tut... 659 5

emniyet-t... 2 cep yan tut... 659 8 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 10 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 11 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 12 düz 0,68 Yes deb check c...

emniyet-t... 2 cep yan tut... 659 13 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 14 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 15 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 16 düz 1 Yes

emniyet-t... 2 cep yan tut... 659 18 düz 1 Yes

kol yan gaze

manşet yan regola

ön cep yan emn.dik.

ön cep yan ve üst tu

ön yan overlok

patlet ve conta yan cep çizme

pervaz yan ve omuz çatım

pervaz yan ve omuz çatım ara ütü

sağ ön yan cep gazesi

cep yalın yalın kidaçtım

New Edit Models A/K

Copyright © Arge Bilisim



WORKSHEET REPORT

PROD. ORDER :
PROD. GROUP : PRODUCTS
MODEL/PROD. : T-100603

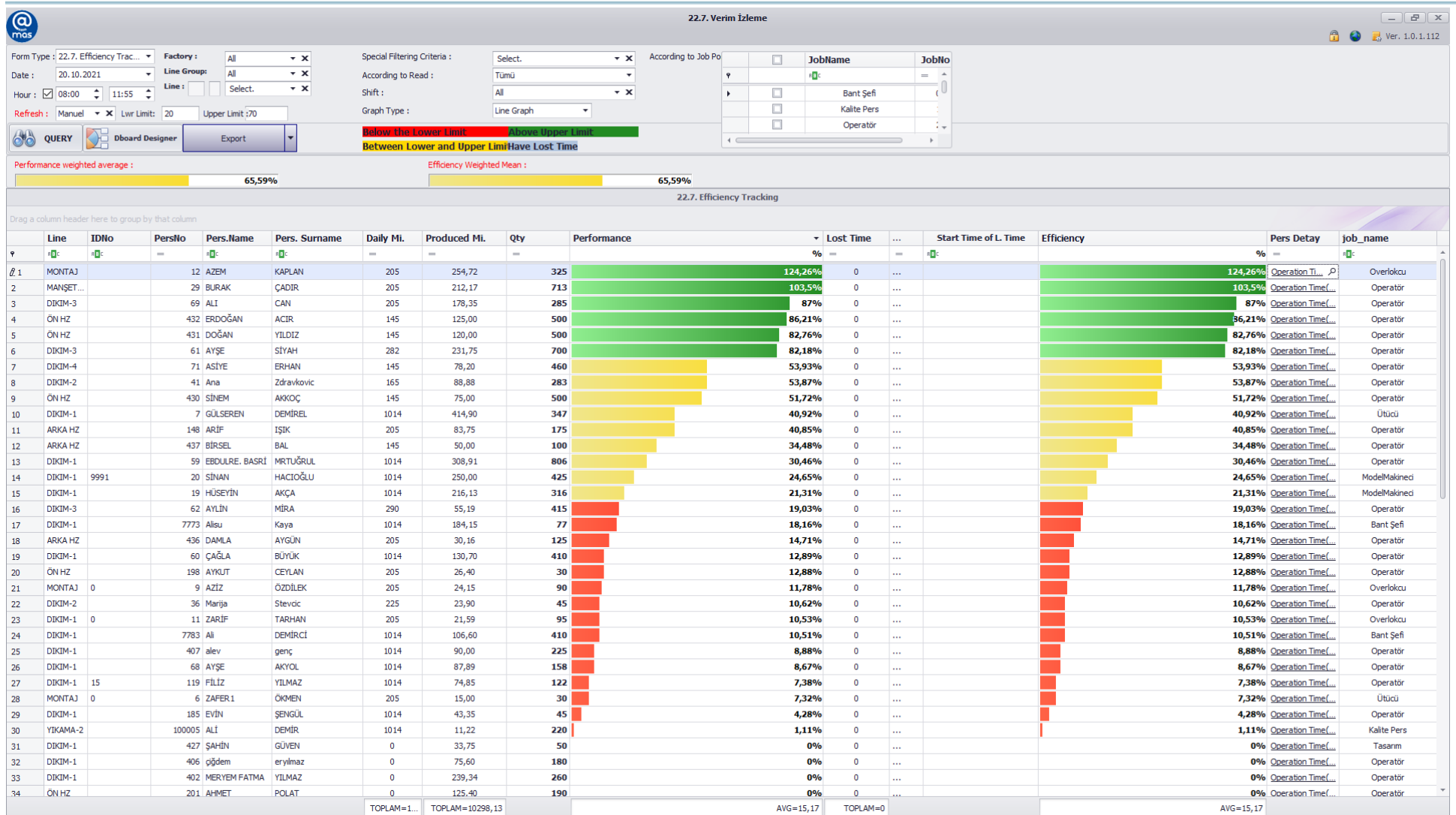
DAILY TIME : 520
TOTAL TIME : 10,75
HOUR TIME : 16,12

TAKT TIME : 0,36
WORK TIME : 447
TARGET PROD% : 86
TARGET QTY : 1456

ROW	PROC	OP NO	OPERATION NAME	VAR	MACHINE NAME	SMV	ST-S	WLoad	H Qty	D Qty
4	DK	268	mark lining	0	düz	1,5	90	4,9	34	298,1
5	DK	269	collar run-stitch	0	düz	1	60	3,3	52	447,2
6	DK	270	collar turn-iron	1	iron	1	60	3,3	52	447,2
7	DK	271	collar top_stitch	0	düz	1	60	3,3	52	447,2
8	DK	273	collar attach to band	0	düz	1	60	3,3	52	447,2
9	DK	274	collar trimming	0	düz	1	60	3,3	52	447,2
10	DK	272	collar band hem	0	düz	1	60	3,3	52	447,2
11	DK	275	collar marking	0	manuel	1	60	3,3	52	447,2
12	DK	278	quality control	0	düz	1	60	3,3	52	447,2
2	KS	35	ks_Cutting	2	düz	0,5	30	1,6	103	894,4
3	MT	203	ks_Labelling	1	düz	0,15	9	0,5	344	2981,3
1	SR	34	ks_Spreading	1	düz	0,6	36	2	86	745,3
TOTAL						10,75	645,00	35,40		

to be USED MACHINEs		
Row	Machine Name	Qty
1	düz	28,49
2	iron	3,26
3	manuel	3,26

Efficiency and performance measurement



Product Input-Output quantity Tracking

20.3. Production Report

Special Filter Criteria : All Start Date : 1.10.2020 Only Output Display Efficiency According to Job Position Lower Limit: 60
 Line : Finish Date : 31.10.2020 Production Order Model/Product : Upper Limit: 75
 Graph Type : Line Graph Start Hour : 08:00 Model/Product Production Order : ELowerLimit: 60
 Finish Hour : 18:00 Date Upper Limit: 70

QUERY Export Dashboard Design Select Report Refresh Manuel

Drag a column header here to group by that column

	DATE	LINEA...	CUSTOMER	PROD.ORDER	MODELCODE	INQTY	OUTQTY+	DAILYML	ENDofDAYTARGETQTY	MODELST	TARGETEFF	UPPRICE	TOTALOUTPUT	BUNDLEDEF.QTY	DT	Prod.Mi.	LOSTT	PERCENTCOMPLETEDgraff	Productivity	Performance
1	3.10.2020 00:00:00	DIKIM-1	CUSTFOR	000020033279	40FP06485.1.1	0	50		484	46,519	86	4,50	138	773	540	2325,95	0	33	38	38
2	7.10.2020 00:00:00	DIKIM-1	CUSTFOR	000020033279	40FP06485.1.1	0	63		484	46,519	86	4,50	138	773	888	2930,697	0	33	14	14
3	12.10.2020 00:00:00	DIKIM-1	CUSTFOR	000020033279	40FP06485.1.1	0	25		484	46,519	86	4,50	138	773	542	1162,975	0	33	24	24
4	13.10.2020 00:00:00	DIKIM-1	01	123456	12	74	74	540	990	2,15	86	0,00	74	204	2217	159,1	0	4	20	20
5	1.10.2020 00:00:00	DIKIM-1	44	20033469	44-1	25	0	540	1125	18,79	86	0,00	0	476	629	0	0	0	0	0
6	29.10.2020 00:00:00	DIKIM-1	M00054	20077777	7771	0	0	600	112	47,15967	90	0,00	0	320	140	0	0	0	87	87
7	1.10.2020 00:00:00	FINISH-1	02	20033507	111222	2	2	540	352	1,5	86	0,00	2	150	322	3	0	0	0	0

Row Count : 7 214,00

Copyright © Arge Bilisim

Automatic line setup (Line Balancing)

Automatic Line Setup(Line Balancing)

Operator Competence Matrix Automatic Line Setup(Line Balancing) Multiple Automatic Line Setup Line Setup with the best Persons Manual Assignment Setting Comparing

Model : 7777 Factory: ARGEBIL normalized coefficient: 10
Operation Priority: Workload, Difficulty Scor... LineGroup: DİKİM Date: 30.10.2021
Operator Priority: Weight +Prod% Lines: DK 1 DİKİM-1 Operation Order: In order of assign...

Corrections Atama Seçiniz Assignment
D.board Designer Export

OPERATION BASED ASSIGNMENT OPERATOR BASED ASSIGNMENT

number of iterati 3 s: TargetQty: 0 Line Prod%: 10,91

Drop Filter Fields Here

Assignme...	LineItem	LineName	MachClass...	OperName	StandartT...	WorkPlanN...	GroupCode	Workload	Pers-01 Operator	Capacity(%)	Opr Distribution(...)	Day Time	Pers-02 Operator	Capacity(%)	Opr Distribution(...)	Day Time	Pers-03 Operator
1	1	DİKİM-1	düz	kemer kırım	6,4000	24	D1	7,4300	Saša Stojiljkovic	1,3	5,31	1379,00	AYŞE AKYOL	1,6	6,54	1379,00	Aleksandra Pavlovic
2	1	DİKİM-1	düz	frfır üst dikim	3,2000	3	D1	3,7150	GÜLSEREN DEMİREL	4,2	33,33	1096,17	Nemanja Milenkovic	16,6	16,31	148,38	EBDULRE. BASRİ MRTU...
3	1	DİKİM-1	düz	yan omuz dikme	2,6000	131	D1	3,0190	GÜLSEREN DEMİREL	8,3	10,93	282,83	ÇAĞLA BÜYÜK	23,1	23,50	232,78	EBDULRE. BASRİ MRTU...
4	1	DİKİM-1	düz	fermuar astar...	1,8500	1	D1	2,1480	ÇAĞLA BÜYÜK	11,5	50,00	242,70	EBDULRE. BASRİ MRTU...	30,9	50,00	83,84	
5	1	DİKİM-1	düz	fermuar tulum	1,6000	12	D1	1,8580	ÇAĞLA BÜYÜK	11,5	50,00	209,88	EBDULRE. BASRİ MRTU...	30,9	50,00	72,54	
6	1	DİKİM-1	düz	katlamaa	1,0700	25	D3	1,2420	ÇAĞLA BÜYÜK	4,3	100,00	140,38					
7	1	DİKİM-1	düz	yan ve omuz ...	1,0000	138	D1	1,1610	ÇAĞLA BÜYÜK	23,1	50,00	131,14	EBDULRE. BASRİ MRTU...	61,7	50,00	45,37	
8	1	DİKİM-1	düz	yan ve omuz ...	1,0000	139	D1	1,1610	ÇAĞLA BÜYÜK	23,1	50,00	131,14	EBDULRE. BASRİ MRTU...	61,7	50,00	45,37	
9	1	DİKİM-1	düz	yan ve omuz ...	1,0000	137	D1	1,1610	ÇAĞLA BÜYÜK	23,1	50,00	131,14	EBDULRE. BASRİ MRTU...	61,7	50,00	45,37	
10	1	DİKİM-1	düz	kemer kapama	0,7700	22	D1	0,8940	ÇAĞLA BÜYÜK	11,5	50,00	101,08	EBDULRE. BASRİ MRTU...	30,9	50,00	34,89	
11	1	DİKİM-1	düz	yırıtmaç ucu di...	0,6000	148	D1	0,6970	ÇAĞLA BÜYÜK	11,5	37,20	58,61	Nemanja Milenkovic	16,6	12,80	14,62	EBDULRE. BASRİ MRTU...
12	1	DİKİM-1	düz	yan overlok	0,6000	133	D1	0,6970	Nemanja Milenkovic	16,6	50,00	56,95	EBDULRE. BASRİ MRTU...	30,9	50,00	27,17	
13	1	DİKİM-1	düz	yan omuz ütü	0,5000	132	D1	0,5810	Nemanja Milenkovic	33,2	50,00	47,44	EBDULRE. BASRİ MRTU...	61,7	50,00	22,62	
14	1	DİKİM-1	düz	paça baskı	0,5000	153	D1	0,5810	Nemanja Milenkovic	16,6	50,00	47,44	EBDULRE. BASRİ MRTU...	30,9	50,00	22,62	
15	1	DİKİM-1	düz	arka ağı çatma	0,5000	58	D1	0,5810	Nemanja Milenkovic	16,6	50,00	47,44	EBDULRE. BASRİ MRTU...	30,9	50,00	22,62	
16	1	DİKİM-1	düz	arka ağı çatm	0,4000	57	D1	0,4640	Nemanja Milenkovic	16,6	50,00	37,92	EBDULRE. BASRİ MRTU...	30,9	50,00	18,06	
17	1	DİKİM-1	düz	yırıtmaç yeri t...	0,4000	151	D1	0,4640	Nemanja Milenkovic	16,6	50,00	37,92	EBDULRE. BASRİ MRTU...	30,9	50,00	18,06	
18	1	DİKİM-1	düz	kap.pat.bede...	0,3000	5	D1	0,3480	Nemanja Milenkovic	16,6	50,00	28,41	EBDULRE. BASRİ MRTU...	30,9	50,00	13,51	
19	1	DİKİM-1	düz	arka ağı emniy...	0,3000	59	D1	0,3480	Nemanja Milenkovic	16,6	50,00	28,41	EBDULRE. BASRİ MRTU...	30,9	50,00	13,51	
20	1	DİKİM-1	düz	kemer dili ucu ...	0,3000	23	D1	0,3480	Nemanja Milenkovic	16,6	50,00	28,41	EBDULRE. BASRİ MRTU...	30,9	50,00	13,51	
21	1	DİKİM-1	düz	ilk yeri işaret ...	0,3000	17	D1	0,3480	Nemanja Milenkovic	16,6	50,00	28,41	EBDULRE. BASRİ MRTU...	30,9	50,00	13,51	
22	1	DİKİM-1	düz	arka çatma	0,3000	74	D1	0,3480	Nemanja Milenkovic	16,6	50,00	28,41	EBDULRE. BASRİ MRTU...	30,9	50,00	13,51	
23	1	DİKİM-1	düz	kemer son ütü	0,2500	26	D1	0,2900	Nemanja Milenkovic	16,6	50,00	23,72	EBDULRE. BASRİ MRTU...	30,9	50,00	11,31	
24	1	DİKİM-1	düz	yırıtmaç yeri g...	0,2500	149	D1	0,2900	Nemanja Milenkovic	16,6	50,00	23,72	EBDULRE. BASRİ MRTU...	30,9	50,00	11,31	
25	1	DİKİM-1	düz	yırıtmaç ucu ç...	0,2500	147	D1	0,2900	Nemanja Milenkovic	16,6	50,00	23,72	EBDULRE. BASRİ MRTU...	30,9	50,00	11,31	
26	1	DİKİM-1	düz	kapalı patlet ü...	0,2000	21	D1	0,2320	Nemanja Milenkovic	16,6	50,00	18,89	EBDULRE. BASRİ MRTU...	30,9	50,00	9,10	
27	1	DİKİM-1	düz	kap.pat.ferm...	0,2000	16	D1	0,2320	Nemanja Milenkovic	16,6	50,00	18,89	EBDULRE. BASRİ MRTU...	30,9	50,00	9,10	
28	1	DİKİM-1	düz	yan punteriz	0,2000	135	D1	0,2320	Nemanja Milenkovic	16,6	50,00	18,89	EBDULRE. BASRİ MRTU...	30,9	50,00	9,10	
29	1	DİKİM-1	düz	N-dk-yukü ilk ...	0,1313	20	D1	0,1520	Nemanja Milenkovic	16,6	50,00	12,41	EBDULRE. BASRİ MRTU...	30,9	50,00	5,93	
30	1	DİKİM-1	düz	kapalı patlet k...	0,1000	4	D1	0,1160	Nemanja Milenkovic	16,6	50,00	9,52	EBDULRE. BASRİ MRTU...	30,9	50,00	4,55	
31	1	DİKİM-1	düz	kapalı patlet o...	0,1000	18	D1	0,1160	Nemanja Milenkovic	16,6	50,00	9,52	EBDULRE. BASRİ MRTU...	30,9	50,00	4,55	
32	1	DİKİM-1	düz	fermuar yeri t...	0,1000	8	D1	0,1160	Nemanja Milenkovic	16,6	50,00	9,52	EBDULRE. BASRİ MRTU...	30,9	50,00	4,55	
33	1	DİKİM-1	düz	kemer meto al...	0,1000	19	D1	0,1160	Nemanja Milenkovic	16,6	50,00	9,52	EBDULRE. BASRİ MRTU...	30,9	50,00	4,55	
34	1	DİKİM-1	düz	kapalı patlet g...	0,1000	11	D1	0,1160	Nemanja Milenkovic	16,6	50,00	9,52	EBDULRE. BASRİ MRTU...	30,9	50,00	4,55	
35	1	DİKİM-1	düz	arka beden m...	0,0500	61	D1	0,0580	Nemanja Milenkovic	16,6	50,00	4,69	EBDULRE. BASRİ MRTU...	30,9	50,00	2,21	
36	1	DİKİM-1	düz	yt hazırlık	0,0026	6		0,0030	EBDULRE. BASRİ MRTU...	0,4	100,00	0,28					

Copyright © Arge Bilisim

RT in-line, end-of-line, final quality control

7.10. RT Quality Tracking

Factory : All Department : All Line : Select.

Quality Type : LINEEND-2 CONTROL Upper Limit : 95 Lower Limit : 90 Date : 20.10.2021 Time : 08:00 - 22:22 Yenile : Manuel

Line ☒ Display QP No ☐ Display Hour ☒ Show Prod.Ord ☐ Operation ☒ Personnel

Product Group : PRODUCTS Season : TEXTILE ProdOrder/Code : 1000 Model/Product : 1000-MDL

Operator

PERSONELNO	ADISOYADI
3	SELAHATTİN TÜRKER
4	ERKAN KILIÇ
5	OSMAN GÜNAL
6	ZAFER İ. ÖKMEK
7	GÜLSEREN DEMİREL

Operation

OperItem	OPERRow	OperName	OPERProc	OPERVAR
34	1	ks_Spreading	SR	0
35	2	ks_Cutting	KS	0
36	3	ks_kesim manuel	KS	0
203	4	ks_Labeling	MT	0
103	5	iç kemer regula	HZ	0
86	6	dış kemer eldeme	HZ	0
90	7	iç kemer göm	HZ	1
91	8	dış kemer dikiş ağız	HZ	0
234	9	beden etiketi takma	HZ	0
270	10	collar turn-iron	DK	0
273	11	collar attach to band	DK	0
113	12	bacak ara çatım	DK	0
271	13	collar top_stitch	DK	0

Row Count : 33

QUERY Export

Drag a column header here to group by that column

PRODORDERNO	QualityPers	QualityPersName	OPERNAME	OPER VARIANT	CLASS CODE	SUB CLASS CODE	CONTROL QTY	DEFECT QTY	QUALITY%progress	
182	ELYON-1	70	ALANUR TURAN	ön roba gaze	0	ZZZZ	YOK	33	0	100,00
183	ELYON-1	70	ALANUR TURAN	ön çatma	0	ZZZZ	YOK	33	0	100,00
184	ELYON-1	70	ALANUR TURAN	patlet punteriz	0	ZZZZ	YOK	33	0	100,00
185	ELYON-1	70	ALANUR TURAN	pat üstü dikiş	0	ZZZZ	YOK	33	0	100,00
186	20077777	145	asda adasd	paket-burse	0	ZZZZ	YOK	20	0	100,00
187	ELYON-1	70	ALANUR TURAN	rivett	1	ZZZZ	YOK	8	0	100,00
188	20077777	7782	Burçin Serikaya	yaka ayağı regule	3	ZZZZ	YOK	20	0	100,00
189	20077777	145	asda adasd	yaka ayağı regule	3	ZZZZ	YOK	20	0	100,00
190	001	68	AYŞE AKYOL	sallanb kart takmaa	1	ZZZZ	YOK	3	0	100,00
191	ELYON-1	70	ALANUR TURAN	yan emniyet dikiş	0	ZZZZ	YOK	33	0	100,00
192	ELYON-1	70	ALANUR TURAN	yan kapalı patlet takma	0	ZZZZ	YOK	31	0	100,00
193	ELYON-1	70	ALANUR TURAN	yan punteriz	0	ZZZZ	YOK	33	0	100,00
194	7777	68	AYŞE AKYOL	bacak ara çatım	0	ZZZZ	YOK	112	1	99,11
195	7777	68	AYŞE AKYOL	ilk yeri işaret alma	0	ZZZZ	YOK	216	2	99,07
196	7777	68	AYŞE AKYOL	kapalı patlet korm	0	ZZZZ	YOK	174	2	98,85
197	7777	68	AYŞE AKYOL	kapalı patlet çevirm	0	ZZZZ	YOK	164	2	98,76
198	ELYON-1	70	ALANUR TURAN	yükama talimat takma	1	ZZZZ	YOK	34	1	97,05
199	ELYON-1	70	ALANUR TURAN	dar ütüsü	5	ZZZZ	YOK	33	1	96,97
200	ELYON-1	70	ALANUR TURAN	askılık tutturma	0	ZZZZ	YOK	33	1	96,97
201	ELYON-1	70	ALANUR TURAN	arka roba tulum üstü gıftıne	0	ZZZZ	YOK	33	1	96,97
202	ELYON-1	70	ALANUR TURAN	kapalı patlet tulum/çevirme	0	ZZZZ	YOK	33	1	96,97
203	ELYON-1	70	ALANUR TURAN	katlamaa	1	ZZZZ	YOK	33	1	96,97
204	ELYON-1	70	ALANUR TURAN	ön cep ağız dikim	0	ZZZZ	YOK	33	1	96,97
205	7777	68	AYŞE AKYOL	fermuar yeri tela	0	ZZZZ	YOK	164	5	96,95
206	7777	68	AYŞE AKYOL	kapalı patlet overlo	0	ZZZZ	YOK	112	4	96,43
207	ELYON-1	70	ALANUR TURAN	rivett	1	5	kordin	25	1	96,40
208	ELYON-1	70	ALANUR TURAN	iç boy çatım	0	201	POTLUK	25	1	96,40
209	ELYON-1	70	ALANUR TURAN	beden ayırmaa	1	200	kayma	25	1	96,40
210	20033449	68	AYŞE AKYOL	bacak ara çatım	0	ZZZZ	YOK	29	2	93,10
211	20033449	68	AYŞE AKYOL	frfr üst dikim	0	ZZZZ	YOK	28	2	92,86
212	ELYON-1	68	AYŞE AKYOL	yan çatma	0	ZZZZ	YOK	50	6	88,00
213	ELYON-1	70	ALANUR TURAN	yan çatma	0	ZZZZ	YOK	32	4	87,50
214	7777	68	AYŞE AKYOL	kapalı patlet overlo	0	ZZZZ	YOK	16	2	87,50
215	20033449	68	AYŞE AKYOL	fermuar yeri tela	0	ZZZZ	YOK	29	4	86,21
216	7777	68	AYŞE AKYOL	kemer korm	0	ZZZZ	YOK	17	3	82,35
217	7777	68	AYŞE AKYOL	bacak ara çatım	0	ZZZZ	YOK	42	8	80,95
218	7777	68	AYŞE AKYOL	kemer meto alma	0	ZZZZ	YOK	26	5	80,77
219	7777	68	AYŞE AKYOL	ilk yeri işaret alma	0	ZZZZ	YOK	31	6	80,65
220	001	68	AYŞE AKYOL	katlamaa	1	ZZZZ	YOK	3	1	66,67
221	123456	68	AYŞE AKYOL	ağı kesme	2	ZZZZ	YOK	1	1	0,00

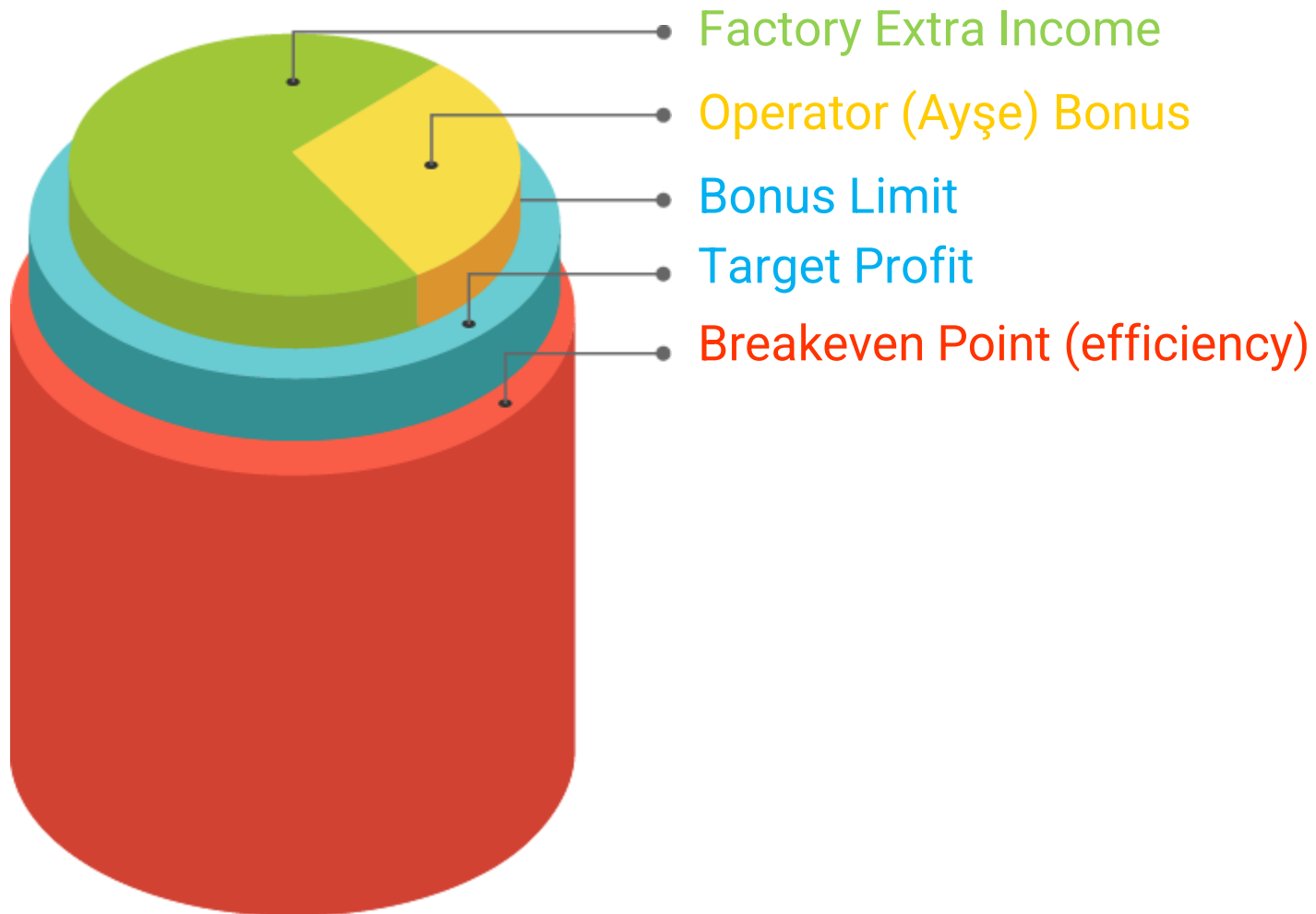
Row Count : 231

Copyright © Arge Bilisim

if a profit income above the target profit is obtained from the employee, sharing a part of the income above the target profit with the employee is called 'giving a bonus'.



What is Bonus?



Machine breakdown, maintenance, predictive maintenance

10.2. Mechanical Breakdown Tracking

Factory : All Machine Class : All
 Department : All 30.10.2021 Machine Serial No : Mechanic :
 Line : Select. 30.10.2021 Breakdown Type : Select.

Production Order C... Country Code Production Order Co...
 Delivery Date Order Date Customer Order No
 Qty was Put in... Ürün Model Name

Dashboard Designe
 Export
 Query

Backlog Approved Breakdowns/ Stock Machines Machine Movement Tracking Machine Class/ Barcode

SAVE DELETE

Backlog

Breakdown ...	Breakdown C...	Class Code	mak_num_mak2	Machine Serial ...	Brand	MachineModel...	PersNoAsk...	Notified by	Breakdown...	Process/ L...	Line	Notification Date	Notification Ho...	Lost Ti...	status	Start Date	Start Hour	Finish Date	Finish Hour
Click to Add a New Entry																			
13	210184	A-dk-düz ...	7	DUNBG45059		A104-DLN 5410 ...	12	AZEM KAPLAN	Seçiniz.	Seçiniz.		22.01.2021	11:30	MAKINE ...	Yeni	22.01.2021	04:00	22.01.2021	05:00
22	210726-226	A-dk-düz ...	5	DLNBG45065		A102-DLN 5410 ...	70	ALANUR TURAN	Seçiniz.	Seçiniz.		26.07.2021	09:41	MAKINE ...	Yeni	26.07.2021	09:41	26.07.2021	09:41
23	210809-227	A-dk-düz ...	0	PLANMAKINESI		PLANMAKINESI	238	ADEM BEKTAŞ	Seçiniz.	Seçiniz.		09.08.2021	14:26	MAKINE ...	Yeni	09.08.2021	14:26	09.08.2021	14:45
24	210810-228	P-dk - juki ...	308	LKODC61921		P22-LK 1900	238	ADEM BEKTAŞ	Seçiniz.	Seçiniz.	FINISH-3	10.08.2021	15:26	MAKINE ...	Yeni	10.08.2021	15:26	10.08.2021	15:26
25	210810-229	A-dk-düz ...	1	sd		A03-DLN 5410 N-7	238	ADEM BEKTAŞ	Seçiniz.	Seçiniz.		09.08.2021	15:00	MAKINE ...	Yeni	09.08.2021	15:28	09.08.2021	17:28
26	210810-231	demo	8999	JK-8800	JUKI	JK-A	238	ADEM BEKTAŞ	Seçiniz.	Seçiniz.		10.08.2021	15:36	MAKINE ...	Yeni	10.08.2021	15:36	10.08.2021	15:36
27	210810-232	A-dk-düz ...	0	PLANMAKINESI		PLANMAKINESI	201	AHMET POLAT	Seçiniz.	Seçiniz.		10.08.2021	15:39	MAKINE ...	Yeni				
28	210810-233	ÜTÜ PAKET	803	YUKIPUNTEREZ...		YUKIPUNTEREZ...	51	Aleksandra Ml...	Seçiniz.	Seçiniz.	DIKIM-5	10.08.2021	15:41	MAKINE ...	Yeni				
29	210810-234	I-dk -pask...	540	40169		I16-MALKAN UP1...	58	Aleksandra Ne...	Seçiniz.	Seçiniz.		10.08.2021	15:43	MAKINE ...	Yeni				
30	210810-235	ÜTÜ PAKET	743	GENISPASKARA-6		GENISPASKARA-6	58	Aleksandra Ne...	Seçiniz.	Seçiniz.	MANŞET HZ	10.08.2021	15:43	MAKINE ...	Yeni				
31	210816-238	T-dk - pro...	368	AHSZM22762		T22-AHS 210 DHL	70	ALANUR TURAN	Seçiniz.	5.BANT		16.08.2021	09:38	MAKINE ...	Yeni				
32	210816-239	A-dk-düz ...	2	DUNZB31079		A06-DLN 5410 N-7	128	Aleksandra Pr...	Seçiniz.	Seçiniz.		16.08.2021	09:10	MAKINE ...	Yeni				
33	210824-240	A-dk-düz ...	2	DUNZB31079		A06-DLN 5410 N-7	63	ABBAS ARSLAN	Electricity ...	5.BANT		24.08.2021	15:58	MAKINE ...	Yeni	24.08.2021	15:58	24.08.2021	15:58
34	2109-1	A-dk-düz dıg...	3	DUNZB31083		A09-DLN 5410 N-7	426	HULISI AYLUÇTA...	Seçiniz.	DIKIM-2		15.09.2021	14:30	MAKINE A...	Yeni				
36	2109-3	S-dk - kemer ...	349	U972420010		S09-309 U 406 A-7	70	ALANUR TURAN	Seçiniz.			23.09.2021	09:27	MAKINE A...	Yeni				
37	2109-4	A-dk-düz dıg...	2	DUNZB31079		A06-DLN 5410 N-7	426	HULISI AYLUÇTA...	Seçiniz.	DIKIM-2		29.09.2021	16:50	MAKINE A...	Yeni				
38	2109-5	A-dk-düz dıg...	2	DUNZB31079		A06-DLN 5410 N-7	426	HULISI AYLUÇTA...	Seçiniz.	DIKIM-2		30.09.2021	15:35	MAKINE A...	Yeni				
39	2110-1	A-dk-düz dıg...	2	DUNZB31079		A06-DLN 5410 N-7	423	ZARIF TARHAN	Seçiniz.	UTUPAKET		08.10.2021	12:09	MAKINE A...	Yeni				

Row Count : 18

Copyright © Arge Bilisim

What is Traceability?

- The product, which can be accessed material, labor and quality control information, is a traceable product..
- Traceability is the basis of measurability.
- Production must be traceable so that productivity and quality can be measured..



- MTM
- Stopwatch
- Template
- Productivity & Quality etc. Reports
- Machine Breakdown & Maintenance Tracking

Thanks

○.... Thank you...